

Regional development, labour market dynamics and the public sector in a Nordic perspective

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UNIVERSITY OF COPENHAGEN



Agenda

- Regional development – in a Nordic Perspective
- The Danish context
- The public sector
 - What do we know
 - What are the research gaps?

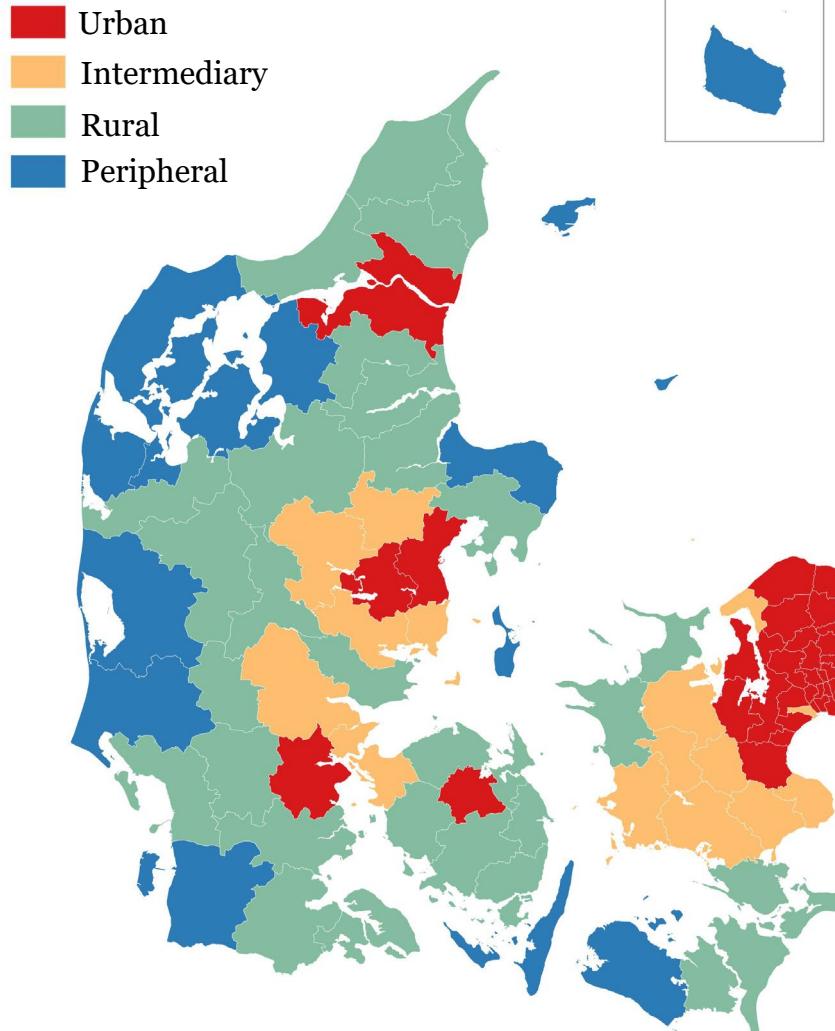
Driving forces of regional development

- Industrial production is getting more capital and knowledge intensive (Scott, 2008)
 - Human capital and migration of the workforce are central for understanding the dynamics of regional development
- Investments are selective (Massey, 1984)
 - Reinforce the structure of production, human capital etc.
 - Concentration of high skilled jobs and general job growth in urban regions – and allocation of routinized job functions in more peripheral areas.
- Differences in regions' capability to stay competitive over time – resilience (Boschma & Frenken, 2007)
 - Differences in ability to absorb external economic shocks –some regions recover faster than others most likely due to the variety and relatedness of industries and job functions.

Driving forces of regional development in Denmark

- What are the most important drivers for the economic development og Denmark during the last 10 years?
 - Development in employment
 - Development in educational/skills
 - Development in population
 - Migration patterns

Driving forces of regional development in Denmark



- Geographical areas:
 - Defined by 14 characteristics e.g. population size, age, population density, number of jobs, workplaces, educational level etc. (Ministry of Housing, Urban and Rural Affairs, 2007)

Uneven regional development



The header features a dark blue bar with "BERLINGSKE" in white and a pink bar below it with "BUSINESS" in white. To the right, the word "ØKONOMI" is written in large, bold, dark blue letters.

A navigation menu below includes "Aktuelle emner" (highlighted in yellow), "DONG Energy", "Danske Bank", "Bang & Olufsen", "SAS Group", "Arktis", and "Gældskrisen". A horizontal menu bar further down includes "FORSIDE", "INVESTOR", "ØKONOMI", "GLOBAL", "BRANCHER", "VÆKST", "LEDELSE", and a search icon.

København løber med både vækst og penge



Copenhagen is driving growth and development and is by far the region that benefit most from current development structures. Its population has on average an income that is more than double of the neighbouring region

Uneven regional development

10. NOV. 2015 KL. 10.17

Udkantsdanskere er Europas lykkeligste folk

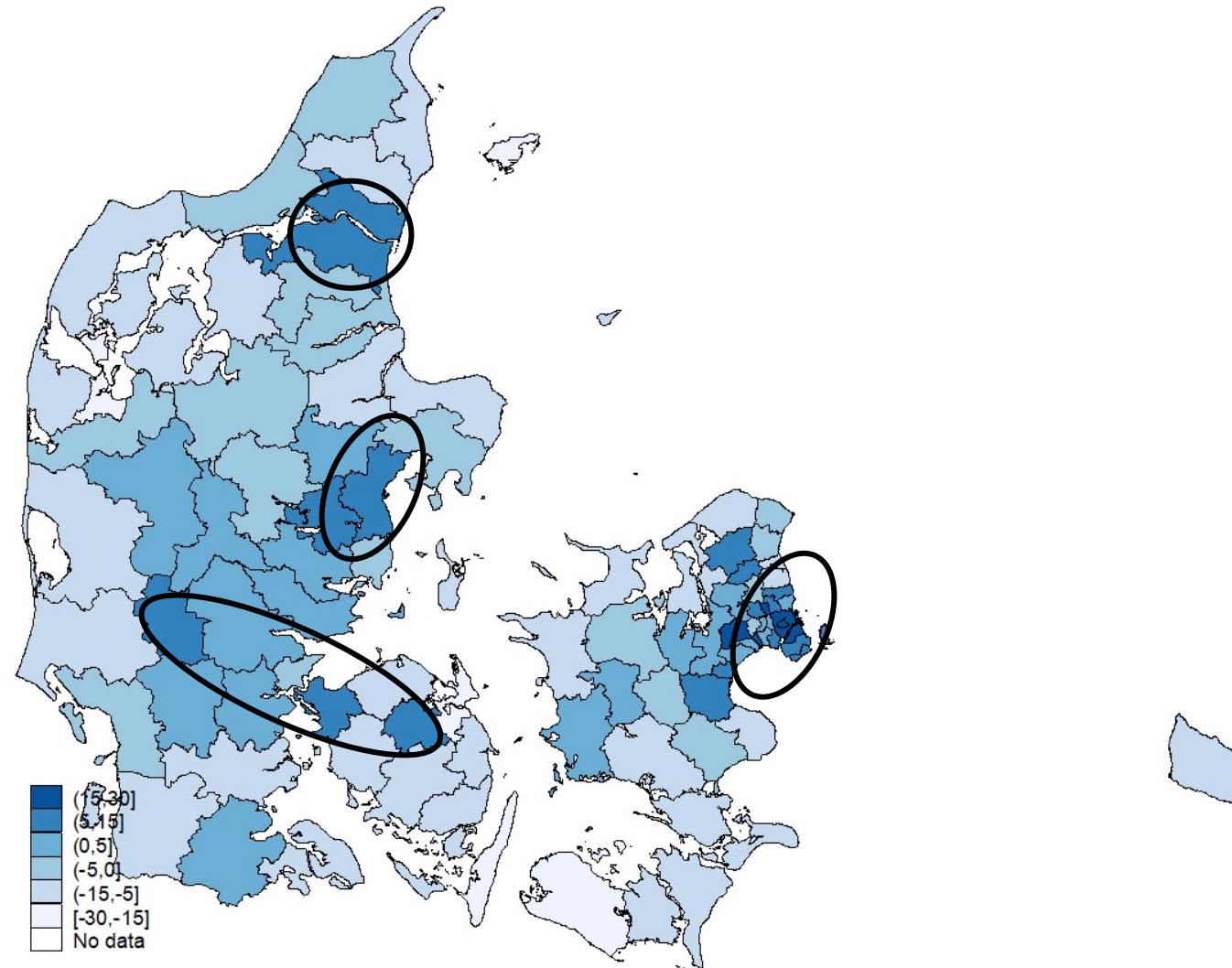
Højt til loftet, ingen biltrafik, frisk luft og frihed. Det er opskriften på, at danskere bosat i landområder er Europas mest tilfredse borgere.



