

Representativeness of Top Expenditures in Arab Region Household Surveys

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Paper Abstract: This study investigates evidence of measurement errors among households with the highest expenditures in eleven harmonized expenditure surveys from five Arab countries. Distribution of expenditures and the corresponding Gini index are corrected by replacing top expenditures with values predicted under smooth parametric distributions. Pareto distribution among expenditures classified as top expenditures, and generalized beta distribution of type II on the entire national distribution of household expenditures are fitted and used as alternative specifications for replacing top expenditures. Across the eleven surveys, inequality of expenditures is found to be modest, and neither parametric correction performed debunks this conclusion. Gini is consistently between 29 and 31 in Egyptian surveys, and between 36 and 41 in the rest of surveys. Jordanian and Palestinian 2010 data are found to include clear outliers that influence inequality estimates upward. Other surveys exhibit better representativeness for the expected distribution of expenditures that may be approximated by parametric distributions. Pareto law holds well among top expenditures in Egypt and Palestine, justifying Pareto specification. In Jordan, Sudan and Tunisia, however, a fourparameter generalized beta distribution appears more appropriate. Gini's estimated under generalized beta distribution are somewhat higher than nonparametric or Pareto-distribution Gini's in Jordan and Palestine, similar in Egypt, and lower in Sudan and Tunisia. These patterns are consistent across alternative sample delineations and across survey waves. Nevertheless, the alternative estimates of Gini's are within one another's confidence intervals, implying that neither set of estimates is clearly preferred. Whether nonparametric, or Pareto or generalized-beta parametric Gini's are closest to true statistics remains a question for future research.