

NEGOTIATE

Overcoming early job-insecurity in Europe

Understanding the subjective consequences of early job insecurity in Europe

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NEGOTIATE
Overcoming early job-insecurity in Europe

NEGOTIATE – Negotiating early job-insecurity and labour market exclusion in Europe

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1. Introduction

People at the beginning of their professional careers constitute a group particularly exposed to the risk of labour market exclusion, which is reflected by a relatively high incidence of unemployment, low-quality employment or economic inactivity. Despite the fact that in many countries youth employment issues have been placed high on the political agenda, little progress has been achieved. The difficulties young people experience when looking for stable employment not only reduce their income, but also increase the probability of risky behaviours, lead to the postponing of household and family formation and have a detrimental effect on their health and subjective wellbeing.

In this study we focus on this last aspect investigating the relationship between employment and wellbeing among young people. We start from analysing the cases of three countries representing different models of economies: Germany, Great Britain and Poland. The perspective of this analysis is definitely not comparative. By analysing three independent datasets (SOEP for Germany, Understanding Society for Great Britain, Social Diagnosis for Poland) which cover different time periods and contain differently defined sets of variables, we try to investigate how robust is the employment-wellbeing relationship among young people. In the second part of the paper we take a comparative perspective and try to identify the macro (country-level) factors influencing the strength of the relationship between the employment and the level of individual wellbeing with the use of the data from the European Social Survey. In this part of the paper we study also the other dimension of employment-wellbeing relationship by investigating the potential impact of unemployment experiences on the individual level of trust. Throughout the paper we will often refer to both the employment-wellbeing relationship and the unemployment-wellbeing relationship. However, since we compare the wellbeing of employees and unemployed, the employment-wellbeing relationship and unemployment-wellbeing relationship are two sides of the same coin. The remainder of the paper is organized as follows. In Section 2 we present the literature review and we summarize the methodological challenges related to the estimation of the employment-wellbeing relationship. In Section 3 we present the results of the employment-wellbeing relationship estimation for three countries: Germany, Great Britain and Poland. In Section 4 we analyse the employment-wellbeing relationship in the comparative perspective with the use of the ESS dataset. Section 5 concludes.

2. The estimation of the employment-wellbeing relationship. Literature review and key methodological challenges.

The literature review shows that there is little doubt that, for most of the population, losing jobs or being unemployed leads to a decreased level of subjective wellbeing (Bell and Blanchflower, 2009; Dooley and Prause, 2004; Harrison et al., 2016; Kapteyn et al., 2015; McKee-Ryan et al., 2005; Winkelmann and Winkelmann, 1998; Russell et al., 2015; Tøge and Blekesaune, 2015; Winkelmann, 2009; for the overview see also: Dolan et al., 2008) or even depression (Dooley et al., 2000). This relationship was confirmed in the studies for different countries i.e. Germany (Frijters et al., 2004; Winkelmann and Winkelmann, 1998), Switzerland (Frey and Stutzer, 2000), United Kingdom (Clark, 2003; Clark and Oswald, 1994; Bell and Blanchflower,

2010; Bell and Blanchflower, 2011; Flint et al., 2013; Thomas et al., 2005), other non-European countries (McKee-Ryan et al., 2005; McKenzie et al., 2014)

We can distinguish two main channels through which unemployment influences the wellbeing. Losing a job diminishes the income of an individual (the pecuniary effect of unemployment) but has also the direct detrimental impact on wellbeing (the non-pecuniary effect of unemployment). According to Jahoda (1982), who looked beyond the economic consequences of job loss, work affects individual's wellbeing by providing a structured day, opportunities for mastery and creativity, shared experiences and status. Thus, unemployment deprives an individual of all of the beneficial work by-products. Similar explanation for negative consequences of joblessness is provided by Warr and his 'vitamin model' of the benefits of work (physical and mental activity, use of skills, decision latitude, interpersonal contact, social status, and a reason to go on – 'traction' (Warr, 2007). Wineklmann and Winkelmann (1998) suggest that the effect of non-pecuniary costs of unemployment on psychological wellbeing is larger than the one associated with loss of income. Losing a job makes people unhappy and depressed but unemployment is not simply a mere interlude, which has no effect once it is over (Bartley, 1994). For example unemployment appears to have the negative long-term effect on future labour market possibilities in itself (Nilsen & Reiso, 2011) and the past unemployment can influence negatively wellbeing regardless of the current employment status (scarring effect) (Clark et al., 2001).

The relationship between unemployment and wellbeing is complex and there is a large number of economic, social, and psychological variables that moderate it. It has been found that unemployment is more detrimental for men than for women. According to the social production function theory people strive for wellbeing and social approval, and if so, men and women have different ways of achieving it (van der Meer, 2014). The negative wellbeing effect of unemployment can be weakened by social support (being married), work dissatisfaction (while employed), religiosity and strengthened by the level of education and the employment commitment (Dooley et al., 2000; Warr, 2007). When becoming employed individuals gain on emotional wellbeing but that biggest gains in emotional wellbeing are concentrated among the individuals who start full-time job and not those who simply start to work (at least one hour per week) (Krueger & Mueller, 2012). The results suggest that it is not enough to be employed but one has to have 'a good job' which might be translated into full-time employment. According to Ilmakunnas and Böckerman (2006) so called 'habituation effect' should mitigate the impact of joblessness on life satisfaction over time which was confirmed statistically (see, Clark et al, 2001). Finally, Lindbeck et al (1999) claim that higher unemployment rate in the region (country) should reduce the detrimental effect of joblessness hence unfavourable economic conditions should weaken the social stigma.

There are at least two key methodological challenges in estimation of employment-wellbeing relationship – the reversed causality problem (the employment can increase wellbeing but also, inversely, for intrinsically more happy individuals it might be easier to find and maintain a job) and the omitted variable bias (the relationship between wellbeing and employment could be heavily influenced by other factors which should be taken into account – e.g. the state of health which influences both wellbeing and employment status). The first problem is usually

addressed through the instrumental variable approach or through the application of the fixed-effect models which exclude the impact of time-invariant omitted variables (e.g. the intrinsic level of happiness). We apply fixed-effects models in Section 3, since all three datasets used (GSOP for Germany, Understanding Society for Great Britain and Social Diagnosis for Poland) have a longitudinal structure. However, the cross-sectional structure of ESS datasets used in Section 4 in which we analyse the employment-wellbeing relationship from the comparative perspective does not allow us to apply the fixed-effects model and control for unobserved (time-invariant) characteristics (the importance of controlling for unobserved time-invariant characteristics in the context of happiness studies was emphasised by Ferrer-i-Carbonell and Frijters, 2004). From this reason our estimates of interest (a regression coefficient denoting the relationship between the employment status and the wellbeing) can be biased. Using the GSOEP dataset Gerlach and Stephan (1996) showed that simple OLS models overestimate the effect on unemployment on wellbeing with comparison to fixed-effects models. On the other hand Winkelmann and Winkelmann (1998) obtained the opposite results. In both cases the relative differences between OLS and FE estimates amounted to 10-15 percent. Given the fact that in Section 4 we are more interested in the comparative aspect of the analysis we will perform our analysis with the use of cross-sectional data. We address the second methodological challenge (omitted variable bias) through the application of the multiple regression model in which we control for the respondents' characteristics which can influence both employment status and wellbeing.

It should be also emphasised that the measurement of subjective wellbeing itself is a challenging task. Since we do not conduct own surveys but exploit the existing datasets we do not discuss these challenges. A detailed discussion on this topic can be found for instance in Kahneman and Krueger (2006) or OECD (2013).

3. The employment-wellbeing relationship among young people in Great Britain, Germany and Poland

The analyses presented in this chapter concern countries represented distinct models of market economy (Great Britain, Germany, Poland) and were performed with the use of the data from national, independent surveys (Understanding Society, German Socio-Economic Panel, Social Diagnosis) which differ significantly with respect to the construction of independent and dependent variables and cover various time spans. From this reason we do not develop the comparative perspective but rather focus on cross-country similarities which help to assess the generality of the results. In particular we would like to determine how the change of the economic and social status influences the individual wellbeing, whether there exists a scarring effect (defined as a detrimental impact of past unemployment experiences on present wellbeing regardless of the current employment status) and whether there are gender differences with respect to employment-wellbeing relationship in the group of young people.

3.1. Great Britain

3.1.1. Data, methods and variables

The study uses the survey Understanding Society - the United Kingdom Household Longitudinal Study. The UKHLS is a household panel survey based on yearly interviews with around 50,000 individuals in 30,000 households in the UK. The analysis is based on Waves 1 (2009-2010) to 5 (2013-2014). In total, the UKHLS sample so far comprises a bit more of 250,000 person-waves (out of which around 30% are unique individuals). These are around 78,000 person-waves, out of which a bit less than 10,000 are young individuals between 18 and 30 years old. We therefore work with a balanced panel, and weight the data accordingly: the analysis, hence, takes into consideration the unequal probability of remaining in the sample.

