



Graduate migration and regional development

Comments on Alessandra Faggian's presentation

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ERSA-REGIO Lecture, Brussels, Belgium

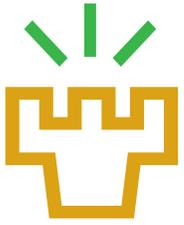
November 19th 2018



Why do we care about the education, especially higher, tertiary education?

Theoretical views to the role of human capital and technological knowledge in economic growth

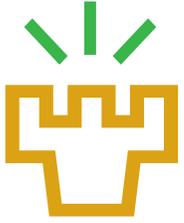
- Central themes in the theories of endogenous economic growth.
 - New technological innovations (e.g. Grossman and Helpman, 1991)
 - Accumulation of knowledge and its diffusion (e.g. Romer, 1986,1990)
 - Human capital (e.g. Lucas,1988)
- The new formulation of technological knowledge, i.e. that technological knowledge is non-rival and partially excludable good is central to our thinking about innovation and growth, and forms the core of the new economic growth theory today.
- The literature of endogenous growth theory shares the view of localised technological change.
- The idea that knowledge spillovers are geographically localised is the second key element in explaining the relationship between the technological progress, innovative activity and economic growth.
- A third common view is that technological knowledge is usually in such a tacit form that it is difficult to codify and is only serendipitously recognised (e.g. Audretsch and Feldman 2003).
- **The human capital , i.e. knowledge and R&D capital of firms is to a large extent embodied in the workers of the firm and the output of innovative activity in a firm is the result of their effort to appropriate this knowledge, intellectual human capital.** (e.g. Audretsch (1995, 1998) and Zucker, Darby and Brewer (1996)



Why do we care about the education, especially higher, tertiary education?

Knowledge society and labour mobility / migration

- Due to the increasing knowledge intensity, education level of labour force must increase.
 - High educated people are highly mobile → Will spatial mobility and migration increase?
- High-level education provides "21st century skills" and lifelong learning skills (Van Dijk & Edzes 2016, De Fruyt et al 2015, Voogt et al 2012) → Are workers more adaptive to the changes in their work life in the future?
 - How does this affect labour mobility and migration (+/-) ?
- Changing working relationships i.e. shorter contracts, part-time jobs etc.
 - How does this affect labour mobility and migration?
- Increasing teleworking (e.g. Telework Trends in US <https://www.telework.gov/reports-studies/telework-trends/>)
 - How does it affect labour mobility and migration?



Migration and megatrends of the economy

- Migration and labour mobility are closely connected to the big megatrends of the economy, like
 - Globalisation → increased competition not only between the firms but also for skilled labour
 - Digitalisation → workers' skill requirements have increased
 - Polarisation of labour markets → High-skilled, high-paying jobs and low-skill, low-paying jobs are increasing and middle class is diminishing.
 - Increasing role of service sector (especially in western world) → However, because of the use of information technology, many jobs in the service sector may disappear.
 - Urbanisation, Agglomeration of economic activities → Spiky world, “ Creative class: Do jobs follow people or do people follow jobs?” (Østbye et al 2018)
 - Ageing etc. etc.
- “Today’s global economy, the main drivers of economic growth, i.e. technological and demographic change, globalize the competition for highly skilled talent” (van Dijk & Edzes, 2016,173)
- Rapid changes in technology and economy (e.g. creative destruction, shorter business cycles) cause big challenges which have an effect on migration and labour mobility → Resilience of people
- High skilled, educated people do not only affect growth of regions, but also resilience of regions.



Agglomeration, Labour Markets and Economic Growth

Labor markets and agglomeration of economic activities

- The significance of local labour-market processes goes beyond transactional efficiencies in matching labour supply and demand. The movement of employees between firms undoubtedly forms an important channel for the local and inter-regional transfer of knowledge and ideas.
- Factors like good matching between jobs and workers, and thereby higher wages, lead to the conclusion that agglomerations are attractive for both firms and highly skilled employees. Firms want to locate close to each other, due to the agglomeration economies, and employees are moving more and more towards and within the agglomeration centers, where the role of these factors is obvious (e.g. De La Roca and Puga, 2016).

Some findings from the high technology sector of Finland

- The roles of clustering and agglomeration (as well as other regional variables) vary significantly for different types of mobility, according to whether we look at within-region mobility, across-region mobility, as well as within-industry and across industry mobility (Simonen, Svento and McCann, 2016).
- Individual, regional and general economic variables seem to affect differently not only to different type of mobility, but also in different ways at different time periods (Simonen, Svento, Karhinen and McCann, 2018).