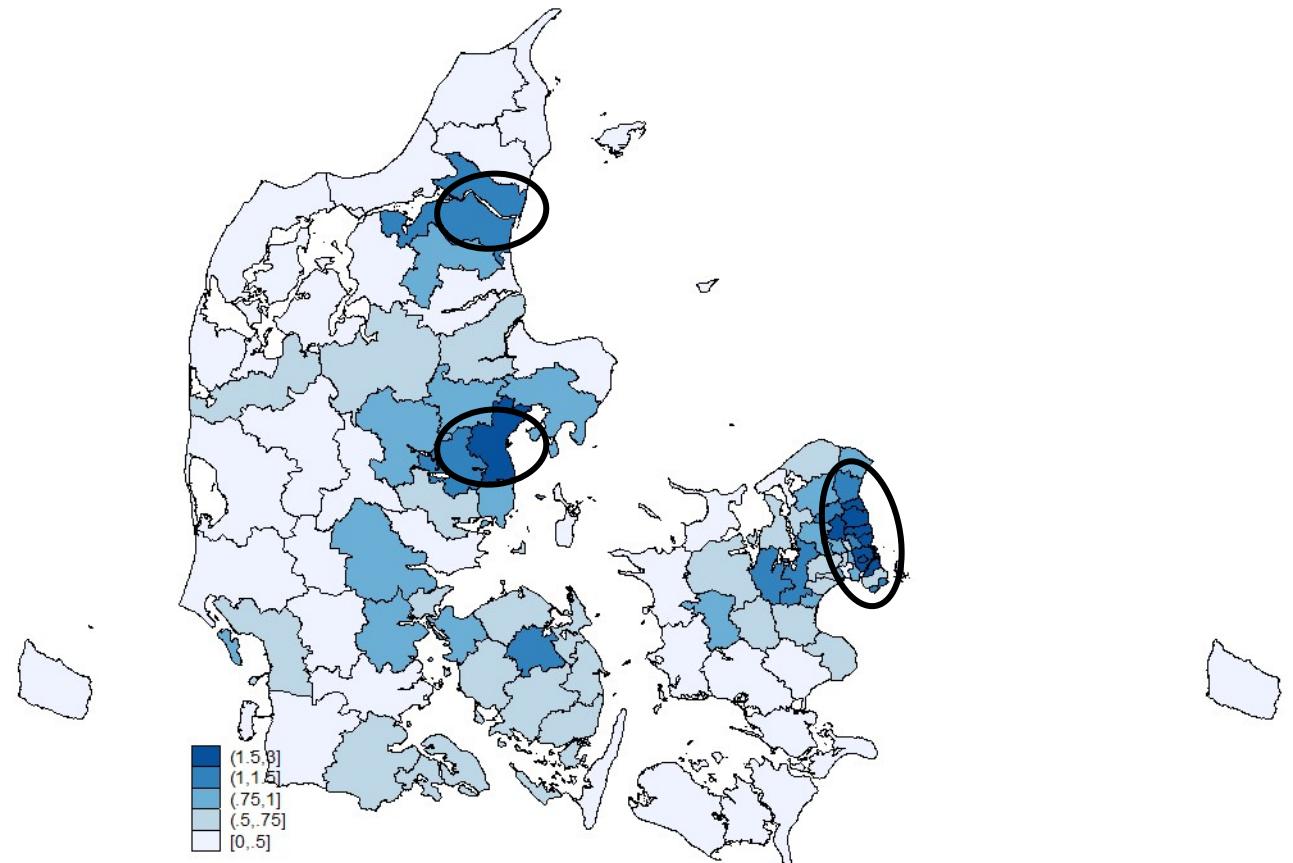
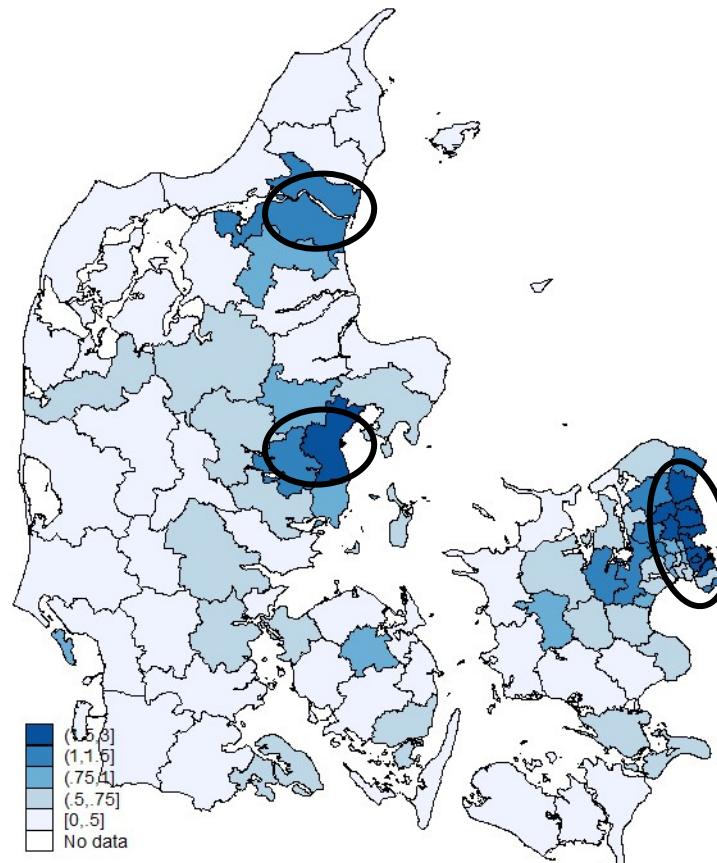
Højt til loftet, frihed og masser af frisk luft. Danskerne elsker at bo på landet, viser europæisk undersøgelse. (© DR)

