

Intergenerational Social Mobility and Geographic Mobility in Europe: Evidence from Regional Migration Dynamics and Neighborhood Effects

Extended Abstract for the European Regional Science Association (ERSA) Congress

1. Objective and Contribution of the Paper

This paper examines the intersection between intergenerational social mobility and geographic mobility in Europe, with particular attention to how regional migration dynamics shape opportunities for economic advancement across generations. We contribute to the growing literature on territorial inequality and social mobility by integrating two complementary analytical perspectives: (i) the macro-level demographic and economic forces driving regional migration patterns across the European Union, and (ii) the micro-level causal mechanisms through which neighborhoods and local contexts influence intergenerational income mobility.

The motivation for this research emerges from the European Commission's recognition of demographic transition as a key structural transformation threatening EU competitiveness and deepening territorial imbalances (European Commission, 2025). The concept of the "right to stay," introduced in recent EU policy discourse, emphasizes the importance of enabling individuals, particularly young people, to remain in their home communities rather than being forced to emigrate due to lack of economic opportunities. However, this policy framework requires a nuanced understanding of how geographic mobility interacts with intergenerational social mobility, an area where empirical evidence remains scarce.

Our contribution is threefold. First, we document how regional economic differentials drive selective out-migration of young adults, creating self-reinforcing cycles of demographic and economic decline that ultimately constrain intergenerational mobility opportunities in lagging regions. Second, we provide evidence on the causal effects of neighborhood exposure on long-term economic outcomes, demonstrating that "place effects" explain a substantial portion of geographic variation in upward mobility. Third, we reconcile these findings to propose a more comprehensive framework for understanding how territorial policies might break the vicious cycle linking geographic mobility, demographic decline, and intergenerational immobility.

2. Explanation of Methods Used

Our analytical approach combines macro-level regional demographic analysis with micro-level econometric estimation of intergenerational mobility and neighborhood effects.

For the analysis of regional migration dynamics, we employ bilateral migration flow data between NUTS3 regions to estimate gravity models of internal migration. This methodological framework allows us to examine how economic differentials between origin and destination regions influence migration flows across different age groups. The gravity model specification includes:

GDP per capita ratios between destination and origin regions as the primary variable of interest

We stratify the analysis by age groups to identify life-course variations in migration responsiveness to economic conditions. Additionally, we examine the interaction between inter-regional and international migration to assess whether the “brain drain” phenomenon operates primarily within or across national borders.

Following European Commission (2025) to project future regional demographic trajectories, we utilize the Demography-Economy-Land use interaction (DELI) model, which couples regional demographic and economic dynamics to simulate self-reinforcing cycles of demographic-economic divergence.

For measuring intergenerational income mobility, we follow the methodological framework established by Chetty et al. (2014), employing rank-rank specifications that express both parent and child income as percentiles within their respective distributions. This approach offers several advantages: it is scale-invariant, robust to changes in inequality over time, and less sensitive to extreme values or measurement error in the distribution tails.

Our approach, similar to Soria & Medina, (2025) is the application of Bayesian hierarchical modeling to generate local-level estimates of intergenerational mobility at granular geographic levels. This method allows information to be shared across spatial units, yielding more precise and robust estimates in low-population areas by borrowing strength across clusters, crucial for overcoming spatial data sparsity that typically constrains local-level mobility analysis.

To identify causal effects of neighborhoods on intergenerational mobility, we employ a mover's design that exploits variation in the age at which children move with their families. By comparing children from similar family backgrounds who move to the same destination at different ages, we isolate variation in exposure to places that is plausibly exogenous to long-term outcomes. This quasi-experimental approach allows estimation of how the timing of geographic moves affects adult income and quantifies the causal impact of growing up in higher-opportunity locations.

3. Data Used

Our analysis draws on two primary data sources spanning different geographic scales and analytical objectives.

For the macro-level regional analysis, we utilize: - Eurostat regional demographic statistics at NUTS3 level, including total fertility rates, old-age dependency ratios, and population change indicators - Bilateral inter-regional migration flow data for EU Member States (2014-2019), assembled by the Joint Research Centre from National Statistical Institutes - Census data from 2001, 2011, and 2021 at the Local Administrative Unit (LAU) level, providing population by age and sex - Regional economic indicators including GDP per capita from the ARDECO database - EUROPOP19 regional population projections

The migration data distinguish between flows to/from other regions within the same country and flows to/from abroad, enabling analysis of how the “right to stay” relates to within-country versus international mobility patterns.

For the micro-level intergenerational mobility analysis, we exploit the Spanish Opportunity Atlas 2.0, a rich administrative dataset linking millions of parents and children across more than 25 years (Soria & Medina, 2025). The dataset is constructed from: Personal income tax records (IRPF) from Spain's national tax authority (AEAT) - Modelo 100 (labor income) and Modelo 190 (self-employment) tax declarations - Records spanning 1998-2022, covering over 1.5 million parent-child pairs

Parental income is measured as the three-year average of total household gross income over 1998-2000. Child income is measured as individual gross income averaged over 2021-2022, when children from the 1980-1986 birth cohorts are aged 36-42. Geographic location is captured

through ZIP codes reported in tax returns, allowing assignment of childhood location and tracking of adult residential mobility.

