

# Valuation of Unpaid Household Service Work in Bangladesh

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22 July 2025



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# Introduction

- Economists have long pointed out the pitfalls that could arise when unpaid household work is excluded from macroeconomic analyses.
- Economic statistics often overlook unpaid household work, presenting challenges like defining household activities and determining suitable market prices.
- Placing monetary values on activities carried out in the household is, however, not straightforward since the work is unpaid and often produces services.
- The SNA 2008 defines economic production within boundaries, including goods and services for external use and certain domestic services.
- The SNA production boundary encompasses various types of unpaid work but excludes own-use production for household consumption.
- However, assessing the contributions of unpaid household work towards the economy is important as this work may enable economic activities to continue.

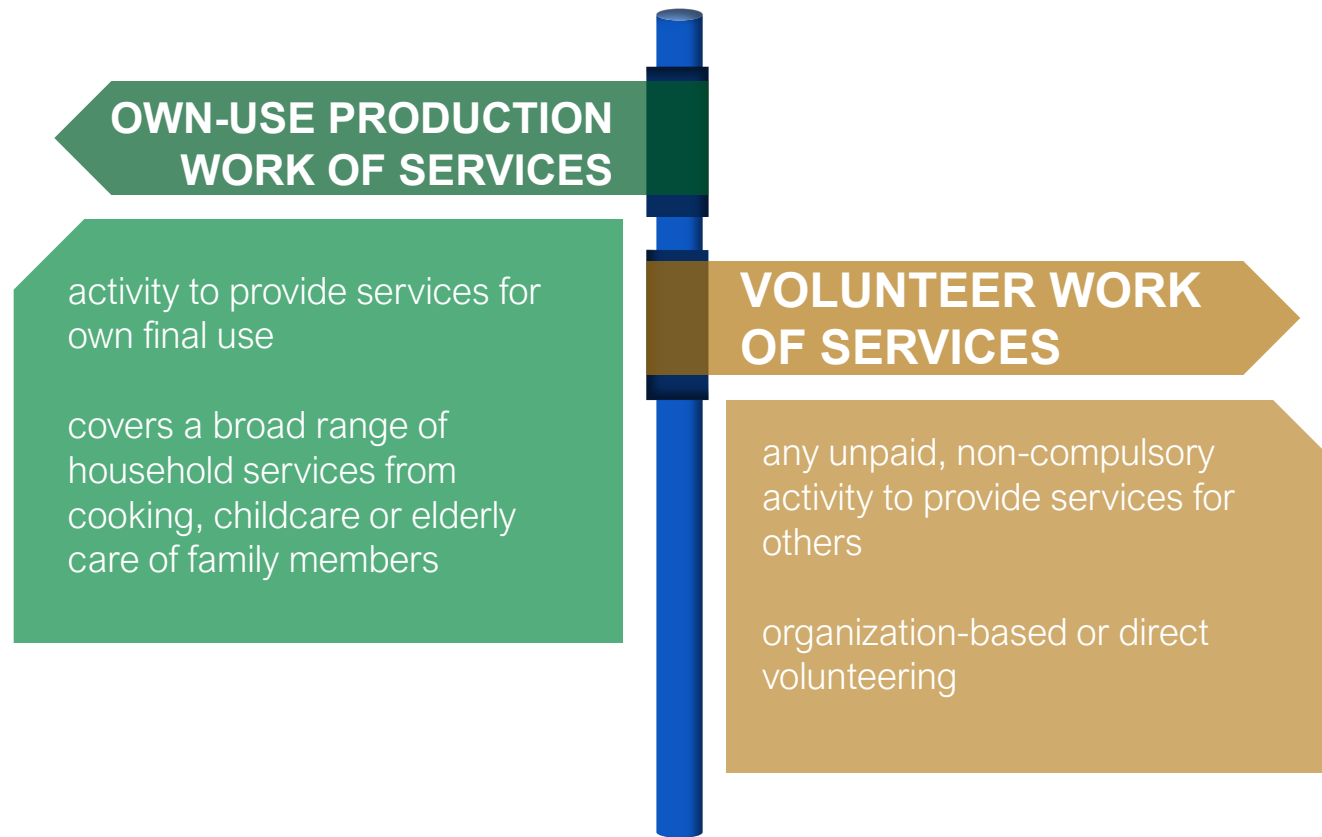
# Forms of Work Framework and Relationship to SNA 2008

