

# Measuring Participation in Own-Use Production of Goods in a Census

## *Select Topics in International Censuses*<sup>1</sup>

Released November 2022

### INTRODUCTION

Participation in own-use production of goods is a new core topic for the 2020 round of population and housing censuses. Countries should consider collecting information on the number of people engaged in work on the own-use production of goods (especially foodstuffs) if it is an important livelihood strategy for a substantial part of the population.

This technical note offers a description of recommendations on how to measure multiple productive activities within a reference period following standards set by the 19th International Conference of Labour Statisticians (ICLS). It emphasizes measurements of own-use production of goods. Additionally, it highlights the importance of these changes for collecting data that allows for analysis of gender gaps and participation of working children in all forms of work.

### WORK, EMPLOYMENT, AND OWN-USE PRODUCTION OF GOODS

In 2013, the 19th ICLS Resolution Concerning Statistics of Work, Employment, and Labor Underutilization set a new framework in labor statistics. This resolution added the concept of work that included all paid and unpaid productive activities, and narrowed the definition of employment to work performed for pay or profit. People working in own-use production of goods are those above the minimum age who, during a reference period, performed at

<sup>1</sup> This technical note is part of a series on Select Topics in International Censuses (STIC) that explores matters of interest to the international statistical community. The U.S. Census Bureau helps countries improve their national statistical systems by engaging in capacity building to enhance statistical competencies in sustainable ways. Any views expressed are those of the author(s) and not necessarily those of the Census Bureau.

least 1 hour of any activity to produce goods mainly for final use or consumption by the household or family members (United Nations, 2017).

The main objectives of the new framework are to increase visibility of all forms of work, address gender biases in previous measures of employment and economic activity, offer a wider range of statistics on paid and unpaid work, and engagement with the labor market.<sup>2</sup>

The *Principles and Recommendations for Population and Housing Censuses, Revision 3* (United Nations, 2017) guidelines on economic characteristics are aligned with current ICLS standards and are consistent with the System of National Accounts (SNA) 2008, which allows full integration between work and production statistics.

International guidelines recommend the inclusion of questions that identify all forms of work and specifically on own-use production of goods (but not services) that are considered within the SNA production boundary (Figure 1).

One of the main new features of the current framework of work statistics relevant to the agricultural sector is the difference between people in employment and people in own-use production work, particularly those engaged in the production of agricultural goods. Own-use production of goods for final use is considered work, but not employment as those who engage in this productive activity do not receive pay or profit and are no longer counted in the labor force as they were in the previous standard.

<sup>2</sup> Refer to "Measuring Work and Labor Market Participation in a Census" at <[www.census.gov/content/dam/Census/programs-surveys/international-programs/stic/measuring-work.pdf](http://www.census.gov/content/dam/Census/programs-surveys/international-programs/stic/measuring-work.pdf)>.

Figure 1.

## Forms of Work and the System of National Accounts: 2008

Intended destination of production	For own final use		For use by others					
			For pay or profit		Not for pay or profit			
Forms of work	Own-use production work of . . .		Employment (included in labor force)	Unpaid trainee work	Other work activities	Volunteer work		
	Services	Goods				In market and nonmarket goods	In household producing	
							Goods	Services
Relation to 2008 SNA	Activities within the SNA production boundary					Activities inside the SNA general production boundary		

Note: SNA is System of National Accounts.

Source: United Nations, reproduced with modifications from *Principles and Recommendations for Population and Housing Censuses, Revision 3, 2017*.

## KEY CONCEPTS IN OWN-USE PRODUCTION OF GOODS

### Reference Period

Measures of work are tied to activities performed during a short reference period of 1 week. A person is considered to have engaged in a form of work when they performed the work for at least 1 hour during the last week. For example, if a young woman worked for at least 1 hour in the household plot to produce food for her family consumption, she is classified as a worker in own-use production of goods.

### Age Limit

Information should be collected for any type of work performed by those ages 15 and over; an upper age limit is not recommended. However, countries interested in measuring child labor and working children should reduce the age limit to 5. Children might participate in work on own-use production of goods, if in the last week they worked in the family plot for at least 1 hour to produce foodstuff for family consumption.

### Intended Use of Output

The 19th ICLS Resolution specifies that the separation between own-use production work and employment should be based on the intended destination of output. Based on this definition, farmers are required to form an expectation about the eventual use of their agricultural output (for household consumption or for sale) at the time of the census even if they are still working on their plots and before they consume or sell their products.

