

UNECE Online meetings on measuring poverty and inequality
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Measuring poverty during the COVID-19 pandemic: Experiences from Latin America

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Structure of the presentation

Effects of COVID-19 pandemic on national household surveys

Some considerations on the measurement of income poverty in this context

Expected effect of COVID-19 on regional poverty rates

Effects of COVID-19 on national household surveys

Poverty measurement in Latin America is based on household income measured through employment surveys, living conditions surveys or income and expenditure surveys.

Between March and April 2020, most Latin American countries adopted mandatory quarantines and movement restrictions to contain the spread of the COVID-19 pandemic.

These measures led NSOs to stop the fieldwork of their household surveys and implement telephone interviewing (not used before for these surveys).

Very active regional collaboration to tackle the new challenges.



Knowledge Transfer Network of the Statistical Conference of the Americas

Webpage with information on the continuation of statistical activities during COVID-19 pandemic

<https://rtc-cea.cepal.org/en/conectados-rtc/covid-19-contingency-plans-of-the-national-statistical-offices>

5 webinars on the impact of COVID-19 on household surveys (jointly organized with ILO and Chile NSO)

From a total of 14 webinars, including CPI, National Accounts, etc.

3 ECLAC documents with recommendations:

[Recommendations for the publication of official statistics from household surveys in the context of the coronavirus disease \(COVID-19\) pandemic.](#)

[Recommendations for eliminating selection bias in household surveys during the coronavirus disease \(COVID-19\) pandemic.](#)

Continuity of household surveys after the coronavirus disease (COVID-19) pandemic (forthcoming).

Main recommendations

Conduct telephone surveys using a probabilistic sample, based on the most recent survey sample with available contact information

- Maintains the sampling framework

- For semi-panel surveys, implies that panel rotation is stopped

However,

- Contact information might not be available for all the sample or it might be outdated

- Change of interviewing modality might increase non-response

- Lack of contact or response might be correlated with the phenomena under study

Apply design-based adjustments for the correction of selection and coverage bias

- Adjust sampling weights taking into account the auxiliary information available from the original sample

- Using propensity score and two-stage calibration

If response rates are too low, publish only at the national level, without usual disaggregations

In practice, phone interviewing was successful and allowed the continuity of household surveys

Several countries in the region published employment figures without interruption

In some cases, lack of comparability was assumed immediately (i.e. Mexico)

In other cases, the comparability is yet to be determined

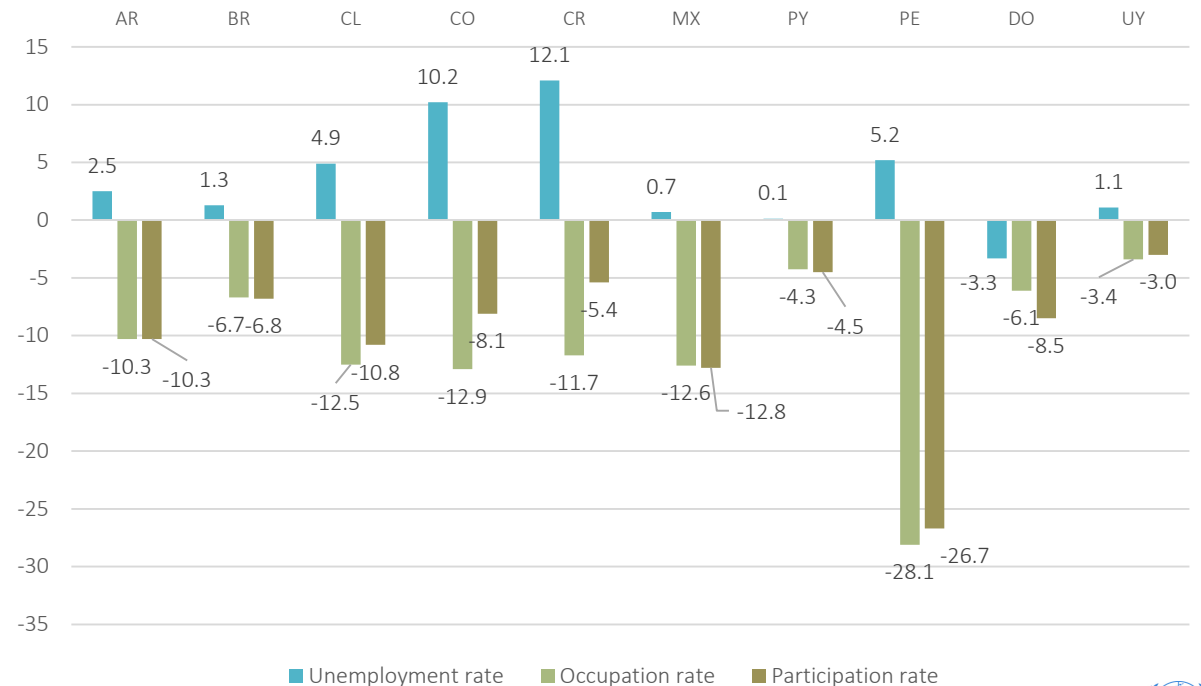
Poverty rates for 2020 have been published only in a couple of countries

