

# GENDER AND RESOURCE DIVISION: DETERMINANTS OF WOMEN'S HOUSEWORK IN AGAW MEDER, NORTHWEST ETHIOPIA

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## ABSTRACT

*Women's disproportionate engagement in housework and its determinants has been relatively well studied in the developed countries. There is, however, a serious lack of such research for less developed countries. Unless the barriers to women's participation in development efforts are understood and addressed, poverty reduction programs may not succeed. This paper used data from a household survey of 502 married women to analyze determinants of women's hours of housework in light of available theories and employing a multivariate hierarchical linear regression model. Results show that, in line with theory and past research, time availability (measured as women's employment status) and resources or bargaining power (measured as years of schooling and loan receipt status), and gender ideology/display (measured as traditional gender perception/practice) have statistically significant negative associations with a woman's housework time. Similarly, traditional gender perception/practice as a measure of gender ideology/display has the expected positive association with a woman's housework time, despite the weaker statistical significance level. Also, among control variables, housework and non-housework performed by other members, number of young children, and household asset values have the expected associations to women's hours of housework. National strategies aiming at poverty reduction may need to pay more attention to educate women, help them overcome shortage of working capital, and improve employment opportunities since these may also empower women and thereby minimize traditional gender ideology/display and having too many young children.*

**Keywords:** *Agaw Meder, Ethiopian women, gender ideology, housework/domestic chore, relative resources/bargaining power, time availability, time use*

## INTRODUCTION

Household labor has usually been conceptualized as the set of unpaid tasks, domestic chores performed to satisfy the needs of family members or to maintain the home and the family's possessions (Coltrane, 2000; Geist, and Ruppner, 2018; Lachance-Grzela and Bouchard, 2010). Most often, household tasks are classified as (1) routine tasks (those that are on-going, nondiscretionary, very time consuming, and often referred to as women tasks) including laundry, cooking, cleaning; and (2) non-routine tasks (those that are intermittent, can be delayed, are more flexible, less time consuming, and often referred to as male tasks) including household repairs, car maintenance, yardwork and so on (Badr and Acitelli, 2008; Bartley, Blanton and Gilliard,

2005; Batalova and Cohen, 2002; Coltrane, 2000; Geist and Ruppner, 2018). Most recent housework studies have focused on routine tasks (Batalova and Cohen, 2002; Cunningham, 2007; Pinto and Coltrane, 2008).

Whether it is defined in terms of routine or non-routine activities, housework remains highly gendered, women bearing the lion's share of it (Arora, 2015; Campaña et al., 2017; Canelas and Salazar, 2014; Coltrane, 2000; Fahlen, 2016; Fisher and Robinson, 2011; Folbre, 2006; Gimenez-Nadal and Sevilla, 2012; Lachance-Grzela and Bouchard, 2010; Medeiros, Osorio and Costa, 2007; Ringhofer, 2015). According to the World Bank (2001), there is persistent occupational segregation by gender both in developed and developing countries, with women underrepresented in better-paying formal sector jobs and overrepresented in the unpaid and informal sectors. This under-representation of female labor market participation, and their disproportionate engagement in unpaid activities has been a major focus of past research (Bardasi and Wodon, 2010; Blackden and Wodon, 2006; Burchardt, 2008; Floro and Miles, 2001; Ilahi, 2000; Gammage, 2010; Ringhofer, 2015). Such studies have increasingly shown men's increasing involvement in housework and the decreasing gender gap over time (Aassve, Fuochi and Mencarini, 2014; Beaujot, 2001; Craig, 2006; Sullivan, Billari and Altintas, 2014).

However, there is consensus among most such past research that this downward trend in gender gap is mainly the result of women decreasing their share of unpaid work, rather than men increasing their share (Bartley, Blanton and Gilliard, 2005; Baxter, 2002; Bianchi et al., 2012; Bittman et al., 2003; Coltrane, 2000; Dempsey, 2002; Evertsson and Neramo, 2007; Fahlen, 2016). As such, though declining, these findings suggest that a clear gender pattern still exists even for the developed countries. From these past studies then, the single majority of which are for the developed countries, the fact that there is a gendered pattern in housework is very clear. However, there is substantial difference in the magnitude of the gendered division of housework and severity of its consequences between developed and developing countries - it is far higher for the latter (Heisig, 2011). This is not surprising given the under developed nature of socioeconomic conditions and the prevalence of deep rooted traditional cultures in most if not all developing countries.

