

LLLight'in'Europe

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Human Capital | Tracks in Europe



The Contribution of Complexity Competence

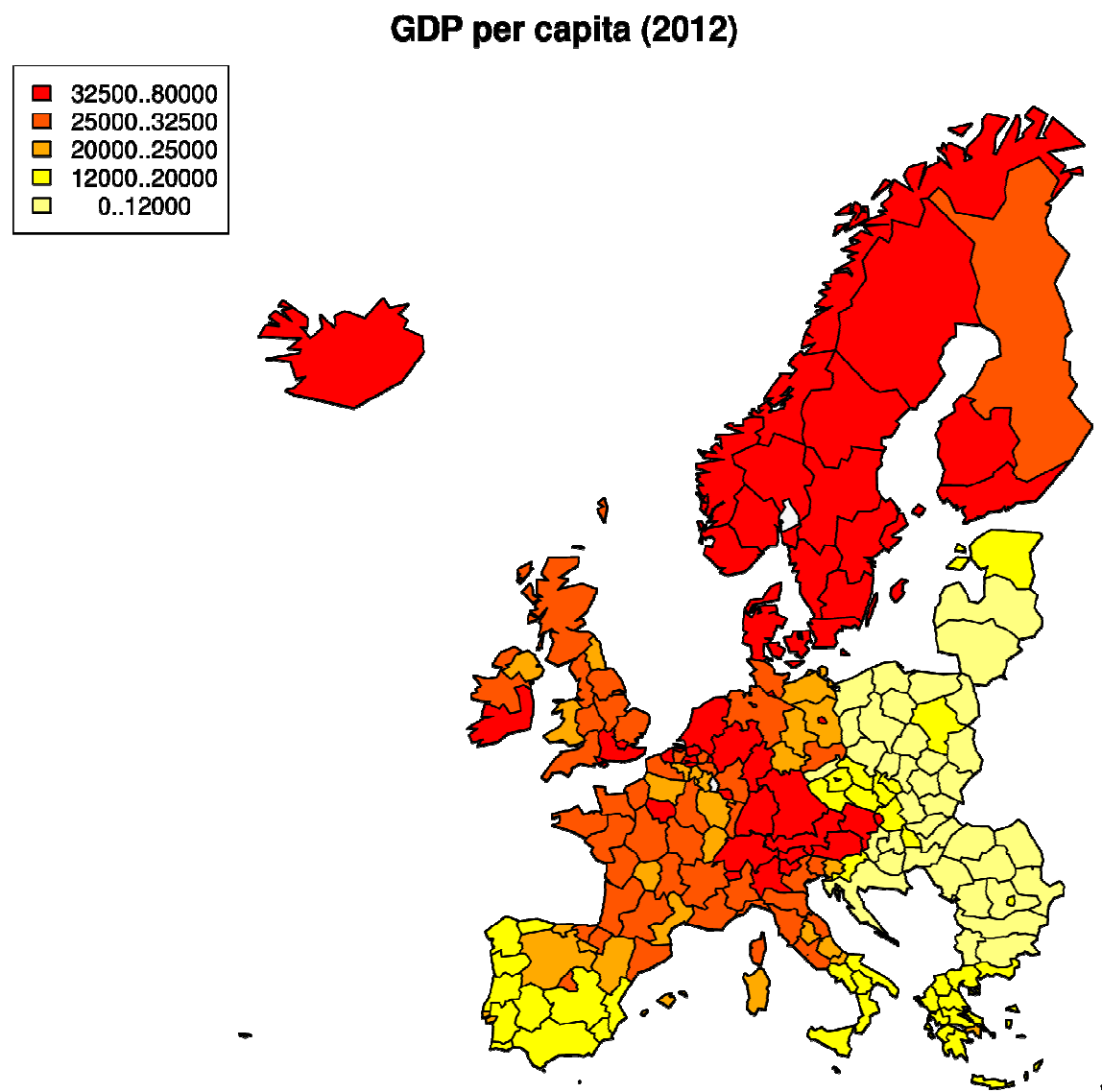
Peer Ederer

Alexander Patt

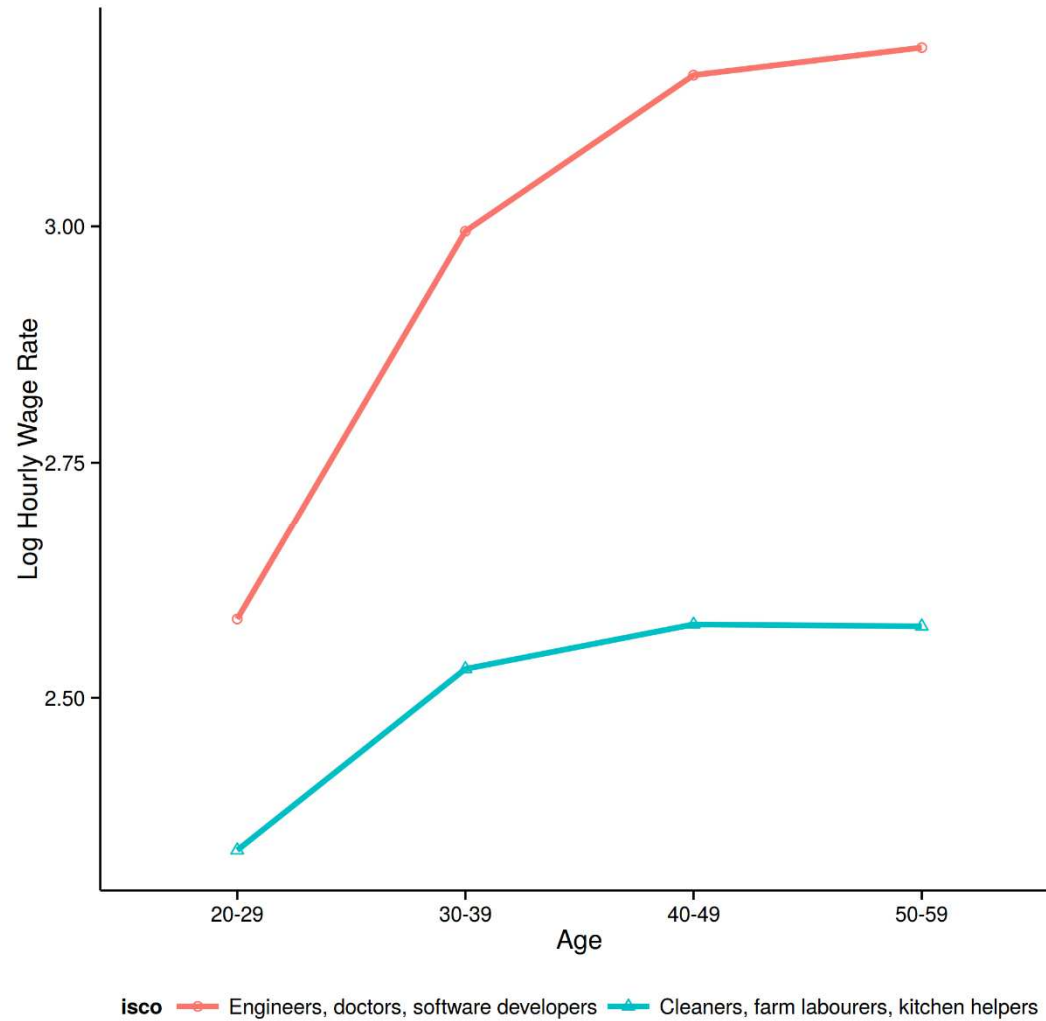
Hugin Center, Zeppelin University, Germany



Why are there wealth differences among European regions?



