S27 Doing regional science with new sources of big data

Convenor(s) Emmanouil Tranos; Daniel Arribas-Bel; Franciso Rowe

The availability of good quality, granular and longitudinal data has traditionally shaped how researchers do Regional Science. During the last 5-10 years more and more new sources of, sometimes, diverse data have become available. Although these data can be called "accidental" as they have not been designed or curated to support urban and regional analysis. They have the capacity to expand the analytical boundaries of regional science. These data tend to be geo-referenced; have high level of spatial and temporal granularity; and, involve large population samples. The use of these data does not come without challenges. For instance, although sample sizes may be large, they can also suffer from biases that are difficult to control for; or, they may include noise as they have not been designed to capture urban and regional socio-economic processes. The characteristics of these data, such as their large size and unstructured nature, impose analytical challenges as more traditional methodologies are not always equipped in dealing with these peculiarities. Moreover, there is a growing hype around 'big data', and therefore researchers and policy makers may find themselves under pressure to utilise such data in a rather uncritical manner.

This call for abstracts for a Special Session during the ERSA 2018 Conference aims to exemplify applications, but also the challenges of using new sources of big data for urban and regional analysis. Specifically, we welcome submissions around the following points:

- Empirical applications of the of new sources of big data in regional science.
- Studies bridging the gap between traditional sources of (small) data (e.g., censuses) and new sources of (big) data
- Applications and experiences in which big data is used to inform policy decisions
- Studies that quantitatively explore the strengths and weaknesses of big data for spatial economic analysis.