

Factors influencing unpaid domestic work : empirical evidence from Cameroon

Facteurs influençant le travail domestique non rémunéré : données empiriques provenant du Cameroun

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ABSTRACT

This study analyzes the factors influencing participation in unpaid household tasks in Cameroon, with a particular focus on differences between men and women. The main objective is to identify the individual, family, and social determinants of time spent on household tasks and caregiving, in order to inform public policies aimed at reducing gender inequalities and women's workload. The study uses data from the fourth Cameroon Household Survey (ECAM 4), conducted in 2014 by the National Institute of Statistics of Cameroon. A composite indicator of unpaid domestic work is constructed using principal component analysis (PCA) to group several domestic and caregiving activities into a single continuous measure. To analyze the determinants of this work, an econometric linear regression model using the ordinary least squares method is estimated. The results show that unpaid domestic work remains highly gendered in Cameroon and falls primarily on women.

KEYWORDS: Unpaid ; Domestic ; Gender ; Women ; Time Use ; Cameroon.

RÉSUMÉ

Cette étude analyse les facteurs influençant la participation aux tâches ménagères non rémunérées au Cameroun, en mettant particulièrement l'accent sur les différences entre les hommes et les femmes. L'objectif principal est d'identifier les déterminants individuels, familiaux et sociaux du temps consacré aux tâches ménagères et aux soins, afin d'éclairer les politiques publiques visant à réduire les inégalités entre les sexes et la charge de travail des femmes. L'étude utilise les données de la quatrième Enquête Camerounaise Auprès des Ménages (ECAM 4), réalisée en 2014 par l'Institut national de la statistique du Cameroun. Un indicateur composite du travail domestique non rémunéré est construit à l'aide de l'analyse en composantes principales (ACP) afin de regrouper plusieurs activités domestiques et de soins en une seule mesure continue. Pour analyser les déterminants de ce travail, un modèle économétrique de régression linéaire utilisant la méthode des moindres carrés ordinaires est estimé. Les résultats montrent que le travail domestique non rémunéré reste fortement genré au Cameroun et incombe principalement aux femmes.

MOTS-CLÉS : Non rémunéré ; Domestique ; Genre ; Femmes ; Emploi du temps ; Cameroun.

INTRODUCTION

Unpaid care work includes the daily household tasks necessary for maintaining a home, such as cleaning, cooking, doing laundry, and running errands and shopping for household needs; as well as caregiving activities such as caring for children, the elderly, the sick, people with disabilities, and anyone else in need of care (Sinha and Sahai, 2021). Unpaid care work is essential for meeting daily needs, ensuring the well-being of the next generation, and building the future workforce. However, pressure in the labor market, combined with the excessive time burden of unpaid care work, can reduce the time available for paid work, rest, leisure, and self-care, which could further affect an individual's ability to earn a living and achieve a healthy standard of living.

Consequently, failing to recognize the burden of unpaid work could hinder overall human development. Global trends indicate that unpaid care work is unevenly distributed between men and women in all countries, with women bearing the bulk of the burden. Worldwide, women and girls perform 76.2% of unpaid domestic work and spend, on average, 3.2 times more time on it than men (ILO, 2018). Sociocultural factors and rigid patriarchal norms reinforce the gender division of labor, confining household activities primarily to women, particularly in developing countries.

It is therefore essential to understand the distinction between these two categories of women. On the one hand, there are women who take on unpaid work within the household by choice, out of love, and out of a sense of commitment to their families. On the other hand, there are those on whom these tasks are imposed due to systemic factors such as norms and stereotypes that define distinct gender roles—women as homemakers and men as breadwinners.

Since time is a limited resource—both over the course of an individual's life and within a given day—the more time a person devotes to paid work, the less time they have available for other activities such as unpaid work, rest, leisure, and self-care. These trade-offs between activities are more burdensome for women. In order to recognize and reduce the burden of unpaid care work that falls on women, as well as the resulting gender inequalities, it is important to examine the determinants or factors that influence this unpaid care work.

Identifying these factors at the individual, family, and societal levels can help inform policy decisions aimed at achieving broader goals, such as the United Nations Sustainable Development Goal (SDG) 5, which seeks to achieve gender equality and the empowerment of all women and girls. One of the targets of SDG 5 is to “recognize and value unpaid domestic and care work through the provision of public services, infrastructure, and social protection

policies, as well as by promoting the sharing of responsibilities within the household and family, in accordance with national circumstances” (UN, 2016). In this study, we seek to examine the potential factors that may influence the time men and women devote to unpaid domestic tasks, which constitute a component of unpaid care work.

An analysis of these factors will help guide policy measures at various levels that could reduce the burden of unpaid work on households (particularly on women) while ensuring that these tasks are addressed by the government or the market. This study has relevant policy implications in the Cameroonian context. First, Cameroon has historically been characterized by patriarchal norms that have led to a persistent gender division of labor and high overall gender inequality, including a significant gender gap in unpaid work. To achieve gender-equitable growth, it is essential to identify the key factors contributing to the excessive burden of unpaid domestic work (Afridi et al., 2022; Fletcher et al., 2017; Kannan and Raveendran, 2012).