Income gaps of top-earners to bottom-owners grow with time



What is complex ?

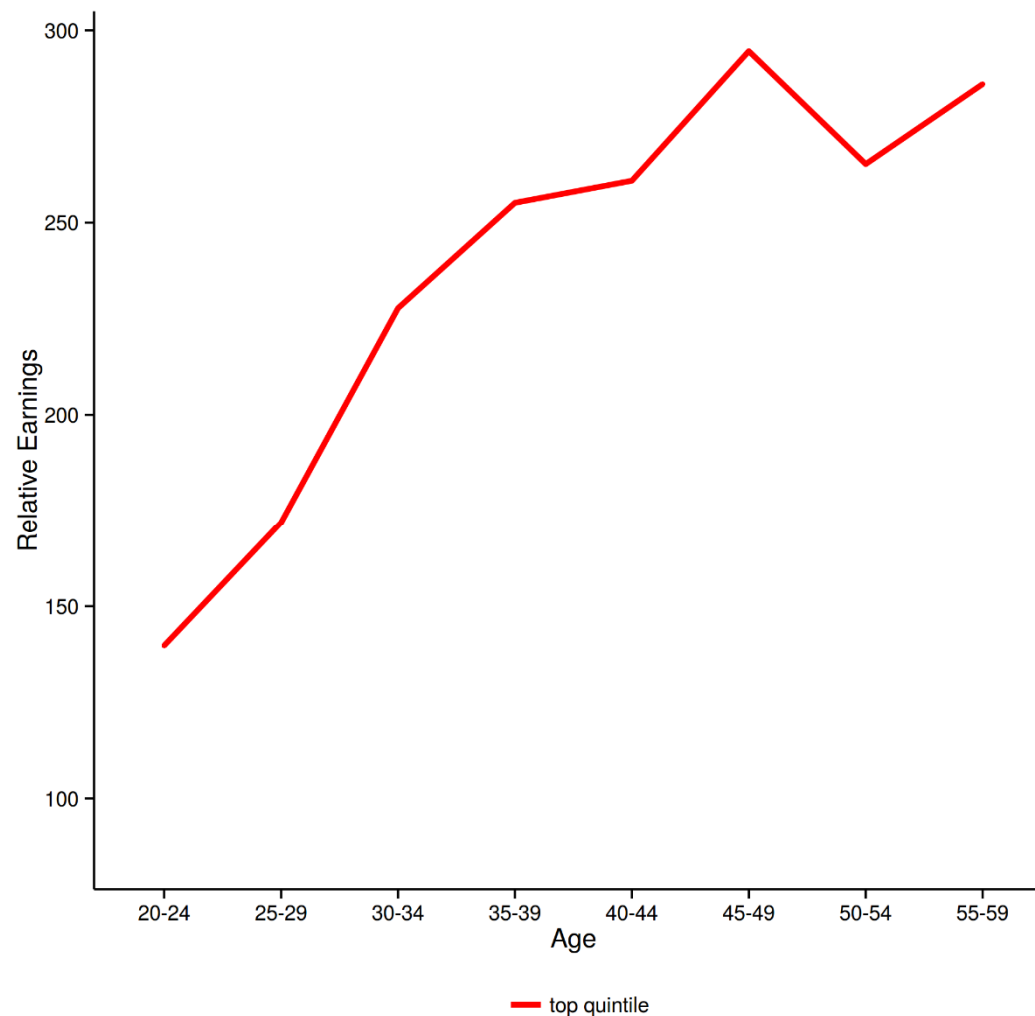
Complex tasks

- Optimization of production
- Making predictions
- Making decisions with significant financial consequences
- Teaching
- Planning and organizing work of large teams

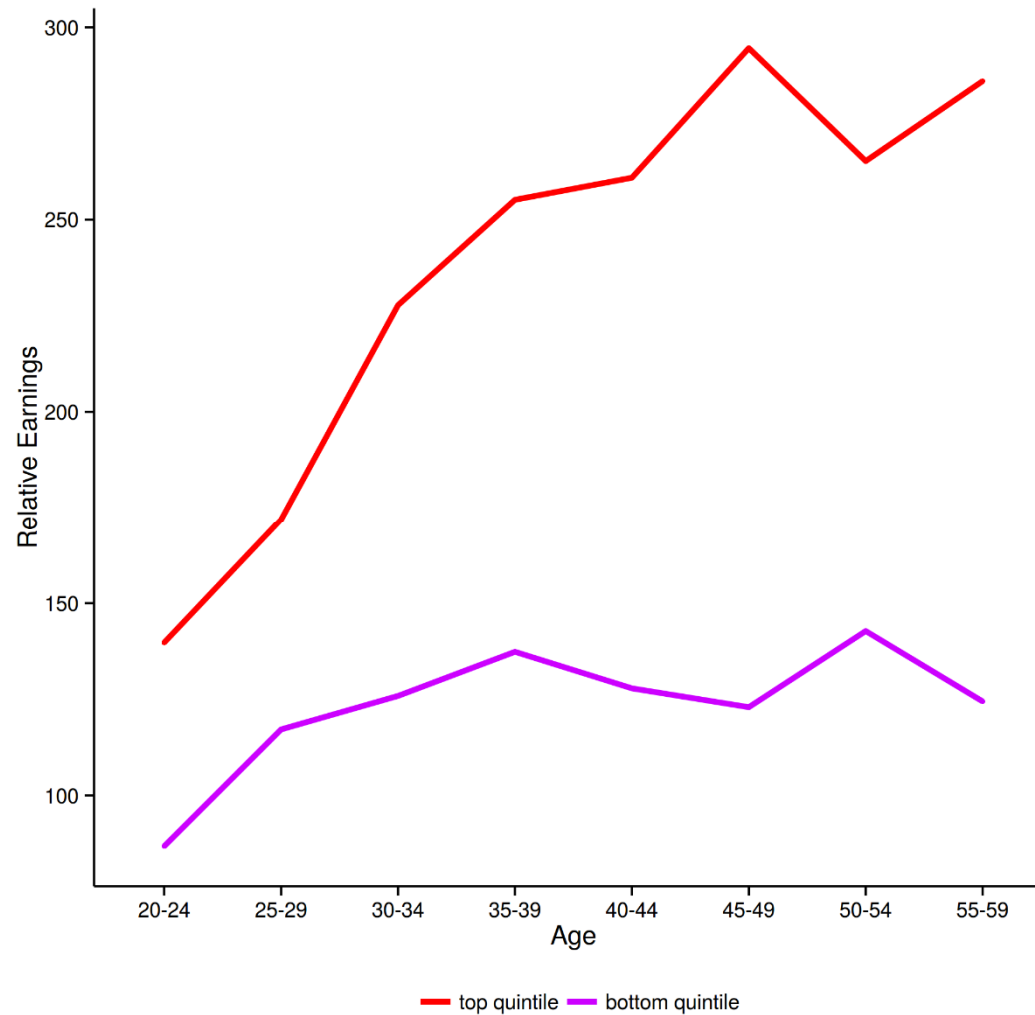
Simple tasks

- Following clear and simple instructions
- Cleaning or polishing surfaces
- Serving food
- Organizing limited amount of information
- Filling out forms with known information
- Copy-pasting