The association between gendered division of housework and poverty has been sufficiently acknowledged. For example, Ilahi (2000) found that poor women do more housework compared to richer women. A typical woman in rural Africa assumes the greatest proportion of housework (food producer/processor, home-maker, and caretaker) and only rarely engages in paid work (Arora and Radan, 2013). Ethiopia, too, is a low income, agrarian economy where women are heavily represented in domestic activities since they do not have access to the market system and the wider economy (Arora and Radan, 2013). If gendered division of housework has adverse consequences on the wellbeing of women and households for the developed countries, it must have even more severe consequences for the developing countries, suggesting the need for more context specific research. In developing countries where women take disproportionate share and

longer hours of housework than men, these activities often prevent them from participating in paid work (could be formal or informal), and girls from attending school (World Bank, 2001). When women have limited ability to earn income independently, they have less relative bargaining and decision making power in the household since they do the housework at the expense of income generating activities, and when girls cannot attend school, their future capabilities suffer, with implications for their family's welfare (World Bank, 2001). This raises questions about how women's primary responsibility for household work affects their own and their families' welfare. Reducing the burden of housework for women in poor countries have potential benefits for their health, for household income and wellbeing, and for girls' schooling (World Bank, 2001). Explanation of what determines women's participation in housework and hours worked, which differs depending on context specific circumstances between and within countries, is thus of vital importance.

Since recent decades, women's empowerment has become one of the key areas of emphasis by global development initiatives such as the MDGs and more so by its successor, the SDGs. This has been more so for Ethiopia, where, as part of its country initiatives on SDG-1 (*Ending Poverty in All its Forms*), the UN Women Ethiopia program is supporting the Ethiopian government to help women (rural) secure their livelihoods and accelerate their economic empowerment (Women and Sustainable Development Goals). From development policy point of view in the Ethiopian context, this is especially important given the government's emphasis on women's economic empowerment set out by the various national development plans (past and present) including the current Growth and Transformation Plan. The development plans identify, among other things, women labor market participation as critical for achieving the planned development through women empowerment. So far, the government has implemented three five-year national development plans and a fourth plan is being implemented. Despite continued claims of economic growth by the government for the last one and a half decade, this is debated among the majority of people including academics, opposition parties, and the general public. Especially, its effect on the lives of women and the majority of poor households is highly contested. Although the prime objective of the national development plans, especially that of the Growth and Transformation Plan is to accelerate Ethiopia's structural transformation, the country is yet in the early stage of the demographic transition (Ringheim Tellerand Sines, 2009), and about 80% of the population is employed by agriculture which is still traditional and highly subsistent. The percentage of women working in productive activities is low. For example, the 2005 Ethiopian DHS (Central Statistical Agency of Ethiopia and ORC Macro, 2005) shows female participation rate to be 39.6% and 26.6% respectively for women in the urban and rural subsamples by the time of the survey. By contrast, the proportion of women working in housework is the largest (Central Statistical Agency of Ethiopia, 2014).

Local studies analyzing gendered practices as relating to the various aspects of life (social, economic/resources, political, institutional, etc) are abundant in the literature. However, there

are only a few studies which specifically dealt with gendered division of labor or time use. One such study is by Wessen (2008) who examined the prevalence of gendered division of labor among the Majangir ethnic groups of Southwestern Ethiopia. He found the gendered division of labor to be still pervasive despite changes in their socioeconomic conditions. However, Wessen's study did not include proper analysis of what determines such division of labor. Hirut (2010) studied factors influencing a woman's labor allocation to a livestock fattening enterprise funded from a loan obtained from microfinance institutions in Amhara and SNNP regions.

