

Doctoral Candidate (PhD student) in Urban Socio-Spatial Inequalities Analysis (CORJOLIS)

Additional information

Corjolis (Cities at wORk: JOB Location and InequalitieS) is an interdisciplinary binational project co-funded by the ANR (France) and FNR (Luxembourg), starting January 2026. Co-leads are Florence Goffette-Nagot (CNRS, UMR Cergic, ENS Lyon) and Geoffrey Caruso (Geography and Spatial Planning, University of Luxembourg)

Abstract of the project:

Spatial inequalities are rising in modern societies, both across cities and within cities. The Great Divergence (Moretti, 2004), describes the movement by which large cities become richer, while smaller cities lag behind. This divergence is related to labor polarization (Autor, 2006), that is, the decrease in the share of middle-skilled jobs. The result of these two movements is an increase in income inequality, both overall and within-cities, the more so in the largest cities. These rising inequalities are likely to contribute to an increase in residential segregation, which could further reinforce within-city inequalities through neighborhood effects. Understanding the impact of labor market transformations on intra-urban spatial inequalities is a major issue for public decision-makers, who face significant challenges in this area, as shown e.g. by the Yellow Vests protest in France. CORJOLIS will use France as a laboratory to provide an in-depth analysis of the mechanisms through which labor market evolutions affect the internal structure of cities and inequalities. It will do so by addressing the three following questions: (i) What is the recent evolution of intra-urban job location by skill, and residential segregation by skill and income, depending on city size? (ii) How can this be explained by recent transformations in job location across cities? (iii) What are the impacts on individual outcomes?

Specific tasks (WP) related to the PhD:

Within a WP titled “City size and residential segregation”, the PhD candidate will conduct a series of analyses to explore income-based segregation patterns within and across French urban areas, in order to test for a relationship with city size in the effect of the distance to jobs. While it is expected that city size leads to both increased average income and increased heterogeneity in income, it is not known how the latter is distributed in space and whether larger cities are made of more mixed or more strongly segregated neighborhoods, which in turn has implications on equity and social opportunities. Moreover, previous analyses of the radial profiles of urbanisation and housing prices have identified international border effects. France is home to the largest number of cross-border workers in the EU, and Luxembourg and the lemanic cities exert a significant influence on commuting patterns and housing prices in neighboring France, hence, we hypothesize, an influence on income-related segregation

In this context, the thesis is expected to comprise the following steps:

1. Literature review for recent methods and findings related to internal spatial segregation by income and the effect of city size
2. Explore segregation levels and their change over the last 20 years using fine spatial scale data for all French urban areas (over 50,000 inhabitants).
3. Study the radial profiles (distance to centre and distance to jobs subcenters) of the income distribution and identify potential scaling laws and effects of increased employment polarization.
4. Assess the role of external job markets (cross-border effect) and heterogeneities in transport costs and accessibility to jobs in border
5. Analyse non-radial / non-accessibility income segregation patterns using local spatial association and local dissimilarity indices in order to identify spatial spillovers and local amenity effects through space and time.