

All the same?

Job quality and heterogeneity among the self-employed

Petra Sauer, Anna Schwarz, Johanna Hofbauer

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1 Introduction

2 Data & Methodology

3 Results

- The four classes
- Characteristics of the four classes
- Country groups

4 Conclusion

Motivation

Changing world of work:

- Increasing share of atypical employment in overall employment (Lott et al., 2022)
- Traditional self-employment with employees declining (Boeri et al., 2020)
- Solo self-employment on the rise in most countries (Boeri et al., 2020; Eurofound, 2017)
- Blurring boundaries between dependent and self-employment (Bozzon & Murgia, 2022)

Self-employment multiple facets → segmentation

Labour Market segmentation literature

- Focus on dependent employment and two segments of *insiders* and *outsiders* based on employment contract (Doeringer & Piore, 1971; Rubery, 1978)
- More dimensions need to be taken into account (Seo, 2021)
- Segmentation *within* self-employed underexplored (Bozzon & Murgia, 2022)
- New strand of literature using Latent Class Analysis as data-driven way to examine labour market segmentation (Bozzon & Murgia, 2022; Lukac et al., 2019; Seo, 2021; Yoon & Chung, 2016)

Job quality dimensions

- Segmentation among self-employed might be mirrored in differences across job quality dimensions
- Based on related literature, we conceptualise job quality as a multidimensional phenomenon using 10 dimensions: (Burchell et al., 2014; Eurofound, 2017; Grimshaw et al., 2017; Kalliath & Brough, 2008; Muñoz de Bustillo, 2011)

Which segmentation patterns (i.e. classes) emerge from overlapping (un)favorable outcomes across job quality dimensions?

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Data

- 6th wave of European Working Conditions Survey (EWCS) 2015
- Large-scale coss-sectional survey in 35 countries (EU, Montenegro, Macedonia, Serbia, Turkey, Albania, Norway, Switzerland)
- 44.000 workers and around 300 variables measuring several dimensions of job quality
- Restrict sample to self-employed: 7661 observations

Quantifying job quality

Job quality dimensions	EWCS indicators
Employment quality	Social security
Income	Decent pay (subjective)
Development & training	Career advancement; individual training
Skills	Skill types/levels
Autonomy	Task autonomy Time autonomy Client independence
Work intensity	Stress at work, working at high speed or to tight deadlines
Work-life balance	Regular working hours Work-time flexibility and work-family reconciliation
Meaningfulness	Meaningfulness
Health	Mental and physical health
Social environment	not available

Other Variables

- Socio-economic characteristics and additional job characteristics:
 - Gender, age, education, migration background, urban residence, monthly net income (when available)
 - Hours worked, NACE sector, want to work more hours, solo-self-employment, have more than 10 employees, work from home, always use a computer
 - Main earner in the household, household is able to make ends meet, second job, income necessity

Methodology

- Use Latent Class Analysis (LCA) to identify classes based on the 12 indicators for job quality dimensions in the population of self-employed
- Based on distribution of job quality indicators, form and proportional size of homogeneous classes are estimated from the data
- Following (Masyn, 2013), we estimate models with 1-7 classes and decide based on model fit how many classes → Model with 4 classes

[Elbow plot](#)[Fit Statistics Table](#)

1 Introduction

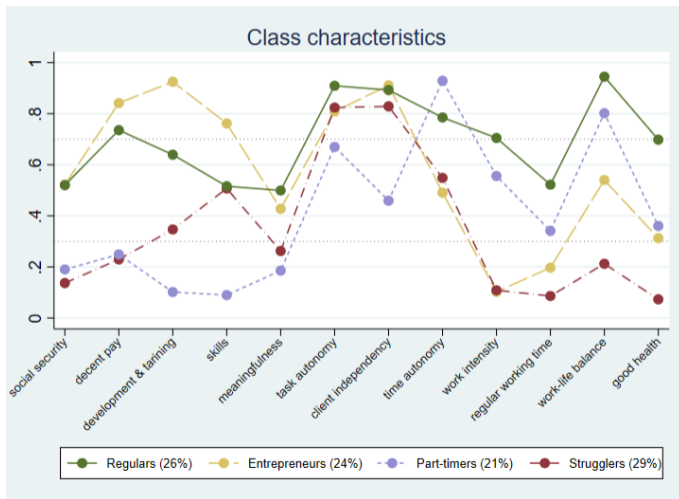
2 Data & Methodology

3 Results

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The four classes I



The four classes II

Two main dimensions of separation:

- Employment quality (social security, decent pay, career progression):
 - Regulars and Entrepreneurs high in employment quality
 - Part-timers and Strugglers low
- Work intensity, work-life balance, time autonomy:
 - Regulars and Part-timers high
 - Entrepreneurs and Strugglers low

Characteristics of the classes

- **Regulars:** Female, older better educated, normal hours (30-50), low income necessity, well-off households
- **Entrepreneurs:** Male, youngest, well educated, urban. , 50% work more than 50 hrs per week, many with employees, low income necessity and well-off households
- **Part-timers:** Female, older, less educated, rural, low hours of work, want to work more, almost all solo self-employed, high income necessity. Strongly concentrated in agricultural sector
- **Strugglers:** Male, young, low educated, more than 50 hrs per week, many solo self-employed, high income necessity and relatively poor households.