The study indicated that being older, being in a polygamous marriage, and longer duration of membership in the credit program increases women's relative labor contribution to the enterprises, compared to that of men. However, apart from only five predictors considered, this study focused on intra-household decision making power in labor allocation to income generating activities rather than those factors that determine her housework. As is noted above and elsewhere in the paper, it is possible for women to increase their time for paid work but still be doing the largest share of housework, thus resulting in their being overburdened and time poor. Guday (2005) noted that men in rural areas of Amhara Region are disproportionately engaged in productive agricultural activities whereas women are largely engaged in home based reproductive activities. The author also noted that while women help their husbands in the farms, in return, they do not receive husbands' help in housework, an activity *culturally labeled as women's work* (Guday, 2005, p. 112). Again, Guday's study did not include proper analysis of what determines such gendered division of labor. Solomon and Kimmel (2009) observed the effect of fertility on a labor market participation of urban women, and Chalachew (2013) examined the effect of fertility on urban and rural women's hours of productive work participation. Arora and Radan (2013) analyzed the gendered division of labor (time use) employing a household accounting matrix (HAM) instead of analyzing its determinants. In a topic directly relevant to the present paper, Asnakech and Chalachew (2015) studied demographic and socioeconomic determinants of time use for household activities among adult members of sample households in Addis Ababa. However, apart from lack of focus on women (since time use of all adult individuals was considered), no relevant theories were used to guide the analysis. Therefore, many of these local studies focused on analysis of prevalence of gendered division of labor, while some of them focused on analysis of causal links between fertility and labor market participation of women, and none of them properly analyzed the determinants of women's time use for housework. Apart from its implication for the theoretical discussion regarding women's time use for housework (discussed in the next section), women's disproportionate representation in the unpaid housework and their under-representation in paid work may have important repercussions to the achievement of the much hoped-for growth and transformation plan (GTP II). As noted, the development plans emphasized the importance of increasing women's economic opportunities, but past outcomes were not as expected. An increase in women's labor market participation requires a decrease in housework time since time

is a limited resource. In turn, this requires knowledge of what factors determine this time allocation for housework, so as to inform gender sensitive policy making.

This paper uses a household sample survey of 502 married women in Agaw Meder Awrajaand rural villages of two nearby districts to analyze the determinants of maternal hours for domestic work, discussed in the theoretical literature below.

## **HOUSEWORK THEORIES**

The literature on allocation of housework time is dominated by three theoretical perspectives (Arrighi and Maume, 2000; Bianchi et al., 2000; Coltrane, 2000; Davis et al., 2007; Fahlen, 2016; Fuwa, 2004; Greenstein, 2000; Lachance-Grzela and Bouchard, 2010; Pinto and Coltrane, 2008): time availability, relative resources and gender ideology. The first two micro theories are economic explanations (Coltrane, 2000; Fahlen, 2016; Parkman, 2004; Pinto and Coltrane, 2008), since, in general, they are based on rational choice assumptions and motivated by utility maximization objectives, whereas the gender ideology has roots in sociology (Parkman, 2004). While there are also macro-level perspectives (Davis et al., 2007; Fuwa, 2004; Lachance-Grzela and Bouchard, 2010), these three are micro-level theories. For the purpose of this paper, we limit discussion to the micro theories only.

## **RELATIVE RESOURCES/BARGAINING**

The relative resources perspective hypothesizes that a partner's own resources, such as earnings, education, and occupational prestige offer decision making or bargaining power to the partner (Arrighi and Maume, 2000; Coltrane, 2000; Davis et al., 2007; Fahlen, 2016; Fuwa, 2004; Geist and Ruppner, 2018; Pinto and Coltrane, 2008). A key assumption of this theory is that economic resources including education serve as a proxy for bargaining power, where an individual with more such resources will be able to bargain out of housework (Arrighi and Maume, 2000; Fuwa, 2004; Lachance-Grzela and Bouchard, 2010), whereas the partner with less such resources is expected to contribute more housework to compensate for the deficit (Geist and Ruppner, 2018). This perspective, therefore, views housework as an outcome of negotiation between household members who own key resources to strike the best deal based on self-interest (Coltrane, 2000). In general, the hypothesis is empirically confirmed (Bianchi et al., 2000; Cunningham, 2007; Davis and Greenstein, 2004; Evertsson and Nermo, 2004; Fuwa, 2004; Parkman, 2004; Pinto and Coltrane, 2008). However, other studies (e.g. Aassve, Fuochi, and Mencarini, 2014; Bittman et al., 2003; Davis and Greenstein, 2004; Greenstein, 2000; Killewald and Gough, 2010; Evertsson and Nermo, 2007; Gupta, 2007) doubted the validity of this hypothesis arguing that empirical studies did not find men and women with similar relative resources to have gender equality of housework. Similarly, a number of scholars debate the linear relationship between earning differentials among partners and the allocation of housework

