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## Entrepreneurship and job satisfaction: The role of age

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# JENA ECONOMIC RESEARCH PAPERS



# 2018 – 012

## **Entrepreneurship and Job Satisfaction: The Role of Age**

by

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## Entrepreneurship and Job Satisfaction: The Role of Age

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### Abstract

This paper investigates the relationship between job satisfaction and age for self-employed persons as compared to paid employees. While, on average, there are higher levels of job satisfaction in self-employment as compared to paid employment, we find that an individual's age is an important moderator in this relationship. Specifically, the probability of the self-employed to experience high levels of job satisfaction is quite similar across all age cohorts, but the job satisfaction of paid employees varies significantly with age. The degree to which self-employed people are more satisfied with their work than paid employees, therefore, is affected by the age of the individuals involved. We find that only those paid employees at the final stage of their working life have the same probability of experiencing a high level of job satisfaction as a self-employed person with comparable individual characteristics.

Keywords: Entrepreneurship, well-being, job satisfaction, age

JEL codes: L26, I31, J10, D91

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## 1. Introduction

According to the “classical” model of entrepreneurial choice, individuals become self-employed if the expected income (utility) in self-employment exceeds the income (utility) they can yield in paid employment (e.g., Lucas 1978; Holmes and Schmitz 2000; Kihlstrom and Laffont 1979; Evans and Jovanovic 1989; Dunn and Holtz-Eakin 2000). Empirical studies show, however, that the income of the self-employed is not necessarily or systematically higher than that of dependent employees (e.g., Hamilton 2000; Moskovitz and Vissing-Jorgensen 2002; Sorgner, Fritsch and Kritikos 2017). This evidence casts doubt on the assumption that the decision of becoming and remaining self-employed is primarily determined by income prospects.

A number of authors argue and demonstrate that entrepreneurial choice is not only driven by monetary considerations, but also by non-pecuniary rewards, not the least of which is higher procedural utility of being one’s own boss that self-employment offers (for an overview, see Croson and Minniti 2012, and Shir 2016). These studies show that self-employment is associated with a higher level of well-being in terms of job satisfaction than paid employment. According to this view, self-employment provides the advantage of higher levels of self-determination and self-enhancement (Benz and Frey 2008a, b; Binder and Coad 2003), or, to use Schumpeter’s words, with realizing the “dream and the will to found a private *kingdom*” (Schumpeter 1934).

This chapter investigates whether the relationship between self-employment and well-being, as measured by job satisfaction, varies over the life-cycle of an individual. Our aim is to enhance the understanding of the effect of age on the well-being of self-employed persons as compared to paid employees. In particular, we estimate the moderating effect of age on the relationship between occupational status and individual well-being. This is grounded in the idea that age not only influences an individual’s propensity to become self-employed, but may also affect the level of utility that they may gain from being an entrepreneur.

The chapter is organized in a straightforward manner. In Section 2 we present a conceptual framework for the relationship between entrepreneurship, age, and well-being. Section 3 describes the data and our empirical strategy,

with Section 4 presenting the results of the empirical analysis. Finally, Section 5 concludes.

## **2. Entrepreneurship, age, and well-being: a conceptual framework**

As argued above, entrepreneurial choice can be driven by non-pecuniary motivations as by monetary considerations (Benz and Frey 2008a, b). With this consideration in mind, most empirical studies find that self-employed individuals have a higher level of job satisfaction than paid employees (Blanchflower and Oswald, 1998; Blanchflower, 2000; Blanchflower et al., 2001; Parasuraman and Simmers, 2001; Bradley and Roberts, 2004; Benz and Frey, 2004; 2008a, b; Millan et al., 2013).

It might also be true then that the age of an entrepreneur will play a role in the degree of job satisfaction. This is grounded in the idea that age not only determines an individual's propensity to become self-employed, but may also affect the utility that they gain from being an entrepreneur. This notion can be contextualized by the fact that the general age/entrepreneurship relationship is marked by an inverted u-shape. That is, the likelihood of starting a firm initially increases with age, but then declines after a certain older working age is reached (see Parker 2018 for an overview). Hence, the typical entrepreneur is around 40 years old when starting his or her venture.

