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Parallel Session 2B. Surveys and Data Combination

Combining Surveys for Poverty Measurement

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Over the past several years, proposals have been introduced to revise the official poverty measure for the U.S. These proposals are based on enhancing survey data using the linkage of sample records from several surveys as well as modeling and other imputation methods. These data combinations provide substantial opportunities for improved measurement and reductions in survey respondent burden. However, there are challenges regarding modeling using additional information and making inferences from the use of combined data sources.

The new proposals are grounded in recommendations of the U.S. National Academy of Sciences (NAS) released in 1995 to improve the official measure of poverty. Chief among the NAS recommendations were the combination of two surveys for the measure; the Consumer Expenditure Survey (CE) to produce the thresholds and the Survey of Income and Participation (SIPP) for resources. Subsequent deliberations abandoned the use of SIPP in favor of a supplementary questionnaire to a labor force survey, the Annual Social and Economic Supplement to the Current Population Survey (CPS) covering far fewer elements of the recommended poverty measure. These choices required data enhancements to calculate the recommended measure.

The use of a combination of surveys to produce the NAS measure has several challenges. One of the most important challenges has been to ensure consistency in the construction of estimates across the two sides of the poverty measure; thresholds and resources. Some

of these consistency challenges include unit of analysis definitions and controlling for receipt of in-kind benefits.

Within the production of the threshold and resources measures there are also data challenges. For example, there is a challenge in using the CE Interview food data. Thus far all food data have come from global questions in the CE Interview. It is assumed that more reliable food expenditure data can be obtained from the CE Diary, but methods do not currently exist to combine these two surveys at the microdata level. Another example for thresholds is that in most of the research on NAS-based poverty thresholds, expenditures that are net of housing subsidies have been used. However, if one wants to account for the value of in-kind benefits in resources, these need to be accounted for in the thresholds as well. The same is true of subsidies for food, clothing and utilities.

The resource side is more challenging. To determine poverty status following NAS recommendations, income is reduced by necessary expenditures. These subtractions include taxes, work-related expenses, and health care expenditures. Noncash benefits are valued and included in income to obtain resources that are compared to the thresholds. The CPS collects information on cash income receipt, but does not have information on most of the other elements of the proposed measure. The Census Bureau has explored a variety of ways to develop linkages from other surveys to expand the estimates of resources for the NAS poverty measure. Federal income taxes are estimated using a tax calculator and tax codes. Work-related and health care expenditures are modeled or statistically matched to the CPS survey data. Data from the CE, Medical Expenditure Panel Survey (MEPS), and SIPP have been used in part or together to model medical out-of-pocket expenses and work-related expenses including childcare. The American Housing Survey has been used to value housing subsidies and net rental income.

A variety of methods, such as modeling and statistical matching, have been employed to bring in elements listed above that are not available on the CE and CPS. In the meanwhile, new questions are being developed for the CPS and CE to address shortcomings in the current surveys. When the questions are available we can assess the quality of those data and the success of our linkage methods by comparing the two, one against the other. This paper describes these methods, describes initial comparisons with new data collections, and explores the problems with and the challenges of this data combination process.