(Bittman et al., 2003; Greenstein, 2000). The hypothesis is also criticized from theoretical grounds. Feminists have challenged the perspective more broadly for its rational choice roots in identifying power, patriarchy, and hegemonic norms as key determinants to women's power (Lundberg & Pollak, 1993). Similarly, Coltrane (2000) remarks that this hypothesis is a result of the neoclassical economic theory of human capital investment and its new household economics variant which assumes overall utility maximization to be the main motive behind the given allocation of time for housework or the labor market among men and women. In addition, the perspective's concept of power is to a great extent confined to the status of spouses and does not adequately consider more multifaceted family structures, cross-generation families or families with co-residential adult children (Geist and Ruppner, 2018).

## **GENDER IDEOLOGY/DOING GENDER/GENDER DISPLAY**

While slight differences between gender ideology and doing gender/gender display in the literature are acknowledged, in general, this perspective posits that individuals are socialized into male or female gender roles. It argues that women remain disproportionately responsible for the housework solely because of their gender instead of time availability or lack of economic resources (Arrighi and Maume, 2000; Geist and Ruppner, 2018; Lachance-Grzela and Bouchard, 2010). Women may do more housework because it allows them to act in harmony with their feminine gender identities, whereas men may resist doing more housework to defend and buttress their masculine identities as men (Arrighi and Maume, 2000; Bianchi et al. 2000; Erickson 2005). Research has consistently shown prevalence of persistent views regarding how women and men are expected to act (Arrighi and Maume, 2000; Cunningham, 2001; Davis et al., 2007; Geist and Ruppner, 2018; Fahlen, 2016; Fuwa, 2004). In agreement with this line of reasoning, Bianchi et al. (2000), for example, argued that women become more at ease with housework because, for example, cleaning the home is a sign of women's competence as a *wife and mother*, but not men's competence as a *husband and father*. The gender perspective is a useful tool to explain why women do still more housework when their market work hours is equal to or even higher than that of men (Fahlen, 2016), an explanation which the first two hypotheses cannot offer. This is especially, intuitively the case in most subsistent economies and culturally conservative societies such as Ethiopia. Empirically, research generally confirmed the hypothesis despite variations in how the concept was measured (Lachance-Grzela and Bouchard, 2010). Studies (e.g. Fahlen, 2016) have shown that women who hold more egalitarian attitudes towards gender are less likely than women with traditional attitudes to report performing all of the housework. Critics (e.g. Geist and Ruppner, 2018), however, argue that, although gender-display theory identifies how expectations of gender role's structure behavior, its application beyond heterosexual couples is limited both theoretically and empirically.

In summary, review of existing research (e.g. Coltrane, 2000; Geist and Ruppner, 2018; Lachance-Grzela and Bouchard, 2010) conclude that, overall, the literature reveals that the

distribution of household labor is influenced by multiple forces. It shows that all the three micro-theories prove to be important predictors of the gap between men's and women's housework, but none of them yet offers a clear explanation of why women still do the bulk of housework even when they display the personal characteristics that favor a more egalitarian division of household labor. Lachance-Grzela and Bouchard (2010) then suggested employing a combination of these perspectives since the decisions leading to household tasks sharing involves a complex process these theories are also complementary rather than competing to explain spousal housework decisions (Parkman, 2004). They also suggested not just for consideration of macro-theories, but also for cross-level (micro-macro) interactions. Whereas, Geist and Ruppner (2018) concluded that existing theoretical approaches to housework are narrow in scope and are far short of explaining the various motivations behind women's housework, especially for contemporary families and gender relations. They then suggest several extensions for each of the theories. Further, these problems can be more complicated by context-specific circumstances. In this regard, Lachance-Grzela and Bouchard noted "It appears quite clear that we need to continue studying individuals within their ... social context if we wish to arrive at a thorough understanding of the persistent gendered division of household labor and what could change it" (Lachance-Grzela and Bouchard, 2010, p. 778; see also Heisig 2011 for a similar note).