People living in the periphery in Denmark is the happiest people in Europe

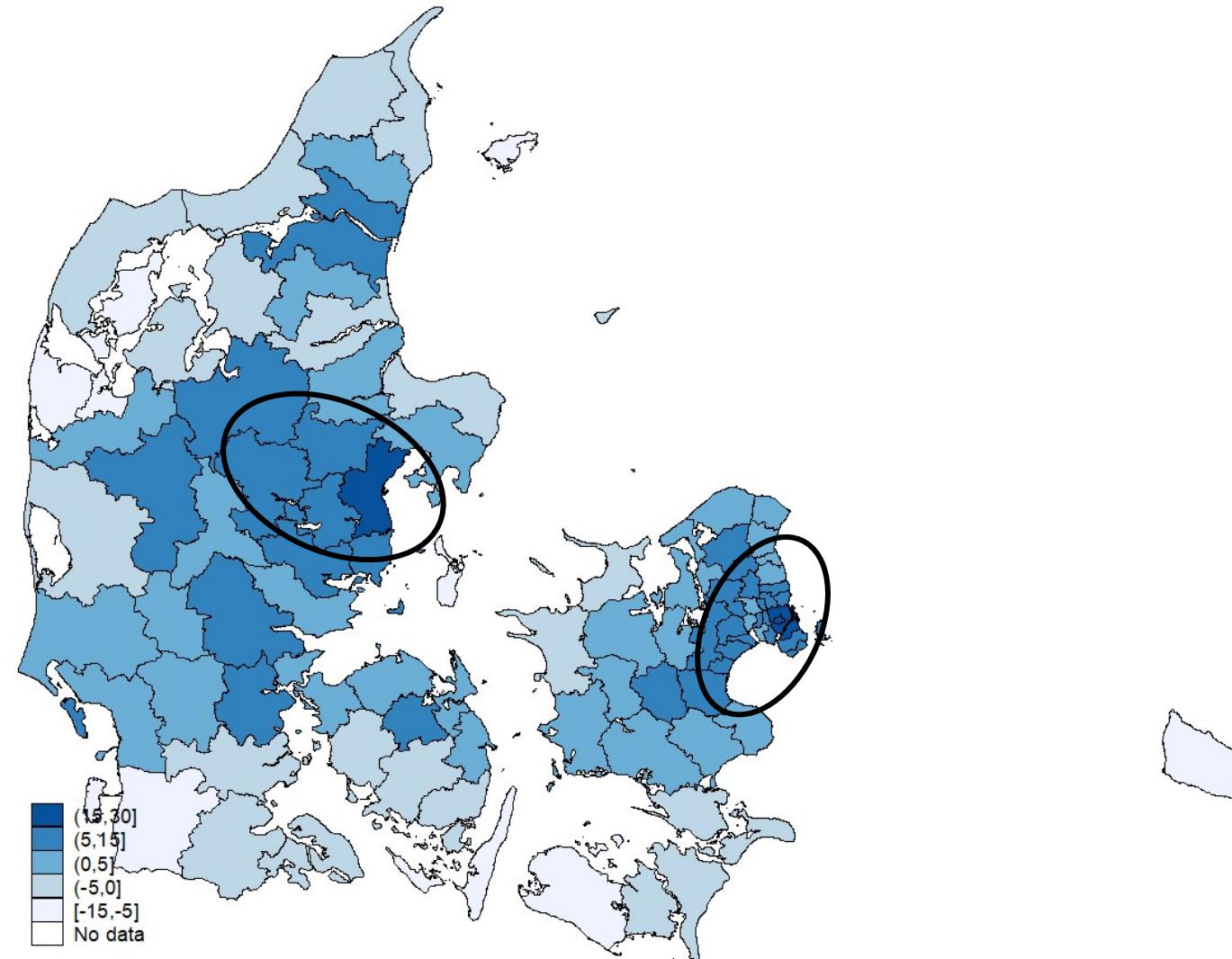
Employment growth and decline 2008-2019



LQ of human capital in Denmark 2008 2019

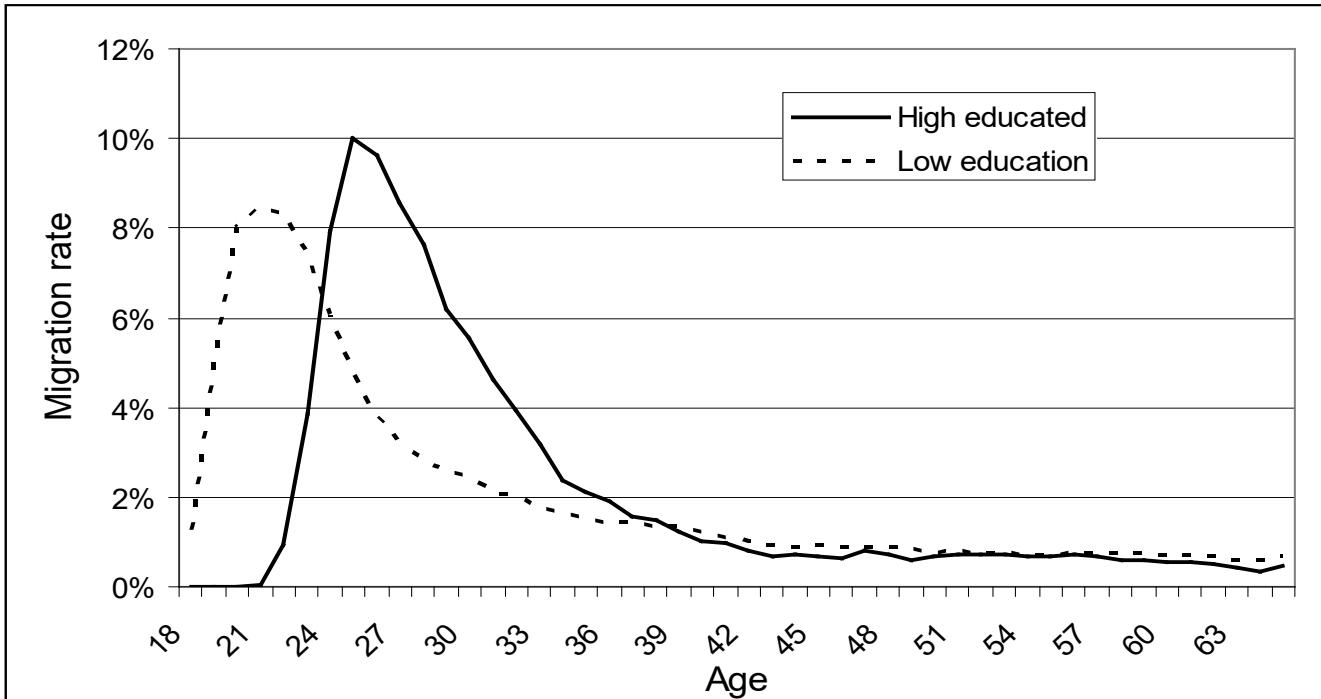


Growth rates in population in Denmark 2008-2019

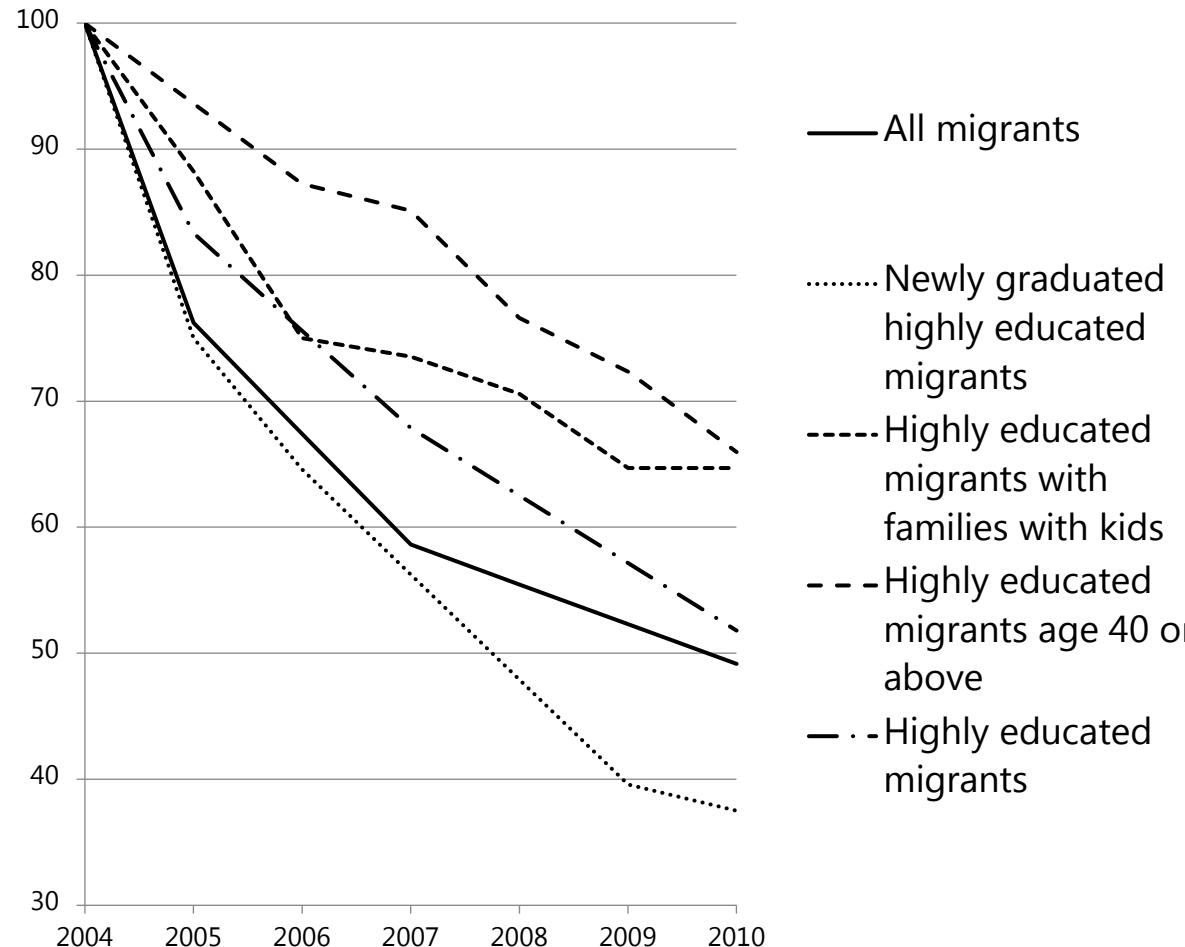


Mobility of high versus low educated people

- People are an important resource in todays production
 - People are mobile – at least to some extend
- Migration of low educated people peaks at 18-25 when starting education
- Migration of high educated people peaks at 24-33 when finishing education



The overall pattern of migration from urban to peripheral regions in Denmark



- *Newly highly educated*
 - Relocating to the periphery is considered temporary
 - Job opportunities can kick-start career
 - Tasks given in jobs in periphery are more challenging and improve CV
- *Young families with children*
 - Relocating to the periphery is considered permanent
 - Seek nature and calmness