For comparative purposes, we use two subjective measures: subjective wellbeing (SWB) and life satisfaction (LS). SWB is based on 12 questions related to perceived health and wellbeing, out of which a summative Likert scale is created with values from 0 (low SWB) to 36 (high SWB)¹. The topics of these questions include: ability to concentrate and sleep, sense of usefulness, ability of making decisions, feeling under strain, ability to overcome difficulties, ability to enjoy daily activities, ability to face up to problems, feeling unhappy or depressed, losing confidence, think low of oneself and overall happiness. As a measure of life satisfaction, we use a question on 'overall life satisfaction' with 7 items (from completely satisfied to completely dissatisfied).

Both SWB and LS are used as numeric variables, so that we are able to estimate linear regressions; moreover we use fixed-effects models so as to control for time-invariant unobserved heterogeneity. Both decisions are based on a recent study that discusses methods to study subjective wellbeing. Here it is shown, on the one hand, that the results of linear and ordinal regressions are similar when the number of categories of the dependent variable is more than five (as it is this case); on the other hand, they also show that fixed-effects models are more efficient than OLS regressions, which do not control for unobserved heterogeneity (Ferrer-i-Carbonell and Frijters, 2004).

The main independent variable is labour market status. Four categories are explored: employed, unemployed, doing housework/on parental leave and student. In particular, the focus is on studying the effect of being employed (or unemployed) on SWB and LS. As said before, the analysis is done through fixed-effects models: rather than comparing employed vs. unemployed for a certain time period, this methods allows for studying changes within individuals.

Next to the initial model in which we look at the effect of current labour market status (t), we also explore whether making specific transitions, on top of the current labour market situation, has an effect on SWB and LS. For example, does moving from unemployment to employment have a particularly positive effect on individuals' SWB and LS? For this purpose, we first add

¹ Specifically, this SWB measure "... converts valid answers to 12 questions of the General Health Questionnaire (GHQ) to a single scale by recoding so that the scale for individual variables runs from 0 to 3 instead of 1 to 4, and then summing, giving a scale running from 0 (the least distressed) to 36 (the most distressed). See Cox, B.D et al, *The Health and Lifestyle Survey*. (London: Health Promotion Research Trust, 1987). Note that this was collected in the face-to-face interview in Wave 1 and was then shifted to the self-completion questionnaire" (taken from www.understandingsociety.ac.uk).

the labour market situation in the previous wave (t-1) as a control variable; then explore interactions between the labour market situation in t-1 and the current labour market position. Here we focus on transitions to employment and unemployment only.

Other control variables included in the models are: age, gender, education (in years), whether the individual has a long-term disability or illness², personal and household net income (in £), marital status and number of biological resident children.

3.1.2. Results

Table 3.1 shows the average change in SWB and LS scores between waves for each labour market transition, the total number of transitions is also shown. Leaving aside cells with very few cases – which refer to the transitions housework-student and student-housework – individuals who made a transition from being unemployed or being a student to being employed are those who get the largest improvements in SWB. They are followed closely by those who moved from unemployment to being a student. Conversely, those who moved from employment to being a student and those who moved from being a student to unemployment show the largest decreases in SWB.

Looking at LS, interestingly those with the largest improvement are the ones who made a transition from employment to housework, followed by those who moved from unemployment to employment. Conversely, the largest decreases in LS are observed for individuals who moved from being a student to being unemployed, followed by those who moved from unemployment to housework.

Note finally some interesting patterns. For example, while those who moved from employment to unemployment have a decrease in SWB, those who were continuously unemployed do not seem to experience any change in SWB, on average. However, losing a job or being in unemployment between two waves, decreases LS to a similar extent. Furthermore, we observe that while for those who moved from unemployment to employment there is an increase in SWB and LS, for those who were continuously employed there is a decrease in these measures. This might speak of individual's adaptation.

Next, we use multivariate models to explore these relationships more in detail. Table 3.2 shows the results of fixed effect models for the estimation of SWB and LS. Model 1 shows the effect of current labour market status (t) on the dependent variable, model 2 adds a control for the previous status (t-1), models 3 and 4, finally, add interactions between current (t) and previous status (t-1).

² we have checked that there is variation in this variable, even though it refers to long-term processes.

Table 3.1. Changes in individual wellbeing by current (t) and past (t-1) labour market status. Individuals aged 18-30 (mean).

	Previous wave (t-1)			
	Unemployed	Inactive	Student	Employed
Current wave (t)				
SWB				
Unemployed	0.0	0.1	-1.3	-0.5
Inactive	-0.5	0.6	-2.3	-0.2
Student	0.7	0.9	-0.5	-1.7
Employed	2.0	-0.9	0.8	-0.1
LS				
Unemployed	-0.1	0.1	-0.6	-0.1
Inactive	-0.3	-0.1	0.1	0.3
Student	-0.1	-0.2	-0.2	-0.2
Employed	0.2	-0.2	-0.1	-0.1
N				
Unemployed	311	68	127	130
Inactive	87	496	22	194
Student	34	14	901	122
Employed	238	162	352	3968

Source: Own calculations based on UKHLS (pooled 5 waves)

Model 1 shows that being unemployed (vs. being employed) has a negative effect on both SWB and LS. Unemployed individuals have a 1.25 lower score in the 0-36 SWB scale and a 0.17 lower score in the 1-7 LS scale than individuals who are employed. This negative effect is also observed when comparing unemployed individuals with students or with individuals doing housework. Note also that students have a higher LS than employed individuals. In Model 2 the previous status is added to the model. The negative effect of current unemployment remains, meaning that this status has a negative effect on SWB and LS independently of the labour market status in the previous wave (t-1). As regards the role of the previous labour market status itself (on top of the current situation), we only observe statistically significant effects for the estimation of SWB. Interestingly, being unemployed in t-1 has a positive effect on SWB. Among those who are currently students or employed and were previously unemployed, this might be pointing to the positive effect of improving the labour market situation, among those who are currently unemployed and were also previously unemployed, this might be pointing to a feeling of getting used or adapting to the unemployment situation. Note that a similar pattern emerges for the effect of being a student, we observe that those who were students in t-1 have a higher SWB.

In Models 3 and 4, we develop this finding by means of adding an interaction between the previous status and two dummies of current status: the probability of being employed (vs. being in another position) and the probability of being unemployed (vs. being in another position). Next to these models, we created predicted values of SWB and LS for different transitions and plotted them in Figures 3.1 and 3.2 (keeping control variables at their mean). The average value of SWB and LS (derived from Model 2) is also shown for comparative purposes. Although not

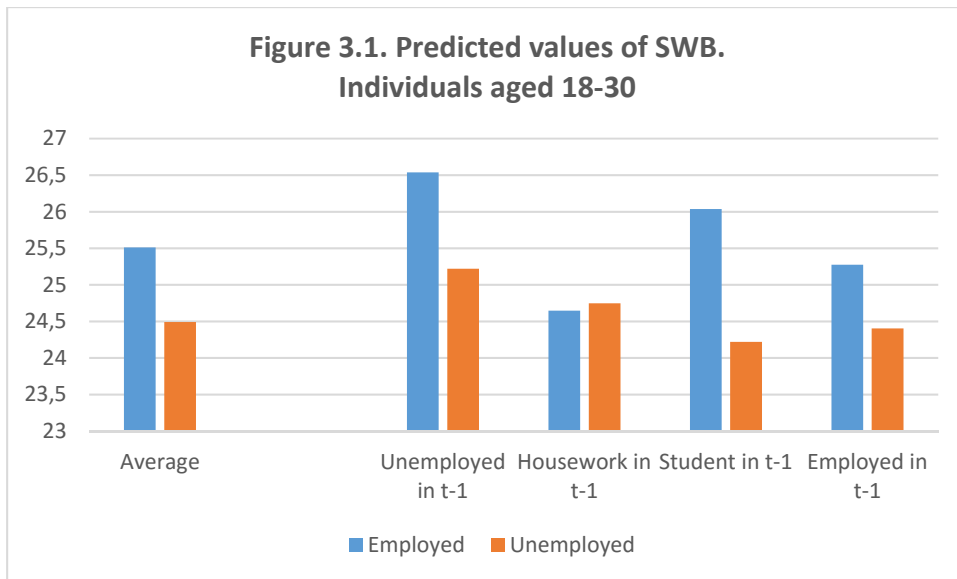
all results are statistically significant, some common patterns emerge in these figures. For example, unemployed individuals or students who get a job in the following wave seem to have a particularly high SWB and LS. Also, students who become unemployed seem to have the lowest values in SWB and LS. The figures also reveal that while staying in unemployment between two waves has a positive effect for SWB (comparing the effect with the average effect of current unemployment), this does not apply to LS. Finally, individuals who move from employment to unemployment between waves seem to be negatively affected in terms of their SWB, but not in terms of their LS.

The results of the multivariate models by gender (table 3.3) show that the effect of labour market status on SWB and LS varies greatly between men and women. On average, women's SWB and LS seem to be much less affected by own labour market status than men's. For men there is a clear negative effect of unemployment (vs. being employed) on SWB, even after controlling for previous status (Model 2). Among women, a negative effect of unemployment is only present when estimating SWB (Model 1). However, it reduces considerably (becoming statistically non-significant) when we control for their status in t-1 (Model 2). For LS, there seems to be no negative effect of unemployment.