## DATA AND METHOD

### Sampling Method and Data Collection

A cross sectional quantitative data set was used to examine determinants of time use for household activities. Samples were drawn from four urban *Qebeles* and two rural villages. The four urban *Qebeles* were selected from Agaw Meder, the Amhara regional state capital, and two rural villages were selected from two different districts located near but not physically contiguous to the city. For the urban sub-sample, two *Qebeles* dominated by informal, sub-standard housing conditions and two other *Qebeles* dominated by formal, standard housing randomly after stratifying the *Qebeles* by the physical qualities of housing units. The rural households were randomly selected from one *Qebele* drawn from each of the two districts. Sample households were randomly selected from each *Qebele* and village, based on proportion to size of the target household units in each *Qebele* and village. Samples were selected in two different time periods. First, a sample of 257 women were interviewed in October 2010, and then with the view to increasing the earlier sample size, additional 245 women residing in the same place as the previous sample were interviewed in 2013, giving a total sample size of 502. While, from a theoretical point of view, the time lapse may have an important effect on the outcome variables, the author assumed the effect to be minimal, given the specific context of the study region where there was no any observed significant demographic, socioeconomic, and institutional changes in policy and practice. In terms of selection criteria, married women with children were targeted. Previous research focused on looking at whether time use differed by marital status and by

whether they have children. In this paper, the intention is to see how women's hours of work in domestic chores may still vary even among married women, some of which could be explained by husband related characteristics. On top of that, review of work by Coltrane (2000) shows that marriage increases women's housework. Similarly, a study by University of Michigan (2008) shows that having a husband creates an extra seven hours of housework for women. As such, married women compared to unmarried or single women are disadvantaged since they sacrifice their own economic, cultural, psychological and personal development and wellbeing for the sake of their family chores (Coltrane, 2000; Lahiri-Dutt and Sil, 2014). The choice of women with children is rather pragmatic since, in the author's view, it is the number of children instead of not having a child at all which is not only realistic but also desirable from policy point of view. On top of that, children need to be considered given, as is noted in section 2, that childcare is included within the housework definition as the dependent variable.

Data were collected through a questionnaire in a face-to-face interview. The questionnaire was pilot-tested, and necessary revisions made. Respondents were asked to provide an approximate number of hours spent on each of the activities listed, over the last seven days before the survey date. A major problem associated to time use survey is a recall error. Although, as a general consensus, a recall of more than two days should not be asked, many studies ask for the previous week, month, or sometimes even for a year (see. e.g. Masuda et al., 2014; Ilahi, 2000; Coltrane, 2000 and the references therein). This means, a recall of activities over the last seven days does not appear to be a serious problem. To the contrary, it can be argued that collecting data for only the past day or two can be equally problematic if not more problematic. In this regard, Arora and Rada (2013) noted that the survey instrument for the Ethiopian Rural Household Survey asked time use only for the previous day, and, as a result, they had to drop many households from analysis since not all households in the sample undertook farm work every day. For the present paper, the questionnaire raised questions on a range of demographic and socioeconomic variables and women's time allocation for household domestic work, over a period of the last seven days. It also asked a few questions on gender.

With regard to age and household headship, the table shows that 50% of the sample women are concentrated within the first two age groups which range from 25 to 44 years. In general, except for the third and the last age groups which deviate from the pattern, respondents appear to have spent more time with an increase in age, the least and the largest hour spent on housework being for women of ages 65 or more years and for women of ages 45-54 respectively. The largest time spent by women in the 45-54 age group instead of in the 35-44 age group is not in line with other studies (see e. g. Krantz-Kent 2009). Contrary to the results in this paper, the same study found women aged 65 to 74 spent more time in unpaid housework than did women aged 55 to 64. For people aged 50 and older in general, the study found time spent on housework first to increase with age and then to decline. However, this seemingly contrasting result may be due to the long time expectancy for American women whose old age occurs much later than that of Ethiopian



women. In general the results for persons aged 50 and older coincide with what one would expect to observe when individuals depart the labor force. Household head wise, the table shows that close to one-fifth of the sample women are heads of their households, and that women heads compared to non-heads spent slightly fewer hours in housework.