An examination of the determinants of unpaid domestic work in such a social context will provide useful insights into how to enable women’s participation in paid work without compromising the necessary unpaid care work. Third, Cameroon suffers from a lack of adequate physical infrastructure and public care services, particularly in the areas of energy, water supply, childcare, and care for the elderly. Furthermore, the lack of social protection (due primarily to the fact that nearly 90% of the workforce is employed in the informal sector) places the burden of caregiving tasks on households. Consequently, understanding how these factors related to infrastructure and public policy influence the burden of household chores for households (particularly for women) would be useful for future policy discussions, primarily with a view to reorganizing unpaid care work, both within households and among the state, the market, and men and women.

From a theoretical perspective, this study builds on the time-allocation model proposed by Becker (1965) and Gronau (1977), according to which individuals rationally choose between market and non-market labor based on the opportunity cost of their time: the accumulation of human capital, by increasing the value of time in the labor market, should logically reduce the time devoted to domestic production. However, feminist economics (Folbre, 1995; Elson, 2008; Sinha and Sahai, 2021) challenges the universal applicability of this framework by emphasizing that gender norms and patriarchal structures constrain individual trade-offs, particularly for women, thereby calling into question the assumption of a unitary household acting according to a pure logic of individual maximization.

It is precisely this tension between the standard theoretical framework and the social reality in Cameroon that this study sets out to examine. The Beckerian model of time allocation, based on rational trade-offs between the opportunity cost of human capital and domestic production, predicts a negative relationship between education and the time spent on unpaid care work. To what extent is this prediction—if it holds true for Cameroonian men—invalidated for women? And what structural mechanisms (patriarchal social norms, lack of public care infrastructure, labor market segregation) help explain this gender-based divergence in the model's application? Answering this question requires examining, in turn, whether Becker and Gronau's time-allocation model provides a relevant framework for analyzing unpaid care work in a context of rigid gender norms; which individual, family, and contextual factors modulate the effect of human capital differently by gender; and what implications these findings have for the design of Cameroonian public policies aimed at achieving SDG 5, given that education alone is not sufficient to reduce the burden on women.

1. LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

1.1. Conceptual Framework

Here, we present the mechanisms linking each group of explanatory variables to participation in unpaid work.

1.1.1. Individual Characteristics and Participation in Unpaid Work

- Age: a proxy for the life cycle and physical capacity; it also captures the intergenerational transfer of responsibilities (to the youngest women in the household).
- Marital status: it captures the institutionalization of gender roles (marriage and widowhood “activate” the norm of assigning women to reproductive work).
- Education: it is expected to reduce the burden of unpaid work through human capital.

1.1.2. Family characteristics and participation in unpaid work

- Household size: This captures the demand for care or tasks to be performed (workload mechanism). The expected effect is positive, but may be reversed for women due to intra-household delegation (to daughters/daughters-in-law).

1.1.3. Employment context and participation in unpaid work

- Economic sector: This captures the permeability between the productive and reproductive spheres and exposure to different occupational norms (formal vs. informal, public vs. private).

1.2. Literature review

In this section, we highlight the importance of studying unpaid care work for gender-inclusive socioeconomic development and review existing academic literature on this topic.

Pioneering work on household behavior regarding participation in and time allocation to paid market work and unpaid non-market work was conducted by Becker (1965) and Gronau (1977). Over time, a vast number of studies have examined the determinants of participation in and time allocation to household work at the national and international levels.

Unpaid care work falls outside the scope of the System of National Accounts (SNA), is classified as a non-SNA activity, and does not generate any direct compensation. Unpaid care work is often taken for granted, viewed as a corollary of “social roles” rather than as an economic activity. The conventional framework of macroeconomic policy does not incorporate non-market labor, so unpaid care work is often overlooked in economic analysis (Sinha and Sahai, 2021). However, recent academic work has addressed the need to incorporate unpaid care work into macroeconomic analysis through appropriate measurement in satellite accounts and by adopting the approach recommended by Elson (2008), which emphasizes the “recognition, reduction, and redistribution” of unpaid labor (Hirway, 2010).

Although unpaid care work is not considered productive labor in the market economy, it has been argued that it plays multiple economic roles and perpetuates gender inequalities at the socioeconomic and political levels. Studies indicate that, since worker exploitation is offset by unpaid domestic and care services, this results in increased profits at the macroeconomic level, which stimulates capital accumulation and economic growth (Hirway, 2010). The argument is that women subsidize labor costs for employers and alleviate the burden on the state by disproportionately performing unpaid care work within the household (Hirway, 2015). Furthermore, studies have highlighted a negative correlation between unpaid domestic work and labor force participation rates (Lilly et al., 2007; Heitmueller, 2007; Friedemann-Sanchez and Griffin, 2011).

