A Simple Working Formula of Gini Coefficient with Some Common Software Command Codes

Amlan Majumder and Takayoshi Kusago

Although there has been a revolution in the computational methodology of Gini coefficient towards simpler formulations and easy computation procedure with the application of software, this paper presents a far simpler working formula of the same and consequently some software command syntaxes. The key component of the formula is now just a product of income-rank-based weight and income. The method will enable researchers, who work with a large number of observations, to compute the index and add it as a variable in the same working data file with ease.

I Introduction

There has been a revolution in computational methodology of Gini coefficient with the application of statistical software. The quest for a simple working formula and easy computation procedure has been the main driving force behind such endeavours. Given this background, although it seems saturated, the present paper still finds a scope to proceed further in this direction, particularly to work with the software and spreadsheet programmes for which ready-made command syntaxes for calculating Gini coefficient are not available. For example, the IBM SPSS Statistics, which is popularly (and previously) known as Statistical Package for the Social Sciences (SPSS henceforth) so far did not include any simple formula or single command in its menu for computation of Gini coefficient. However, the demand for the same among common users and academic researchers across disciplines is high. Sometimes researchers (who work with micro-data with a large number of observations) want to compute Gini coefficient and add it as a variable in the same working data file. A simple Google search on the subject matter will reveal lots of discussions and suggestions (on different possibilities of command syntax), many of which seem unworthy, often complex and at times confusing. Some of them appear to be trustworthy, but one may need adequate programming knowledge to follow them.1

Amlan Majumder, Department of Economics, University of North Bengal, Raja Rammohunpur, DT. Darjeeling 734013, West Bengal, Email: amlan@amlan.co.in

Takayoshi Kusago, Faculty of Sociology, Kansai University, 3-3-35, Yamate-cho, Suita-shi, Osaka 564-8680, Japan, Email: tkusago@kansai-u.ac.jp

We are thankful to anonymous referee for comments and suggestions. Responsibility of any error rests with us.