<i>Intended destination of production</i>	<i>for own final use</i>		<i>for use by others</i>					
<i>Forms of work</i>	<b>Own-use production work</b>		<b>Employment (work for pay or profit)</b>	<b>Unpaid trainee work</b>	<b>Other work ac- tivities*</b>	<b>Volunteer work</b>		
	of ser- vices	of goods				in market and non- market units	in household producing goods ser- vices	
<i>Relation to 2008 SNA</i>			<i>Activities within the SNA production boundary (restricted production boundary)</i>					
			<i>Activities inside the General production boundary (general production boundary)</i>					

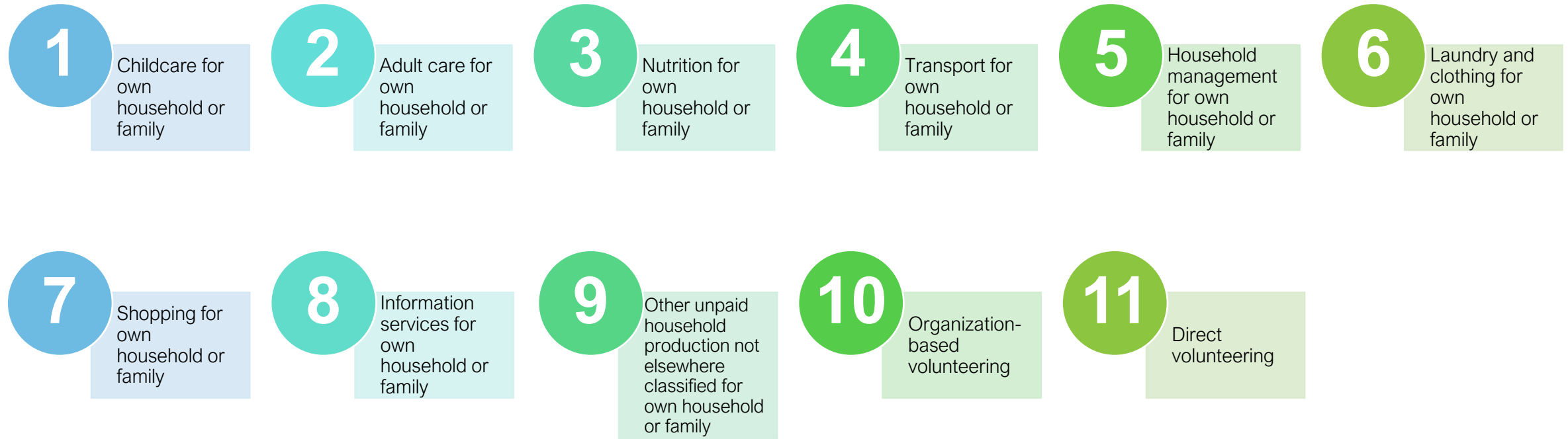


Source: ILO (2013) as cited in UNECE manual (2017)

# Definitions



# Scope of Household Activities



# Bangladesh Context

- In 2021, with support from UN Women's *Women Count* programme, the Bangladesh Bureau of Statistics (BBS) conducted a Time-Use Survey (TUS) – a timely undertaking as the COVID-19 pandemic unraveled a care crisis.
- The previous Parliamentary Standing Committee for the Ministry of Planning requested the creation of a Household Production Satellite Account (HPSA) to measure the economic value of unpaid work.
- The country has set a target to reduce women's time spent on unpaid care and domestic work to 20% for women and increase men's involvement/engagement to 10% by 2030, against SDG indicator 5.4.1.
- Studies in Bangladesh (Khatun et al. 2015; Biswas and Ruma 2007) value unpaid work using methods like replacement cost and wage rates, showing significant contributions to GDP.
- This work aims to contribute to the existing literature by using updated data from the Labor Force Survey (LFS) and Time Use Survey (TUS) to improve estimates and value unpaid domestic and care work in Bangladesh.



# Methodology





# Methodology

## BBS Thematic Working Group and HPSA Team

- A dedicated **Thematic Working Group (TWG)** of 14 BBS and SID officials under the leadership of the **Director General** and chairpersonship of the **Director, Demography and Health Wing** was constituted in January 2024.
- Assigned to three thematic areas: **employment; unpaid domestic and care work; and unpaid production of goods and System of National Accounts (SNA) compliance**, the TWG met on a weekly basis since January and focused on data processing, consolidation, and methodological approaches for validating the number of hours and average hourly wage per occupation by sex, sharing progress updates, and addressing any and all bottlenecks.
- A **7-member UN Women-ADB Bangladesh HPSA team** (under the leadership of Cecilia Tinonin, UN Women Regional Office and Mahinthan Joseph Mariasingham, ADB) provided technical guidance and statistical capacity support to the TWG throughout the exercise.