→ To what extent we can apply these results to labour mobility and migration in general, and maybe to graduate migration/mobility ? (i.e. Not all graduates are the same)

Simonen J. & Svento R. & McCann P. 2016. The Regional and Sectoral Mobility of High Technology Workers: Insights from Finland. *The Annals of Regional Science*, 56(2), 341-368.

Simonen J. & Svento R. & Karhinen S. & McCann P. 2018. Inter-regional and inter-sectoral labour mobility and the industry life cycle: A panel data analysis of Finnish high technology sector, in *Advances in Spatial Science, New Frontiers in Interregional Migration Research*, Edited by Biagi, B., Faggian, A., Rajbhandari, I., Venhorst, V.A. pages 151-179. Springer International Publishing.



Future of working life and migration / labour Mobility

- Technological development, shocks and quick changes in the economy → The nature of work will change
 - Creative destruction (Joseph Schumpeter): “Process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one”.
 - People, especially knowledge-based workers must be more flexible and adaptive → What we teach or should teach for students in the university? 21st century skills, lifelong learning ?
 - Are young people ready to accept shorter/temporary contracts, part-time jobs, to change their job more often etc.?
- **Are they more resilient?** (Van Dijk and Edzes, 2016)
- If people are more adaptive and resilient in future, how does it **affects the migration?**
 - Are labor markets essentially regional ? (Venhorst 2012, 2013)
 - “The creation and destruction of jobs, and the processes of unemployment, and wage setting, and the institutional and social regulation of the processes, to some extent at least, are locally constituted”(Martin,R. 2000: 456).



Migration/labour mobility and resilience of people /regions

- Resilience: Ability of an entity or system to recover form and position elastically following a disturbance or some kind of shock. In regional or urban applications this idea refers to the ability of a local socio-economic system to recover from a shock or disruption. (e.g. Martin R. 2012)
 - What about the role of the resilience of people in regional resilience? (e.g. van Dijk and Edzes 2016)
 - Empirical, case study example – High-tech sector in the city of Oulu (Simonen et al 2014, 2017)
 - In early 2000s, industrial structure of the high technology sector in Oulu was highly specialised in electronics and highly dependent on Nokia's success in the international markets.
 - Overall, approximately 3 500 people were laid off by high-tech companies between 2009 and 2014 in the Oulu region, most of them from electronics industry, especially from Nokia.
 - However, there has not been a massive out-migration of human capital in the region of Oulu.
 - Re-education, moving to a new job (mainly to the high technology service sector) with lower salary.
 - In Oulu's case, highly skilled, educated people have provided a good starting-point for recovering.
 - In other words, the most important single reason for a good recovery in the Oulu region has been the resilience of people.
- **Will educated people actually be less mobile in the future (because of their increased resilience)?**

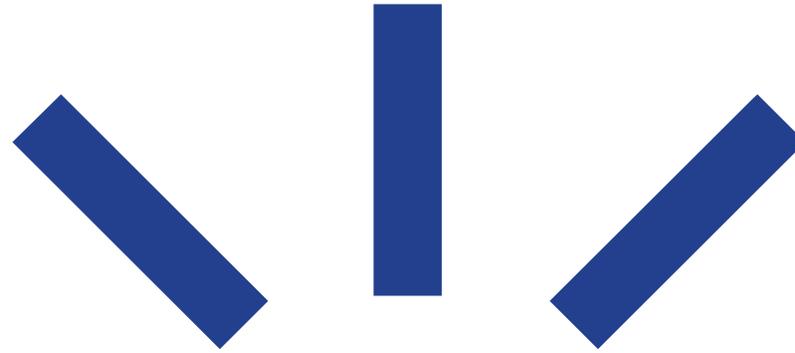
“What kind of education and skills, and what individual background characteristics, determine individual resilience? How is this influenced by place-based circumstances?”

“... labour markets are inherently regional, because people are not as footloose as neo-classical and human capital theories assume. People are bound to regions, culture, families etc..... “

(van Dijk and Edzes, 2016, 186)

Comments and Questions - Three points

- 1. How will the increasing knowledge intensity affect labour mobility and migration in the future?**
- 2. How other big megatrends of the economy, e.g. agglomeration or polarisation of labour markets will affect migration?**
- 3. Will educated people be more resilient and less (regionally) mobile in the future ?**



Thank you!

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