The disproportionate division of labor between the sexes and discriminatory gender norms result in women bearing an excessive burden of household and caregiving tasks, having limited access to education, and facing restricted career choices, which leads to women’s subordinate status in the labor market (Hirway, 2008). The time a woman spends on unpaid care work deprives her of time she could devote to her education, skills development, or labor market-related activities (Ferrant et al., 2014). This, in turn, widens the gender gap in labor market outcomes.

The excessive burden of domestic chores hinders women's participation in the labor market and limits their income and opportunities to earn a living (Kabeer, 2012). A study on Latin America reveals that more than 50% of women aged 20 to 24 reported that the main reason they were not seeking employment was their responsibilities at home (ECLAC, 2007). Women's low labor force participation constitutes a suboptimal use of the labor force in the economy and has negative repercussions on macroeconomic outcomes (Elborgh-Woytek, Katrin, Kelborgh-Woytek, IMF 2013). It has been argued that gender differences in the division of household tasks stem from gender norms and the patriarchal system, which define the roles of women and men as distinct, thereby influencing the time they devote to paid and unpaid work (Elson, 2000; Das, 2006). It is known that these dynamics manifest differently across religious groups (Eswaran et al., 2013).

Other reasons for women's disproportionate share of household chores include the lower opportunity cost of unpaid care work for women compared to men, due to the more limited employment opportunities and lower wages available to women in the labor market (Folbre and Yoon, 2008; Razavi, 2007), which helps perpetuate the gender gap in educational attainment, the division of unpaid work, and the distribution of paid work (Kingdon, 1998). This results in a vicious cycle that perpetuates gender inequalities.

One way to reduce overall gender inequalities is to implement policies aimed at lightening the burden of household chores and reducing gender disparities in the division of unpaid work. To do this, it is important to identify the key factors that may influence the time men and women spend on household chores. These factors may include demographic variables such as age, marital status, educational attainment, household size, household income and expenditure, as well as social variables such as religion and social class.

Feminist economists have argued that care-related goods and services can be provided by all four sectors of the economy: households, the government, businesses/the market, and nonprofit organizations (Folbre and Nelson 2000; Folbre 2006). More recently, theorists of social reproduction have also argued that unpaid care work is an essential component of social reproduction—that is, the resources needed to produce, maintain, and invest in the labor force—and that it can be provided by households, the public sector, and/or the market (Bhattacharya, 2017).

The burden of unpaid work is exacerbated by the lack of adequate public services in essential sectors such as energy, health, water and sanitation, food security, and livelihoods (Hirway, 2015; Razavi, 2007). Consequently, factors related to access to state-provided care

infrastructure and market substitutes for care goods and services are also likely to influence the time individuals spend on household tasks. The existing literature has primarily focused on how unpaid care work affects the employment, education, and health of men and women. However, studies examining the factors influencing time spent on household chores are rare (i.e., studies that treat time spent on household chores as a dependent/outcome variable rather than an independent/explanatory variable are rare).

In a context such as that of Cameroon, characterized by limited coverage of social services, households' heavy reliance on family support, and pervasive gender norms, unpaid care work plays an ambivalent role. While it contributes positively to the well-being of beneficiaries within the household, it can also impose significant costs on caregivers, particularly in terms of work overload, health, available time, and labor market participation (Che and Sundjo, 2018). Analyzing this relationship is therefore essential to understanding the mechanisms through which unpaid work influences the overall well-being of households and the resulting inequalities.

Karimli et al. (2016) examine the factors influencing unpaid care work using data from a household survey conducted in five rural communities in Colombia, Ethiopia, the Philippines, Uganda, and Zimbabwe. In the Indian context, Singh and Pattanaik (2020) examine how the “probability” that women perform unpaid domestic work depends on factors classified into three categories: constraints, choice, and career, using data from the National Sample Survey Office (NSSO) on women's domestic tasks between 1992 and 2012. To our knowledge, no study to date has examined the determinants of unpaid domestic work in Cameroon using data from ECAM 4 (the fourth Cameroonian household survey), which constitutes the first national time-use database documenting the distribution of men's and women's time across various activities.

As for the theoretical framework, the neoclassical theory of time allocation (Becker, 1965; Gronau, 1977) views the household as a rational unit that allocates time according to each member's relative productivity. Thus, as education increases, the opportunity cost of time spent on household chores rises, leading to a reduction in the amount of time spent on them. This holds true for both men and women.

In contrast, according to feminist theory (Folbre, 1995; Elson, 2000; Hirway, 2010), the division of domestic labor is not a matter of efficiency but rather of gender norms and internalized power relations (patriarchy, the institution of marriage). Education therefore has no liberating effect for women, as social norms take precedence over individual cost-benefit logic.

Our contribution is primarily empirical. Although it draws on the established theoretical framework of Becker (1965) and Gronau (1977), the originality of this work lies, on the one hand, in the use of ECAM4 data (which have never before been used to study unpaid domestic work in Cameroon) and, on the other hand, in the construction of a composite participation indicator using Principal Component Analysis, which overcomes the limitations of the fragmented measures typically used in this field of research.