There are a number of factors that may contribute to explaining this inverted u-shaped pattern. For example, human capital and physical resources that may be necessary for establishing a business are rarely available at younger ages. It may also take some time to build network ties that ease market entry. Having more extensive and varied job experiences may also be helpful for identifying entrepreneurial opportunities (for an overview, see Parker 2018). At the same time, age can be a deterrent to entrepreneurship. One example in this respect is that older people typically place a higher value on economic activities that produce income immediately such as a consistent pay check offered by paid employment. This value is a sharp contrast to self-employment where remuneration may be sporadic and occur only in the longer run (Lévesque and Minniti 2006).

Psychological research shows that there is a relationship between age, job attitudes, and job satisfaction (Ng and Feldman 2010; Shir 2016; Stephan 2018). Given the relatively low propensity of starting a firm at older ages, those who are self-employed and in the later stages of their working life comprise a relatively high share of individuals that started their business several years earlier and were successful enough to survive in the market until their later years. Thus, on the one hand, we should expect a positive influence of age on the job satisfaction of entrepreneurs. On the other hand, there might also be a group of older individuals who have turned to self-employment out of necessity because of blocked mobility in the regular labour market. This would imply a negative influence of age on job satisfaction among entrepreneurs.<sup>4</sup>

Entrepreneurship might also be chosen as a bridge between employment and retirement (Singh and De Noble 2003). The implications of such a constellation for well-being is, however, unclear. Seca, Matos and Amaral (2017) find evidence that senior self-employed derive higher satisfaction from non-monetary returns than paid employees. Hence, business success in terms of income generation may play a less important role for older entrepreneurs.

The empirical evidence on the relationship between age and job satisfaction among the self-employed is mixed with non-significant or negative effects of age (for an overview, see Seca, Matos and Amaral 2017). Moreover, most studies that compare job satisfaction between self-employed individuals and paid employed workers lack wide empirical coverage. An exception is the work by Millán et al. (2013) that compares self-reported levels of job satisfaction in terms of type of work and job security among self-employed individuals and paid employees based on a data set that covers 15 European countries in the 1994–2001 period. The specific contribution to the literature presented in this chapter is that we compare job satisfaction among self-employed people and paid employees based on different stages of their life-cycles.

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<sup>4</sup> Kautonen et al. (2014) find that the decline in entrepreneurial choice among older people is not observable for solo entrepreneurship which is only partly driven by people being pushed into self-employment.

### 3. Data and empirical strategy

For the purpose of the present analysis we employ the European Union's Statistics on Income and Living Conditions (EU-SILC). The EU-SILC provides comparable and high quality cross-sectional individual-level data. Each year EU-SILC includes ad-hoc modules in its survey program that provide additional information in selected realms. For the purpose of this study, we use the cross-section of the year 2013 that includes an ad-hoc module on individual well-being. We focus on the assessment of job satisfaction provided by respondents. The variable of interest is a person's assessment of his or her level of job satisfaction, which is measured by an 11-point Likert scale with the lowest value of 0 meaning "not at all satisfied" and the highest value of 10 meaning "completely satisfied". The response is based on the respondent's opinion about the current degree of satisfaction with his or her job. If the respondent has several jobs, the answer about the level of job satisfaction refers to the main job.<sup>5</sup>

Self-employed individuals are identified in the EU-SILC based on their self-reported current labor market status. The indicator includes self-employed individuals that work full-time or part-time to earn a profit. We construct a binary variable that equals 1 if a person is considered to be self-employed, and 0 if a respondent is a paid employee. Unemployed or non-employed respondents, respondents currently in full-time education, those in compulsory military or civilian service, and home workers are not considered in our analysis.