### Defining a Threshold Between Own-Use and Market-Oriented Goods

Summarizing the share of agricultural output for own-use or for sale requires a threshold that defines at which portion the agricultural output destined for sale becomes large enough to classify the agricultural activity as employment instead of work. The 19th ICLS Resolution

emphasis on “mainly intended for sale” suggests a threshold of at least 50 percent of total farm output.

### Unit of Data Collection for the Intended Destination of Output

Another consideration is the unit at which the intended destination of agriculture output is to be measured. For census purposes, the International Labour Organization (ILO) recommends the activity-level approach, where information is collected on the intended use of the output produced by each eligible household members’ activities in agriculture.

### Intersection Between Labor Force Status and Work: The Priority Rule

Each person of working age can be independently classified by their labor force status or type of work. The priority rule refers to classifications in labor force status as employed, unemployed, and out of the labor force. The priority rule defines that employment has precedence to all other activities, while unemployment has precedence over being outside the labor force.

A person’s status in the labor force can be classified by their **degree of labor market attachment** or their **main activity or situation**.<sup>3</sup> For countries where **own-use agriculture work** is relevant, a third approach starting with a question on “own-account agriculture or fishing” can be considered.

### Starting With Own-Account Agriculture Work

This approach captures all people engaged in agriculture or fishing for own consumption as primary or secondary activity and differentiates between employment and own-use production of goods.

Figure 2 shows the sequence of questions following the own-account agriculture approach and Box 1 contains the

<sup>3</sup> These approaches are described in “Measuring Work and Labor Market Participation in a Census” at <[www.census.gov/content/dam/Census/programs-surveys/international-programs/stic/measuring-work.pdf](http://www.census.gov/content/dam/Census/programs-surveys/international-programs/stic/measuring-work.pdf)>.

Box 1.

### Model Questions to Identify Own-Account Work in Agriculture

C1. Last week, from (DAY) to (DAY), did [NAME] do any of the following activities (...) on own-account or help the family with...?

1. Farming or growing food in a plot or kitchen garden.
2. Raising or tending farm animals.
3. Fishing, fish farming, collecting shellfish.
4. Hunting or gathering wild foodstuff.

C2. Are the farming, animal, or fishing products that [NAME] worked on intended...?

1. Only for sale.
2. Mainly for sale.
3. Mainly for family consumption.
4. Only for family consumption.

C2b. What are the main (products/animals) that [NAME] (is/are) working on?

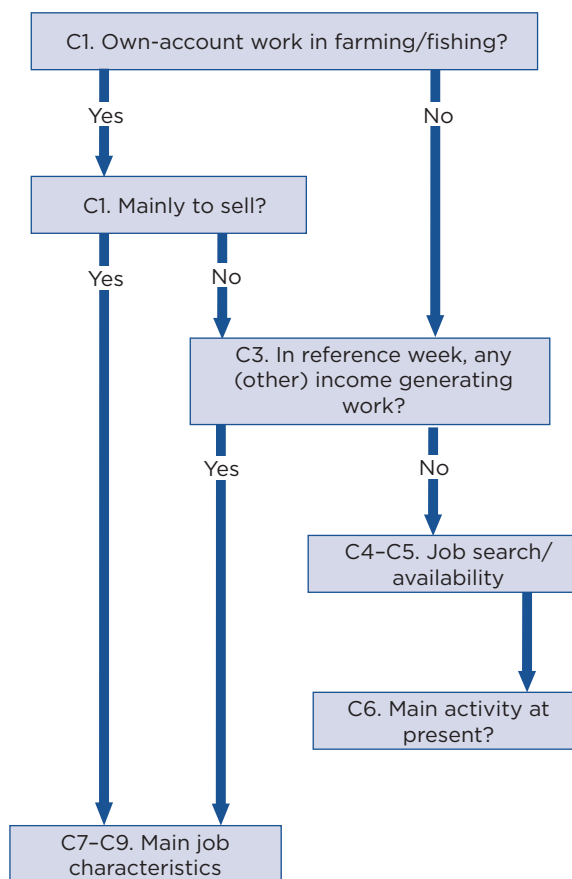
(WRITE MAIN GOODS —e.g., [maize, rice, apples, oranges, cattle, sheep, fresh-water fish...])

#### OPTIONAL

C2c. Last week, how many hours did [NAME] spend working on this activity?

Source: International Labour Organization, reproduced from "ILO Model Questions on Economic Characteristics for Population Censuses," 2020.

