



# Estimation of Marginal Propensity to Consume (MPC) of Female Domestic Workers: A Case Study of Surat City

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## I. INTRODUCTION

Every day, across the nation, millions of domestic workers — most of whom are women — care for the things families value the most: children, homes, parents and neighbors. The care they provide makes all other work possible for millions of families.

Domestic workers provide care with dignity and respect. Domestic work makes it possible for seniors and people with disabilities to live with dignity at home. Domestic workers make it possible for many busy families to provide safe, reliable care for their children and their homes.

9 January 2013 – At least 52 million people around the world – mainly women – are employed as domestic workers, according to the first research of its kind conducted by the International Labour Organization (ILO). They account for 7.5 per cent of women's wage employment worldwide and a far greater share in some regions, particularly Asia and the Pacific and Latin America and the Caribbean.

A **domestic worker** or **domestic helper** is a person who works within the employer's household. Domestic helpers perform a variety of household services for an individual or a family, from providing care for children and elderly dependents to housekeeping, including cleaning and household maintenance. Other responsibilities may include cooking, laundry and ironing, shopping for food and other household errands. Such work has always needed to be done but before the Industrial Revolution and the advent of labour saving devices, it was physically much harder. Some domestic helpers live within their employer's household.

## II. TYPES OF DOMESTIC WORKERS

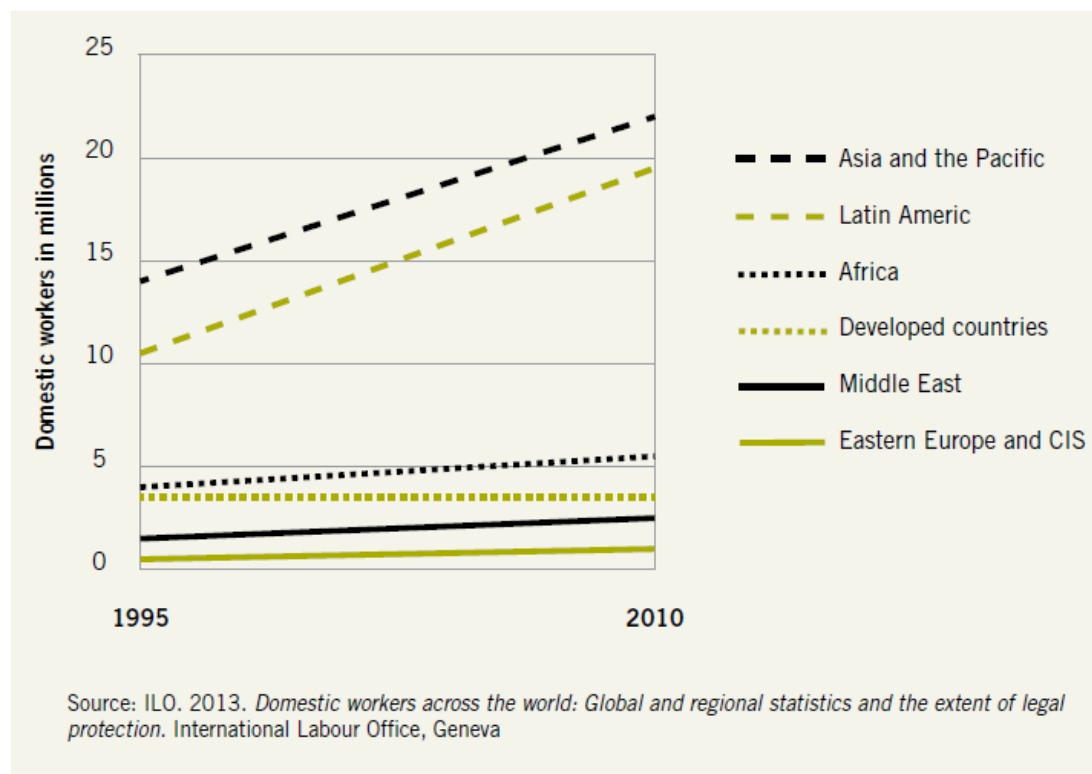
Types of domestic workers, based on the hours of work and nature of employment relationship can be:

1. Part-time worker i.e. worker who works for one or more employers for a specified number of hours per day or performs specific tasks for each of the multiple employers every day.
2. Full-time worker i.e. worker who works for a single employer every day for a specified number of hours (normal full day work) and who returns back to her/his home every day after work.
3. Live-in worker i.e. worker who works full time for a single employer and also stays on the premises of the employer or in a dwelling provided by the employer (which is close or next to the house of the employer) and does not return back to her/his home every day after work."

## III. A MAJOR AND EXPANDING SECTOR

Domestic workers comprise a significant segment of employed workers worldwide. ILO estimates put the number of domestic workers, aged 15 years and older, at 67 million globally as of 2013 (ILO, 2015c). This is a conservative number based on national official employment statistics. Many more may be performing domestic work for households, within an employment relationship, but escape official labour force and employment surveys and censuses for various reasons (Mehran, 2014).