## DISCUSSION

### Resources or Bargaining

Theoretically it is assumed that resources available to the individual in a household enable individuals to bargain away from housework. Past research commonly used education and income indicators to measure this variable. In the present paper, I have used years of schooling and loan receipt. Women's participation and time spent in housework is expected to decrease with an increase in their education, especially higher education since it is associated with higher opportunity cost of doing housework. Hours of housework is also expected to decrease with an increase in husband's years of schooling. Much of the available empirical evidence is consistent with this prediction (see e. g. Bardasi and Wodon 2010; Campaña, et al. 2017; Fahlen, 2016; Fuwa, 2004; Gammage, 2010; Gimenez Nadal and Sevilla, 2012; Guryan, Hurst and Kearney, 2008; Mc Ginnity and Russell, 2008; Tsuya et al., 2000). On the other hand, analyzing their own data, Campaña, Gimenez-Nadal and Molina (2017) found negative but mostly statistically insignificant effect of education for most of the countries studied (Mexico, Ecuador, Panama, and Peru). Despite the weak statistical significance after taking account of control variables, the negative association between a woman's years of schooling and her hours of housework for the present paper is in line with this evidence base. There are, however, some other studies (e.g. Bernardo et al., 2014; Davis et al., 2007; Golden, 2008; Newman, 2001; Singh et al., 2013) that showed highly educated women (bachelor degree or higher) to be less likely to work outside of home relative to respondents with low educational attainment. Some authors (e.g. Golden, 2008; Singh et al., 2013) attributed this to women's increased ability to bargain (with employer) to work from home. However, the Ethiopian context is very different in that it is unrealistic to think that, in the midst of high unemployment rate and widespread poverty, education has increased the capability of Ethiopian women to negotiate to work from home. Nor are there any facilities to allow working from home, even if we assume that negotiation was possible.

As it is noted, defining relative resources in term of income or earnings, most past research (e. g. Davis et al., 2007; Parkman, 2004) found statistically significant negative effects on women's housework. Fuwa (2004) also found negative effect, but not statistically significant. However, for the present paper, loan receipt is used instead given that income is not available (or is very irregular) to most households, especially to farming women. Increasing poor households' access to credit services and empowering women through lending has been one of the key poverty

reduction strategies of developing countries including Ethiopia. Garikipati (2012) argues that lending to women is expected to help them to shift their time from housework to market work, and from wage-work to self-employment, which is considerably better remunerated, enhances the value of their incomes, and improves their self-esteem and empower them. However, most past research guided by household economic theory has focused on examining the effect of credit on women's labor market participation. Studies examining its effect on time use are not available, especially on housework. Garikipati's (2012) study is an exception to this lack of research, which, however, did not find the expected effect, using her own data: found positive but statistically insignificant effect of credit on housework time. In the present paper, the negative and statistically significant association between a woman's receiving loan and her hours of housework contradicts Garikipati's (2012) finding, but it is in line with the theoretical expectation. Apart from the opportunity costs ensued, the loan enables women to start own business by avoiding the lack of working capital and by increasing their bargaining power away from housework.

### **Gender Ideology/Display**

As discussed in section 2.3, the gender ideology/display perspective posits that individuals are socialized to remain disproportionately responsible for the housework solely because of their gender, regardless of their economic resources or time availability. Research has consistently shown that there are persistent views regarding how women and men are expected to behave (Arrighi and Maume, 2000; Cunningham, 2001; Davis et al., 2007; Geist and Ruppner, 2018; Fahlen, 2016; Fuwa, 2004). In line with the gender perspective, Fahlen (2016) and Fuwa (2004) found a strong statistically significant negative effect of egalitarian gender attitudes on women's hours of work. Similarly, Davis et al., (2007), found a positive effect (coefficient at least twice as large as its standard error) of more traditional gender ideology on housework. On the other hand, estimating separate models for different housework indicators, Parkman (2004) found mixed results of traditional gender ideology on women's housework: negative for meal preparation, washing dishes, cleaning house, shopping, car maintenance, and driving and positive for washing/ironing and paying bills. The negative association between a woman's traditional gender perception/practice and her housework time in the present paper appears to be in line with the gender perspective, but the statistical significance is weak.