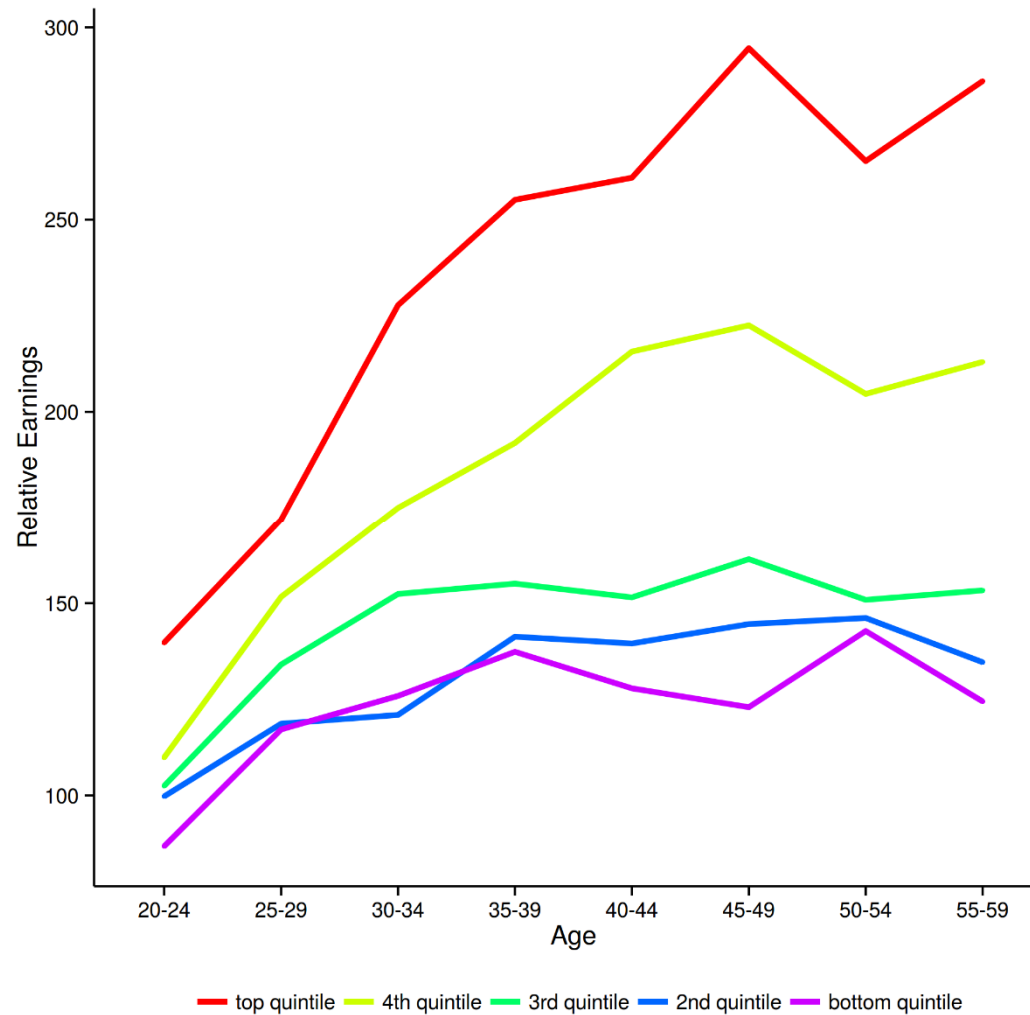
Complex job holders experience a sustained growth of income



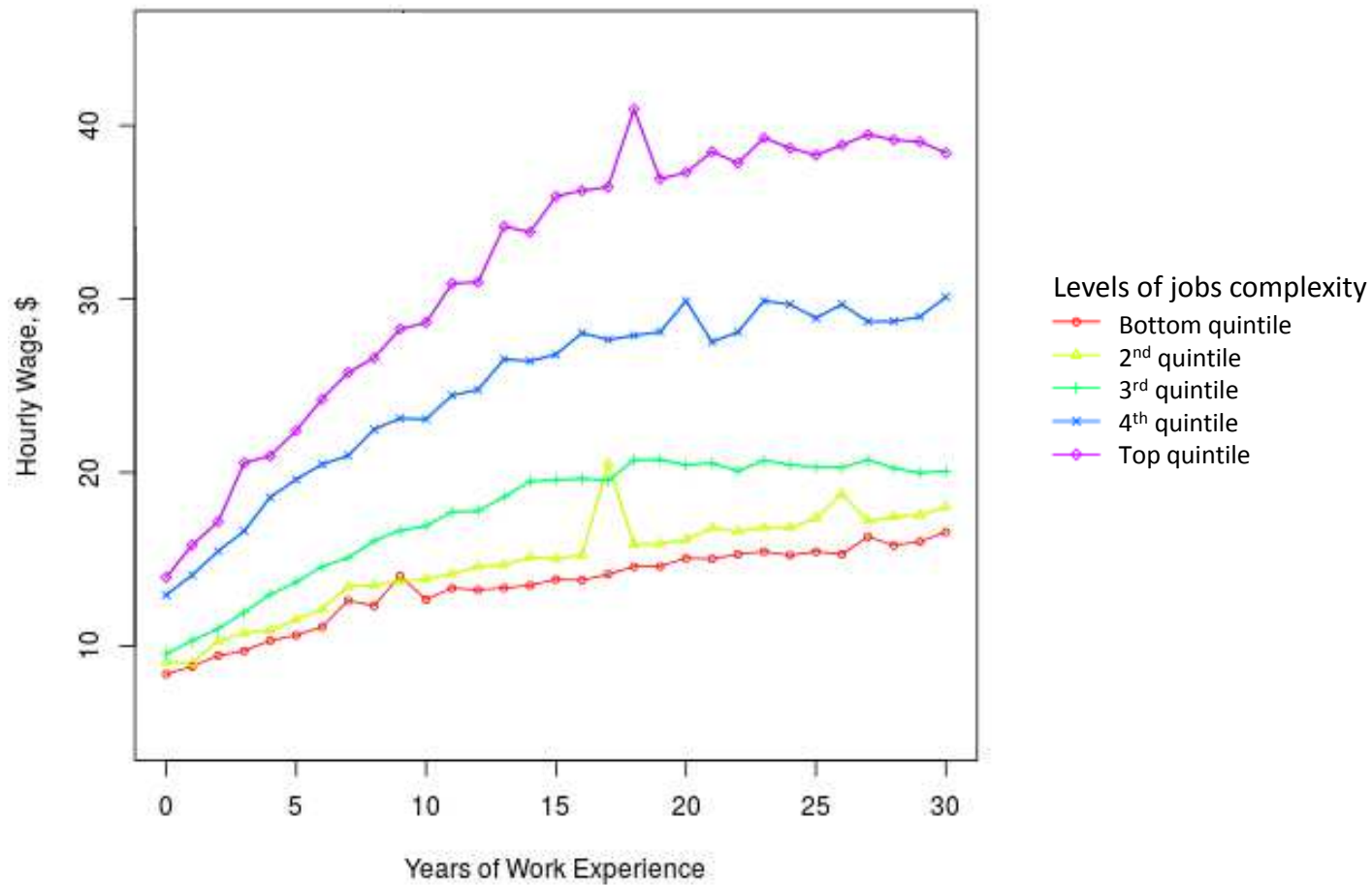
Non-complex job holders experience no income growth