2. DATA AND METHODOLOGY

2.1. Data, Source, and Measurement of Unpaid Work

In this study, we will focus on secondary data from the fourth Cameroon Household Survey (ECAM4), conducted by the National Institute of Statistics (INS) in 2014. It should be noted that the overall objective of ECAM is to produce indicators on the living conditions of the population. These indicators are intended to facilitate the updating of the poverty profile, as well as the monitoring and evaluation of the national strategy for growth and employment and progress toward achieving the Millennium Development Goals (MDGs). They will also make it possible to assess the effects of macroeconomic programs and policies implemented in Cameroon on household living conditions over the past few years. The ECAM4 database offers a rare opportunity to observe how individuals allocate their time across a large, representative sample.

With regard to the measurement of unpaid work, we have chosen a variable that includes up to 175 categories. However, in accordance with the principle of parsimony that governs statistical studies, we use a truncated variable with 8 categories. This is variable S15Q103B in our database. The following table shows the measures of unpaid work.

Table 1: Measurement of Unpaid Care Work

Variables	Description	Obs	Mean	Std. dev.	Min	Max
Activity_49	Prepare meals/snacks	388,043	.1155877	.3197303	0	1
Activity_50	Serve meals/snacks	388,043	.0984066	.297864	0	1
Activity_51	Clean up after preparing meals/snacks	388,043	.0945952	.2926554	0	1
Activity_53	Clean the interior	388,043	.097381	.2964762	0	1
Activity_75	Daily care, including feeding, cleaning, and grooming,	388,043	.0929536	.2903678	0	1
Activity_82	Childcare/physical care	388,043	.0981901	.297572	0	1
Activity_83	Teach and educate children	388,043	.0925439	.2897925	0	1
Activity_84	Read, play, and talk with children	388,043	.0921573	.2892483	0	1

Development of the Composite Indicator of Domestic Work

Several aggregation methods exist for constructing a composite indicator of unpaid care work. Composite indicators allow for a simple comparison of units and are therefore easily understood by the general public and policymakers. In this study, we use the principal component analysis (PCA) technique.

It is important to note that the initial variables used to describe caregiving activities are binary in nature (0/1), indicating whether or not a specific task was performed. The analysis of categorical data of this type is typically performed using Correspondence Analysis (CA). However, to enable the use of PCA (a method more commonly used for synthesizing composite indicators and offering a direct interpretation in terms of explained variance), we first standardized the binary variables (by creating a centered and scaled variable). This preliminary transformation makes the variables comparable in terms of scale and variance, and ensures compliance with the conditions for applying PCA, which requires quantitative variables. Thus, each binary variable was transformed into a continuous variable with a mean of zero and a standard deviation of one, preserving the correlation structure among the activities while allowing for optimal aggregation through linear combination. This approach enables us to construct a continuous composite score that accurately captures the multidimensional profile of engagement in unpaid domestic work.

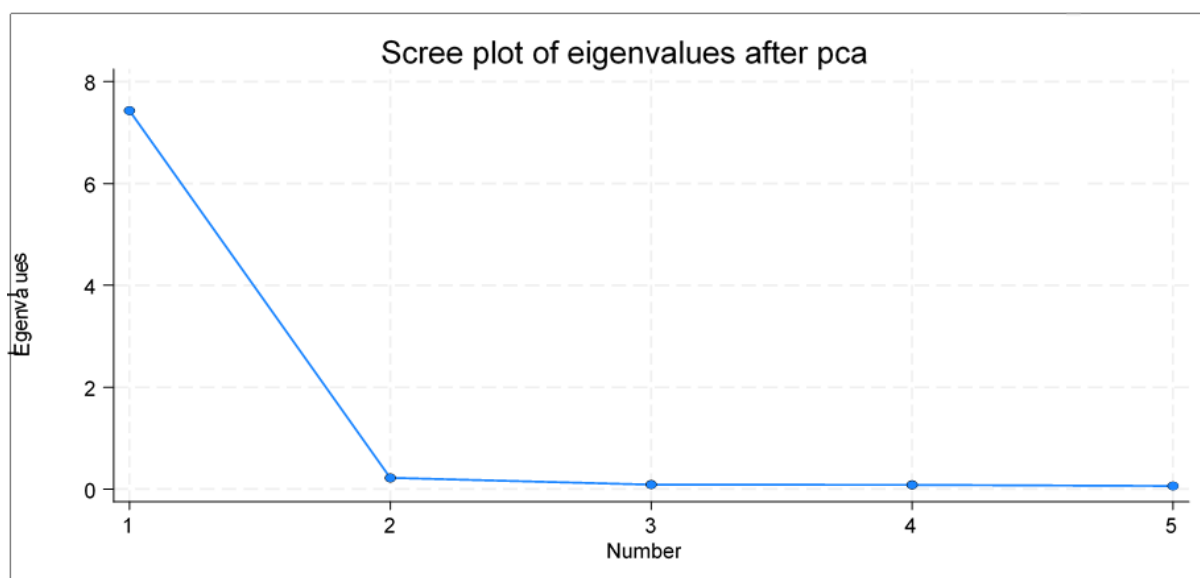
In theory, PCA is a method for creating new variables (called principal components (PCs)), which are linear composites of the original variables. A common method for determining the number of PCs to retain is a graphical representation known as a scree plot. A scree plot is a simple line-segment graph that shows the eigenvalues of each individual PC. It plots the eigenvalues on the y-axis and the number of factors on the x-axis. It always displays a downward-sloping curve. Most scree plots have a very similar shape: they start high on the left, drop fairly rapidly, and then flatten out at some point.