 - Seek towards places where family live.
- *Persons above 40*
 - Relocating to the periphery is considered temporary
 - Seek new challenges career-wise
 - Jobs in peripheral regions is a possibility to change career
- All groups emphasizes job openings as the triggering effect.

The situation of lay-off workers two years after a lay-off based on types of region they was fired within

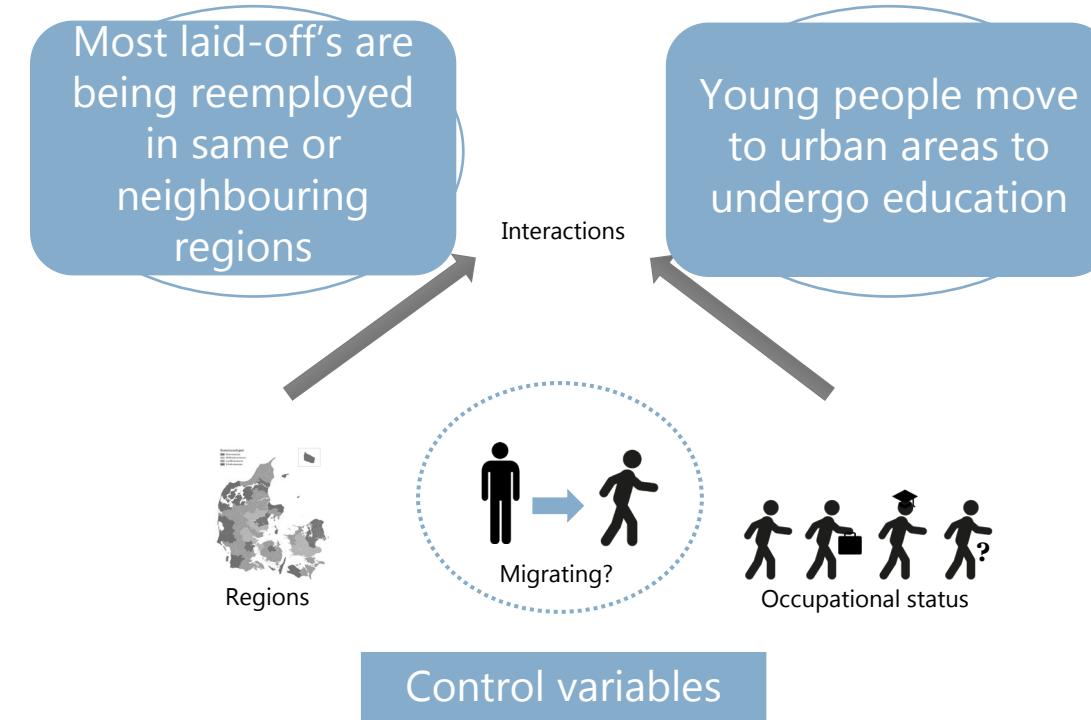
Municipality category	Employed	Unemployed	In retirement/out of labour force	In education	Total
Urban	57,071 91.26 %	2,588 4.14 %	525 0.84 %	2,355 3.77 %	62,539 100 %
Intermediary	20,175 91.67 %	1,028 4.67 %	285 1.29 %	521 2.37 %	22,009 100 %
Rural	31,959 91.22 %	1,544 4.44 %	565 1.61 %	959 2.74 %	35,037 100 %
Peripheral	8,882 91.43 %	448 4.61 %	167 1.72 %	218 2.24 %	9,715 100 %
Total	118,087 91.33 %	5,618 4.34 %	1,542 1.19 %	4,053 3.13 %	129,300 100 %

The probability of migrating within two years after a lay-off in different types of regions

Table 1. Probability of migrating within two years ($t + a$) after a lay-off.