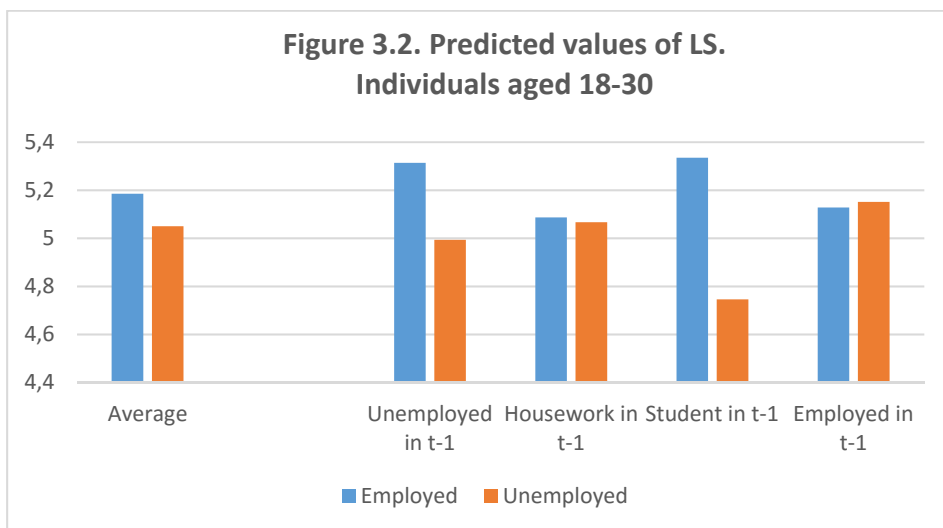
We also observe that the positive effect of being unemployed in t-1 observed for the entire population, actually applies only to men, but not to women. Men who are doing housework are very few in our sample, and therefore the effects observed are probably of little relevance. Among women we also observe a negative effect of being a student (vs. being employed) on SWB and a positive effect of doing housework (vs. being employed) on LS, but this becomes statistically non-significant once we control for previous status.

3.1.3. Conclusions

This study has shown that being unemployed has a negative effect on subjective wellbeing and overall life satisfaction among young individuals in the UK. In general, individuals who are employed or study, have a higher score in these subjective measures, even after controlling for the labour market status of the previous year. The study also reveals that although becoming employed has a particularly positive effect on the SWB of individuals who were unemployed or studying in the previous wave, it is likely that this goes down again as times goes by and if individuals remain in employment. Interestingly, the SWB of individuals who are unemployed in two consecutive waves is higher than that of individuals who become unemployed. Finally, students who become unemployed seem to have a particularly low SWB and LS.



Variables set to their mean: marital status, No. of children, health status, individual and hh income, education



Variables set to their mean: marital status, No. of children, health status, individual and hh income, education

Table 3.2. Determinants of Wellbeing among Individuals Aged 18-30 (b-coefficients of fixed-effects linear model).

	SWB				LS			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
Current status (ref. Employed in t)								
Unemployed in t	-1.245 (0.300)***	-1.141 (0.340)***			-0.167 (0.088)*	-0.187 (0.099)*		
Inactive in t	-0.493 (0.320)	-0.315 (0.370)			0.087 (0.101)	0.055 (0.117)		
Student in t	-0.276 (0.278)	-0.524 (0.304)*			0.159 (0.075)**	0.036 (0.084)		
Currently employed (ref. other status in t)			0.506 (0.324)				-0.150 (0.108)	
Currently unemployed (ref. other status in t)				-0.755 (0.581)				0.007 (0.183)
Previous status (ref. Employed in t-1)								
Unemployed in t-1		0.867 (0.309)***	0.552 (0.443)	0.858 (0.346)**		0.026 (0.094)	-0.208 (0.145)	0.035 (0.106)
Inactive in t-1		0.413 (0.409)	0.798 (0.518)	0.435 (0.410)		-0.006 (0.106)	-0.113 (0.144)	-0.021 (0.123)
Student in t-1		0.470 (0.259)*	0.146 (0.357)	0.535 (0.273)*		0.064 (0.074)	-0.152 (0.103)	0.142 (0.076)*
Interactions								
Unemployed in t-1 * Employed in t			0.712 (0.533)	-0.042 (0.730)			0.394 (0.175)**	-0.192 (0.242)
Housework in t-1 * Employed in t			-1.425 (0.665)**	-0.089 (1.134)			0.071 (0.181)	-0.063 (0.317)
Student in t-1 * Employed in t			0.615 (0.455)	-0.718 (0.768)			0.359 (0.136)***	-0.547 (0.249)**
Constant	26.906 (1.562)***	25.192 (1.878)***	25.694 (1.793)***	23.820 (1.705)***	5.815 (0.417)***	5.957 (0.512)***	6.495 (0.513)***	5.863 (0.464)***
R²	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
N	9,449	7,226	7,226	7,226	9,449	7,226	7,226	7,226

Own calculations based on UKHLS (pooled 5 waves). Not included in the table: marital status, No. of children, health status, individual and hh income, education

Table 3.3. Determinants of Wellbeing among Individuals Aged 18-30 by Gender (b-coefficients of fixed-effects linear model).

	SWB				LS			
	Men		Women		Men		Women	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Current status (ref. Employed in t)								
Unemployed in t	-1.408 (0.443)***	-1.478 (0.473)***	-1.139 (0.408)***	-0.771 (0.493)	-0.295 (0.123)**	-0.341 (0.129)***	-0.123 (0.120)	-0.146 (0.145)
Inactive in t	0.628 (1.971)	4.196 (1.828)**	-0.546 (0.339)	-0.337 (0.389)	-2.827 (0.414)***	-2.525 (0.510)***	0.180 (0.095)*	0.169 (0.116)
Student in t	-0.208 (0.412)	-0.254 (0.416)	-0.401 (0.365)	-0.771 (0.432)*	0.196 (0.109)*	-0.025 (0.123)	0.096 (0.101)	0.050 (0.117)
Previous status (ref. Employed in t-1)								
Unemployed in t-1		1.353 (0.423)***		0.235 (0.444)		-0.065 (0.139)		0.059 (0.120)
Inactive in t-1		-4.117 (2.696)		0.275 (0.413)		-1.896 (1.085)*		0.077 (0.098)
Student in t-1		0.713 (0.326)**		0.209 (0.393)		0.063 (0.112)		0.056 (0.101)
Constant	25.559 (2.214)***	23.271 (2.764)***	28.290 (2.001)***	26.996 (2.275)***	5.388 (0.593)***	5.516 (0.691)***	6.258 (0.568)***	6.380 (0.721)***
R²	0.02	0.04	0.01	0.01	0.03	0.03	0.01	0.01
N	3,689	2,833	5,760	4,393	3,689	2,833	5,760	4,393

Own calculations based on UKHLS (pooled 5 waves). Not included in the table: marital status, No. of children, health status, individual and hh income, education

3.2. Germany

3.2.1. Data, methods and variables

The data used in the study come from the German Socio-Economic Panel (SOEP) which is probably one of the datasets most used in the analysis of subjective wellbeing in Europe and has the great advantage of having run for a long time now. The period of analysis goes from 1992 to 2012. Even if the survey started in 1984, we restrict the sample period to start in 1992 because it is the first wave of data for which information is available for East Germany.

The level of subjective wellbeing or happiness is measured in the SOEP data on a 11-point scale (from 0 for individuals with a low level of general satisfaction with life and 10 for those with a high level). The question on 'general satisfaction with life now' is asked to all individuals above the age of 16 but we restrict the analysis to individuals that are 18 or older given that the number of missing values for young people at the age of 17 was abnormally large. Thus, the analysis refers to the youth population in Germany. Note that SOEP data gives the possibility to work with individual answers to the happiness question which offers a great advantage compared to variables that measure wellbeing at the household level via the answer of a household head or representative (which is then imputed to the rest of household members). This is the case, for example, for wellbeing measured by perceived financial difficulties (see Ayllón and Fusco, 2014). Having the variable at the individual level allows enough variability within the household and the possibility that unemployment or working conditions affect wellbeing differently to each household member.

In order to estimate the relationship between unemployment and wellbeing we applied the fixed-effects model allowing to exclude the impact of unobserved time-invariant heterogeneity. Despite the fact that the dependent variable is ordinal, we treat it as the interval one, following the recommendations of Ferrer-i-Carbonell and Frijters (2004). The most important independent variable is the unemployment dummy (reference category is being employed). The set of regressors contains such variables as: age, income, disability status, years of education and marital status proxies.

3.2.2. Results

Table 3.4 presents changes in the average level of wellbeing (measured on a 11-point scale from 0 to 10, where the mean level of wellbeing amounted to 6,89). These results are consistent with the previous research findings (e.g. Winkelmann and Winkelmann, 1998) indicating that the strongest decrease in subjective wellbeing was associated with the transition from employment to unemployment and the highest leap of wellbeing level was found among individuals who moved from unemployment to employment. Separating students from the group of economically inactive brings also interesting results. Leaving the status of student is associated with the decrease in wellbeing even in cases of transitions into employment. Transition into inactivity seems to have also the detrimental impact on wellbeing. However this effect is not observed with respect to transitions into education.

Table 3.4. Changes in individual wellbeing by current (t) and past (t-1) labour market status. Individuals aged 18-30 (mean).