We examine the relationship between well-being, employment status, and age by performing multivariate analyses at the individual level accounting for factors such as gender, marital status, level of education, working hours per week, job change since previous year, income level,<sup>6</sup> self-reported health status (on a 5-points Likert scale), industry (defined according to the ISCED classification), occupation (defined at a 2-digits level of ISCO-08), and the country of residence (for summary statistics of variables used in the analysis,

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<sup>5</sup> The precise wording of the question is "How satisfied are you with your job?" (OECD 2013).

<sup>6</sup> The EU-SILC contains information on gross monetary income of paid employees and gross monetary income or losses for self-employed persons during a previous 12-month period. We construct country-specific income quartiles to make the income measure comparable between countries.

see Tables A1 and A2 in the Appendix). Given the ordered nature of the dependent variables (satisfaction with job), we estimate our model by means of an ordered logit regression, in which we account for interaction effects between self-employment status and age. The sample is restricted to respondents between the ages of 18 and 65, and includes a total of 159,849 observations.

## 4. Results

### 4.1 Descriptive statistics

The individual assessment of job satisfaction differs significantly across age cohorts and employment status. While there is hardly any difference in the reported level of job satisfaction between the self-employed and the paid employees in our sample up to the age of 35 years (Table 1), paid employees report a significantly higher level of job satisfaction than self-employed individuals after that age. While the job satisfaction of paid employees increases slightly with age, there is a drop in the average level of job satisfaction among the self-employed.

Table 1: Job satisfaction by age cohorts

Age cohort	Self-employed		Paid employees		t-test of equal means
	Mean	Standard deviation	Mean	Standard deviation	p-value
18-25	7.346	2.298	7.292	2.053	0.619
25-35	7.268	2.212	7.281	1.961	0.737
35-45	7.129	2.224	7.283	1.948	0.000
45-55	6.972	2.299	7.268	2.000	0.000
55-65	6.931	2.404	7.369	2.015	0.000
Number of observations	20,808		139,189		

Recent research shows that the well-being of self-employed and paid employees depends heavily on the institutional framework in which they act (Fritsch, Sorgner & Wyrwich 2018). Such differences are also visible if we examine the descriptive statistics for the relationship between job satisfaction and age in a variety of institutional contexts (Table A3) that are defined in



Fritsch, Sorgner & Wyrwich (2018).<sup>7</sup> For instance, older generations of entrepreneurs coming from former socialist countries are significantly less satisfied with their jobs than paid employees in the same age category, but this relationship is opposite for younger generations from those countries. One exception is the Eastern European countries Romania, Serbia, and Bulgaria, where the job satisfaction of self-employed is lower for all age cohorts. In turn, entrepreneurs in Anglo-Saxon, Nordic, and Continental countries are more satisfied with their jobs than paid employees in all age cohorts. In Mediterranean countries, only entrepreneurs in the youngest age cohort are more satisfied with their jobs as compared to their paid employed peers. These results strongly suggest that institutional differences must be controlled for in order to understand the general relationship between age and well-being among entrepreneurs. Therefore, we include country fixed effects in our multivariate analyses.

#### **4.2 Results of multivariate analysis**

The relationship between job satisfaction, age, and employment status is estimated by means of an ordered logistic regression with robust standard errors. The results are reported in Table 2. The models account for a wide set of control variables that may influence an individual's job satisfaction. Since there might be non-linear effects between age and job satisfaction (see e.g. Millán et al. 2013), we also include a squared term of the variable age as an additional covariate in our models. We are particularly interested in the effect of employment status (Column 1), as well as in the interaction effects between employment status and age (Column 2).

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<sup>7</sup> According to this classification, Anglo-Saxon countries include Ireland, Iceland, UK; Nordic: Denmark, Finland, Norway, Sweden; Continental-I: Austria, Germany, Netherlands, Switzerland; Continental-II: Belgium, France, Luxembourg; Mediterranean: Cyprus, Greece, Spain, Italy, Malta, Portugal; Baltic States: Estonia, Lithuania, Latvia; Eastern European I: Bulgaria, Serbia, Romania; Eastern European II: Hungary, Poland, Czech Republic, Slovakia, Slovenia, Croatia.