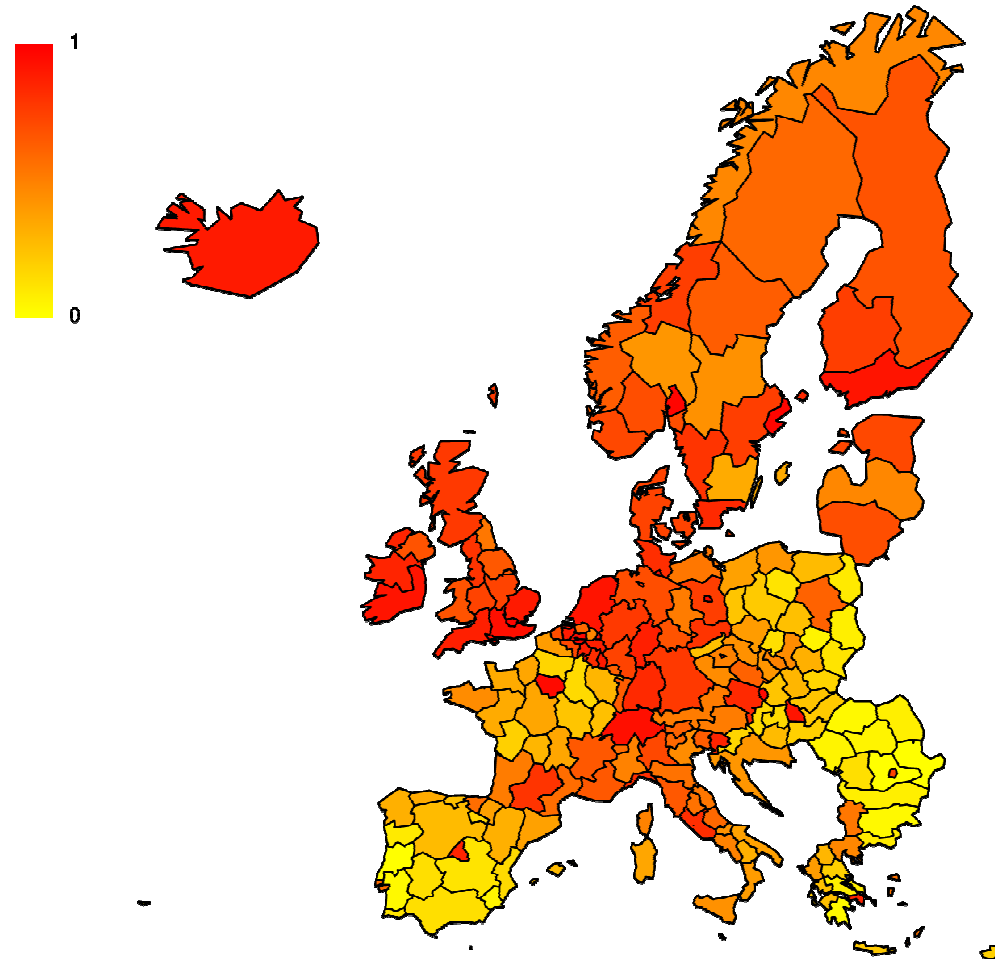
The more complex the job, the faster, longer and higher the income



