Title: *The Sensitivity of Income Distribution Measures to Changes in Survey Collection Tools and Estimation Techniques in Australia*
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Time series of household income and income distribution have proved very sensitive to changes in the survey collection tools and estimation techniques used. Even when these have not changed, concerns about time series consistency can arise. This paper presents three case studies that describe circumstances that have led to concerns about the validity of time series taken from Australian Bureau of Statistics household income surveys, and the actions that were taken to address those concerns. First, despite no apparent change to the way that the survey was being conducted, the survey coverage of aggregate social assistance benefits paid by government declined markedly over a period of two years. After an intensive study of the possible causes of this divergence, two major changes were introduced into the estimation process – an additional government transfers calibration benchmark was introduced into the estimation phase of the survey, and results for all surveys in the current series from the mid-1990s were re-estimated using more consistent demographic calibration benchmarks.
The second case study compares income surveys conducted prior to the mid-1990s and those conducted in the years following the introduction of the Survey of Income and Housing in 1994-95. It is concluded that the survey changes introduced in 1994-95 were of such a magnitude that there is a distinct break in time series at that point. A degree of comparability over time could be achieved if the 1994-95 survey estimates were re-estimated in a way that better reflects the definitions and structures of the earlier surveys. However, this would only provide a linked series, and any time series analysis would have to use 1994-95 estimates on both the "old" and "new" basis.
The third case study examines uncertainties underlying comparisons of data from the most recent income survey with those for earlier periods. Several changes were introduced to the income survey in order to improve the accuracy of the survey results, increase the range of data collected, and improve the way the income survey complemented other ABS household surveys. These included: taking an independent sample for household income measurement to replace the previous practice of taking a sample from households that had already been included in and continued to respond to the monthly labour force survey for eight months; using computer assisted interviewing; introducing additional income questions; collecting for the first time a comprehensive range of wealth data (with asset related incomes edited against the reported wealth holdings to improve business and investment income reporting); and integrating the household expenditure survey with the income survey for about 60 per cent of the income survey sample. Analysis of time series data from the survey suggests that estimates of income levels remained reasonably consistent through the introduction of the changes. But not all of the movements in income distribution measures such as the Gini coefficient can be immediately explained in terms of known real world changes, such as increased levels of social assistance benefit payments. Therefore the prospect of some instrument effects remains.