	(1)		(2)		(3)		(4)	
	Basic		With control variables		With control variables and municipality fixed-effects		With control variables, municipality fixed-effects and interactions	
	Odds ratio		Odds ratio		Odds ratio		Odds ratio	
<i>Residence (reference = urban)</i>								
Intermediate	1.002	(0.039)	1.165***	(0.047)	1.963***	(0.259)	2.351***	(0.477)
Rural	0.984	(0.047)	1.239***	(0.048)	1.435**	(0.252)	1.723**	(0.389)
Peripheral	0.851***	(0.052)	1.097	(0.063)	1.351	(0.268)	1.480	(0.425)
<i>Employment status (reference = unemployed)</i>								
Employed							1.097	(0.104)
Retired							0.518**	(0.173)
Student							1.172	(0.128)
Intermediate*employed							0.796	(0.125)
Rural*employed							0.740**	(0.104)
Peripheral*employed							0.850	(0.194)
Intermediate*retired							1.212	(0.628)
Rural*retired							1.725	(0.697)
Peripheral*retired							1.259	(0.805)
Intermediate*student							1.489**	(0.300)
Rural*student							1.980***	(0.347)
Peripheral*student							2.156***	(0.590)
<i>Gender (reference = male)</i>								
Female			1.110***	(0.030)	1.118***	(0.030)	1.104***	(0.030)
<i>Age (reference = 18–30)</i>								
31–40			0.620***	(0.020)	0.617***	(0.021)	0.643***	(0.022)
41–50			0.372***	(0.015)	0.354***	(0.014)	0.372***	(0.015)
51–64			0.212***	(0.010)	0.201***	(0.010)	0.214***	(0.011)
<i>Ethnicity (reference = Danish)</i>								
Not Danish			0.702***	(0.034)	0.762***	(0.037)	0.777***	(0.037)
<i>Married (reference = not married)</i>								
Married, employed spouse			0.732***	(0.027)	0.693***	(0.025)	0.694***	(0.026)
Married, unemployed spouse			0.965	(0.053)	0.948	(0.052)	0.957	(0.052)
<i>Children (reference = no children)</i>								
Children			0.550***	(0.021)	0.521***	(0.020)	0.523***	(0.020)
<i>Education (reference = basic education)</i>								
Vocational training			0.835***	(0.026)	0.823***	(0.026)	0.850***	(0.027)
Higher education			0.987	(0.042)	1.015	(0.043)	1.035	(0.045)
<i>Income (reference = under 300,000 kr.)</i>								
Over 300,000 kr.			0.926***	(0.027)	0.928**	(0.027)	0.946*	(0.028)
<i>Home owner (reference = not home owner)</i>								
Home owner			0.344***	(0.012)	0.332***	(0.012)	0.336***	(0.012)
<i>Commuting >= 50 km (reference = not commuting)</i>								
Commuting >= 50 km			1.637***	(0.066)	1.570***	(0.061)	1.592***	(0.062)
Workplace size			0.919**	(0.032)	0.931*	(0.040)	0.926*	(0.039)
<i>Sector (reference = low tech industry)</i>								
Farming			1.494**	(0.262)	1.450**	(0.246)	1.471**	(0.255)
Energy (supply)			1.070	(0.135)	1.058	(0.152)	1.073	(0.151)
Construction			1.084	(0.066)	1.089	(0.067)	1.100	(0.068)
High tech industry			1.156*	(0.087)	1.140*	(0.087)	1.136*	(0.087)
Traditional service			1.256***	(0.063)	1.310***	(0.067)	1.312***	(0.067)
Knowledge-intensive service			1.190***	(0.070)	1.271***	(0.075)	1.266***	(0.073)
<i>Year fixed-effects</i>								
Yes			Yes		Yes		Yes	
No			No		No		No	
Constant	0.105***	(0.006)	0.278***	(0.018)	0.179***	(0.015)	0.157***	(0.020)
Observations	117,867		117,867		117,867		117,867	
Pseudo-R ²	0.003		0.136		0.152		0.155	

The probability of migrating within two years after a lay-off in different types of regions



Control variables

Female	Age	Ethnicity	Married, spouse in employment	Children	Vocational training	Income	Home owner	Commuting at time t-1	Size of workplace	Farming + Traditional serv. + Knowl. int. serv. +	Year dummies	Pop. density Share in employment Share with basic education

Below the table, division and addition operators are listed between the first 11 variables:

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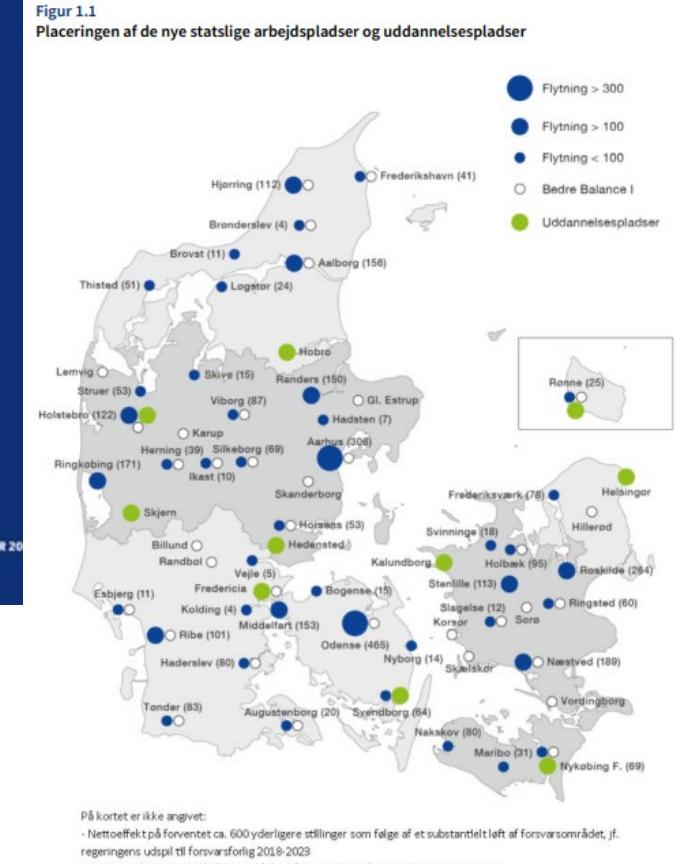
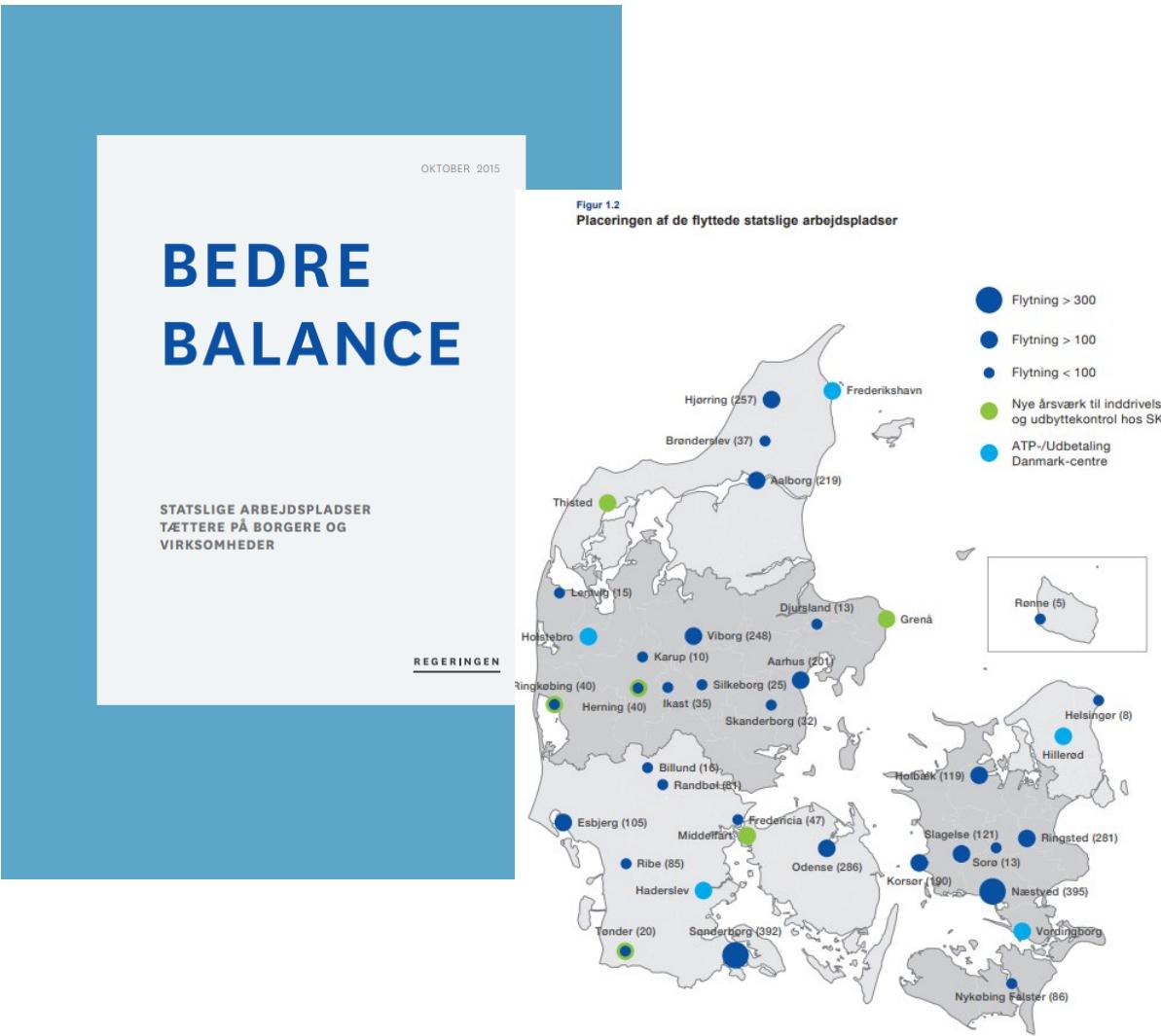
Driving forces of regional development in Denmark