Figure 2.  
**Flow Chart for Starting With Own-Account Agriculture Work**



Source: International Labour Organization, reproduced from "ILO Model Questions on Economic Characteristics for Population Censuses," 2020.

corresponding ILO model questions for censuses. The first question asks about participation in agricultural or fishing activities, followed by questions on main intended use of agriculture output and a list of output produced.

Questions in Box 1 are followed by a battery of questions to identify status in the labor force, main activity, occupation, industry, and status in employment. Optional questions on working time, place of work, and institutional sector of employment can be added to the module on economic characteristics.<sup>4</sup>

### Multiple Forms of Work

An important evolution associated with the 19th ICLS Resolution standards is the recognition that people may be engaged in one or more forms of work for at least 1 hour for each activity during the same reference period.<sup>5</sup>

<sup>4</sup> More information on these measures is available at <[www.census.gov/content/dam/Census/programs-surveys/international-programs/stic/measuring-work.pdf](http://www.census.gov/content/dam/Census/programs-surveys/international-programs/stic/measuring-work.pdf)>.

<sup>5</sup> An activity performed during a given time period may not be considered in different forms of work at the same time.

In countries where own-use production of goods is a prevalent activity, using the “start with own-account agriculture work” approach allows for the measurement of multiple forms of work and a better understanding of how people and households could have engaged in multiple activities during the same reference period. Table 1 offers a fictitious example highlighting the intersection of work in own-use production of goods and employment and other forms of work at the household level and their labor force status.

### Working Time

The 13th ICLS Resolution supported a one-dimensional view of working time in employment. The 19th ICLS standards include additional unpaid working burden. For example, the starting with own-use production approach includes an optional question on working time in farming, animal, or fishing products (refer to C2c in Box 1). These measurements of working time in employment work and in own-use production work allow for the identification

Table 1.

### Distribution of Household Members by Their Reported Forms of Work Using the “Starting With Own-Account Agriculture Work” Approach

Household members	Answered YES to question C1 on agricultural activities	Types of work				Labor force status
		Employment	Own-use production of goods	Unpaid trainee	Volunteer	
1	X	X				Employed
2	X	X	X			Employed
3	X		X	X		Unemployed
4	X		X		X	Out of the labor force

Note: “Household member 3” is classified as unemployed because he or she looked for a job in the last 4 weeks and was available for employment, while “household member 4” did not look for a job or was not available for employment.

Source U.S. Census Bureau, 2022.

of gender disparities across paid and unpaid productive activities.

#### Activities Included in the Production of Goods

Own-use production of goods covers a diverse range of activities performed by people to produce goods for their own household or family consumption (Box 2). Many of these activities, predominantly carried out by women, are less frequently captured in statistics.

Subsistence foodstuff producers are defined as people whose primary or secondary activities are related only to the production of food for own-use. Subsistence foodstuff producers are working-age people who, during the reference period, performed any activity to produce or process for storage, goods from agriculture, fishing, or hunting and gathering, as foodstuff that contribute to the livelihood of the household or family without hiring workers for pay or profit.

#### MEASURING WOMEN’S PRODUCTIVE ACTIVITIES

As women more often engage in unpaid work than men, the current forms of work framework adopted in the 19th ICLS Resolution allows for greater understanding of the connections and trade-offs between paid work (or employment) and unpaid work (among those, own-use production of goods) for women and men.

Unlike the 13th ICLS Resolution standards, the 19th ICLS Resolution forms of work framework helps to separately capture the participation and scale of working contributions of men and women in employment and own-use production of goods work. This new framework enables analyses of the total amount of hours spent by different groups of individuals for the production of goods for use by others or for their own use (Discenza and Walsh, 2020).

It is important to note that changes made between the 13th ICLS to the 19th ICLS imply that people working in own-use production of goods are no longer classified as employed (unless undertaking some other activity for pay

#### Box 2.

#### Activities Included in the Production of Goods:

- Producing or processing for storage agricultural (crop farming and livestock rearing), fishing, hunting, and gathering products.
- Collecting or processing for storage mining and forestry products, including firewood and other fuels.
- Fetching water from natural and other sources.
- Manufacturing household goods, such as furniture, textiles, clothing, footwear, pottery, or other durables, including boats and canoes.
- Building, extending, or renovating one’s own dwelling or farm buildings.