This is because the first component generally explains a large portion of the variability, the next few components explain a moderate amount, and the final components explain only a small fraction of the overall variability. The scree plot criterion identifies the “kink” in the curve and selects all the components just before the line flattens out. In the literature on PCA, the plot is called a “scree” because it often resembles a scree slope, where rocks have fallen and accumulated on the side of a mountain.

Figure 1 illustrates the construction of the indicator for unpaid care work. By examining the figure and using Kaiser’s criterion, we can see that there are two factors (PCs) with eigenvalues

≥ 1 , and the inflection point also occurs at the same point. This means that to avoid information loss, our indicator of unpaid domestic and care work is the linear combination of the first two factors.

Figure 1: Scree plot of domestic work and unpaid care work



Source: Stata

2.2. Modeling Participation in Unpaid Work

We will lay the groundwork for the theoretical and empirical model that will guide our estimates. Drawing on the pioneering work of Becker (1965) and Gronau (1977) on household time allocation, and based on a targeted review of the international and regional empirical literature, we will identify a set of plausible explanatory variables. These variables (including individual characteristics (age, education, marital status), family characteristics (household size, presence of children), and contextual characteristics (neighborhood, type of employment of the head of household)) will form the core of our linear regression model.

The objective of the empirical research is to assess the determinants of participation in unpaid care work. Thus, we have chosen to estimate a linear participation function using the ordinary least squares method.

The choice of a classical linear regression is also justified by the very logic behind the construction of our dependent variable. Indeed, the composite indicator of participation in unpaid domestic work is derived from a Principal Component Analysis, a technique whose fundamental principle is to identify, among all possible linear combinations of the standardized initial variables, the one that maximizes the explained variance. The principal components selected (and then linearly combined to form our final score) are therefore, by their very nature,

linear transformations of the original data. Consequently, there is methodological consistency in favoring a linear estimation framework downstream: since the dependent variable was constructed using a linear aggregation approach, it seems natural to model its determinants using a function that is itself linear, rather than resorting to nonlinear specifications that would introduce a disconnect between the logic of the indicator's construction and that of its explanation. The ordinary least squares model thus follows directly from the PCA synthesis approach, ensuring methodological continuity between the measurement phase and the estimation phase.

We have:

$$Y_i = \sum_{j=1}^k x_{ij} \beta_j + \varepsilon_i \quad i = 1, \dots, N \quad (1)$$

Where Y is a column vector of dimension $(N \times 1)$ that measures labor market participation; $X(k \times N)$ represents the matrix of k explanatory variables, β is the $(k \times 1)$ vector of parameters to be estimated, and finally ε is the error term vector.

Consider the following matrix form:

$$\begin{pmatrix} y_1 \\ \vdots \\ y_N \end{pmatrix} = \begin{pmatrix} x_{11} & \dots & x_{1k} \\ \vdots & \vdots & \vdots \\ x_{N1} & \dots & x_{Nk} \end{pmatrix} \begin{pmatrix} \beta_1 \\ \vdots \\ \beta_k \end{pmatrix} + \begin{pmatrix} \varepsilon_1 \\ \vdots \\ \varepsilon_N \end{pmatrix} \quad (2)$$

$$\begin{matrix} (N \times 1) & (N \times k) & (k \times 1) & (N \times 1) \\ \Leftrightarrow & Y = X\beta + \varepsilon & & \end{matrix} \quad (3)$$

The goal is to find the k -tuple $(\beta_1, \beta_2, \dots, \beta_k)$ such that the sum of squared errors is as small as possible:

$$\sum \hat{\varepsilon}^2 = \sum (y - \hat{y})^2 \quad (4)$$

Now, to make this sum as small as possible, we would need to choose a regression function of y on x such that, for the N observations, the estimated values $\hat{y}$ are as close as possible to its actual values of y . According to the shortest path theorem, where $\hat{y}$ is the orthogonal projection of y onto the space spanned by X , we have:

$$\begin{aligned} y &= X\hat{\beta} + \hat{\varepsilon} = \hat{y} + \hat{\varepsilon} \\ \Leftrightarrow \hat{\varepsilon} &= y - X\hat{\beta} \\ &= y - \hat{y} \end{aligned} \quad (5)$$

where the $\hat{\beta}$ are the estimators of the β obtained by minimizing the Euclidean norm or the scalar product of the errors in the form: $\|\hat{\varepsilon}\|^2 = \hat{\varepsilon}'\hat{\varepsilon} = (y - X\hat{\beta})'(y - X\hat{\beta})$

$$= y'y - 2\hat{\beta}'X'y + \hat{\beta}'X'X\hat{\beta} \quad (6)$$

Using the properties of matrix transposes, $(X\hat{\beta})' = \hat{\beta}'X'$; and since $\hat{\beta}'X'y$ is a scalar, it is equal to its transpose $y'X\hat{\beta}$.