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# Methodology

## INPUT APPROACH

valuation based on the inputs needed to produce the services, namely, labor inputs, consumption of fixed capital consumption, net indirect taxes and intermediate consumption

OPPORTUNITY COST APPROACH

REPLACEMENT COST APPROACH

## OUTPUT APPROACH



Approaches to wage estimation

# Methodology

## *Opportunity Cost Approach*

Values the housework being done using a person's wage rate on the labor market (i.e., the market income foregone due to spending time on unpaid household activities)

Assumption: time spent in one sector is at the expense of time spent in the other

A common criticism of this method is that it results in significant valuation differences for the same task, driven by wage disparities between individuals.

# Methodology

## *Replacement Cost Approach – Generalist and Specialist*

Uses the market wage rates from similar paid work occupations to value total housework time

Assumption: As households decide to perform housework themselves, they save money.

- The amount of money saved (i.e., value of household doing the work) is the cost of paying for the same services in the market or engaging someone else (outside the household) to perform the activity.

Two approaches: **specialist method** and **generalist method**

- Generalist jobs: General Housekeeper, Domestic Helper
- Specialist jobs: Chef, Teacher, Nurse





# Methodology

## *Replacement Cost Approach — Hybrid*

Valuation of household activities uses the generalist method, and then for specialist method for more complex tasks, such as childcare and adult care

Assumption: Household members and housekeepers may or may not be equally efficient in carrying out domestic tasks.

- For instance, a housekeeper may clean more efficiently than a household member multitasking with childcare but may sacrifice thoroughness for speed.

It attempts to better represent the actual outside employment a household would get in to complete activities categorized as household work.

# Data Sources

## 2021 Time Use Survey

- The Bangladesh Bureau of Statistics conducted the Time Use Survey (TUS) in 2012 and 2021.
- The 2021 TUS used household questionnaires and time diaries, aligning activities with the International Classification of Activities for Time Use Statistics 2016 (ICATUS 2016) for cross-country comparisons.



### Major divisions used in the 2021 Time Use Survey

Major division	Activity
1	Employment and related activities
2	Production of goods for own final use
3	Unpaid domestic services for household and family members
4	Unpaid caregiving services for household and family members
5	Unpaid volunteer, trainee and other unpaid work
6	Learning
7	Socializing and communication, community participation and religious practice
8	Culture, leisure, mass-media and sports practices
9	Self-care and maintenance

# Data Sources

## 2021 Time Use Survey

- The 2021 TUS categorized findings by sex and age group, covering all administrative divisions in Bangladesh and collecting primary data through face-to-face interviews from January 24 to April 12, 2021.
- Men spent less time on household work compared to 2012, while women spent significantly more time on unpaid domestic and care work, indicating a widening gender disparity.

### Average time spent per day (in hours) in doing household\* work, by sex.

Time use surveys	Employed Male	Unemployed male	Employed Female	Unemployed Female
2012	1.4	1.2	3.6	6.2
2021	0.8		5.9	

*Note:* \*The 2012 Time Use Survey defines household work as the type of unpaid household-based activity usually performed by household members (e.g., providing unpaid domestic services for own final use within household and providing unpaid caregiving services to household members).

*Sources:* Bangladesh Bureau of Statistics 2012 and 2021 Time Use Surveys



# Data Sources

## 2022 Labor Force Survey

- The Labor Force Survey (LFS) in Bangladesh is conducted every 4 to 5 years since 1980.
- Derived from the International Standard Classification of Occupations (ISCO) 2008, the Bangladesh Standard Classification of Occupations (BSCO) 2020 provides detailed occupational categories, thus facilitating in-depth analysis of labor market trends.