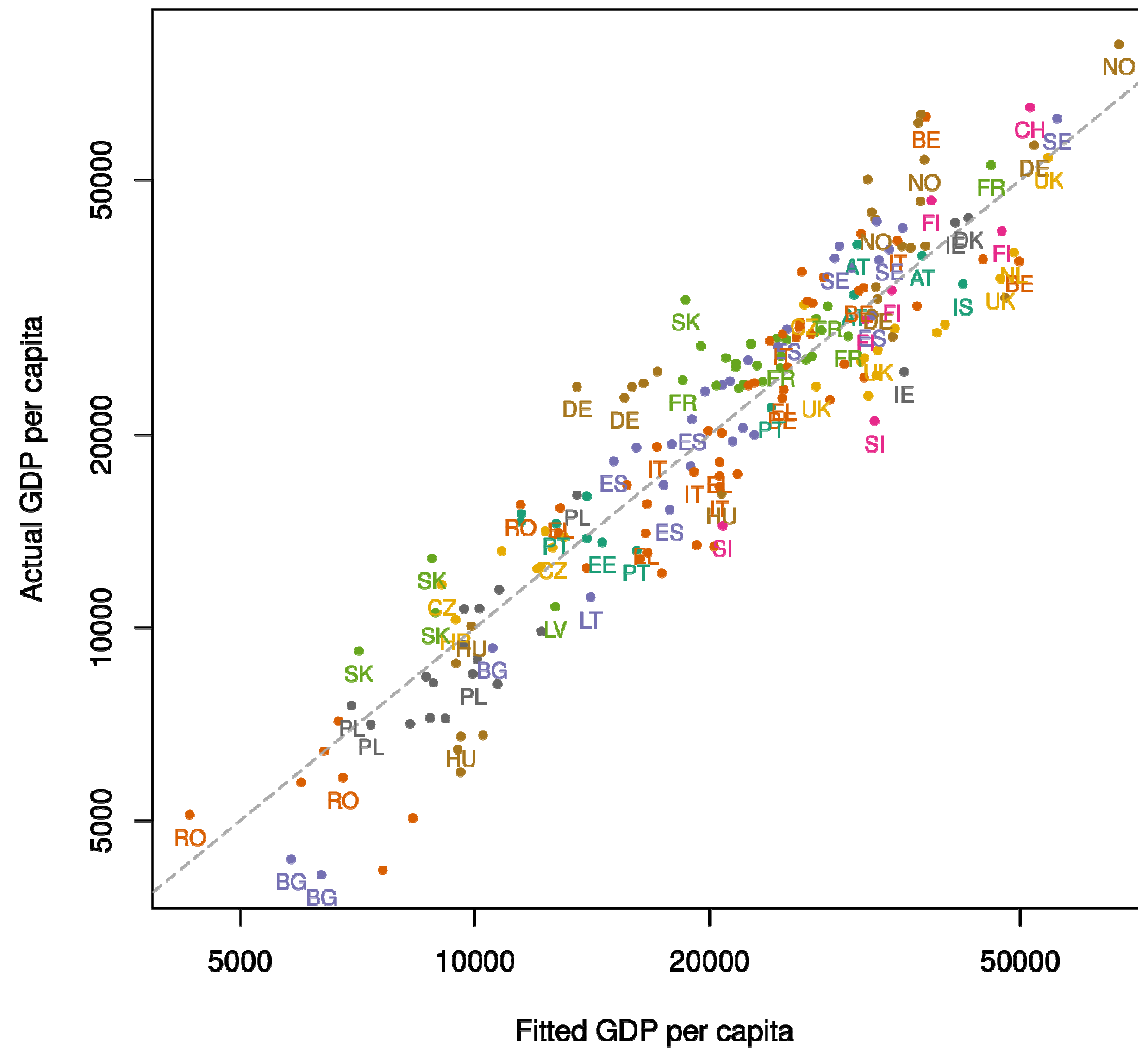
The same patterns are also true for USA



Complexity in 201 regions in Europe



With our economic model based on complexity we predict GDP per capita per region very well