[Descriptives Table](#)[Logit Table](#)[NACE Table](#)

Country groups

Core EU, Non-Core EU and Non-EU, Welfare states (Esping-Andersen, 1990), and Varieties of capitalism (Hall & Soskice, 2001)

- Four classes robust to different choice of country subgroups, but different sizes
- Two well paid classes bigger in EU (Core and Non-core)
- Part-timers in liberal, Southern and Eastern Europe, and in Non-EU (bigger agricultural sector)
- Strugglers more in coordinated and conservative and southern Europe, and Non-EU

Country Group Table

1 Introduction

2 Data & Methodology

3 Results

- The four classes
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- Country groups

4 Conclusion

Conclusion

- Four distinct, stable classes in the population of self-employed
- Important separating dimensions are income/ social security/ development & training AND work intensity/ work-life balance → multidimensional job quality definition important
- “Marginalized” classes relatively high share → self-employment often precarious and low job quality (Bögenhold, 2019)
- All 4 classes present in all country groups, but relative size differs

Implications

- Two main separating dimensions can inform policies:
 - Vulnerability to (health) shocks and income fluctuations → improve social security net for self-employed
 - Very high work intensity (health problems) and Strugglers still at risk of poverty vs. not enough work for Part-timers
- Data availability central issue for research on new forms of self-employment:
 - Low sample size in EWCS for country-level analysis
 - Income data difficult (EWCS only subjective, otherwise lots missing, EU-LFS not available for self-employed)
 - No possibility to identify platform work

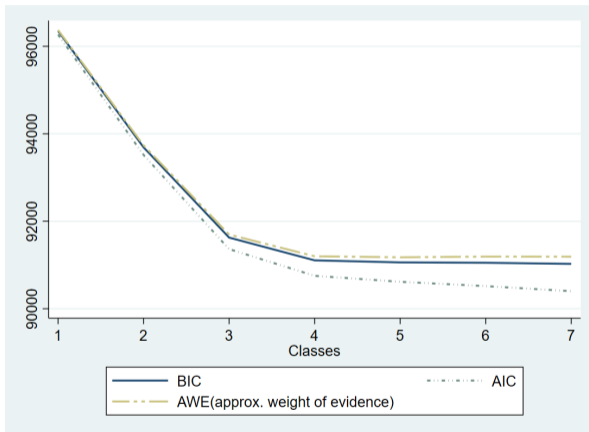
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Elbow plot - class enumeration



back

Relative fit statistics - class enumeration

Classes	Smallest class	Akaike Info Criterion (AIC)	Bayesian Info Criterion (BIC)	Approx. Weight of Evidence (AWE)	Approx. Bayes Factor	LMR-LRT Test
1	1	96267.62	96350.82	96372.74	0	0
2	0.4936	93516.35	93689.7	93735.35	0	0
3	0.2587	91363.05	91626.53	91695.91	8.123E-114	7.83E-123
4	0.211	90752.11	91105.73	91198.85	8.4017E-11	9.20E-27
5	0.0477	90615.57	91059.33	91176.19	0.01384266	1.82E-19
6	0.1103	90516.86	91050.77	91191.36	2.5232E-06	9.14E-23
7	0.0441	90400.94	91024.99	91189.32	-	-

[back](#)