	Previous wave (t-1)			
	Unemployed	Inactive	Student	Employed
Current wave (t)				
Unemployed	-0.095	-0.199	-0.171	-0.490
Inactive	-0.191	-0.139	-0.187	-0.094
Student	-0.086	0.112	-0.079	0.029
Employed	0.377	0.133	-0.076	-0.042
N				
Unemployed	3471	669	1780	2806
Inactive	625	3043	439	1376
Student	1341	263	6008	885
Employed	3427	1297	2768	31982

The detrimental effect of unemployment on wellbeing among young people in Germany was confirmed through the estimation of fixed-effects model. Even after controlling for independent variables most common in the literature and after excluding the impact of time-invariant unobserved heterogeneity, the relationship between unemployment and wellbeing remained relatively strong and highly significant (see table 3.5). It must be noted that the estimated unemployment-wellbeing relationship refers to the direct non-pecuniary aspect of job-loss since we control for household income. Past unemployment experiences did not influence the present level of subjective wellbeing indicating that there was no scarring effect of unemployment. The analyses conducted separately in subgroups of men and women show that the employment-wellbeing relationship was much stronger among men (see table 3.6).

Table 3.5. Determinants of wellbeing among individuals aged 18-30 (b-coefficients of fixed-effects linear model).

	Model 1	Model 2
Current status (ref. Employed in t)		
Unemployed in t	-0.424*** (0.019)	-0.426*** (0.020)
Inactive in t	-0.104*** (0.025)	-0.110*** (0.027)
Student in t	-0.059** (0.024)	-0.079*** (0.026)
Previous status (ref. Employed in t-1)		
Unemployed in t-1		-0.012 (0.020)
Inactive in t-1		0.015 (0.027)
Student in t-1		0.061** (0.024)
R²	0.032	0.033
N	65702	56673

Own calculations based on SOEP Not included in the table: marital status, health status, income, education, constant

Table 3.6. Determinants of wellbeing among individuals aged 18-30 by gender (b-coefficients of fixed-effects linear model).

	Men	Women
Current status (ref. Employed in t)		
Unemployed in t	-0.579*** (0.028)	-0.249*** (0.030)
Inactive in t	-0.446*** (0.055)	0.028 (0.032)
Student in t	-0.096** (0.037)	-0.057 (0.038)
Previous status (ref. Employed in t-1)		
Unemployed in t-1	-0.020 (0.020)	0.010 (0.029)
Inactive in t-1	0.037 (0.052)	-0.027 (0.033)
Student in t-1	0.076** (0.033)	0.075** (0.034)
R²	0.043	0.023
N	27681	28992

Own calculations based on SOEP Not included in the table: marital status, health status, income, education, constant

3.2.3. Conclusions

This study has shown that in the group of young individuals in Germany being unemployed has a detrimental effect on subjective wellbeing measured as the overall life satisfaction even after controlling for variables which could affect both employment status and the level of wellbeing as well as for the unobserved time-invariant characteristics. In addition, the descriptive statistics show that the highest changes in subjective wellbeing were associated with the transition from employment to unemployment (negative impact) and from unemployment to employment (positive impact). The employment-wellbeing relationship was much stronger in the group of men. We did not find any evidence confirming the scarring effects of unemployment.

3.3. Poland³

3.3.1. Data, methods and variables

In the study we use the data from all the waves of the longitudinal survey ‘Social Diagnosis’ (2000, 2003, 2005, 2007, 2009, 2011, 2013, 2015). In the final sample we included the participants who were in the age group 18-30 in the first observed wave and took part at least in two waves of the study.

The dependent variable in the model is a binary variable based on the question about the respondents’ entire life assessment (1 – delighted, pleased or most satisfying; 0 – mixed, mostly dissatisfying, unhappy, terrible). The study focuses on young individuals, hence we assume that this variable is highly correlated with the assessment of the current life.

³ The case of Poland is based on the analysis performed for Deliverable 6.2, "Explaining consequences of employment insecurity: The dynamics of scarring in the United Kingdom, Poland and Norway".

The selection of regressors was based on the literature review presented in the previous section. The most important independent variable is the current unemployment status (the reference category is being full-time employed). Since we would like to test for scarring and the habituation effects (see Clark et al, 2001) we have included in the model the variable measuring the months of unemployment within the last two years and interacted it with the current unemployment status. The coefficients of the past unemployment variable will show the possible impact of the past unemployment on the current wellbeing (scarring effect) and the coefficient of the interaction term will measure the specific impact of current unemployment on individuals who experienced unemployment in the past (habituation effect). In order to separate pecuniary and non-pecuniary effects of unemployment on wellbeing we included two proxies for the financial situation – the household income per head and the individual assessment of household financial situation. In order to estimate the gender differences in unemployment-wellbeing relationship, we estimate the model for the entire sample and separately for women and men.

The quality of work is measured by the set of labour market attachment variables (being economically inactive, working part-time, being self-employed, being full-time student) and the family support by the civil status proxies (being parent, being married or in a partnership, being family head). Since the unemployment rate can affect both wellbeing and unemployment status we control for cyclical unemployment risk (which values are the residuals from regressing the regional unemployment rate on a linear time trend. This variable proxies the deviations from the (regional) unemployment rate trend, see Biewen and Steffes, 2008:4). The set of independent variables is complemented by regressors which, according to the literature review, can influence the employment-wellbeing relationship - health status, the level of religiosity, years of education, age. After the exclusion of cases with missing values for any independent or dependent variables, the final datasets consisted of 1182 individuals and 3549 observations.

3.3.2. Results

Table 3.7 presents changes in the average level of wellbeing (proxied by a dummy variable where ‘1’ denotes individuals satisfied with life and ‘0’ otherwise. The averages presented in the table can be also interpreted as changes in shares of individuals satisfied with life).

These results are consistent not only with the previous research findings (e.g. Winkelmann and Winkelmann, 1998) but also with the results presented in German and British cases and show that the strongest decrease in subjective wellbeing was associated with the transition from employment to unemployment and the highest leap of wellbeing level was found among individuals who moved from unemployment to employment.

Table 3.7. Changes in individual wellbeing by current (t) and past (t-2) labour market status. Individuals aged 18-30 (mean).

	Previous wave (t-2)			
	Unemployed	Inactive	Student	Employed
Current wave (t)				
Unemployed	-0.040	-0.046	-0.043	-0.065
Inactive	-0.067	0.036	0.032	0.014
Student	-0.028	-0.056	0.013	-0.002
Employed	0.073	-0.058	0.014	0.011
N				
Unemployed	370	128	464	320
Inactive	135	414	215	201
Student	180	89	2131	602
Employed	612	293	1729	3528

The results of fixed-effects logit model estimation where life assessment proxied the wellbeing show that even if we control for many observed but also unobserved time-invariant characteristics, there is a statistically significant detrimental effect of current and past unemployment on wellbeing. These results suggest that the unemployment can have not only temporary but also more continued impact on wellbeing which is consistent with the unemployment scarring hypothesis. There are some signs of the habituation effect, very similar to those identified by Clark et al. (2001).

Table 3.8. Determinants of wellbeing among individuals aged 18-30 (b-coefficients of fixed-effects logit model).

	coef.	std. err.	p-value
Unemployed	-0.628	0.173	0.000
past unemployment	-0.018	0.007	0.013
unemployed*past unemployment	0.022	0.013	0.089
bad health status	-0.663	0.112	0.000
household income per person	0.000	0.000	0.965
household income decreased	-0.221	0.083	0.008
Age	-0.037	0.093	0.686
age2	0.001	0.002	0.393
year of education	0.096	0.041	0.018
children in the household	-0.213	0.187	0.255
Married	1.201	0.200	0.000
family head	-0.160	0.188	0.393
Religious	0.227	0.101	0.025
employed part time	-0.052	0.169	0.757
Inactive	0.076	0.153	0.617
self-employed	0.118	0.266	0.657
Student	-0.103	0.214	0.632
cyclical unemp. Risk	-0.014	0.013	0.304
R2=0.03			
N= 3549			

While the interpretation of the positive sign of the interaction term (see table 3.8) can be misleading in non-linear models (see Ai and Norton, 2003), the estimates presented in the table 3.9 show that the detrimental influence of current unemployment on wellbeing is highest for individuals who did not experience unemployment in the past and close to zero for persons who were unemployed over the last 2 years. However, the estimated marginal effects are not statistically significant.

Table 3.9. The marginal impact of current unemployment on wellbeing by previous unemployment experience

months unemp.	marg. eff.	std. err.	p-value
0	-0.105	0.072	0.143
4	-0.091	0.061	0.134
8	-0.077	0.052	0.135
12	-0.063	0.045	0.158
16	-0.048	0.041	0.237
20	-0.033	0.041	0.421
24	-0.017	0.045	0,701

*the average marginal effects calculated with the assumption that fixed effect is 0

In order to check for gender-specific effects we re-estimated the model separately for men and women. The marginal effects presented in the table 3.10 show that the detrimental impact of current unemployment was statistically significant only in the group of men which is consistent with previous empirical and theoretical analyses (no past unemployment effects were found in either subgroup).

Table 3.10. Determinants of Unemployment. Gender specific marginal effects

	coef.	std. err.	p-value	N
men	-0.103	0.042	0.015	1817
women	-0.042	0.067	0.528	1732

*the average marginal effects calculated with the assumption that fixed effect is 0.