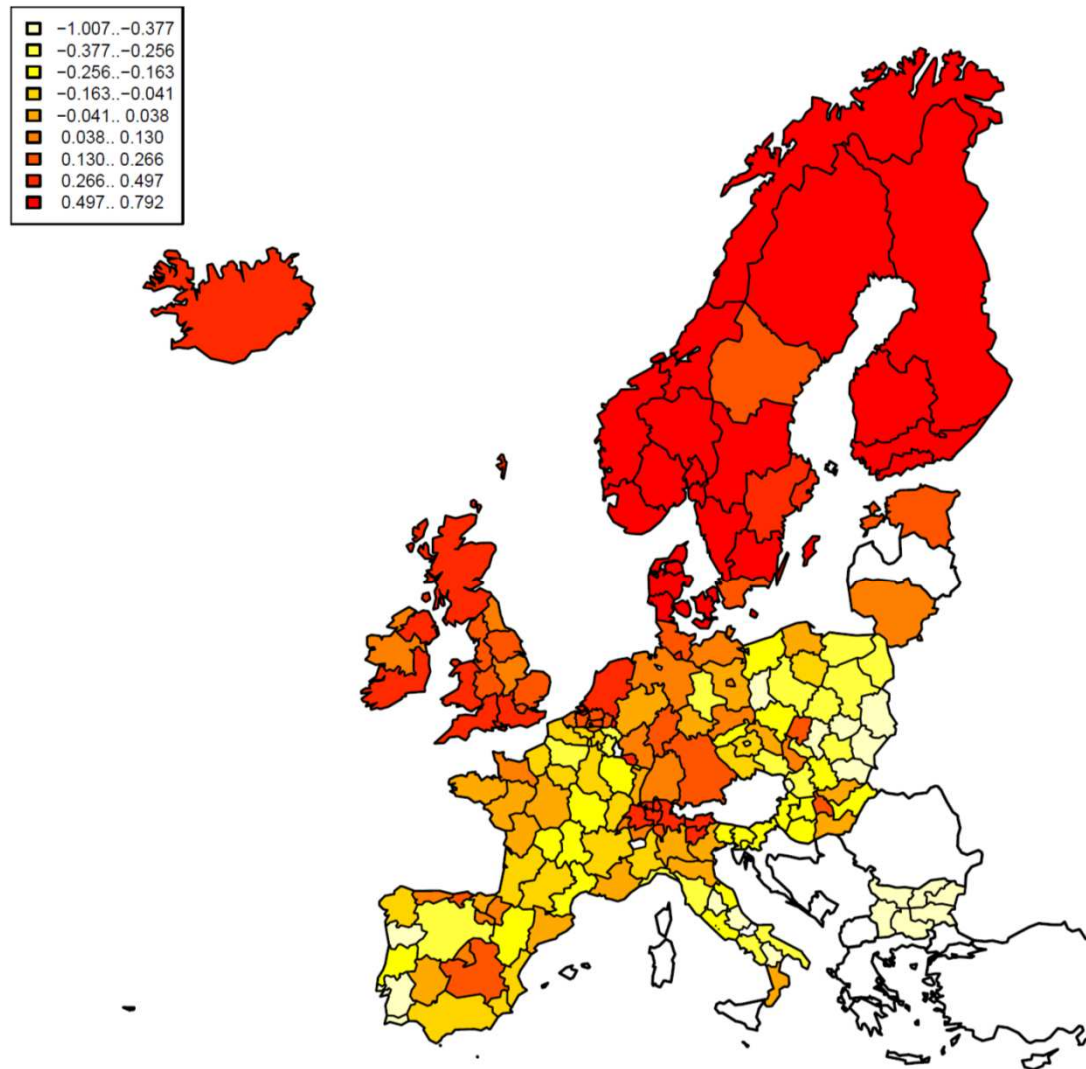


Complexity-based model explains 89% of all regional wealth differences in Europe

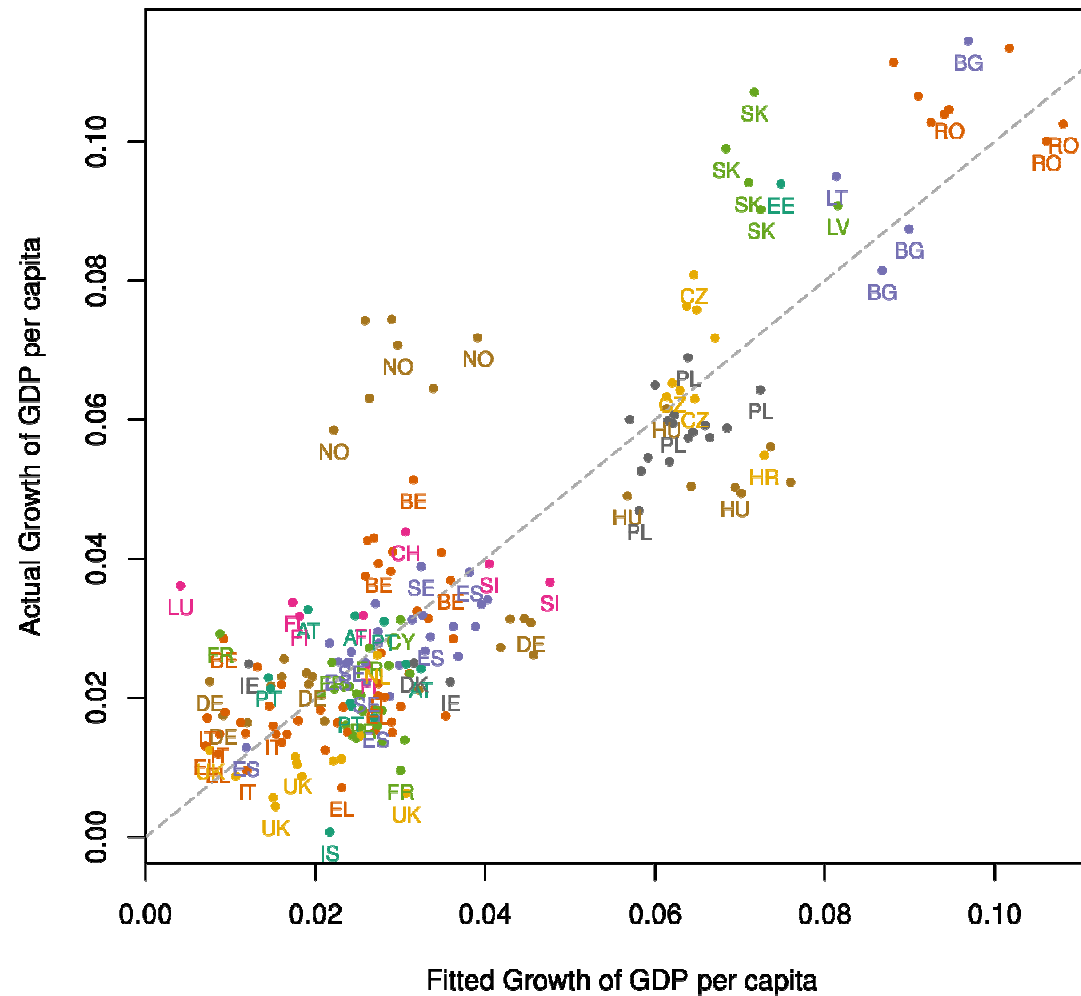
	Model 1	Model 2	Model 3	Model 4	Model 5
(Intercept)	14.13*** (0.29)	13.19*** (0.20)	13.10*** (0.19)	13.02*** (0.26)	12.54*** (0.27)
Complexity	5.90*** (0.42)	4.28*** (0.29)	3.87*** (0.28)	3.76*** (0.40)	3.15*** (0.39)
Ex-Socialist		-0.77*** (0.06)	-0.73*** (0.05)	-0.74*** (0.06)	-0.67*** (0.05)
Youth Unemployment			-0.74*** (0.18)	-0.76*** (0.20)	-0.57** (0.21)
Capital				0.03 (0.08)	0.07 (0.09)
Social Trust					0.32*** (0.08)
R ²	0.62	0.85	0.87	0.87	0.89
Adj. R ²	0.62	0.85	0.87	0.87	0.89
Num. obs.	201	201	201	201	199
df	199	198	197	196	193
Mean dep. var	9.95	9.95	9.93	9.93	9.92
BIC	282	95	69	74	52
σ^2	44.68	27.75	25.75	25.78	24.31

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

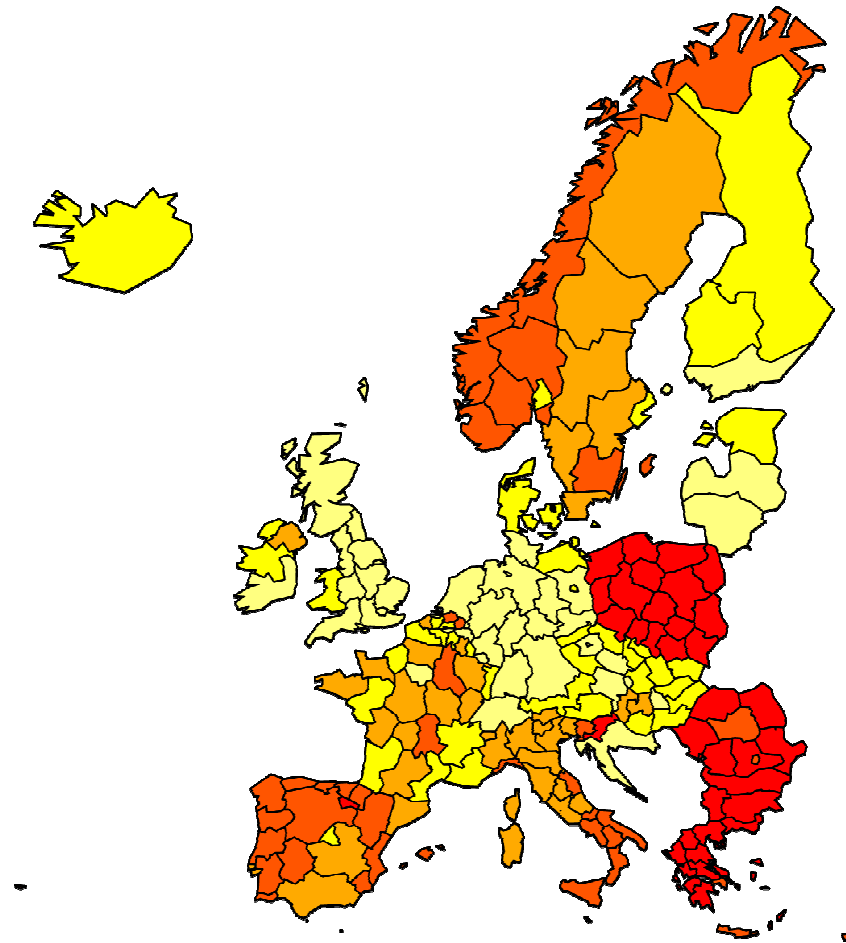
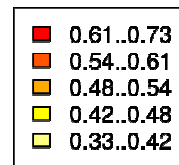
Social trust is critical for complexity to function well