### **Control Variables**

Research shows that women household heads compared to non-heads face time shortage. For example, a review of work by Blackden and Wodon (2006) for sub-Saharan Africa found women household heads to face greater time constraints than do male heads or other women, especially if such women have no other adult women to help with housework. Although the negative coefficient on headship for the present paper does not appear to be in line with this evidence base, the result is not statistically significant. While the lack of statistical significance may be due to problems in data quality, a possible reason for the negative coefficient could be that since such

women are likely to be lone earners (non-head husbands/male partners are likely to be non-earners or earn less than women), the whole responsibility of feeding and maintaining the household rests solely, or at least mostly upon them, leading to fewer hours allocated for housework and more hours for earnings and/or food production. Given the informal nature of farming and of urban economic activities in the developing countries including Ethiopia (Chalachew, 2018), it is also likely that they can combine housework and non-housework. In one way or the other, as Buvinic and Gupta (1997) remarked, this can lead them to lower paying jobs more compatible with housework, and this is likely to worsen their wellbeing. One could, however, also argue that if non-head husbands are non-earners or earn less than women, then, consistent to the bargaining or relative resources hypothesis, men may take on much of the housework, thus compensating for wife's reduced time for housework.

Age is an important factor influencing a woman's housework time (see e.g. Bardasi & Wodon, 2010; Campaña et al., 2017; Erdil, Eruygur and Kasnakoglu, 2006; Gammage, 2010; Krantz-Kent, 2009; Tsuya, et al., 2000). As age progresses, especially after individuals depart the labor force because of old age, women will spend more time on household work (Krantz-Kent 2009). In line with this, Gammage (2010) found statistically significant positive effect of age for Guatemala. Similar effects were found by Davis et al. (2007) and Fuwa (2004) for 28 and 22 developed countries respectively. Whereas, Campaña, et al. (2017) found negative yet statistically insignificant effect of age for Columbia, Ecuador, Panama, and Peru but not for Mexico. The negative but statistically insignificant coefficient for the present paper echoes the latter evidence.

In terms of young children, research has shown its significant positive effect on women's housework time (Baxter, Hewitt, and Haynes, 2008; Bianchi et al., 2000; Davis et al., 2007; Fahlen 2016; Fuwa, 2004). The statistically significant positive association between number of young children a woman has and her hours of housework in the present article is in line with this and other available evidence. For example, except a few studies (e.g. Arora 2015; Bardasi and Wodon 2010) which found a maternal housework time reducing effect of young children, most other studies (e.g. Bianchi et al., 2000; Bernardo et al., 2014; Campaña et al., 2017; Craig, 2006; Gammage, 2010; Fahlen, 2016; Krantz-Kent, 2009; Tsuya, et al., 2000) generally found young children to increase housework hours for women. For example, Tsuya et al. (2000) found wives' household task hours to have increased significantly with presence especially of preschool but also school age children for Japan, USA and Korea. Bernardo et al. (2014), found a high maternal propensity for investing time in in-home childcare when there are young children of ages 0-5 years in the household, and decreases with an increase in the age of children. As regards members helping with housework and non-housework, it is expected that presence of members (including husbands) to help with maternal housework reduces a woman's time for domestic chores and increases her non-housework time, whereas presence of members to help with non-housework is expected to increase her time in housework (see e.g. Campaña et al., 2017 and the references