The inclusion of the household income variable allowed to distinguish two effects of unemployment on wellbeing, the indirect through reduced income and the direct. As explained by Clark and Oswald (1994) ‘entering income as a control, and then calculating the coefficient on unemployment status, would give the pure non-pecuniary loss from joblessness’ (Clark and Oswald, 1994: 567). The household income variable turned out to be highly insignificant. The possible explanation is that in the sample consisting of young individuals often cohabitating with their parents and earning relatively little, losing a job does not lead to a serious income decline. From this reason we included another income-related binary variable denoting individuals who claimed that their household income decreased since last year. Even controlling for this variable which had a significant detrimental effect on wellbeing did not change the strong unemployment effect. It suggests that the non-pecuniary aspect of job loss plays a big role among young unemployed in Poland.

The well-recognized determinants of happiness (being married, being religious) influenced positively wellbeing also in our study. The estimated effect of the cyclical unemployment risk

variable had the expected sign but was not statistically significant indicating that the macroeconomic factors did not influence the unemployment – wellbeing relationship. Similarly, we did not find any age effect. It could be partly caused by the sample design – by focusing on individuals from a relatively narrow cohort we reduced the variability of age. On the other hand the role of age in explaining the relationship between wellbeing and unemployment is unclear. Some authors claim (e.g. Oswald and Clark, 1994) that younger cohorts suffer less from unemployment because in their age group this state is more likely whereas according to the other researchers (e.g. Ilmakunnas and Böckerman, 2006) the detrimental effect should be particularly noticeable among younger cohorts hence it harms their lifetime earnings more.

3.3.3. Conclusions

In the analysis we have exploited the data from the longitudinal survey ‘Social Diagnosis’ to model the relationship between unemployment and wellbeing among young individuals in Poland. Controlling for many observed as well as time-invariant unobserved characteristics we have found that not only the current but also the past experience of unemployment had a detrimental effect on individual’s wellbeing. The latter finding might suggest the existence of the so called scarring effect of unemployment which reduces the individual wellbeing regardless of the current employment status. Based on the results it is difficult to infer whether young unemployed in Poland are getting used to their status. The estimated habituation effect had the expected sign but was not statistically significant. Our results suggest that the effect of non-pecuniary costs of unemployment on psychological wellbeing is larger than the one associated with loss of income. The non-pecuniary effect was particularly apparent in the group of men.

3.4. The summary of results

Despite the fact that the analyzes summarized above concerned countries represented distinct models of market economy (Great Britain, Germany, Poland) and were performed with the use of the data from national, independent surveys (Understanding Society, German Socio-Economic Panel, Social Diagnosis) we were able to identify some common patterns. Firstly, in every country studied the strongest changes in the subjective level of wellbeing were associated with transitions between employment and unemployment. Secondly, in every country under scrutiny the present unemployment status had a negative impact on subjective wellbeing. However, only in one country, in Poland, we were able to identify a ‘scarring effect’ defined as a negative impact of the past unemployment experiences on the current wellbeing regardless of the present employment status. Moreover, in case of Poland and (to some extent) of Great Britain we identified some traces of so called ‘habituation effect’, the process during which the unemployed regain their mental comfort as they are getting used to their status. The identified effects were, however, not very robust. Finally, in every country studied the detrimental effect of unemployment on wellbeing was particularly strong in the group of men. This finding is consistent with the social production function theory which says that particularly for men employment is a main way of gaining social approval.

4. (Un)employment and wellbeing of youth. A comparative perspective

4.1. The empirical strategy

In this part of the paper we apply the two-step regression procedure used by e.g. Woessmann et al. (2005) or Bol and van de Werfhorst (2013). In the first step we use the micro data from the European Social Survey and regress the individual life satisfaction Y_i on the employment status E_i controlling for other variables X_i . This procedure allows to estimate the strength of the relationship between the employment status and wellbeing proxied by life satisfaction (θ) separately for each country. In order to increase the sample sizes, for every country we pooled the data from all the available waves. In the second step the estimated country-level coefficients measuring the employment-wellbeing association constitute a dependent variable (θ_c), which is regressed on the set of the country-level independent variables (D_c) - possible determinants of the employment-wellbeing relationship.

$$Y_i = \beta_0 + X_i\beta + \theta E_i + \varepsilon_i \quad (1)$$

$$\theta_c = \gamma_0 + D_c\gamma + \mu_c \quad (2)$$

As emphasized by Woessman et al. (2005), the dependent variable in regression (2) is the outcome of an estimation procedure rather than a precise observation. From this reason we follow the strategy adopted by Bol and van de Werfhorst (2013) and use the inverse of the standard errors of the coefficients θ as weights in the second step. As a result, in the second step, the cases (countries) for which the employment – wellbeing relationship is less precisely estimated have less importance.

In both steps of the estimation procedure we run OLS models. It might appear problematic particularly in model (1) where the dependent variable, derived from the question ‘how satisfied are you with your life as a whole nowadays?’, takes values from 0 (extremely dissatisfied) to 10 (extremely satisfied). Although this is the ordinal variable we will treat it as the cardinal one following Ferrer-i-Carbonell and Frijters (2004) who claim that ‘assuming cardinality or ordinality of the answers to general satisfaction questions is relatively unimportant to results’ (Ferrer-i-Carbonell and Frijters, 2004:655).

4.2. Micro and macro level determinants of wellbeing

All the variables used in step 1 estimation come from the European Social Survey. Since the focus of our study is on youth we selected for the analysis only persons aged 36 or less. As mentioned above the dependent variable in model (1) is derived from the question ‘how satisfied are you with your life as a whole nowadays?’ and takes values from 0 (extremely dissatisfied) to 10 (extremely satisfied). The set of independent variables is selected based on the literature review on the effects of employment status on wellbeing (Clark and Oswald, 1994; Gerlach and Stephan, 1996; Winkelmann and Winkelmann, 1998; Lindbeck et al, 1999; Ilmakunnas and Böckerman, 2006). In particular in our specification we control for: disability status, migration status, the assessment of household financial situation, past unemployment, the level of education, the household composition (being parent, being married or in a partnership, being family head), age, sex, year. The most important independent variable proxies the employment status (a binary variable which takes values: 1 if a respondent worked as an employee, 0 if a respondent was unemployed). The respondents with other employment

status categories were excluded from the analysis). It should be emphasised that by controlling for household income (the assessment of household financial situation) the estimated employment – wellbeing relationship refers to the direct, non-pecuniary effect of economic activity (e.g. work affects individual's wellbeing by providing a structured day, opportunities for mastery and creativity, shared experiences and status, see Jahoda, 1982). We estimate also the second version of the model (1) which additionally separates the group of employees into employed with unlimited duration contracts and employees with temporary contacts (including workers with no contract at all). This modification allows to investigate the employment – wellbeing relationship taking into account the different levels of job security. We will refer to this modified model mostly at the stage of descriptive statistics.

In our study we focus on the non-pecuniary impact of (un)employment on wellbeing, therefore we expect that the employment-wellbeing relationship will be particularly strong in countries in which the employment quality is high. We refer to two strains of research which might be useful in this context.

The first emphasizes the role of so called employment regimes in understanding the international variation in employment quality (see Gallie, 2007; 2011). In this theoretical framework the institutional setting of a given employment regime depends on the strength of (organized) workers and their ability to influence the work-related policies. The employment regimes differ with respect to such characteristics as the position of organized labour, the scope of initial and continuing vocational education and training, work and employment integration policies (see Gallie, 2007: 20-32). All these features determine also the employment quality. There are three main types of employment regimes. In an inclusive regime the strong and organized labour acts in favour of high level of employment. As a result a relatively 'tight labour market will strengthen employees' power at workplace level, will be conducive to greater participation at work and will broaden concern about the quality of work' (Gallie, 2007:18). In inclusive regimes the level of unemployment protection is high with developed passive and active labour market policies. The dualist employment regimes are similar, however, with stronger division between core and peripheral segments of the labour market. As a result 'the nature of employment regulation will tend to reflect this providing strong employment protection, good employment conditions, and generous welfare support for the core workforce, but much poorer conditions for those on non-standard contracts' (Gallie, 2007:19). Finally, in market regimes the position of the organized labour is relatively weak and the main coordinating mechanism is the labour market. The employment quality and work condition depend on the bargaining process at the company level.

The second strain of research useful to identify the macro-level determinants of employment quality and, as a consequence, the employment – wellbeing relationship among young people investigates the process of school-to-work transition. Raffe defines 'education-work transitions' as the sequence of educational, labour-market and related transitions that take place between the first significant branching point within educational careers and the point when – and if – young people become relatively established in their labour-market careers' (Raffe, 2014:177). School-to-work transition systems are defined as 'relatively enduring features of [each] country's institutional and structural arrangements which shape transition processes and outcomes' (Raffe, 2014:177, who quotes Smyth et al., 2001:19). Although Raffe mentions

various building bricks shaping the transition system like education and training arrangements, the labour market, the broader economic environment (stage of economic development), family structures, cultural factors (religion, attitudes to household), career guidance and youth programmes (Raffe, 2014:177, Raffe, 2008:286), the strongest emphasis, particularly in empirical studies, is on the first two elements.