Source: United Nations, reproduced with modifications from *Principles and Recommendations for Population and Housing Censuses, Revision 3*, 2017.

or profit), while people in nonfarm household enterprises are still classified as employed.

#### MEASURING CHILD LABOR IN OWN-USE PRODUCTION OF GOODS

In many countries, children assist their parents or other family members in subsistence agriculture or other own-use production activities. Depending on the age of the child or the conditions under which the activities are performed, some of the children engaged in own-use production of goods may be considered to be in child labor or working children (Box 3).

#### COMMON DATA COLLECTION ERRORS

Measurement of any form of work can be sensitive to questionnaire design, implementation, and context.

## Underreporting of Work and Employment

According to pilot studies on the implementation of the 19th ICLS Resolution, the types of working activities at greatest risk of undercount are people helping in family businesses or farms, people with casual jobs or jobs with lower average working hours, contributing family workers, own-account workers, and people with low-hour jobs. Women predominantly perform these forms of work, therefore, if not measured correctly, their productive activities and participation in the economy are underestimated.

Training of supervisors and enumerators should highlight the consequences of gender bias. Supervisors and enumerators should not make assumptions about the type of work or labor force status of any members based on their gender or relationship to the household head.

### Self-Report vs. Proxy Response

Studies have shown that in some contexts allowing for proxy reporting when respondents are not available results in significantly lower reporting of employment of wage and self-employment activities, as well as work of children in agricultural settings.

### Adaptation to National Context

Adapting census questions to account for local context and norms can also have significant implications for data quality. Women tend to identify primarily as only engaged in domestic work, because of social and cultural norms that diminish the economic value of contributing family work, as well as the fact that this work was often conducted alongside tasks like cooking, cleaning, and child-care (Benes and Walsh, 2018). Such measurement errors can stem from a combination of cognitive and reporting errors and can be exacerbated by proxy response.

### Measures of Intended Use

Whether the actual use of the agricultural output is the same as its reported intended use is not relevant within the 19th ICLS Resolution framework as the definition is based on the intention at the time the work is performed.

### Seasonality

The timing of data collection can impact respondent reporting on the types of work activities, actual hours worked, and other economic characteristics. For example, major holidays, harvest periods, and seasonality affect agricultural work and seasonally available food sales, among other work activities.

Box 3.

### Definition of Child Labor

**Child labor** refers to the engagement of children in prohibited work or in types of work to be eliminated as socially and morally undesirable. For statistical measurement, children engaged in child labor include all people aged 5 to 17 years who, during a specified time period, were engaged in:

- Worst forms of child labor.
- Employment below the minimum age.
- Hazardous unpaid household services (within the general production boundary).

Child labor excludes permissible light work by children 12–14 years old and work of children 15–17 years old in an activity not designated as worst forms of child labor.

Source: International Labour Organization, “Amending the 18th ICLS Resolution Concerning Statistics on Child Labour in Line With the 19th ICLS Resolution Concerning Statistics of Work, Employment and Labour Utilization,” 2018.

## TABULATIONS AND DISSEMINATION

Cross-tabulations of the population by type of work, particularly employment work and work in own-use production of goods, labor force status, labor underutilization, and participation in other types of work offer new insights about the working-age population of a country. Box 4 lists recommended tables of own-use production of goods.

For participation in own-use production work and for assessments of their contribution to the economy, tabulations should be presented by activity clusters and by specified working-time hour bands.

Box 5 includes a list of recommended tabulations to further understand the association between household composition and the organization of work, which is particularly relevant in rural areas of developing countries.



Box 4.

### Recommended Tables for Own-Use Production of Goods

- Population by participation in own-use production of agriculture/fishing goods, age group, sex, and place of residence.
- Own-use producers of agriculture/fishing goods by age group, sex, and place of residence.
- Own-use producers of agriculture/fishing goods by detailed industry group, age group, sex, and place of residence.
- Own-use producers of agriculture/fishing goods by detailed occupation group, age group, sex, and place of residence.
- Own-use producers of agriculture/fishing goods, by labor force status, age group, sex, and place of residence.
- Own-use producers of agriculture/fishing goods, by labor underutilization category, age group, sex, and place of residence.
- Workers in agriculture/fishing by form of work (employment, own-use production), age group, sex, and place of residence.
- Households with workers in agriculture/fishing by form of work (employment, own-use production), age group, sex, and place of residence.

Source: International Labour Organization, reproduced from "Quick Guide on Measuring Economic Characteristics in the Population Census," 2019.

Box 5.