Equation (6) is the matrix representation of equation (4). This scalar notation allows us to obtain the β s satisfying the normal regression equations defined as follows:

$$X'\hat{\varepsilon} = X'(Y - X\hat{\beta}) = 0 \quad (7)$$

où $\hat{\beta} = (\hat{\beta}_1, \hat{\beta}_2, \dots, \hat{\beta}_k)'$, the OLS estimator of β , is such that $\begin{pmatrix} \hat{\beta}_1 \\ \vdots \\ \hat{\beta}_k \end{pmatrix} = (X'X)^{-1}X'Y$

It is worth noting that the $\hat{\beta}_k$ can only be obtained if and only if the matrix $X'X$ is invertible.

3. RESULTS, INTERPRETATIONS, AND DISCUSSIONS

3.1. Basic results

Table 2 : Estimation of the determinants of participation in unpaid care work

Housework	Coefficient	Std . err .	t	P>t
hour 49	1.070291	.1221494	8.76	0.000
Activity 6	-1.090231	.1252296	-8.71	0.000
inter1	1.00039	.1085834	9.21	0.000
inter2	-.8761941	.1078025	-8.13	0.000
Age	-.0005505	.0001121	-4.91	0.000
S01Q5				
Monogamous married	.0234731	.0033708	6.96	0.000
Married polygamist	.0111313	.0074202	1.50	0.134
Widow/Widower	.0425656	.0071945	5.92	0.000
Divorced/Separated	.0173738	.0070231	2.47	0.013
In free union	.0104043	.0055545	1.87	0.061
S03Q4N				
Primary	-.0873942	.0804528	-1.09	0.277
Secondary 1st Cycle	-.0914007	.0804711	-1.14	0.256
Secondary 2nd cycle	-.0849562	.0804958	-1.06	0.291
Superior	-.0940405	.0805398	-1.17	0.243
NSP	-.0151268	.0927452	-0.16	0.870
S0Q12	-.0014901	.0007686	-1.94	0.053
tailm	.0026869	.0003717	7.23	0.000
S04Q13				
Public or semi-public company	-.012429	.0091125	-1.36	0.173
Private non-agricultural company	-.0052757	.0053339	-0.99	0.323
Agricultural exploitation (fields, pl..)	-.0003371	.0057819	-0.06	0.954
International organization	-.0571684	.0310707	-1.84	0.066
Non-profit organization (trade unions, etc.)	-.0166923	.0190025	-0.88	0.380
Household	.028622	.0092538	3.09	0.002
cons	-.9757659	.0807555	-12.08	0.000

The effect of gender, implicit but structuring

While the model for the entire sample does not explicitly separate sexes, the strong correlation between female sex and several explanatory variables (such as marital status or the "housekeeping" employment sector) serves as a reminder that the gendered division of labor, theorized by Folbre (1995) and Elson (2008), remains a powerful organizing principle. The burden of caregiving remains socially assigned to women, which is reflected in their professional and family trajectories.

Age: a declining capacity, but persistent social roles.

The significant negative coefficient for age (-0.00055) suggests that as individuals age, their contribution to unpaid care work decreases. This may be explained by increased physical constraints or by a transfer of care responsibilities to younger generations (often daughters or daughters-in-law), in accordance with family norms observed in Africa. This finding aligns with the work of Antonopoulos (2009) on the role of households as units of intergenerational production and reproduction.

Marital status: the increased burden on single women

The statuses "Widower" and "Monogamous Married" show significant positive coefficients. For widows, this may reflect the sole responsibility for children and the household in the absence of their spouse. For monogamous married women, this confirms that marriage often institutionalizes the assignment of women to reproductive labor. Polygamous marriage has a non-significant effect, perhaps due to the division of labor among co-wives, although this dynamic warrants further qualitative investigation.

Education level: an ambiguous impact in the overall sample

The coefficients for the different education levels (primary, secondary, higher) are negative but not significant in the overall model. This could indicate that in Cameroon, education alone is insufficient to disengage women from care work, due to robust patriarchal norms and a labor market that does not offer sufficiently attractive alternatives. This finding aligns with feminist economics critiques of the limitations of the "human capital" approach in contexts where structural inequalities remain significant.