Initially the institutional characteristics of the education systems were operationalised on the basis of two criteria identified by Allmendinger (1989), the standardisation of educational provisions and the stratification of educational opportunity. The first dimension refers to the scope of nationwide standards of the education quality, e.g. with respect to e.g. teachers' training, school budgets, curricula or school-leaving examinations. In further studies this last aspect of standardisation was defined as the standardisation of output whereas the former as the standardisation of input (see, e.g. Levels et al., 2014: 345). The second dimension characterises the selectivity of tracking system in education. High level of stratification of educational opportunity describes the education systems in which the students are selected into tracks at an early age, where the tracks differ in terms of curricula and the mobility between tracks is limited. In the course of studies the third dimension was added to this two-dimensional typology: vocational orientation of the education system (Shavit and Muller, 1998). The vocationally oriented education systems are not only these where the proportion of students choosing the vocational track is high, but also where the teaching process of occupation-specific skills includes the practical training at workplace (so called dual apprenticeship system).

The second set of indices characterising the transition regimes describes the type of the labour market. It must be remembered, however, that 'features of education systems [...] need to be understood in relation to features of labour markets' (Raffe, 2014: 185). The theoretical underpinning draws on labour market segmentation theories distinguishing between two types of labour market arrangements. Maurice et al. (1982) identified qualificational and organizational spaces. This distinction is based on the assumption that the private companies adjust their HR strategies to the characteristics of the educational system. In the system patterned in an qualificational space the education system has vocational orientation and firms use the educational credentials to allocate persons among jobs. In the system patterned in an organizational space the specific skills are mostly acquired on the job hence the links between qualifications and firms are weaker. This dichotomy corresponds to the typology of Marsden (Marsden, 1986) who distinguishes between occupational labour markets (OLMs) and internal labour markets (ILMs). This conceptual framework is with many respects similar to the varieties on capitalism approach (Hall and Soskice, 2001) which distinguishes between two production regimes, with liberal (LME) market economies and coordinated market economies (CME) (Hall and Soskice, 2001). This perspective places emphasis on how the firms solve the coordination problem 'with respect to industrial relations, vocational training, corporate governance, inter-firm relations, and the cooperation of their employees' (Gallie, 2007:13). In CMEs there is a bigger emphasis on non-market arrangements whereas in LMEs the free market is the main coordinating device. This theoretical perspective allows to explain why the level of employment protection coincides with a vocationally oriented education system.

The relationship between characteristics of transition systems and the quality of (transition into) employment was scientifically explored with the use of various outcome variables: horizontal

and vertical education-to-job matching (Levels et al., 2014), youth unemployment rate (Breen, 2005; Wolbers, 2007, Bol and van de Werfhorst, 2013)), strength of the education-occupational status relationship (Lange et al., 2014; Shavit and Muller, 1998; Allmendinger, 1989), temporary employment incidence (Wolbers, 2007), length of transition into first significant job (Wolbers, 2007), length of job search (Bol and van de Werfhorst, 2013), the average job tenure (Bol and van de Werfhorst, 2013), the sequence of school-to-work transition (Brzinsky-Fay, 2007).

Drawing on the abovementioned theoretical perspectives we select two sets of macro – level variables characterising the nature of industrial relations (based on employment regimes’ literature) and the education system (based on school-to-work transition literature). Table 1. presents these variables and their operationalisation as well as the expected impact on the employment – wellbeing relationship.

Table 4.1. Description of macro – level variables and their expected impact on the employment – wellbeing relationship

variable	description	expected impact
education system		
standardisation	standardization of output index constructed by Bol et al. (2012): a dummy variable indicating whether in a country exists the curriculum based central exit exam	positive
stratification (tracking)	tracking index constructed by Bol et al. (2012) based on three subindices (1) the age of first selection, (2) the percentage of the total curriculum that is tracked, (3) the number of tracks that are available for 15-year-olds.	positive
vocational orientation	share of vocational students in upper secondary education	positive
Industrial relations (strength of organized labour)		
trade union density	share of workers who are trade union members	positive
collective bargaining coverage	share of workers to whom a collective bargaining agreements apply	positive
control variables		
employment protection	index of employment protection legislation (OECD)	mixed
employment integration policies	spending on labour market programs as a share of GDP	positive
youth unemployment rate	-	mixed/negative
GDP per capita	-	mixed/positive

*synthetic indicators constructed by Bol et al. (2012) use the data from years 2002-2008. With respect to other indicators we calculated the country averages for the period 2002-2014.

The first three variables characterize the system of education. It is relatively well documented that the high levels of standardisation, stratification and vocational orientation strengthen the links between education attainment and occupational status. It should have a positive impact on the employment-wellbeing relationship. We have similar expectations with respect to the variables characterizing the strength of organized labour which is the main element shaping the features of employment regimes. The first two of the control variables are closely related to both employment regimes and school-to-work transition literature. We expect that the

employment integration policies will strengthen the employment – wellbeing relationship hence they generally increase skill- and education – job matches. We have mixed expectations with respect to the level of employment protection. On the one hand a high level of job security increases the quality of employment, on the other hand a high level of employment protection discourages employers from hiring young workers who, after prolonged periods of job search, might accept jobs of lower quality. The last two control variables characterize the functioning of the economy and the labour market. Although we do not have any strong expectations, we suspect that in countries with well-functioning labour market and under favourable economic conditions, the quality of employment increases. It should strengthen the link between employment and wellbeing.

4.3. Results

In the first step of the analysis a total number of 36 regressions specified in the equation (1) were estimated (a separate regression model was run for every country). The most important regression estimates are presented in table 2.

Table 4.2. The impact of employment (vs. unemployment) on wellbeing. Regression coefficients by country. Bolded are countries for which statistically significant (at 5%) coefficients were estimated.

country	coefficient	p-value	N	country	coefficient	p-value	N
AL	-0.118	0.844	182	IL	-0.003	0.982	2099
AT	0.533	0.003	1454	IS	1.859	0.000	198
BE	0.446	0.000	2322	IT	0.434	0.125	324
BG	0.492	0.011	1068	LT	0.729	0.003	747
CH	0.821	0.000	2187	LU	1.321	0.000	563
CY	0.342	0.131	787	LV	0.661	0.060	316
CZ	0.256	0.106	1848	NL	0.578	0.000	2041
DE	0.842	0.000	2836	NO	0.697	0.000	2214
DK	0.624	0.000	1623	PL	0.321	0.010	2423
EE	0.437	0.015	1578	PT	0.084	0.526	2179
ES	0.761	0.000	2699	RO	0.112	0.795	324
FI	0.554	0.000	1947	RU	0.426	0.024	1979
FR	0.945	0.000	1744	SE	0.891	0.000	2391
GB	0.424	0.000	2585	SI	0.255	0.117	1479
GR	0.232	0.109	1532	SK	0.946	0.000	1354
HR	0.393	0.092	480	TR	-0.102	0.693	711
HU	0.666	0.000	1680	UA	0.355	0.042	1497
IE	0.643	0.000	2727	XK	0.039	0.913	224

In most cases the coefficients associated with employment status variable were positive and statistically significant at 5 percent level what can be interpreted as a beneficial effect of employment on wellbeing or inversely - detrimental effect of unemployment on wellbeing (more precisely, the value of the coefficient refers to the difference in declared life satisfaction between unemployed and employed). At the first glance we can observe some clusters of the results. In general the stronger employment – wellbeing relationship is observed in the countries representing inclusive and dualist employment regimes, usually with developed vocational education systems, with well- functioning labour markets.

Table 4.3a. The employment - wellbeing relationship by contract type in countries representing different employment regimes

country	unltd. unemployed	contract/ unemployed	ltd. unemployed	contract/ ltd. contract	unltd. ltd. contract	N
Sweden	0.934**		0.821**		0.113	2391
Norway	0.747**		0.581**		0.166	2214
Denmark	0.696**		0.431**		0.265**	1623
Finland	0.579**		0.514**		0.065	1947
Germany	0.927**		0.700**		0.227**	2836
Switzerland	0.814**		0.839**		-0.024	2187
Austria	0.493**		0.671**		-0.179	1454
Netherlands	0.578**		0.578**		0.000	2041
Belgium	0.534**		0.269**		0.265**	2322
Great Britain	0.478**		0.302*		0.176	2585

***statistically significant at 1%, **at 5%

A clearer picture presents tables 4.3a and 4.3b where countries are clustered according to the employment regime. Based on the grouping suggested by Gallie (2011), we assume that the Nordic countries represent an inclusive regime, continental coordinated countries (mostly German speaking countries) represent a dualist regime and Great Britain is the example of a market regime. For the sake of comparison we show also the results for Mediterranean countries and transition economies (it is however unclear which of the three abovementioned regimes these countries represent).