- Population loss increases as urbanity decreases
 - People move for job opportunities (for themselves and their spouse) and for education.
- Job loss increases with distance to larger cities.
 - Division of production – urban areas have many of the “new” knowledge intensive jobs, peripheral have “old” industrial sectors that suffers these years
- General increase in education and skills but urban areas increases their human capital stock more than rural and peripheral areas and which increases the educational gap between regions
 - People move to urban areas to get education and do not return because jobs are here – self reinforcing process.
- People are not as mobile in the Nordic countries as US literature tend to argue

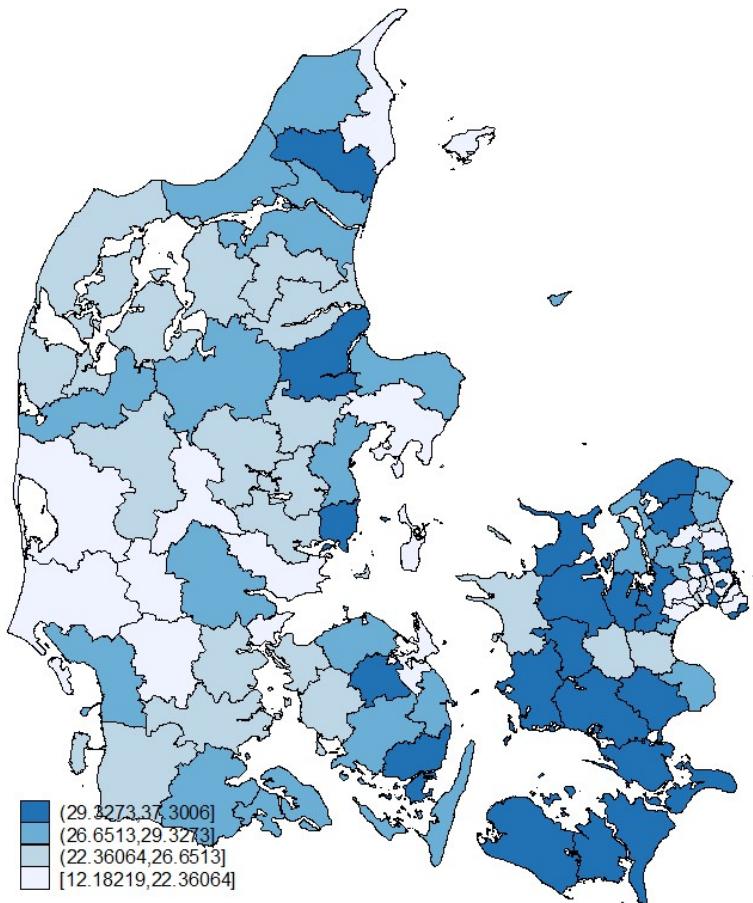
The public sector as a lever for regional development?

- Political wish for more equal development – getting rural and peripheral regions into the loop
 - Increasing alienation and miss-trust between rural and urban areas (Rodriguez-Pose, 2018)
 - Public workforce make up more than 30% of total employment
 - The largest part of the public sector is strongly related to where people live – schools, day care, police etc
 - But a substantial part of the public sector is less sensitive to where people live – government agencies, higher education institutions, military etc.
 - The less population-sensitive parts of the public sector (minimum 30%) can be relocated based on political decision making – and thus often used as a instrument to revitalise regional growth (or decrease decline)
- But how does the public sector influence local labour markets and long term development?

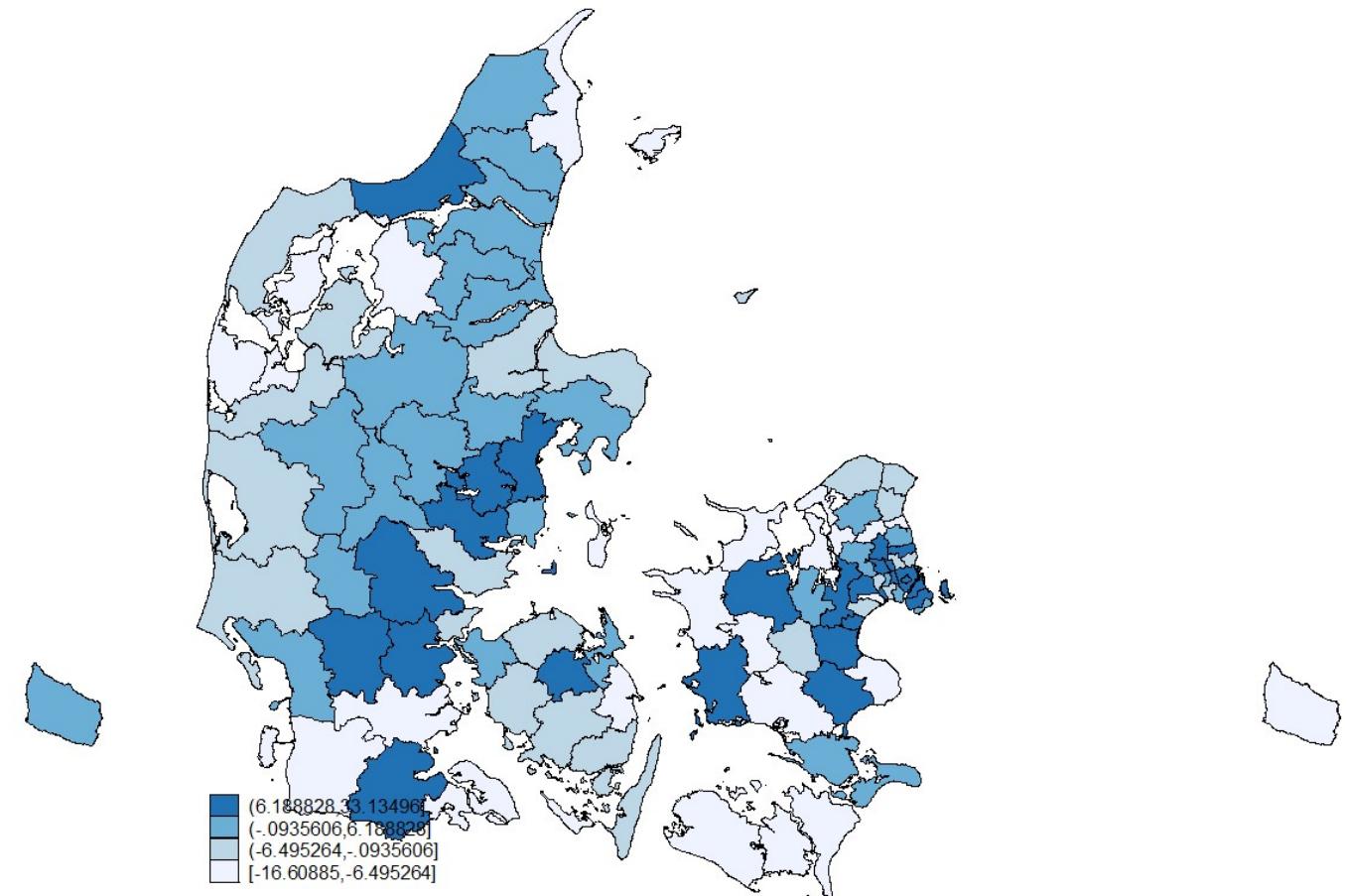
Government plans for relocation of governmental agency bodies 2015 and 2018



