

# Averaging Income Distributions

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## *Abstract*

Various inequality and social welfare measures often depend heavily on the choice of a distribution of income. Picking a distribution that best fits the data in some sense involves throwing away information and does not allow for the fact that, by chance, a wrong choice can be made. It also does not allow for the statistical inference implications of making the wrong choice. Instead, Bayesian model averaging utilises a weighted average of the results from a number of income distributions, with each weight given by the probability that a distribution is 'correct'. In this study prior densities are placed on mean income and the Gini coefficient for Australian couples without dependent children (1997-98). Then, using grouped sample data on incomes, posterior densities for mean income and the Gini coefficient are derived for a variety of income distributions. The model-averaged results from these income distributions are obtained.

Key words: Bayesian model averaging; Gini coefficient; grouped data.

JEL classification: C11, D31

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