Table 4.3b. The employment - wellbeing relationship by contract type in countries representing different employment regimes, continued

country	unltd. unemployed	contract/ unemployed	ltd. unemployed	contract/ ltd. contract	unltd. ltd. contract	N
Spain	0.920***		0.607***		0.313***	2699
Italy	0.504		0.294		0.21	324
Greece	0.227		0.237		-0.01	1532
Portugal	0.076		0.092		-0.016	2179
Slovakia	1.035***		0.783***		0.253	1354
Lithuania	0.764***		0.589		0.175	747
Hungary	0.754***		0.478**		0.276	1680
Poland	0.517***		0.199		0.319***	2423
Czech Rep.	0.333**		0.129		0.204	1848
Slovenia	0.262		0.246		0.016**	1479
Romania	0.215		-0.502		0.718	324

***statistically significant at 1%, **at 5%

In order to compare inclusive and dualist regimes, in tables 4a and 4b we present the results of the modified specification of the regression model (1) where the group of employees is

separated according to the contract type (unlimited duration and temporary contracts). The countries where the employment – wellbeing relationship was strongest represent dualist and inclusive regimes. We do not find any polarisation in the employment – wellbeing relationship between employed on different contract types. Such polarisation was expected in dualist regimes with employment quality differences between core and peripheral segments of the labour market (we expected that temporary contracts will be more prevalent in the latter segment). Nordic and continental coordinated countries constituted a group in which also the temporary employment was associated with a strong increase in wellbeing (with comparison to unemployed). In other countries, on average, the employment – wellbeing relationship was much weaker and often employed on temporary contracts did not report higher satisfaction levels than unemployed.

At the first glance the employment – wellbeing relationship seems to be moderately strong, especially with some control variables (56% correlation with GDP, 38% correlation with labour market program spending) or with variables characterizing the strength of organised labour (36% correlation with union density, 28% correlation with collective bargaining coverage). The scatter plots presented in the figures 4.1-4.8 show that in many instances these correlations are strongly affected by two outliers, Iceland and Luxemburg.

In order to inspect more precisely the cross-country differences in employment – wellbeing relationship we estimate the model specified in step 2. Due to the small number of cases we run two specifications of step 2 models, separately for variables characterizing the strength of organized labour and variables characterizing the education systems. As mentioned before, the cases (countries) for which the employment – wellbeing relationship was estimated less precisely, obtained lower weights. Since it was the case of two outliers – Iceland and Luxemburg – their influence on the regression results was strongly reduced. The results of the estimation of both specifications are presented in tables 4.4 and 4.5.

**Table 4.4. Determinants of employment – wellbeing relationship.
Characteristics of school-to-work transition system.**

	model 1			model 2		
	coeff.	std. err.	p-value	coeff.	std. err.	p-value
vocational orientation	0.035	0.113	0.757	0.011	0.100	0.913
educational tracking	0.000	0.075	0.998	0.138	0.072	0.076
educational standardization	-0.009	0.142	0.949	0.128	0.133	0.352
labour market protection				-0.110	0.095	0.265
youth unemployment				0.025	0.011	0.033
GDP per capita				0.010	0.005	0.040
Imp expenditure				0.401	0.220	0.090
constant	1.065	0.301	0.002	-0.290	0.506	0.576
	N=24			N=22		
	adj. R2=0.01			adj. R2=0.26		

**Table 4.5. Determinants of employment – wellbeing relationship.
Characteristics of industrial relations**

	model 1			model 2		
	coeff.	std. err.	p-value	coeff.	std. err.	p-value
bargaining coverage	0.003	0.003	0.277	-0.002	0.003	0.438
trade union density	0.001	0.003	0.857	-0.005	0.003	0.120
labour market protection				-0.105	0.094	0.282
youth unemployment				0.012	0.008	0.151
GDP per capita				0.009	0.004	0.044
Imp expenditure				0.478	0.230	0.052
constant	0.899	0.260	0.002	0.410	0.336	0.237
	N=29			N=25		
	adj. R2=0.08			adj. R2=0.24		

Both specifications are estimated with and without the set of control variables. The coefficients of variables specifying the education system (stratification, standardization, vocational orientation) have expected signs but are not statistically significant. The coefficients of variables specifying the strength of organized labour are highly insignificant and change signs to negative after the inclusion of the set of control variables (see table 4.5). The only variables that seem to influence the employment – wellbeing relationship are control variables – GDP and the spending on labour market programs.

4.4. Other dimensions of employment-wellbeing relationship. Unemployment and the level of trust.

Although trust and wellbeing are distinct concepts, they are tightly connected as reported by Helliwell and Wang (2010) and the mechanisms linking employment status with trust seem to resemble the mechanisms establishing the relationship between employment status and life satisfaction (e.g. the micro-level determinants of generalized trust analysed by Lindström (2009) are very similar to determinants of life satisfaction studied in this paper). From this reason in this chapter we treat the level of trust as another dimension of wellbeing and apply the estimation strategy presented in chapter 4.1. We expect that unemployment impairs the level of trust in the same way as it affects satisfaction with life. Using data from the European Social Survey we estimate regression models of determinants of trust separately for every country present in the study. We use three different proxies for the dependent variable (trust in other people, trust in the legal system, trust in politicians) each measured on a scale from 0 to 10 where ‘10’ denotes the highest level of trust. The most important independent variables are two employment dummies denoting employment on unlimited and limited duration contract respectively (the reference category is unemployed). In the model we control for income (the assessment of household financial situation) which allows to disentangle the direct non-pecuniary impact of employment status on trust and the indirect effect of reduced income as well as for past unemployment experiences (dummy variable indicating whether someone was ever unemployed for at least 3 months) which help to identify the so called ‘scarring effects’ (the impact of past unemployment on current level of trust regardless of the present employment status).

Table 4.6. The impact of employment on unlimited and limited duration contracts (vs. unemployment) and past unemployment experiences on trust. OLS reg. coefficients by country.

cntr	trust politicians			trust legal system			trust other people			N
	unltd. contract	limited contract	unemp. past	unltd. contract	limited contract	unemp. past	unltd. contract	limited contract	unemp. past	
AL	-0.512	-0.183	-0.374	-1.205	-0.541	0.673	-0.244	0.160	-0.468	182
AT	0.512	0.557	-0.181	0.942	0.942	-0.156	0.453	0.442	-0.240	1454
BE	-0.136	-0.318	-0.207	-0.026	-0.044	-0.218	0.224	0.269	-0.151	2323
BG	-0.446	-0.435	-0.234	-0.160	-0.145	-0.154	-0.074	-0.234	-0.361	1068
CH	0.141	0.271	-0.409	0.222	0.491	-0.401	-0.131	0.168	-0.329	2187
CY	-0.117	-0.381	-0.447	0.126	-0.038	-0.337	0.365	-0.092	0.085	793
CZ	-0.121	-0.273	0.074	0.239	0.119	0.083	0.008	-0.197	-0.027	1861
DE	-0.312	-0.068	-0.358	0.048	0.323	-0.293	0.026	0.024	-0.257	2839
DK	0.119	0.072	-0.324	0.080	-0.092	-0.170	0.373	0.200	-0.271	1623
EE	0.143	0.085	-0.267	0.115	0.129	-0.489	-0.064	0.016	-0.298	1574
ES	0.047	0.036	-0.152	0.011	-0.108	-0.228	0.099	0.234	-0.263	2701
FI	0.060	0.158	-0.273	0.316	0.377	-0.237	0.051	0.133	-0.119	1947
FR	0.060	0.086	-0.196	0.014	0.173	-0.215	-0.074	0.001	-0.071	1744
GB	-0.204	-0.134	-0.256	-0.239	-0.342	-0.316	0.070	0.173	-0.352	2585
GR	0.055	0.090	-0.097	0.161	0.171	-0.054	0.111	0.175	0.023	1538
HR	0.212	-0.017	0.160	0.078	0.274	0.095	0.132	-0.182	-0.273	481
HU	0.316	0.155	-0.258	0.169	0.190	-0.065	0.293	0.001	-0.158	1686
IE	-0.050	-0.071	-0.078	0.038	0.031	-0.389	0.381	0.037	-0.202	2730
IL	0.135	0.170	-0.287	0.006	0.200	-0.272	0.309	0.296	-0.156	2109
IS	1.002	0.752	-0.188	-0.093	-0.545	-0.873	-0.465	-0.645	-0.063	198
IT	0.197	0.250	-0.126	0.135	0.077	0.410	0.276	0.832	0.389	327
LT	-0.133	-0.084	-0.058	0.232	0.021	0.225	0.378	-0.027	0.113	747
LU	-0.308	-0.378	-0.694	0.651	0.465	-0.366	-0.061	0.451	-0.033	558
LV	0.325	-0.238	0.116	0.149	0.031	0.714	0.103	-0.359	-0.477	316
NL	0.319	0.400	-0.227	0.774	0.961	0.071	0.373	0.422	-0.201	2040
NO	0.371	0.462	-0.120	0.210	0.173	-0.274	0.216	0.393	-0.235	2216
PL	-0.128	-0.181	-0.089	0.041	-0.002	-0.122	0.144	-0.028	-0.270	2428
PT	0.051	-0.013	-0.174	-0.131	-0.009	-0.257	0.131	0.167	-0.017	2192
RO	0.432	0.553	-0.687	0.548	0.442	-0.586	-1.031	-0.167	-0.845	327
RU	0.168	0.113	-0.405	0.054	0.188	-0.451	-0.111	-0.172	0.038	1973
SE	0.021	0.139	-0.393	0.146	0.298	-0.296	-0.099	0.052	-0.346	2392
SI	-0.013	0.111	-0.405	-0.160	-0.047	-0.422	-0.171	-0.132	-0.427	1479
SK	0.190	0.220	-0.137	0.031	0.018	-0.186	0.529	0.349	0.256	1358
TR	-0.423	-0.727	-0.179	-0.348	0.238	-0.326	-0.084	0.130	-0.012	723
UA	-0.258	-0.287	-0.071	0.035	0.104	-0.159	-0.291	-0.140	-0.230	1516
XK	0.126	-0.123	-0.242	-0.221	-0.084	-0.209	-0.493	-1.056	-0.045	226

Bolded are countries for which statistically significant (at 5%) coefficients were estimated

The list of regressors contains also such variables as: gender, age, education, civil status, household composition (having children, living with parents), disability status, migrant background. The sample includes economically active (employed of unemployed) individuals

aged 35 or less. We estimate the model applying the OLS regression procedure despite its drawbacks discussed in chapter 4.1. The estimated coefficients are presented in table 4.6.

