

A new approximation to the distribution of household income in Mexico

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Mexico exhibits important deficiencies and inequalities of all types, but the numerical expressions of these problems have not always been sufficiently precise. In fact, the basic statistical information available has led us with certainty to underestimate inequality and possibly also to overestimate poverty. For example, data from the National Household Income and Expenditure Survey (ENIGH, for its Spanish acronym) indicate that by 2012 about 44% of households received incomes below the line established by the National Council for the Assessment of Social Development Policy (Coneval). At the same time, as published by the National Institute of Statistics and Geography (INEGI), 10% of households with higher incomes perceived "only" 19 times what the 10% with the lowest incomes did. However, the study of the distribution of income by ENIGH is limited mainly by two causes: (a) "underreporting", incomes of households in the survey are higher than what they report, so that income poverty seems higher since households whose actual income is higher than the threshold are considered within poverty, and (b) truncation, due to households with incomes much higher than those reported but not included in the ENIGH sample which is why inequality is underestimated when ENIGH alone is used since the difference between high and low incomes becomes smaller than it would otherwise be. To overcome these limitations Constrained Maximum Pseudo-likelihood (CMPL) estimation (see Bustos(2015)) is used to obtain an income distribution which reconciles three data sources: (a) household survey; (b) SNA figures; and (c) tax records, for 2012, in Mexico. Under different models and other conditions, results show remarkable stability. For instance, total income of the X-th decile is between 52 and 54 times the total income of the I-st decile in Mexico. In turn, Gini coefficients lie between 0.613 and 0.638; please note that these cannot be compared with usually underestimated Ginis computed from survey data.