### Major groups used in the 2022 Labor Force Survey

Major group	Occupation
1	Managers
2	Professionals
3	Technicians and associate professionals
4	Clerical support workers
5	Service and sales workers
6	Skilled Agricultural, Forestry and Fisheries workers
7	Craft and related trade workers
8	Plant and machine operators and assemblers
9	Elementary occupations
10	Other occupations



# Data Sources

## *Some Considerations*

### **Economically Active Persons**

- As recommended by the UNECE Guide (2017) and in alignment with ILO guidelines, the estimations considered only economically active persons—respondents aged 15 years and above who are capable of supplying labour to produce economic goods and services, as defined by the SNA, within a specified reference period.

### **Labor Force Survey 2022**

- The response rate for average wage and hours worked was low for elementary-level occupation codes (disaggregated at 4-digit level). Therefore, estimations were conducted at a more aggregated level (at 2-digit level) of occupation codes.
- The 2021 average hourly wage was derived by backcasting LFS data using the national wage rate index 2021. This index, with the base year of 2010–11, tracks nominal wages of low-paid skilled and unskilled labour across various sectors, covering gross wages and salaries for 44 occupational groups disaggregated by gender.



# Data Sources

## *Some Considerations*

### **Time Use Survey 2021**

- Simultaneous activities were not taken into consideration in valuing unpaid work
- Since the survey was conducted during COVID-19, it was expected that the number of hours spent on unpaid domestic and care work is on the high-end.

### **Limitation to estimate the full satellite account**

- Latest Supply and Use Tables of Bangladesh was prepared in 2011.
- Asset information needed for the computation of consumption of fixed capital is scarce.
- Given these limitations, the current initiative is focused on the estimation of labor input of unpaid domestic and care work.



# Estimation

## ICATUS-BSCO Mapping

ICATUS 2-digit	ICATUS Description	BSCO 2-digit	BSCO 2-digit Description	
31	Food and meals management and preparation	34	Legal, Social, Cultural and Related Associate Professionals	
		43	Numerical and Material Recording Clerks	
		51	Personal Service Workers	Generalist job
		52	Sales Workers	
		75	Food Processing, Wood Working, Garment and Other Craft And Related Trades Workers	
32	Cleaning and maintaining of own dwelling and surrounding	91	Cleaners and Helpers	Generalist job
		94	Numerical and Material Recording Clerks	
		51	Personal Service Workers	
		91	Cleaners and Helpers	
33	Do-it-yourself decoration, maintenance and repair	96	Refuse Workers and Other Elementary Workers	
		71	Building and Related Trades Workers, Excluding Electricians	
		72	Metal, Machinery and Related Trades Workers	
		74	Electrical and Electronics Trades Workers	
		75	Food Processing, Wood Working, Garment and Other Craft And Related Trades Workers	
36	Pet care	93	Labourers In Mining, Construction, Manufacturing and Transport	

ICATUS 2-digit	ICATUS Description	BSCO 2-digit	BSCO 2-digit Description
34	Care and maintenance of textiles and footwear	73	Handicraft and Printing Workers
		75	Food Processing, Wood Working, Garment and Other Craft And Related Trades Workers
		81	Stationary Plant and Machine Operators
		91	Cleaners and Helpers
		33	Business and Administration Associate Professionals
35	Household management for own final use	41	General and Keyboard Clerks
		43	Numerical and Material Recording Clerks
		83	Drivers and Mobile Plant Operators
		93	Labourers In Mining, Construction, Manufacturing and Transport
		96	Refuse Workers and Other Elementary Workers
36	Pet care	51	Personal Service Workers



# Estimation

## ICATUS-BSCO Mapping

ICATUS 2-digit	ICATUS Description	BSCO 2-digit	BSCO 2-digit Description
37	Shopping for own household and family members	14	Hospitality, Retail and Other Services Managers
		33	Business and Administration Associate Professionals
		51	Personal Service Workers
		91	Cleaners and Helpers
38	Travelling, moving, transporting or accompanying goods or persons related to unpaid domestic services for household and	51	Personal Service Workers
		83	Drivers and Mobile Plant Operators
		93	Labourers In Mining, Construction, Manufacturing and Transport
		96	Refuse Workers and Other Elementary Workers
41	Childcare and Instruction	13	Production and Specialized Services Managers
		22	Health Professionals
		23	Teaching Professionals
		34	Legal, Social, Cultural and Related Associate Professionals
42	Care for dependent adults	53	Personal Care Workers
		13	Production and Specialized Services Managers
		22	Health Professionals
		24	Business and Administration Professionals
		26	Legal, Social and Cultural Professionals