Issues with data quality of reported incomes through phone interviewing

Income module or survey not applied continuously

Measurement performed at the end of the year

INTERANUAL CHANGE IN EMPLOYMENT, UNEMPLOYMENT AND PARTICIPATION RATES, APRIL – JUNE (2020/2019)
(percentage points)



Source: ECLAC, based on official country data.

Towards mixed modes of data collection after the pandemic?

Telephone operations proved to be useful and able to be combined with face-to-face operations

Some innovations adopted in recent months should be improved and maintained:

Probabilistic sample of dwellings and face-to-face first visits + subsequent interviews by phone or web

- Reconcile face-to-face and telephone questionnaires to maintain comparability in both collection modes

- Collect contact information and basic household data during cartographic updates

- Adapt the disposition codes of the selected dwellings (neither only telephone nor face-to-face)

Adopt the technical procedures for eliminating coverage and selection biases, as regular processes for household surveys

If possible, evaluate the effect of the change of mode in the collection of the surveys, through parallel operations

Comparability of the measurement of income poverty

Most countries in Latin America implemented cash transfers, to address the decrease in labor income

Household survey questionnaires were adapted to include these transfers

Continuous surveys can measure labor income and transfers for the same reference period

But income modules or surveys implemented in part of the year capture:

Labor income from the past month

Transfers received during the past 12 months

The implicit assumption is that the monthly labor income is representative of the year, and can be added to transfers (and other income sources)

This assumption does not seem adequate in this context:

Transfers were given during a period of decreased labor income

If the survey is implemented at the end of the year, when labor income might be improving, adding both sources might overestimate household income

How should incomes from different periods be added? Is the resulting measurement comparable to other years?

“Nowcasting” the impact of COVID-19 on poverty

Unless using continuous household surveys, the impact on poverty of shocks, such as the pandemic, cannot be timely measured

“Nowcasting” methodologies for poverty and other indicators of living conditions can be useful to provide some insights in these circumstances

ECLAC usually estimates poverty for the current year based on a simple model based on GDP growth forecast and an income distribution parameter

For 2020, the model added additional assumptions regarding the labor market, to approximate the possible effect on employment and labor participation

“Nowcasting” the impact of COVID-19 on poverty

Using survey microdata from 2019 (or earlier)

Each employed person receives a score on their possibility of losing their job or facing a decrease in labor income

Depending on economic sector, skill level and relative labor income.

Based on the score, each observation can be modified:

From employed to unemployed (labor income falls to zero)

Loss of labor income (as a function of the assigned probability)

Emergency transfers provided by governments are added:

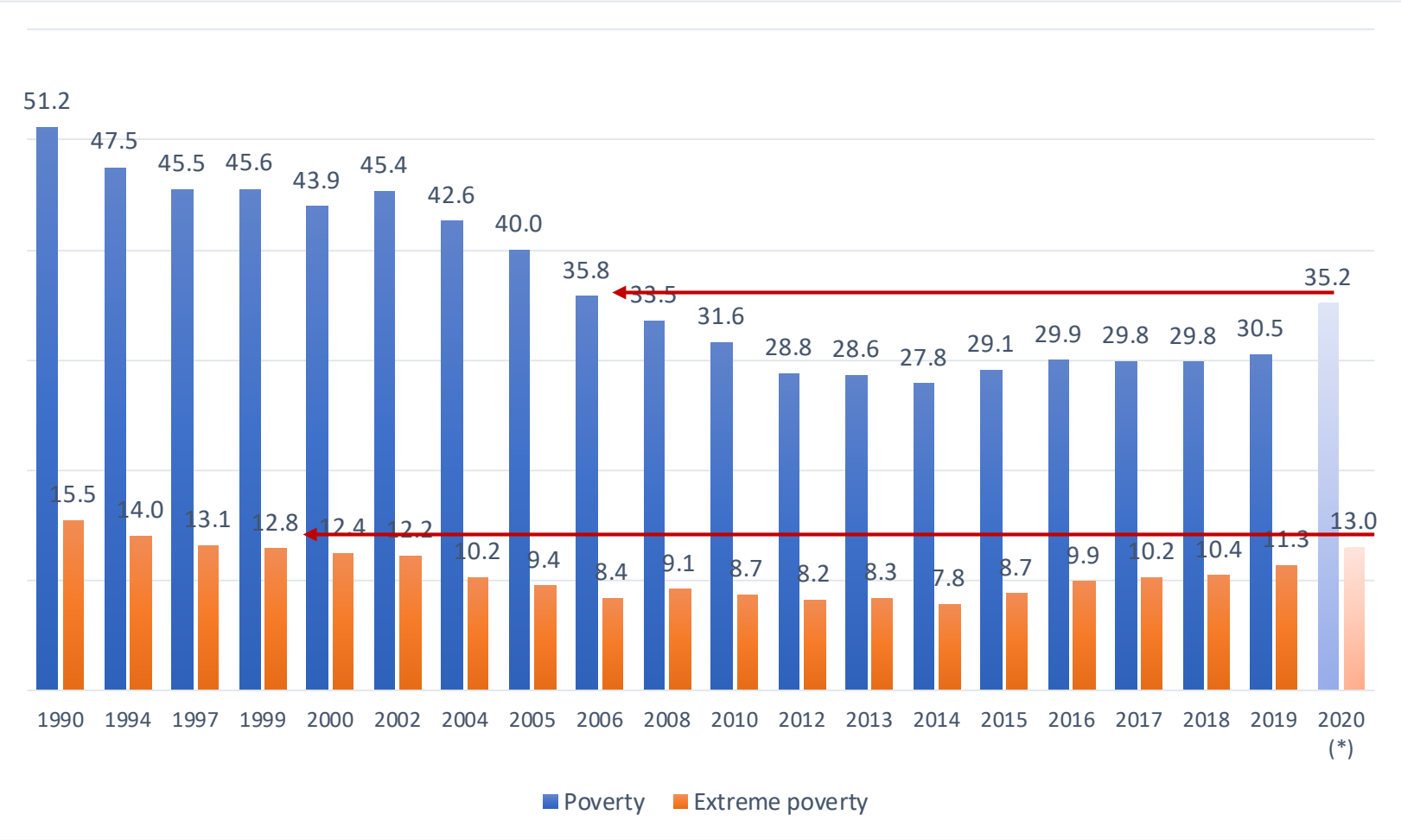
Monthly amount per person is estimated (total transfers paid / total population).

Distributed across quintiles: Q1 30%; Q2 30%; Q3 20%; Q4 15% and Q5 5%

Other incomes (retirements, other transfers, property income, imputed rent) remain constant.

The change in average labor income is calculated iteratively, so that the variation in **household income per person is equal to the projected variation in GDP per capita.**

Latin America (18 countries): Poverty and extreme poverty rates, 1990-2020 (*)



(*) Figures for 2020 are preliminary projections (as of Nov 2020). To be updated based on new data on government transfers and GDP growth rates before publication.
 Source: ECLAC, based on Household Survey Databank (BADEHOG).



Final remarks

The COVID-19 pandemic led to suspension of face-to-face interviewing. NSOs were quick to adapt to the situation and successfully managed to continue the production of labor statistics through phone surveys.

Lessons learned can be useful to improve the efficiency of household surveys, using a mixed mode of data collection and adopting bias correction models permanently.

Due to several reasons, not much information is available yet on income poverty.

In a context of volatile labor incomes, the assumption of representativeness (implicit when incomes are collected only during certain months) is put under stress.

Nowcasting models can be useful in the absence of household survey data. Could be developed as experimental statistics.