Table 2: Determinants of job satisfaction

	(1)	(2)
Paid employee (reference)		
Self-employed	0.136 <sup>***</sup> (0.0169)	0.538 <sup>***</sup> (0.0671)
Self-employed x Age		-0.00874 <sup>***</sup> (0.0014)
Age	-0.0472 <sup>***</sup> (0.0034)	-0.0493 <sup>***</sup> (0.0034)
Age, squared	0.000574 <sup>***</sup> (0.0000)	0.000609 <sup>***</sup> (0.0000)
Male	-0.119 <sup>***</sup> (0.0111)	-0.119 <sup>***</sup> (0.0111)
Married	0.132 <sup>***</sup> (0.0099)	0.132 <sup>***</sup> (0.0099)
Secondary degree	-0.0939 <sup>***</sup> (0.0295)	-0.101 <sup>***</sup> (0.0295)
Tertiary degree	-0.250 <sup>***</sup> (0.0314)	-0.256 <sup>***</sup> (0.0314)
Working hours per week	-0.000298 (0.0006)	-0.000301 (0.0006)
Job change since last year	0.0501 <sup>**</sup> (0.0213)	0.0498 <sup>**</sup> (0.0213)
Total gross yearly working income: 2nd quartile	0.167 <sup>***</sup> (0.0146)	0.167 <sup>***</sup> (0.0145)
Total gross yearly working income: 3rd quartile	0.375 <sup>***</sup> (0.0154)	0.374 <sup>***</sup> (0.0154)
Total gross yearly working income: 4th quartile	0.616 <sup>***</sup> (0.0170)	0.614 <sup>***</sup> (0.0170)
Health status	0.432 <sup>***</sup> (0.0072)	0.432 <sup>***</sup> (0.0072)
Industry fixed effects	Yes <sup>***</sup>	Yes <sup>***</sup>
Occupation fixed effects	Yes <sup>***</sup>	Yes <sup>***</sup>
Country fixed effects	Yes <sup>***</sup>	Yes <sup>***</sup>
Number of observations	159,849	159,849
Log pseudo-likelihood	-309,142.5	-309,120.8
Wald Chi <sup>2</sup>	19,891.7 <sup>***</sup>	19,920.8 <sup>***</sup>
Pseudo R <sup>2</sup>	0.0325	0.0325

*Notes:* Results of ordered logit regressions with robust standard errors. Dependent variable: 11-point scale measuring job satisfaction. Robust standard errors in parentheses. <sup>\*\*\*</sup>: statistically significant at the 1% level; <sup>\*\*</sup> statistically significant at the 5% level; <sup>\*</sup> statistically significant at the 10% level. Models with job satisfaction as a dependent variable were estimated for a subsample of respondents aged 18-65 years old.

The results of the ordered logistic estimations suggest that self-employment status is significantly and positively associated with an individual's job satisfaction (Column 1 of Table 2). In addition, income level, self-reported health status, and being married increase job satisfaction, while being a male is

related to lower levels of job satisfaction. Interestingly, higher levels of education decrease satisfaction with one's job.