Descriptives by classes

	Regulars	Entrepreneurs	Part-timers	Strugglers	Total
Demographics					
Female	39.02%	28.01%	37.31%	32.03%	33.99%
Age	48.98	44.40	49.75	45.42	47.01
secondary education	17.91%	20.48%	54.55%	38.14%	32.33%
higher than secondary education	82.09%	79.52%	45.45%	61.86%	67.67%
densely populated	33.47%	42.30%	24.14%	35.94%	34.29%
Migration background	9.59%	9.38%	6.78%	9.97%	9.05%
Job characteristics					
less than 30 hrs	27.51%	11.55%	34.96%	12.26%	20.63%
30 - 50 hrs	49.84%	40.58%	34.24%	30.63%	38.76%
more than 50 hrs	22.66%	47.88%	30.80%	57.12%	40.60%
would want to work more	11.40%	8.02%	16.30%	8.78%	10.79%
solo self-employed	68.27%	55.34%	91.53%	73.86%	71.82%
more than 10 employees	2.90%	6.43%	0.15%	1.44%	2.72%
work from home	22.22%	21.21%	16.97%	19.35%	20.01%
always uses computers	14.04%	19.50%	3.13%	8.95%	11.50%
Other characteristics					
Main earner	65.47%	73.66%	63.61%	68.69%	67.96%
HH able to make ends meet	80.34%	78.55%	45.62%	39.35%	60.33%
second job	7.36%	6.81%	4.38%	7.81%	6.72%
income necessity	13.67%	12.15%	36.55%	33.41%	24.02%
Mean net monthly earnings (in EUR)	1840.99	2076.70	606.03	1132.89	1415.97

[back](#)

Logistic regressions on class membership

	Regulars	Entrepreneurs	Part-timers	Strugglers
female	0.069 (0.066)	-0.103 (0.069)	0.003 (0.069)	0.019 (0.065)
age	0.010*** (0.002)	-0.013*** (0.002)	0.008*** (0.002)	-0.006* (0.002)
more than secondary	0.491*** (0.071)	0.115 (0.071)	-0.438*** (0.064)	-0.067 (0.062)
urban	-0.062 (0.061)	0.130* (0.059)	-0.216*** (0.065)	0.097+ (0.058)
migbackground	0.023 (0.093)	-0.105 (0.099)	-0.075 (0.106)	0.152+ (0.089)
hhendsmeet	0.630*** (0.063)	0.461*** (0.065)	-0.243*** (0.063)	-0.700*** (0.059)
secondjob	-0.036 (0.110)	0.044 (0.106)	-0.261* (0.123)	0.196+ (0.107)
incnecessity	-0.233** (0.074)	-0.319*** (0.078)	0.179* (0.070)	0.223*** (0.064)
less than 30	0.138+ (0.078)	-0.283** (0.094)	0.336*** (0.080)	-0.311*** (0.090)
more than 50	-0.635*** (0.067)	0.048 (0.063)	-0.021 (0.070)	0.503*** (0.061)
soloself	-0.073 (0.068)	-0.332*** (0.065)	0.657*** (0.079)	0.001 (0.067)
manyemployees10	-0.212 (0.184)	0.410* (0.171)	-0.690+ (0.416)	-0.305 (0.196)
Observations	6478	6478	6478	6478

back

NACE sectors by classes

	Regulars	Entrepreneurs	Part-timers	Strugglers	Total
accomodation, food service	4.07	4.55	3.12	7.89	5.11
administrative,support service	4.53	3.83	2.65	2.58	3.37
agriculture,forestry,fishing	11.57	12.68	47.68	28.50	24.85
arts,entertainment,recreation	3.11	1.79	1.44	1.74	2.03
construction	7.18	15.65	4.89	12.48	10.23
education	4.44	2.43	1.01	1.04	2.20
households as employers	1.51	0.73	4.89	1.09	1.95
human health, social work	8.11	7.10	1.85	2.48	4.81
information and communciation	3.29	3.24	1.11	2.00	2.41
manufacturing	10.19	9.98	4.95	9.61	8.82
other service	9.39	6.37	4.75	4.23	6.12
professional, scientific, technical	10.54	11.96	1.48	5.11	7.25
transportation, storage	2.28	3.13	4.86	4.68	3.76
wholesale and retail trade and vehicle repair	19.79	16.56	15.32	16.56	17.09

[back](#)

Class sizes by country groups

	Regulars	Entrepreneurs	Part-timers	Strugglers
Core vs. Non-core EU				
core EU	30.08	25.69	15.30	28.93
non-core EU	28.64	24.70	22.33	24.33
non EU	12.81	18.27	34.87	34.05
Total	25.44	23.64	21.40	29.52
<i>N</i>	7584			
Welfare state regimes				
liberal	34.65	28.78	17.32	19.24
conservative	34.85	29.06	9.50	26.59
socio-democratic	37.20	35.45	10.15	17.21
southern Europe	24.90	20.93	19.29	34.89
eastern Europe	28.82	24.66	22.45	24.08
Total	30.16	25.49	16.66	27.69
<i>N</i>	5241			
Varieties of Capitalism				
coordinated	35.13	29.83	9.58	25.46
liberal	34.65	28.78	17.32	19.24
Total	34.99	29.52	11.93	23.57
<i>N</i>	1964			

back