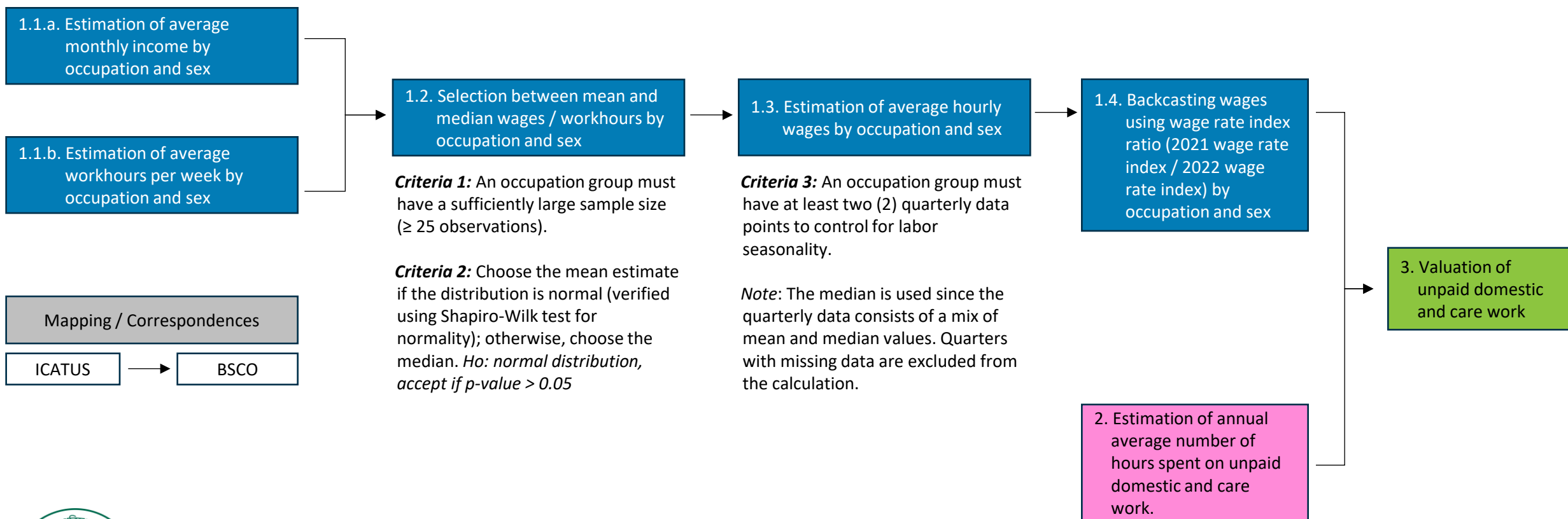
ICATUS 2-digit	ICATUS Description	BSCO 2-digit	BSCO 2-digit Description
42	Care for dependent adults	34	Legal, Social, Cultural and Related Associate Professionals
		41	General and Keyboard Clerks
		53	Personal Care Workers
43	Help to non-dependent adult's household members	26	Legal, Social and Cultural Professionals
		53	Personal Care Workers
44	Travelling and accompanying goods or persons related to unpaid caregiving services for household members	41	General and Keyboard Clerks
		51	Personal Service Workers
		53	Personal Care Workers
		83	Drivers and Mobile Plant Operators
		93	Labourers In Mining, Construction, Manufacturing and Transport
49	Other activities related to unpaid caregiving services for household and family members	96	Refuse Workers and Other Elementary Workers
		51	Personal Service Workers
		91	Cleaners and Helpers





# Estimation

## Flowchart of the Valuation Process



# Estimation

## Process and Template

- Preliminary step involves linking the TUS with the LFS, mapping activities to corresponding occupations and estimating average hourly wages for each occupation.
- The estimation process calculates imputed compensation by multiplying total hours spent per activity by average hourly wages adjusted for wage rate indices, providing a simplified template for valuation.

**Simplified estimation template**

Time Use Survey 2-digit group code and description (1)	Bangladesh Standard Occupation 4-digit code and description (2)	Average time spent (in hours) on specific activity category		Average hourly wage in the equivalent occupation		Valuation of unpaid domestic and care work		
		Male (3)	Female (4)	Male (5)	Female (6)	Male (7) = (3)*(5)*2021 male population	Female (8) = (4)*(6)*2021 female population	Total (9) = (7) + (8)
Activity 31								
...								
Activity 49								
TOTAL								

**Thank you.**

