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Big data for official statistics

Pilar Rey del Castillo¹ and Jesus Cardenosa Lera²

¹Instituto de Estudios Fiscales, Spain

²Escuela Técnica Superior de Ingenieros Informáticos, Spain

The availability of copious data about many human, social and economic phenomena is being nowadays considered as an opportunity for the production of official statistics. National statistical organizations and other institutions are more and more involved in new projects for developing what sometimes is seen as a possible change of paradigm in the way statistical figures are produced. Nevertheless, there are hardly any systems in production using Big Data sources. Arguments of confidentiality, data ownership, representativeness and others make it a difficult task to get results in the short-term. Using Call Detail Records from Ivory Coast as illustration, this paper shows some of the issues that must be dealt with when producing statistical indicators from Big Data sources. A proposal of a specific method to evaluate the quality when using the data to compute figures of daily commutes between home and work is also presented.

Biography

Pilar Rey del Castillo is a Statistician with 35 years of experience. She got a degree in Mathematics from the Autonomous University of Madrid, a Master's degree in Time Series from the Bank of Spain and a PhD (Computer Sciences and Artificial Intelligence) from the Technical University of Madrid. As a Senior Statistician of the Spanish administration, she has performed different functions in the Spanish National Statistical Institute, the Spanish Sociological Research Center, and, currently, the Spanish Fiscal Studies Institute. She also worked as an Assistant Professor from 1994 to 1998 in the Carlos III University and, from 2011 until 2015, as an Expert in Eurostat, European Commission.

pilar.rey.del.castillo@gmail.com

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