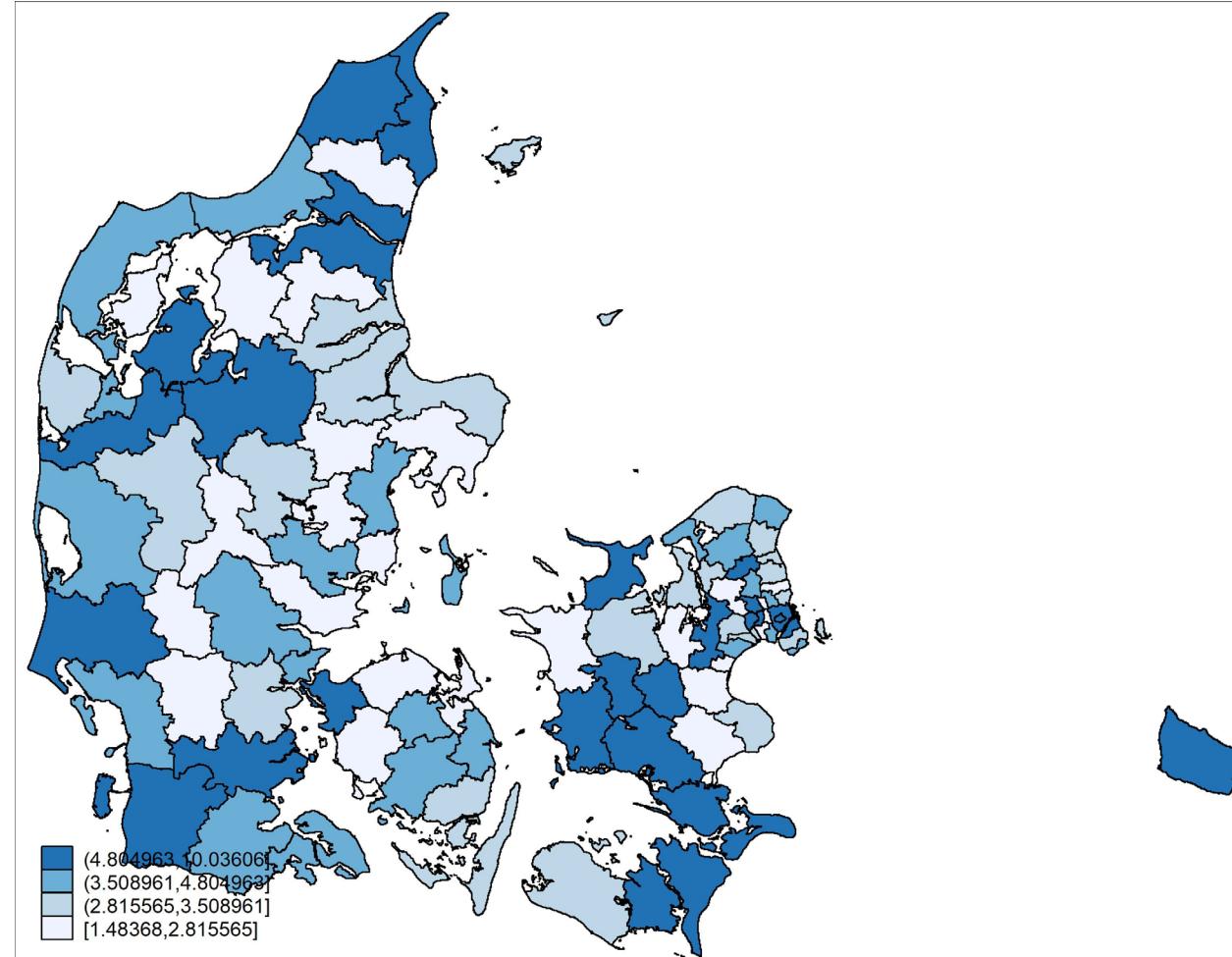
Share of employment in public sector 2019



Growth in the public sector employment 2008-2019

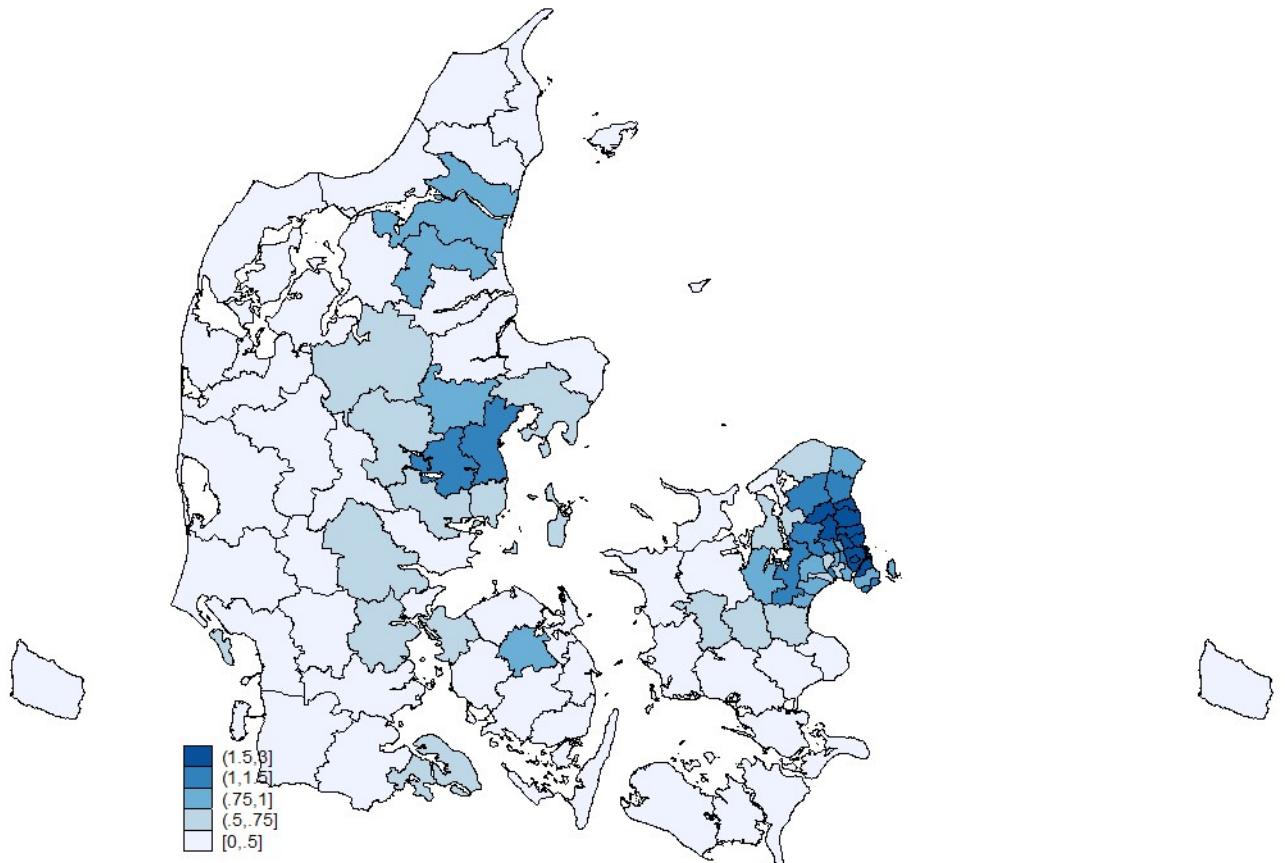
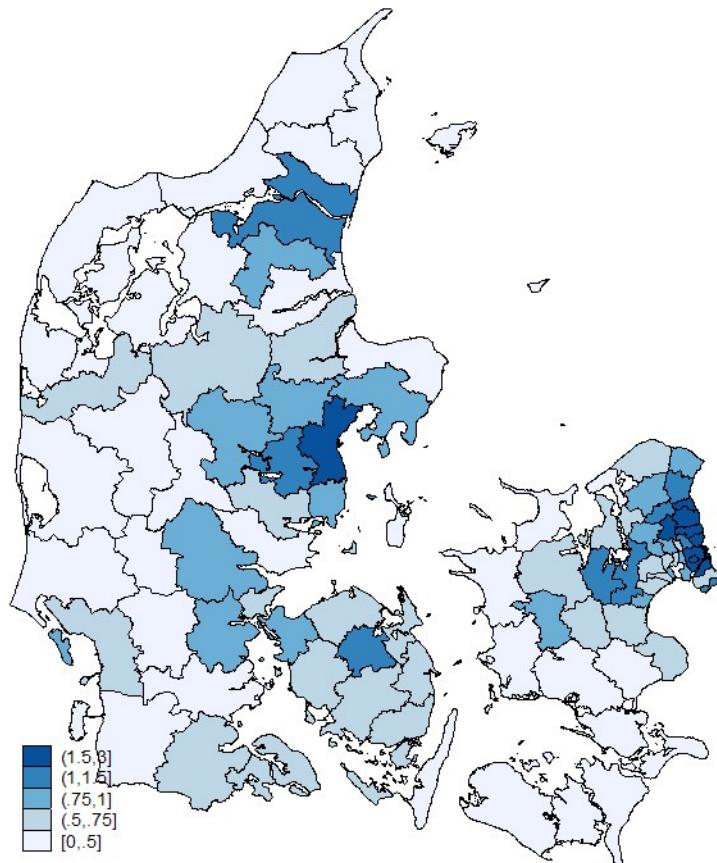