Graph 1: Number of domestic workers, in millions, by regions, from 1995 - 2010



Domestic workers account for 2 per cent of global labour participation and 4 per cent of total female labour participation. For women, domestic work is an important source of income – as much as 14 per cent of female wage employment in Latin America and 11 per cent in Asia. The Asian and Latin American regions are also the biggest employers of domestic workers (Graph 1).

#### IV. EXTENSION OF WOMEN’S UNPAID WORK; NOT A “REAL JOB”; JOB OF LAST RESORT

Traditionally performed by women and girls in their own households, without formal training and without pay, paid domestic work is often regarded as not being a “real job” or a “real profession”.

There is a perception that the sector is for workers who have been unsuccessful in obtaining other employment or who lack skills and education.

#### V. DOMESTIC WORKERS IN INDIA

Domestic workers, in particular women domestic workers, are a constantly growing section of workers in the informal sector of urban India. The last three decades have seen a sharp increase in their numbers, especially in contrast to male domestic workers (Neetha 2004)

In case of domestic workers, the official figures are less reliable and grossly inadequate, as the domestic work and workers are always under enumerated. It is estimated on the basis of information from several civil societies that there are around 20 million domestic workers employed in India. There are more domestic workers employed in urban areas than the rural areas. According to International Labour Organization (ILO, 2010), of total domestic workers in the country in 2009-10, more than two thirds lived in urban India and 57 per cent of them are women.

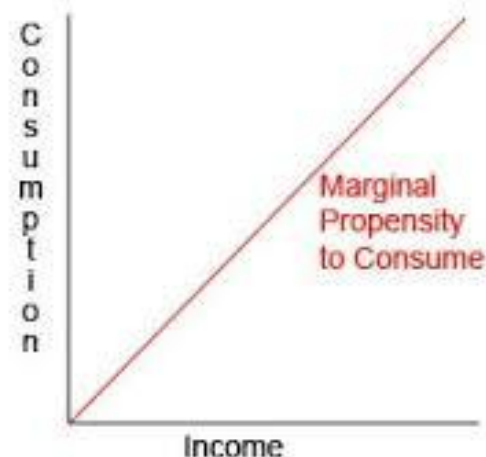
#### VI. WHAT IS THE 'MARGINAL PROPENSITY TO CONSUME - MPC

In economics, the marginal propensity to consume (MPC) is a metric that quantifies induced consumption, the concept that the increase in personal consumer spending (consumption) occurs with an increase in disposable income (income after taxes and transfers). The proportion of disposable income which individuals spend on consumption is known as propensity to consume. MPC is the proportion of additional income that an individual consumes. For example, if a household earns one extra rupee of disposable income, and the marginal propensity to consume is 0.65, then of that rupee, the household will spend 65 paisa and save 35 paisa. Obviously, the household cannot spend more than the extra rupee (without borrowing).

The marginal propensity to consume (MPC) is the proportion of an aggregate raise in pay that a consumer spends on the consumption of goods and services, as opposed to saving it. Marginal propensity to consume is a component of Keynesian macroeconomic theory and is calculated as the change in consumption divided by the change in income. MPC is depicted by a consumption line- a sloped line created by plotting change in consumption on the vertical y axis and change in income on the horizontal x axis.

The marginal propensity to consume (MPC) is equal to  $\Delta C / \Delta Y$ , where  $\Delta C$  is change in consumption, and  $\Delta Y$  is change in income.

Given data on household income and household spending, economists can calculate households' MPC by income level. This calculation is important because MPC is not constant; it varies by income level. Typically, the higher the income, the lower the MPC, because as wealth increases, so does the ability to satisfy needs and wants, so each additional income is less likely to go toward additional spending.



## VII. REVIEW OF LITERATURE

**Amit Kunda (2007)** had focused that young married women coming from distant places with higher number of children, with low and uncertain income of other family members, prefer part-time domestic work to supplement their family income. Through Engel's ratio it is identified that the standard of living of the full-time domestic workers is slightly better than that of the part-time domestic workers. Most of them are deprived of overtime pay, public holidays, and timely payment of salaries. The West Bengal Government also deprives them of the benefit of the State-assisted Scheme of Provident Fund for unorganized workers.

**Uma Datta (1974)** had determine the savings potential of urban and rural households in India and in the process determine the possible savings and consumption functions separately for urban and rural areas. Four different possible functions have been used for determining the savings behaviour of the households both at the aggregate level and at the per capita level. To understand the consumption behaviour of these households, the long-run and the short run marginal propensities to consume and the marginal propensities to consume out of 'permanent' or 'normal' income and 'transitory' income have been worked out. For the urban sector none of these give encouraging enough results and the analysis has been extended to examine whether other factors like prices and household assets are of any significance.