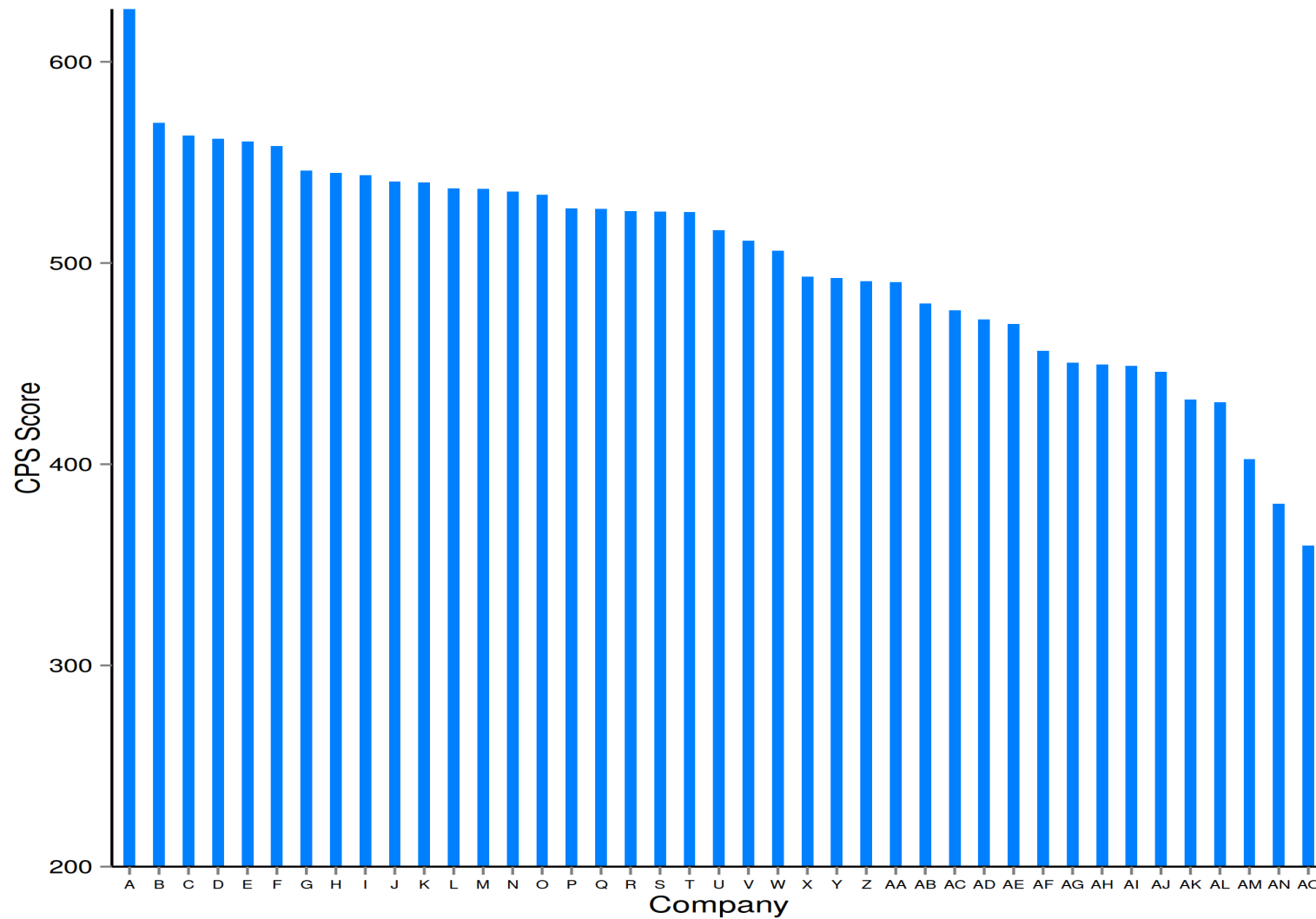
We can also explain refine the understanding of regional economic growth