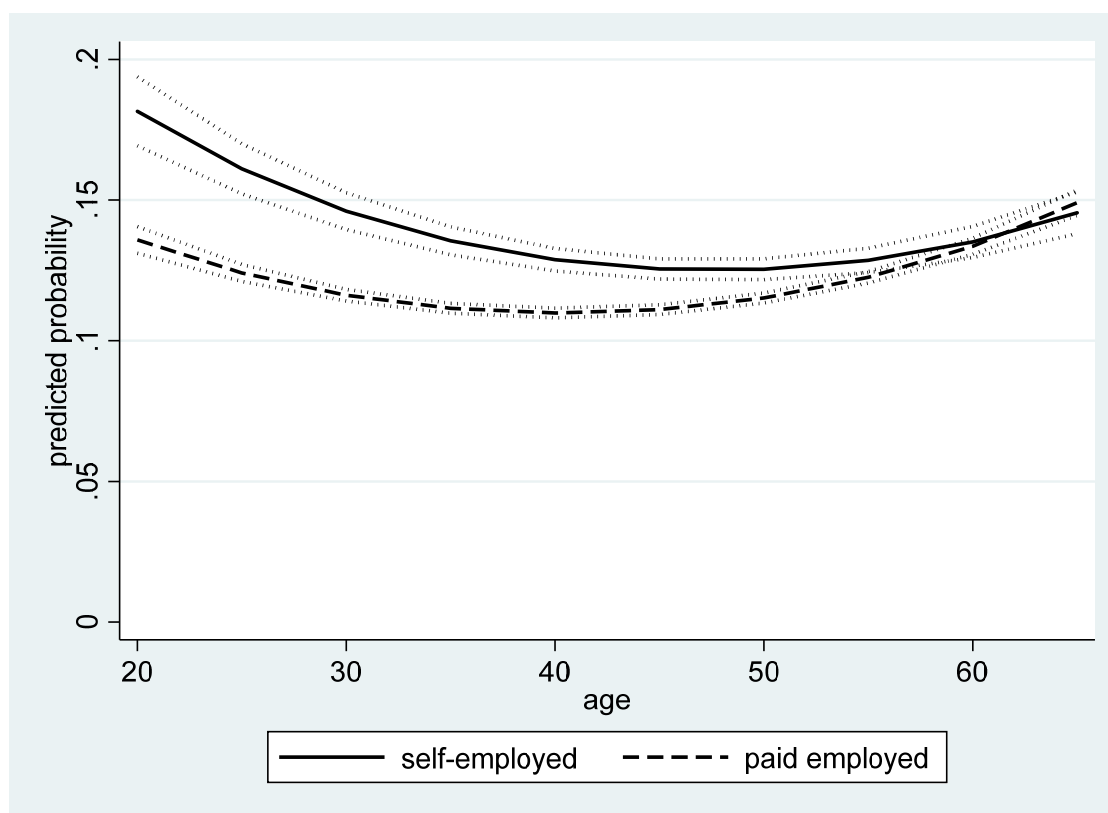


Figure 1: Probability of being completely satisfied with the job by age and employment status (95% confidence intervals are reported)

There is a statistically significant difference in the relationship between employment status and job satisfaction based on an individual's age (Column 2 of Table 2). The graph presented in Figure 1 shows this relationship for different ages by depicting the predicted probability of being completely satisfied with one's job.<sup>8</sup> While self-employed individuals at the early stage of their careers are significantly more likely to be completely satisfied with their jobs than paid employees, this difference becomes progressively smaller over time and is statistically insignificant after reaching the age of 55 (Figure 2). In particular, it takes a paid employee almost his or her entire working life to achieve the level of job satisfaction a self-employed individual experiences already rather early in his or her career.

<sup>8</sup> This refers to the probability of reporting the highest score on an 11-point Likert scale measuring an individual's level of job satisfaction. Estimates of the probability of reporting a score of at least 7 on an 11-point Likert scale lead to similar results.