## VIII. OBJECTIVES

1. To estimate the Marginal Propensity to Total Consumption Expenditure.
2. To estimate the Marginal Propensity to Total Food Consumption Expenditure.
3. To estimate the Marginal Propensity to Total Non-Food Consumption Expenditure.

## IX. METHODOLOGY

The present study is based on the primary data which is collected by the primary survey. For the study purpose the researcher has selected about 150 domestic women workers and collected the data regarding monthly family income and consumption expenditure on food and non food items for the period of 2014 to 2015. The simple linear regression model has been used to estimate the marginal propensity to consume.

In this study, the researcher has tried to estimated the Marginal Propensity to Consume for the Domestic Women Workers in the Surat.

### Analysis

Regression Model 1: Line of Regression of Monthly Consumption Expenditure on Monthly Family Income

$$MTCE = \alpha + \beta (MFI) + ei$$

Here, MFI = Monthly Family Income (Dependent Variable)

MTCE = Monthly Total Consumption Expenditure (Independent Variable)

Intercept

= Co-efficient (MPC)

= Error Term

**Result Model 1: Line of Regression of Monthly Consumption Expenditure on Monthly Family Income**

Estimated Model	t-value of $\beta_1$	Sig.-value	R	R <sup>2</sup>
<b>MTCE = 1500.24 + 0.957 (MFI) +</b>	<b>76.85</b>	<b>0.000</b>	<b>0.988</b>	<b>0.976</b>

On the basis of above results one can say that for the domestic workers in Surat city, the value of  $\beta_1$  (MPC) is found to be 0.957 for the financial year of 2014-2015. The value of MPC i.e. 0.96 indicates that one rupee increase in monthly family income raises monthly total consumption expenditure by 96 paisa. The value of intercept (  $\alpha = 1500$ ) indicates the fixed monthly total expenditure.

The value of R<sup>2</sup> is found to be 0.976, which is very high, this indicates that about 98 percentage of changes in monthly total consumption expenditure is due to changes in the total family income of the domestic female workers.

**Regression Model 2: Line of Regression of Monthly Total Food Consumption Expenditure on Monthly Family Income**  
**MTFCE =  $\alpha + \beta$  (MFI) + ei**

Here, MFI = Monthly Family Income (Dependent Variable)

MTFCE = Monthly Total Food Consumption Expenditure (Independent Variable)

- Intercept
- = Co-efficient (MPC)
- = Error Term

**Result Model 2: Line of Regression of Monthly Consumption Expenditure on Monthly Family Income**

Estimated Model	t-value of $\beta_1$	Sig.-value	R	R <sup>2</sup>
<b>MTFCE =</b>	76.85	0.000	0.648	0.420

On the basis of above results, the researcher found that for the domestic workers in Surat city, the value of  $\beta_1$  (MPC) is 0.148 for the financial year of 2014-2015, which shows that one rupee increase in monthly family income raises monthly total food consumption expenditure by 15 paisa. The value of intercept (  $\alpha = 2994$ ) indicates the fixed monthly total expenditure on food items.

The value of R<sup>2</sup> is found to be 0.65, which is, moderately high, this indicates that about 65 percentage of changes in monthly total Food consumption expenditure is due to changes in the total family income of the domestic female workers.

**Regression Model 3: Line of Regression of Monthly Total Non-Food Consumption Expenditure on Monthly Family Income**  
**MTNFCCE =  $\alpha + \beta$  (MFI) + ei**

Here, MFI = Monthly Family Income (Dependent Variable)

MTNFCCE = Monthly Total Non-Food Consumption Expenditure (Independent Variable)

- Intercept
- = Co-efficient (MPC)
- = Error Term

**Result Model 3: Line of Regression of Monthly Consumption Expenditure on Monthly Family Income**

Estimated Model	t-value of $\beta_1$	Sig.-value	R	R <sup>2</sup>
<b>MTNFCCE = -4</b>	44.24	0.000	0.964	0.930

On the basis of above results, the researcher found that for the domestic workers in Surat city, the value of  $\beta_1$  (MPC) is 0.809 for the financial year of 2014-2015, which shows that one rupee increase in monthly family income raises monthly total non-food consumption expenditure by 81 paisa. The value of intercept (  $\alpha = -4495$ ) indicates the fixed monthly total expenditure on non-food items.



The value of  $R^2$  is found to be 0.96, which is very high and indicates that about 96 percentage of changes in monthly total non food consumption expenditure is due to changes in the total family income of the domestic women workers.

## X. CONCLUSIONS

The results of the present study clearly shows that, the marginal propensity to consume for the domestic women workers for the financial year 2014-15 has been quietly high (i.e. 0.96), which indicated that this section of the society would not able to save more due to their limited income. The researcher has also observed that the MPC for the non-food items has been registered to be 0.81, which shows that about 81 paisa, out of change in one rupee income is spent on the non-food items.

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