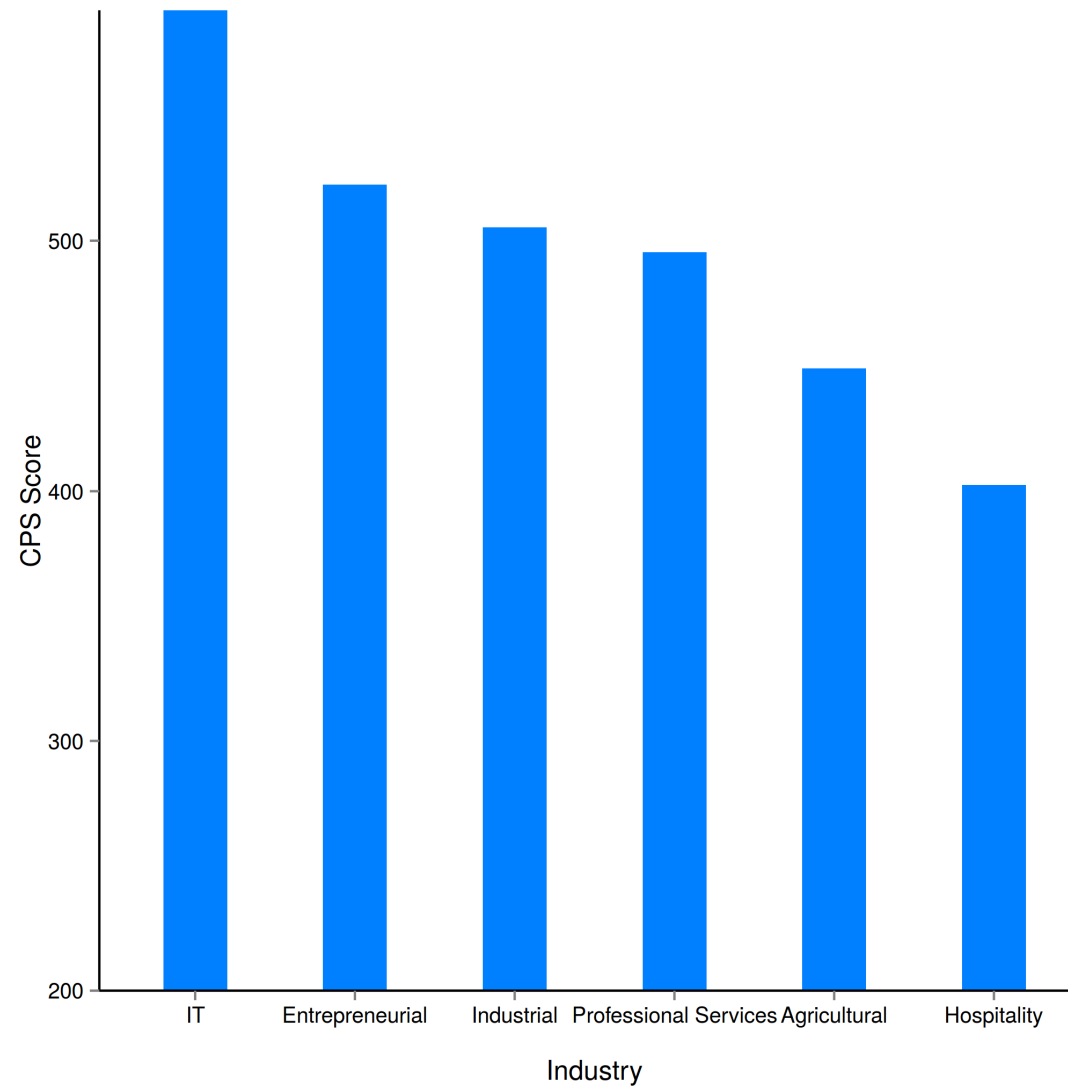
Diversity of tasks is also important



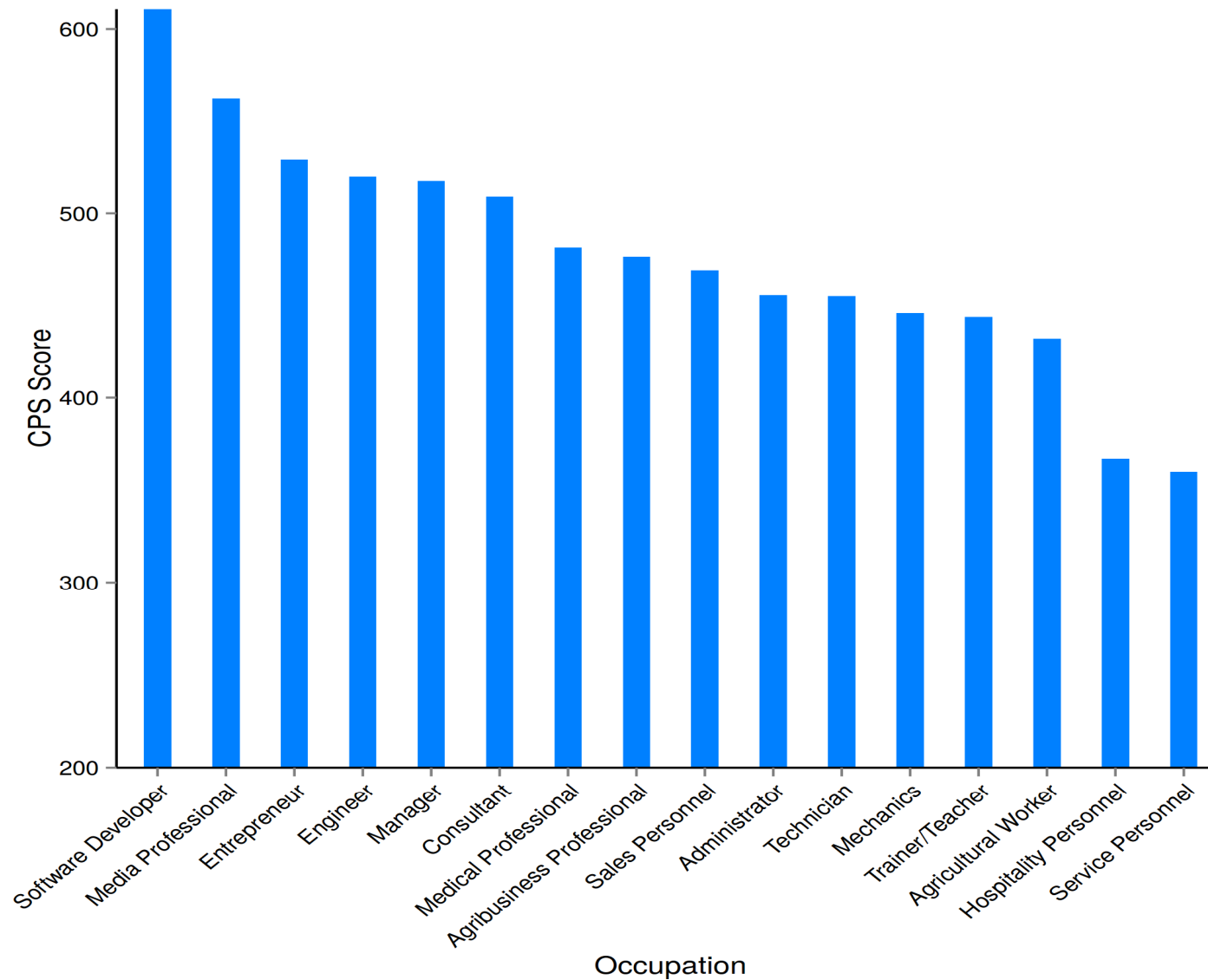
Complex Problem Solving skills by company



Complex Problem Solving skills by industry



Complex Problem Solving skills by occupations



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Thank you for your attention

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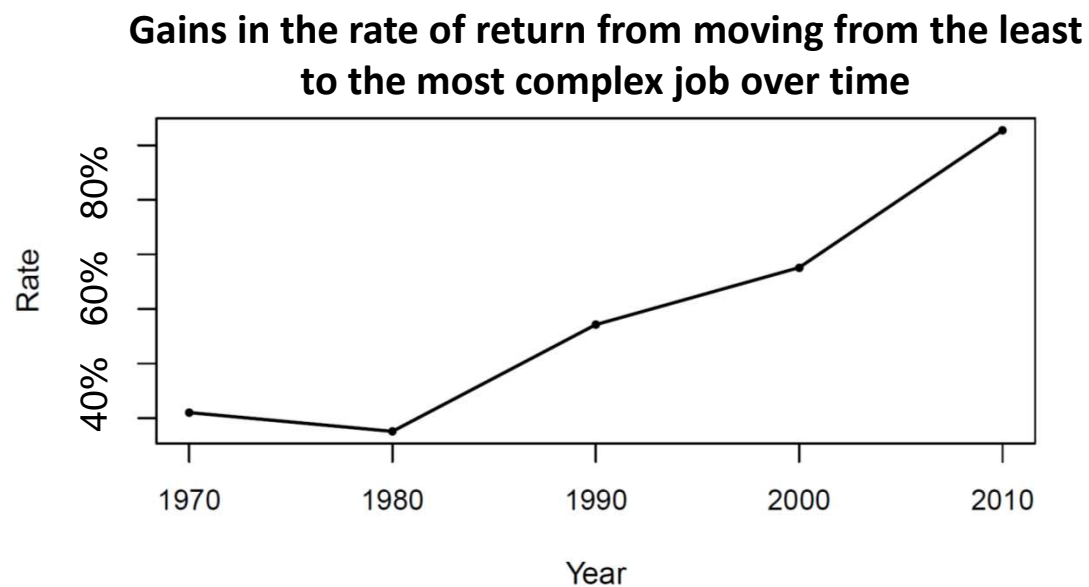
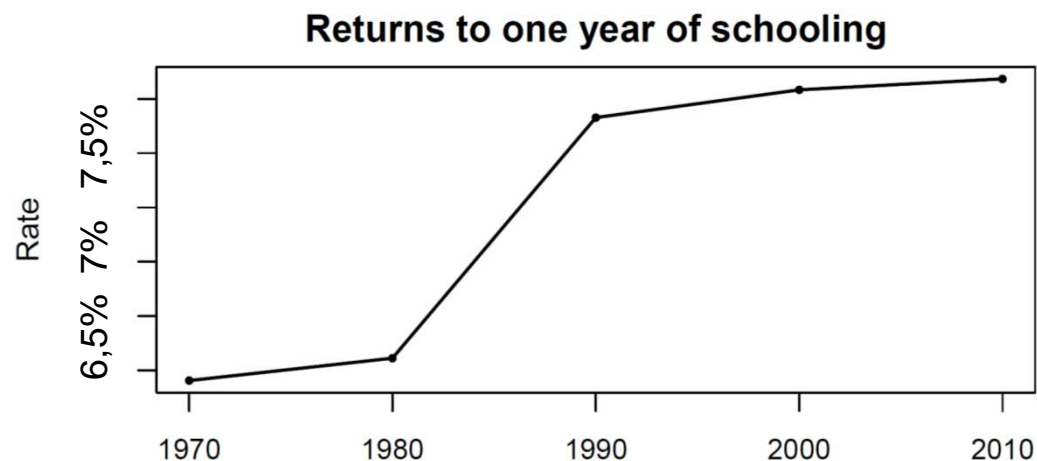
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Backup



The returns to complexity keep on growing



The Complex Problem Solving Skills increase in the same way as complexity in the job increases