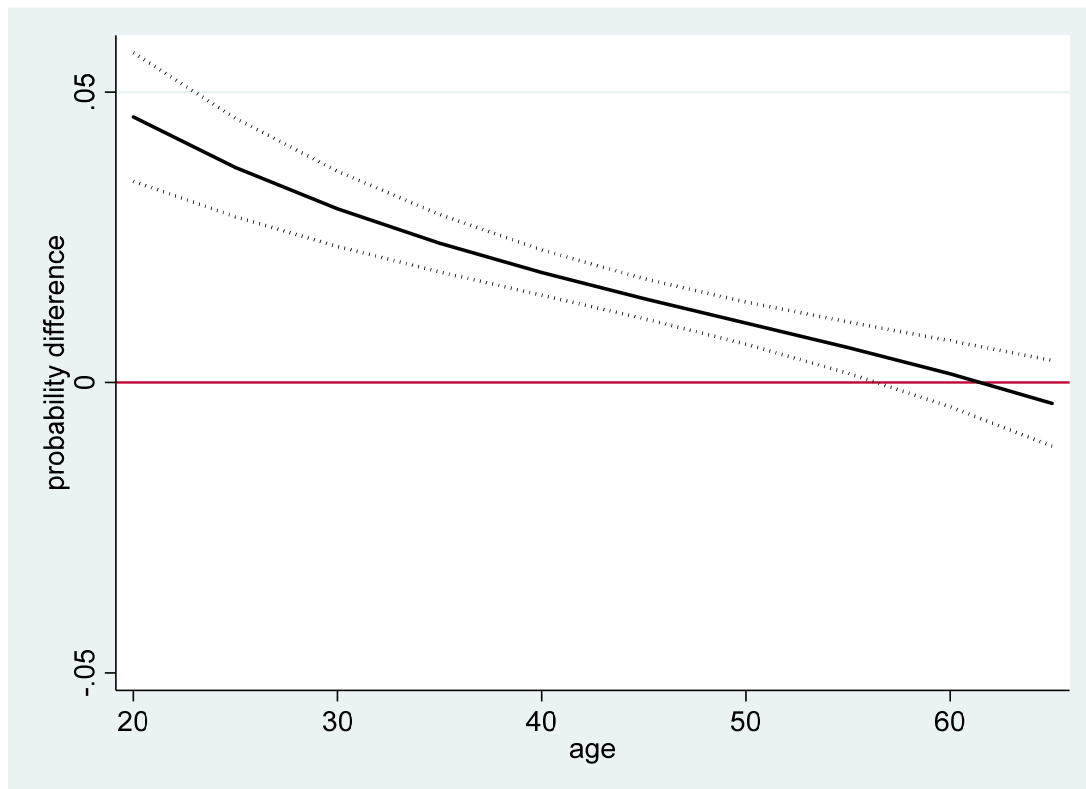


Figure 2: Difference between self-employed and paid-employed individuals in the predicted probability of being completely satisfied with the job by respondents' age (95% confidence intervals are reported)

Another important finding is that the relationship between age and job satisfaction is not linear for either types of employment. The youngest age cohort of self-employed individuals reports the highest level of job satisfaction. There is a gradual decrease in this level until it reaches the lowest point for those between the ages of 45 and 55, with an upward trend for the oldest cohort. This pattern of the relationship between age and job satisfaction is very similar for paid employees. However, paid employees achieve their highest level of job satisfaction in a later career stage, namely, shortly before they reach retirement age.

## 5. Concluding remarks

Self-employment is associated with higher levels of job satisfaction than being in paid employment. We find a u-shaped relationship between an individual's age and the probability of experiencing high levels of job satisfaction for both employment types. Whether self-employed people are more satisfied with their

work and their life than paid employees, therefore, is affected by a person's life stage. We find that paid employees only reach the same level of job satisfaction as an entrepreneur with comparable individual characteristics when they are at the end of their working life. The "catch-up" of paid employees in terms of job satisfaction can have several reasons. First of all, procedural utility of being in paid employment may increase over time, for example, when age is associated with a leadership position in a firm. Second, coming closer to the retirement age may enhance the perceived well-being of the job because people may feel less pressure for achieving a higher career status. Third, based on their long business experience older employees might be more (emotionally) resilient to firm-specific shocks since they have learned to cope with such challenges more easily, which might also be driven by a higher employment protection as compared to younger colleagues.

Our analyses offer several avenues for further research. It would, for example, be interesting and relevant for policy to learn more about the role played by institutional contexts. Our descriptive analysis suggests that there is considerable variation across countries with respect to the relationship between age, self-employment, and job satisfaction. In the current analysis we included country-specific fixed effects to account for institutional differences. Another promising arena for future research could be an investigation of the interaction between working hours or income with job satisfaction among entrepreneurs and non-entrepreneurs at older ages.

Understanding the job satisfaction of older entrepreneurs becomes pivotal against the background of the demographic challenge most countries in Europe are facing. Therefore, much more research on this topic is clearly warranted.