Household size: a positive correlation with care workload

The positive and significant coefficient for household size confirms an expected relationship: the larger the household, the greater the volume of domestic and care work. This validates the idea that unpaid work is a hidden subsidy for social reproduction, borne primarily by women, and that its cost increases with the number of dependents.

The employment sector: “Home-based” work as an extension of care

The fact that working within one’s own “household” (as an employment sector) has a positive and significant effect is particularly revealing. It shows that the boundary between paid and unpaid work is porous, especially for women, who often combine income-generating activities at home with domestic responsibilities. This finding illustrates the continuum between the productive and reproductive spheres theorized by care economics.

3.2. Basic results by gender

Table 3 : Estimates of the determinants of participation in unpaid care work by gender

	Male			Female		
	Coefficient	Std . err .	P>t	Coefficient	Std . err .	P>t
Housework						
hour_49	1.075931	.1120349	0.000	.0421133	.0755154	0.577
Activity_6	-1.075213	.1160626	0.000	-.1049733	.0352893	0.003
interruption1	.9981431	.1006635	0.000	.1281281	.007769	0.000
Interruption 2	-.8758028	.099636	0.000	0	(omitted)	
Age	-.0006115	.0001392	0.000	-.0004293	.0001936	0.027
Monogamous married	.0222204	.0044562	0.000	.0097444	.0056301	0.084
Married polygamist	.0028491	.0099683	0.775	.0074061	.0117713	0.529
Widow/Widower	.0304643	.0124042	0.014	.0246712	.0105549	0.019
Divorced/Separated	.0160883	.0082364	0.051	.0191363	.0130137	0.141
In a common-law relationship	.0116764	.0066454	0.079	-.010787	.0101429	0.288
S03Q4N						
Primary	-.2272751	.1073403	0.034	.0335024	.124769	0.788
Secondaire 1er cycle	-.2211394	.1073506	0.039	.0157533	.1248344	0.900
Secondaire 2nd cycle	-.2166897	.1073652	0.044	.0236199	.1249402	0.850
Supérieur	-.2250402	.1073994	0.036	.0100399	.1250422	0.936
NSP	-.1468966	.1314691	0.264	.0716017	.1399388	0.609
S0Q12	-.0019058	.0008674	0.028	.000898	.0015188	0.554
tailm	.0047587	.0004348	0.000	-.001549	.0006906	0.025
S04Q13						
Public or semi-public company	-.000062	.0098862	0.995	-.025745	.0196845	0.191
Private non-agricultural company	.0044982	.0061059	0.461	-.0144643	.0102084	0.157
Agricultural exploitation (fields, pl..)	.007618	.0066739	0.254	-.0171045	.0110401	0.121
International organization	-.0477732	.0307796	0.121	-.0268364	.0939977	0.775
Non-profit organization (trade unions, etc.)	-.0009371	.0184272	0.959	-.0328664	.0726319	0.651
Household	.022747	.0127846	0.075	.0135299	.0149526	0.366
_cons	-.8637954	.107584	0.000	-1.046373	.1256055	0.000

Time and Interruptions: A Differentiated Work Organization

For men: The time spent on key activities such as meal preparation (hour_49) has a significant and substantial positive impact (coefficient 1.076). Similarly, chaining activities together (interruption 1) significantly increases their domestic work score. This suggests that men's involvement in care work is more visible, more focused on specific tasks, and potentially perceived as occasional "help" or a discretionary activity. It is less integrated into the continuity and multiplicity of tasks.

For women: The association between meal preparation time and the outcome is weak and not statistically significant (coefficient 0.042). In contrast, the interruption variable (interruption 1) remains significant, but its effect is more moderate (coefficient 0.128). This indicates that for women, care work is a diffuse, constant burden so deeply integrated into their daily lives that increasing the time spent on a single task does not substantially alter their overall profile. It is the overall burden, made up of multitasking and interruptions, that defines their contribution.

Age: A Contrasting Life Path

The negative effect of age is significant for both sexes, but more pronounced for men (-0.00061 vs. -0.00043). This more rapid disengagement of men with age could reflect a social justification for withdrawing from domestic tasks, or an increased transfer of responsibilities to their wives or other female family members. For women, the decline is slower, reflecting a responsibility that follows them throughout their lives, including caring for grandchildren or elderly parents.

Marital Status: Marriage, a Burden for Women and an Adjustment Factor for Men

For women: Monogamous marriage is positively associated and is marginally significant (coefficient 0.0097, p-value 0.084), while widowhood has a clearly positive and significant effect (coefficient 0.0247). Marriage institutionalizes and widowhood increases their domestic workload. Cohabitation has a non-significant negative effect, suggesting potentially more egalitarian arrangements.

For men: The association is more pronounced and varied. Monogamous marriage and widowhood significantly increase their participation (coefficients 0.0222 and 0.0305, respectively). This can be interpreted as an adaptation to absence or necessity: in the absence of a spouse (widowhood) or faced with the demands of a marital home, men take on a more visible share of the tasks. Polygamous marriage, on the other hand, has no significant effect, possibly due to a redistribution of labor between wives.