therein; World Bank, 2001). Empirically, in the context of time poverty, Arora (2015) and Campaña et al. (2017) found a statistically significant negative effect of presence of housework help on women's housework time allocation; and Davis et al. (2007) found positive effect of presence of employed members (in this case husbands) on women's housework time. However, there are other studies whose findings contradict with the above-noted studies. For example, Tsuya et al. (2000) found other members' housework contribution to be weak to decrease wives' housework time for Japan, USA and Korea, suggesting that these women adjusted their time either by adding paid employment to domestic responsibilities or by reducing the time spent in housework. Similarly, Gammage (2010) found presence of unemployed adult members to have positive (instead of negative) though statistically insignificant effect, and presence of wage earning adult members to have negative and statistically significant effect on a woman's housework time. Despite the negative association between the number of members involved in housework and a woman's hours of housework for this paper as can be expected, coefficients is not statistically significant. One possible explanation for the result's lack of statistical significance may lie in the possible confounding effects of age and sex composition of the members (see e.g. Blackden and Wodon, 2006). Studies show presence of more adult (vs. young) women (vs. men) to reduce a woman's hours of housework. For example, in the context of labor force hours worked, Hallman et al. (2005) for Guatemala City found that a mother is more likely to work outside and work more hours if there are substitute adult female caregivers in the household. No such variables were controlled in the model for the present paper, however. Given the absence of these variables, members' hours of housework and non-housework instead of their sheer number were also included in the model. As can be expected, an increase in members' hours of housework and non-housework is associated, respectively, with a decrease and an increase in a woman's hours of housework, both of which were statistically significant.

Although, in most traditional societies, economic factors (including assets) are only secondary to non-economic factors in explaining differences in time allocation, such factors can explain some of the differences (Ilahi, 2000; World Bank, 2001). According to Arora (2015) and World Bank (2001), asset ownership reduces the gender division of labor within the household. A study for Peru reported that the highest hours of housework by women within the lowest asset group (Ilahi, 2000). By contrast, Arora (2015) found that value of assets increased women's time poverty, implying absence of meaningful bargaining power improvement, although the effect was not statistically significant. The positive and statistically significant association between the household's assets ownership and a woman's hours of housework for the present paper echoes Arora's (2015) finding, although asset ownership in the present paper is defined at household level, instead of individual level.

In terms of religion, Bardasi and Wodon (2010) for Guinea and Mexico, and Campaña et al. (2017) for Ecuador, Panama, Peru and Columbia found positive effect of being Christian on time of poverty. For the present study, being Christian and women's hours of housework are negatively

associated. However, neither of the results for the above-mentioned studies nor for the present one is statistically significant.

Finally, given the less scheduled, more flexible nature of rural jobs in relation to urban jobs, it is reasonable to assume that being in rural area compared to urban area is likely to increase housework time. Empirically, Campaña, et al.'s (2017) study found statistically significant positive effect of the rural dummy for Mexico, Peru, Ecuador, and Columbia. Similarly, Gammage (2010) indicated that being in a rural area reduces the probability of being time poor for Guatemala. These two past findings are not contradictory since a rural woman compared to an urban woman may spend more hours of housework, and yet can be time-non-poor since there is relatively less market work in rural areas. For the present paper, the association is positive, but its statistical significance is not quite strong.

## CONCLUSION

This paper used a household survey of 502 married women in Agaw Meder cities and rural villages of two nearby districts to analyze the determinants of Ethiopian women's hours of housework in light of available theories, namely, time availability, bargaining, gender ideology/display and other demographic and socioeconomic variables. A woman's employment status, her years of schooling and loan receipt status, as a measures, respectively, of time availability and resources or bargaining power have statistically significant negative associations with a woman's housework time, even after controlling other demographic and socioeconomic variables. Similarly, traditional gender perception/practice as a measure of gender ideology/display has the expected positive association with a woman's housework time, despite the weaker statistical significance level. Of the control variables, housework performed by other members has statistically significantly negatively associated with a woman's housework time, whereas number of young children, non-housework performed by other members and household asset values are statistically significantly positively associated with her housework time, even after the three key variable clusters were added. The result for the first three control variables is also in line with the available literature. National strategies aiming at poverty reduction may need to pay more attention to educate women, help them overcome working capital shortage, and improve employment opportunities since these may also empower women and thereby minimize traditional gender ideology/display and having too many young children.

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