### Recommended Tables for Looking at the Association of Household Composition and Work

- People in employment by marital status, and by presence of dependents or people requiring care (young children, the elderly, etc.).
- Households by number of working-age members according to their labor force status and main form of work.
- Households without members in employment and households with members who are subsistence foodstuff producers by size, composition, main sources of income, and other relevant economic and social characteristics.

Source: International Labour Organization, reproduced from "Resolution Concerning Statistics of Work, Employment and Labour Underutilization Adopted by the Nineteenth International Conference of Labour Statisticians," 2013.

For continuity purposes, countries should assess whether work in own-use production of goods was included in previous censuses or surveys and labor statistics as employment. National statistical offices should develop and document a clear plan for transitioning to the new standards to ensure comparability of data across time and to communicate the impact of the new definitions on labor market indicators.

## CONCLUSION

This technical note describes measurements of people working in own-use production of goods according to the standards set by the 19th ICLS Resolution and highlights the relevance of these changes for improving measurements of labor market participation. This note also describes the importance of the new standards for measuring participation of women and children in agriculture and summarizes common data collection errors observed in pilot studies applying these new standards.

## Employment Statistics Comparisons

People engaged in any activity to produce goods or provide services for own final use were not classified as employed in the 19th ICLS Resolution (in 2013) but were classified as employed in the 13th ICLS Resolution (in 1982) if production of goods comprised an important contribution to the total consumption of the household. These changes have significant implications for the calculation of labor statistics.

## REFERENCES

- Benes, Elisa M. and Kieran Walsh, “Measuring Unemployment and the Potential Labour Force in Labour Force Surveys: Main Findings From the ILO LFS Pilot Studies,” International Labor Organization, Geneva, 2018, <[www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms\\_627878.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_627878.pdf)>.
- Discenza, Antonio R. and Kieran Walsh, “Closing Gender Data Gaps in the World of Work – Role of the 19th ICLS Standards,” International Labor Organization, Geneva, 2020, <[https://ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms\\_757964.pdf](https://ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_757964.pdf)>.
- International Labour Office, “Amending the 18th ICLS Resolution Concerning Statistics on Child Labour in Line With the 19th ICLS Resolution Concerning Statistics of Work, Employment and Labour Underutilization,” Geneva, 2018, <[www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/meetingdocument/wcms\\_633806.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/meetingdocument/wcms_633806.pdf)>.
- \_\_\_\_\_, “Resolution Concerning Statistics of the Economically Active Population, Employment, Unemployment and Underemployment Adopted by the Thirteenth International Conference of Labour Statisticians,” Geneva, 1982, <[www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-statisticians/WCMS\\_087481/lang--en/index.htm](http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-statisticians/WCMS_087481/lang--en/index.htm)>.
- \_\_\_\_\_, “Resolution Concerning Statistics of Work, Employment and Labour Underutilization Adopted by the Nineteenth International Conference of Labour Statisticians,” Geneva, 2013, <[www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-statisticians/WCMS\\_230304/lang--en/index.htm](http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-statisticians/WCMS_230304/lang--en/index.htm)>.
- International Labour Organization, Department of Statistics, “ILO Model Questions on Economic Characteristics for Population Censuses (Version 1),” Geneva, 2020, <[https://ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms\\_725023.pdf](https://ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_725023.pdf)>.
- \_\_\_\_\_, “Quick Guide on Measuring Economic Characteristics in the Population Census,” Geneva, 2019, <[https://ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms\\_724969.pdf](https://ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_724969.pdf)>.
- United Nations, *Principles and Recommendations for Population and Housing Censuses, Revision 3*, New York, 2017, <[https://unstats.un.org/unsd/publication/seriesM/Series\\_M67Rev3en.pdf](https://unstats.un.org/unsd/publication/seriesM/Series_M67Rev3en.pdf)>.
- United Nations Statistical Commission, 39th Session, “Chapter 6: The Production Account,” Updated System of National Accounts (SNA), New York, 2008, <<https://unstats.un.org/unsd/statcom/doc08/SNA-Chapter6.pdf>>.



**USAID**  
FROM THE AMERICAN PEOPLE



The Select Topics in International Censuses (STIC) series is published by International Programs in the U.S. Census Bureau’s Population Division. The United States Agency for International Development sponsors production of the STIC series, as well as the bilateral support to statistical organizations that inform authors’ expertise. The United Nations Population Fund collaborates on content and dissemination, ensuring that the STIC series reaches a wider audience.