This is, unfortunately, an all-too-familiar and well-documented scenario. The empirical literature, from the work of Kedir and Rogers (2018) in Ethiopia to that of Singh and Pattanaik (2019) in India, shows that marriage is the primary institutional factor that assigns women to reproductive labor. Our study adds a touch of tragedy with the case of widows. Deprived of a spouse, they are not relieved of their burdens but instead see their responsibilities skyrocket, becoming the sole pillar of a household for which neither the state nor the market steps in to provide support. This is a perfect illustration of the “hidden subsidy” discussed by Antonopoulos (2009) in the context of the broader macroeconomy: society and the formal economy save on social services by exhausting women.

Education: Capital that liberates Men, but not Women

For men: All levels of education (from elementary through higher education) are strongly and significantly negatively associated with women’s participation in domestic work. Education thus confers upon them a social and economic legitimacy to withdraw from the reproductive sphere, reinforcing their role as primary breadwinners.

For women: The association with education is weak and not significant. This finding is crucial. It shows that the accumulation of human capital does not enable Cameroonian women to relieve themselves of the burden of care work. Social norms and the lack of alternative services (daycare, home help) are so powerful that they negate the potentially liberating effect of education. They then assume an exhausting “double shift,” as described by feminist theory.

Specifically regarding the education-gender paradox, a review focusing on Ethiopia, the Philippines, Uganda, and Zimbabwe (Rost et al., 2015) supports our findings: women’s participation in paid work reduces the gender gap in unpaid care work, but this reduction in the time women spend on unpaid work is not proportional. In other words, entering the labor market (or accumulating human capital) does not eliminate the burden; rather, it results in a “double shift.”

Household Size: An Additional Burden for Women Only

For men, the association is positive and significant (coefficient 0.0048). A larger family can lead them to contribute more, in line with the logic of contributing to the “family project.” Unlike women, for whom a large family can mean an overwhelming burden and a possible (sometimes forced) delegation of responsibilities to other women, for a man, an increase in household size often reinforces his central role as head of the family, organizer, and ultimate provider. His increased participation in domestic work in this context does not necessarily stem from direct involvement in daily caregiving tasks (feeding, washing, accompanying), but can

take socially valued forms linked to his status. For example, in a household of 10 people, the man will be more involved in the family's productive activities essential to the group's survival: managing the larger family farm, tending small livestock (sheep, poultry), and ensuring the supply of basic foodstuffs or building materials. These activities, although productive, are often counted in surveys as "unpaid domestic work" (housekeeping, grocery shopping). Furthermore, an extended family increases the Management responsibilities (resource organization, arbitration, conflict resolution). The time spent on these "domestic governance" activities can be perceived as a masculine contribution to the functioning of the household. A man with a large family may devote more time to maintenance or home improvement work (repairs, extensions), seen as an investment in the family's assets and a tangible manifestation of his supporting role.

For women, the association is negative and significant (coefficient -0.0015). Conventional wisdom, supported by studies on time poverty such as those by Harvey and Taylor (2000), holds that the larger the family, the higher the minimum amount of "domestic work time" required, and the more women work. However, our model suggests a slight inverse correlation for women. Why? In fact, several hypotheses, informed by the literature, may explain this paradox. Perhaps in very large extended households, the mother who is the head of the household delegates manual tasks to daughters-in-law or older daughters. Her direct time spent washing or cooking would decrease, but her burden of supervision, coordination, and organization (what Hochschild (1989) called the "mental load") would increase. Thus, like most quantitative time-use surveys, our statistics are often blind to this mental load. They count hands in the water, not worries in the mind. This limitation reminds us that invisible work is sometimes invisible even to the instruments that attempt to measure it.

This discussion is not merely an academic exercise. It validates major theoretical principles while highlighting the specificities of the Cameroonian context, and thus guides us toward concrete actions. Confirming that the problem is structurally gendered means acknowledging that the solutions must also be gendered. Understanding that education alone does not liberate women here and now means realizing that we must simultaneously create decent jobs and change mindsets. Viewing marriage and widowhood as burden multipliers means advocating for robust social safety nets.

Elson's (2008) "Three Rs" framework—Recognition, Reduction, Redistribution—then emerges not as a mere slogan, but as an urgent and appropriate roadmap for Cameroon: Recognition

means adopting gender-sensitive statistical tools, such as the satellite accounts recommended by the UN (1993), to make the full economic contribution of the household visible.

Recognition means adopting gender-sensitive statistical tools, such as the satellite accounts recommended by the UN (1993), to make visible the entire economic contribution of the household.

Reducing means investing massively in infrastructure (water, energy, transportation) to free up time on chores, as recommended by the literature on time poverty.

Redistributing is the most transformative part: encouraging male co-responsibility through incentive policies and building a public care system (daycare centers, elderly care) so that the "diamond of care" modeled by Budlender (2010) no longer rests on a single, always female, and always fragile pillar.

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