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**Appendix**

Table A1: Correlation matrix

	1	2	3	4	5	6	7	8	9	10
1 Job satisfaction	1									
2 Self-employment	-0.0396	1								
3 Age	-0.0023	0.1008	1							
4 Male	-0.0177	0.1117	0.0056	1						
5 Married	0.0254	0.0578	0.2990	0.0384	1					
6 Primary degree	-0.0531	0.0704	0.1023	0.0194	0.0458	1				
7 Secondary degree	-0.0764	0.0209	0.0015	0.0637	-0.0131	-0.2489	1			
8 Tertiary degree	0.0993	-0.0495	-0.0425	-0.0729	-0.0049	-0.1451	-0.9221	1		
9 Working hours per week	0.0037	0.2064	-0.0044	0.2882	0.0103	-0.0001	-0.0019	0.0020	1	
10 Job change since last year	-0.0199	-0.0337	-0.1295	0.0015	-0.0635	-0.0034	0.0074	-0.0062	-0.0277	1
11 Health status	0.1721	-0.0179	-0.2920	0.0443	-0.0583	-0.0906	-0.1041	0.1425	0.0264	0.0141

Table A2: Descriptive statistics

	Mean	SD	Median	Min	Max
Job satisfaction	7.261	2.028	8	0	10
Self-employment	.130	.336	0	0	1
Age	43.990	10.928	45	18	65
Sex	.499	.500	0	0	1
Married	.605	.489	1	0	1
No educational degree	.038	.190	0	0	1
Secondary education	.613	.487	1	0	1
Tertiary education	.349	.477	0	0	1
Working hours	39.039	10.047	40	1	99
Job change	.059	.235	0	0	1
Health status	4.030	.755	4	1	5

Table A3: Average levels of job satisfaction by employment status, age, and institutions

Age cohort	Self-employed	Paid employees	p-value	Self-employed	Paid employees	p-value
Anglo-Saxon				Mediterranean		
18-25	7.579	7.139	0.425	7.214	7.041	0.427
25-35	7.663	7.188	0.005	6.605	7.059	0.000
35-45	7.424	7.248	0.145	6.626	7.081	0.000
45-55	7.384	7.346	0.751	6.399	7.083	0.000
55-65	7.892	7.562	0.012	6.206	7.071	0.000
Nordic				Baltic States		
18-25	9.036	7.771	0.001	7.8	7.241	0.34
25-35	8.322	7.769	0.000	7.869	7.468	0.009
35-45	8.264	7.874	0.000	7.622	7.315	0.008
45-55	8.198	7.973	0.001	7.162	7.222	0.567
55-65	8.283	8.145	0.061	7.28	7.348	0.625
Continental I				Eastern European I		
18-25	8.714	7.673	0.004	5.583	6.51	0.001
25-35	8.05	7.447	0.000	5.958	6.763	0.000
35-45	8.257	7.505	0.000	5.809	6.843	0.000
45-55	8.058	7.495	0.000	5.587	6.648	0.000
55-65	8.059	7.508	0.000	5.254	6.624	0.000
Continental II				Eastern European II		
18-25	7.913	7.468	0.235	7.663	7.073	0.007
25-35	7.795	7.315	0.000	7.775	7.351	0.000
35-45	7.617	7.337	0.004	7.325	7.252	0.221
45-55	7.48	7.374	0.262	7.063	7.125	0.298
55-65	7.687	7.421	0.026	7.046	7.2	0.056

Notes: Anglo-Saxon includes Ireland, Iceland, UK; Nordic: Denmark, Finland, Norway, Sweden; Continental I: Austria, Germany, Netherlands, Switzerland; Continental II: Belgium, France, Luxembourg; Mediterranean: Cyprus, Greece, Spain, Italy, Malta, Portugal; Baltic States: Estonia, Lithuania, Latvia; Eastern European I: Bulgaria, Serbia, Romania; Eastern European II: Hungary, Poland, Czech Republic, Slovakia, Slovenia, Croatia.