



PARAMETRIC REPRESENTATION OF THE TOP OF INCOME  
DISTRIBUTIONS: OPTIONS, HISTORICAL EVIDENCE AND MODEL  
SELECTION

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ABSTRACT

Approximating the top of income distributions with smooth parametric forms is valuable for descriptive purposes, as well as for correcting income distributions for various top-income measurement and sampling problems. The proliferation of distinct branches of modeling literature over the past decades has given rise to the need to survey the alternative modeling options and develop systematic tools to discriminate among them. This paper reviews the state of methodological and empirical knowledge regarding the adoptable distribution functions, and lists references and statistical programs allowing practitioners to apply these parametric models to microdata in household income surveys, administrative registers, or grouped-records data from national accounts statistics. Implications for modeling the distribution of other economic outcomes including consumption and wealth are drawn. For incomes, recent consensus shows that among the many candidate distribution functions, only a handful have proved to be consistently successful, namely the generalized Pareto, and the 3–4 parameter distributions in the generalized beta family, including the Singh-Maddala and the GB2 distributions. Understanding these functions in relation to other known alternatives is one contribution of this review.

**JEL Codes:** C1, D31, D63.

**Key words:** statistical size distribution of incomes; top incomes measurement; parametric estimation; extreme value theory; Pareto; inequality.

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