The dataset covers the 15 autonomous communities and 46 provinces under Spain's general fiscal regime (approximately 93.6% of the Spanish population), excluding the Basque Country and Navarra which operate under separate fiscal arrangements.

4. Tentative Results

In line with European Commission (2025) our analysis reveals that emigration rates from poor to rich regions are substantially higher than flows in other directions, with the economic gradient in migration peaking at ages 25-29, the typical age of labor market entry for tertiary-educated individuals. A 1% increase in the GDP ratio between destination and origin regions increases migration flows of 25-29 year-olds by approximately 0.42%, representing the strongest economic responsiveness across all age groups. This confirms that the “brain drain” from economically declining regions is most pronounced precisely at the age when young adults would contribute most to local economic vitality.

The ratio of inter-regional to international emigration is above one for most EU countries, with poorer regions showing an even higher relative share of within-country migration. This suggests that the “right to stay” challenge operates primarily at the sub-national level, where EU Cohesion Policy can potentially intervene.

Regional demographic projections indicate that the variance in Old Age Dependency Ratios across EU regions is expected to increase until 2044 before beginning to converge. Even under a hypothetical zero-net-migration scenario simulating an extreme “right to stay” implementation, regional demographic divergence would continue, demonstrating the strong role of demographic inertia inherited from past population structures.

Cohort-specific analysis reveals a deterioration in intergenerational mobility among cohorts entering the labor market during the Great Recession. The rank-rank slope increased by 42.5% between the 1983 and 1990 cohorts, indicating that economic shocks disproportionately constrain mobility for children from low-income families.

Geographic variation in upward mobility exhibits strong regional patterns alongside neighborhood-level differences. The most socially mobile areas are in Northern and Northeastern Spain, while the least mobile regions are concentrated in the South and Southwest (Andalucía, Extremadura, Canary Islands). Catalonia displays mobility rates comparable to Scandinavian countries, while Southern regions exhibit patterns like the Southern United States.

Higher upward mobility is associated with lower unemployment, stronger industrial presence, higher post-secondary education rates, more affordable housing, and more stable family structures.

Notably, Spain's largest metropolitan areas, Madrid and Barcelona, serve as engines of upward mobility for children from low-income families, contrasting with patterns observed in the United States where urban sprawl depresses mobility. This suggests that compact urban form, mixed-use neighborhoods, extensive public transport, and access to higher education create environments conducive to intergenerational advancement.

5. Conclusions

This research demonstrates that intergenerational social mobility and geographic mobility are deeply interconnected phenomena that cannot be analyzed in isolation. Regional economic conditions drive selective out-migration of young adults, which in turn depletes the human capital and demographic vitality of origin regions, creating self-reinforcing cycles that ultimately constrain mobility opportunities for those who remain.

Our findings carry important implications for EU regional policy. First, the “right to stay” concept requires attention not only to preventing forced emigration but also to ensuring that staying in one's home region does not condemn individuals to limited intergenerational mobility prospects. Second, the strong causal effects of neighborhood exposure on long-term economic outcomes suggest that place-based interventions can meaningfully improve intergenerational mobility, but such interventions must address the structural factors (labor market conditions, education access, housing affordability) that make some places more conducive to upward mobility than others.

Third, the finding that major metropolitan areas can serve as “mobility engines” challenges simplistic narratives about urbanization and territorial development. Policy should not merely

discourage urban migration but rather ensure that both urban and rural areas provide genuine opportunities for economic advancement. This requires targeted adaptation measures through territorial policies that support regions most vulnerable to demographic change while also investing in the factors, education, employment, infrastructure, that enable intergenerational mobility regardless of location.

Finally, our results underscore that demographic divergence across European regions will persist for decades even under optimistic policy scenarios. Simply mitigating population decline is insufficient; proactive policies must address both the demographic and economic dimensions of regional inequality to break the vicious cycle linking geographic mobility to intergenerational immobility.

References

European Commission, Joint Research Centre (2025). *Demographic Outlook on “Right to Stay”: Beyond the Letta Report*. Publications Office of the European Union. EUR 40386. <https://data.europa.eu/doi/10.2760/4989571>

Soria, J. & Medina, O. (2025). Intergenerational Mobility in Spain: Geographic Analysis and Causal Neighborhood Effects. *Working Paper*, Opportunity Insights, Harvard University & Paris School of Economics.

Chetty, R., Hendren, N., Kline, P., & Saez, E. (2014). Where is the land of opportunity? The geography of intergenerational mobility in the United States. *Quarterly Journal of Economics*, 129(4), 1553-1623.

Keywords: Intergenerational mobility, geographic mobility, regional migration, neighborhood effects, demographic change, territorial cohesion, European Union

JEL Codes: J62, R23, R58, J61, E24