Share of less population-sensitive public sector employment in 2019

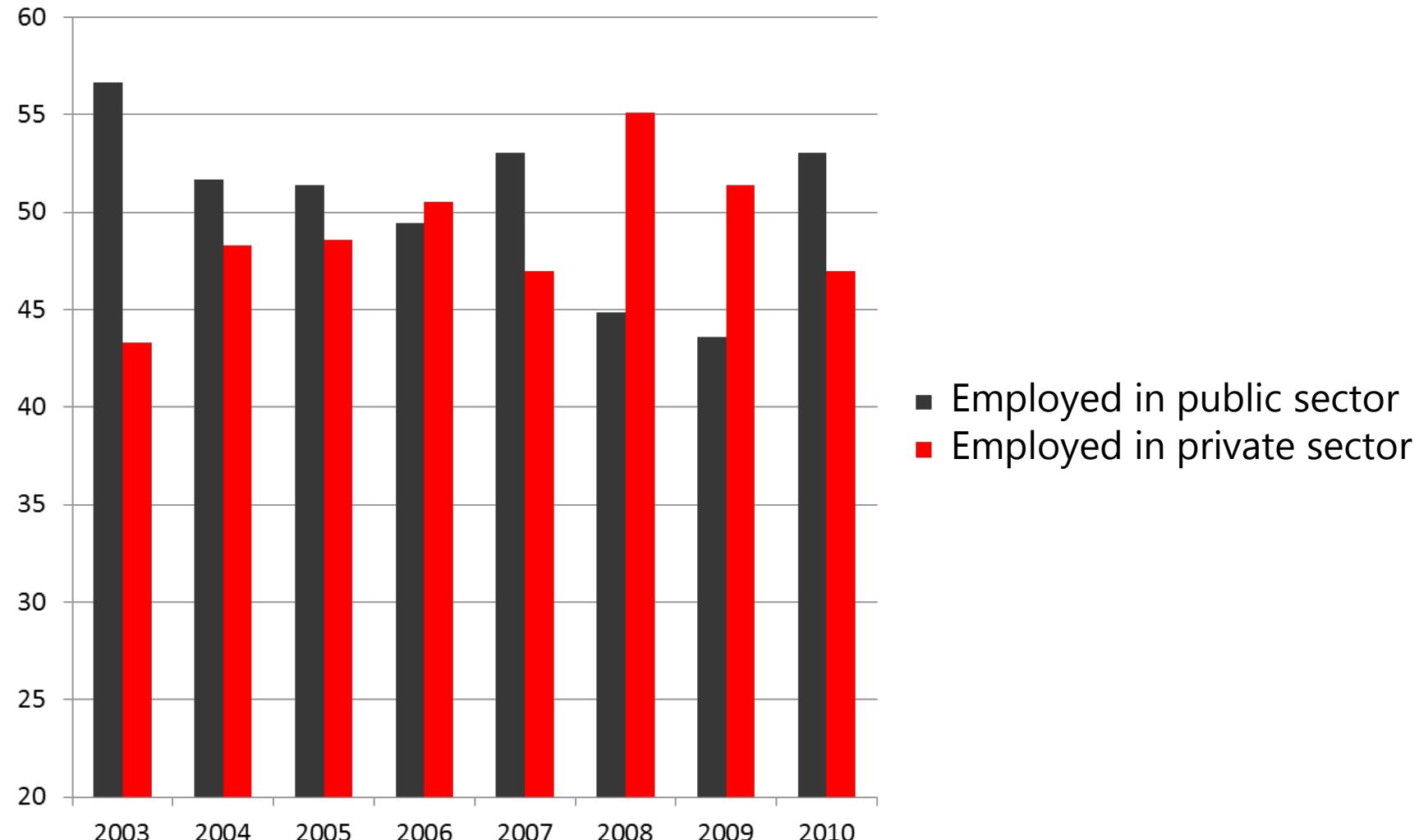


LQ of human capital in public and private sector in Denmark

Public sector 2019 Private sector 2019



What type of jobs are highly educated entering when migrating from urban to peripheral areas



Relation between general growth parameters and public sector parameters – in Denmark 2008-2019

- Preliminary results:
 - Positive correlation between job growth and public sector employment growth in general
 - Urban municipalities show stronger correlation between job growth and location of public sector compared to rural and peripheral municipalities
 - Positive correlations (approx. 0.5) between growth in public and private sector jobs.
- But we still do not know the effect of government relocation plan from 2015 and 2018.

Lack of knowledge on the relationship between public sector employment and regional labour markets

- The effect of growth and decline in the public sector on the regional labour market - how does the labour market react to changes in public sector employment?
 - Crowing out private sector
 - negative multiplier effects (Faggio & Overmann, 2014)
 - More stable jobs in public sector move people from private to public sector and reduce entrepreneurship (Alesina et al. 2001, Zikou et al 2018).
 - Retain challenging regions in a dependency relationship
 - Restrain new path creation (Dawley et al. 2010)
 - Public sector can facilitate people to move to rural and peripheral regions and public sector jobs in the periphery. (Hansen & Aner, 2017)
 - Very inconsistence findings in the literature:
 - We need to study how the relationship is in Nordic welfare states where public sector is large and wage levels do not markedly differ between regions?

Lack of knowledge on the relationship between public sector employment and regional labour markets

- What is the interaction between labour in the public and the private sector?
 - To what extend and how is redundant labour from the public sector absorbed into the private sector – and vice versa? (inspired by Eriksson et. al, 2016)
 - Who moves into public sector jobs when the public sector decide to expand – and what is the consequences for the sectors that labour leave from?
 - Can the public sector be viewed as a steppingstone into the private sector?
 - => help employees build CV?
 - If the public sector in peripheral areas offer more responsibility and more challenging work tasks than in urban cities how does it affect the carrier of those who take job in rural areas compared to those staying in urban environments?

Conclusion – future studies

- The public sector act as a redistributor of jobs and human capital.
- But we need to better understand how the dynamics of the public sector effects the overall regional development, e.g. :
 - How different types of state organisation (variety of capitalism) allows for different types of political intervention – and the associated outcome
 - How regions with different characteristics react to changes in public sector employment – urban, rural, peripheral, mono- or highly diverse industrial structures etc.
 - How the public sector can act as a competence booster.
- Nordic welfare states offer an illustrative case to understand the impact of the public sector in general as well as an active tool in regional policy.
- BUT we need more knowledge about the dynamics of the public sector to be able to develop policies that use the public sector in the most valuable way

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Thank you!

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