We can see that in most countries under scrutiny the relationship between employment status and the level of trust was not statistically significant. Similar results were obtained by Fabian et al. (2014) who reported that the influence of employment status on trust was much smaller than its impact on life satisfaction. Moreover, in some countries the statistically significant coefficients (bolded) had the negative signs indicating that young employed had the lower level of trust than young unemployed (the cases of Bulgaria and Denmark with respect to trust in politicians). More important influence on trust had past unemployment experiences. The dummy variable indicating whether someone was ever unemployed for at least 3 months was a statistically significant predictor of the level of trust in almost half of the countries and had the expected, negative sign. These results are consistent with the hypothesis that the unemployment leaves scars on young individuals, in this case resulting in a decreased level of general trust and trust in institutions.

Due to the very weak relationship between employment status and trust we do not present the analysis of the macro-level determinants of employment-trust relationship which turned out to be inconclusive. However, the interesting results can be observed when we pool all the data in one regression model of determinants of trust (see table 4.7). If we control for the household income (first columns of the three regression models) the relationship between the employment status (unlimited and limited duration contract dummies) and the level of trust is rather weak and not always statistically significant (particularly in case of trust in politicians). The exclusion of the income variable (second columns of the three regression models) increases markedly the magnitude of the effect of the employment status on trust (but not much the effect of past unemployment experiences). These results might suggest that the level of trust is mostly affected through the indirect income effect, contrary to life satisfaction for which the direct, psychological effect of employment status seems to play a bigger role.

Table 4.7. The impact of employment on unlimited and limited duration contracts (vs. unemployment), past unemployment experiences and income on trust. OLS Regression coefficients, pooled data.

variable	trust in people		trust in legal system		trust in politicians	
	(1)	(2)	(1)	(2)	(1)	(2)
unltd. contract	0.109***	0.203***	0.082**	0.179***	0.021	0.122***
limited contract	0.105***	0.181***	0.132***	0.211***	0.042	0.125***
unemp. past	0.186***	0.221***	0.233***	0.269***	0.243***	0.280***
satisfying income	0.386***		0.398***		0.418***	
<i>N</i>	54441	54441	53472	53473	53482	53483
<i>adj.R2</i>	0.170	0.166	0.212	0.209	0.208	0.204

*** p<0.01; **p<0.05, variables not included in the table: gender, age, education, civil status, children, living with parents, disability, migrant, year and country dummies

5. Conclusions

The detrimental effect of unemployment on individual wellbeing is relatively well documented. However, most of the analyses studying this phenomenon concern individuals in prime age. The aim of this paper was to estimate the employment-wellbeing relationship but with the focus on a particular cohort – individuals at the beginning of their professional careers. In the first part of the report we presented the evidence from three countries representing different models of economy: Germany, Great Britain and Poland. The analysis conducted with the use of three independent datasets (SOEP for Germany, Understanding Society for Great Britain, Social Diagnosis for Poland) which cover different time periods and contain differently defined variables sheds some light on the robustness of the employment-wellbeing relationship. Despite the differences between countries, datasets, constructions of variables and methods of estimation we were able to distinguish many similar patterns.

Firstly, for all three countries we identified a strong and robust association between employment and wellbeing. The detrimental influence of unemployment on wellbeing persisted even after controlling for many observed as well (time-invariant) unobserved characteristics. Additionally, in case of Poland not only the current but also the past employment status had an influence on wellbeing which can be attributed to the so called scarring effect of unemployment. Secondly, in every country the strongest changes in individual wellbeing were associated with transitions between unemployment and employment. Thirdly, in every country under scrutiny men suffered more from unemployment than women what is in accordance with the social production function theory. Within this theory, especially for men, the successful job is a main way of achieving a social approval. Finally, it seems that the estimated association between unemployment and wellbeing was driven mostly by the direct non-pecuniary aspect of a job loss. In cases of Poland and Great Britain some of the individual and household income proxies turned out to be statistically insignificant. This may suggest that the indirect, pecuniary impact of job loss played a lesser role in the employment-wellbeing relationship among young people.

In the second part of the paper we took a comparative perspective trying to identify the macro (country-level) factors influencing the strength of the relationship between the employment status and the level of individual wellbeing using the data from the European Social Survey. We assumed that the international differences in employment-wellbeing relationship can be explained through the differences in quality of school-to-work transition systems and the quality of employment. In most of the countries we identified statistically significant associations between employment status and wellbeing. At the level of the descriptive statistics the strength of the employment-wellbeing relationship seemed to correspond with the quality of employment and the type of the school-to-work transition systems – the strongest relationships were identified in German speaking and Nordic countries, much weaker in Great Britain and Mediterranean countries and the states from Central and Eastern Europe did not reveal any common pattern. Such clustering of results might suggest that the employment-wellbeing relationship is particularly strong in countries with well-functioning labour markets, high quality of employment and educational systems facilitating smooth labour market entry. This is in line with previous studies (e.g. Krueger and Mueller, 2012) reporting that employment-wellbeing relationship does not refer to any job but rather to employment of a certain level of quality. However, the more detailed investigation based on the regression

analysis where the school-to-work transition systems and employment regimes were operationalized through the set of macro-level variables did not confirm these findings. Only two macro-level variables turned out to be statistically significant determinants of the employment-wellbeing relationship – GDP per capita and the expenditures on labour market policy. These results are consistent with the explanation that the employment integration policies (proxied by labour market policy spending) generally increase skill- and education-job matches which strengthen the employment-wellbeing relationship and that under favourable economic conditions (proxied by GDP per capita) the quality of employment increases making the association between employment and wellbeing stronger. In the last part of the paper we broadened the definition of wellbeing and studied the relationship between the employment status and the level of individual trust (in other people and different institutions). This relationship turned out to be much weaker and driven mostly by the indirect income effect. However, we detected the stronger link between the past unemployment experiences and the level of trust. It might suggest that the difficulties in finding employment should last a certain amount of time in order to influence the level of trust.

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Figure 4.1. Employment-wellbeing relationship and trade union density

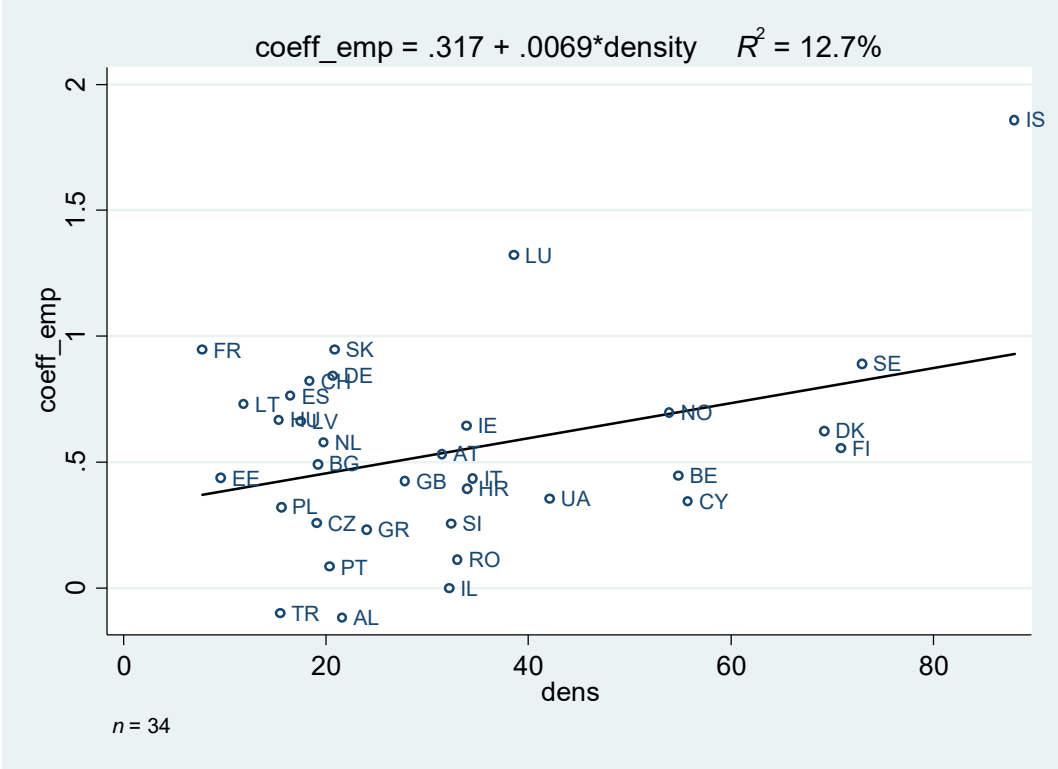


Figure 4.2. Employment-wellbeing relationship and bargaining coverage

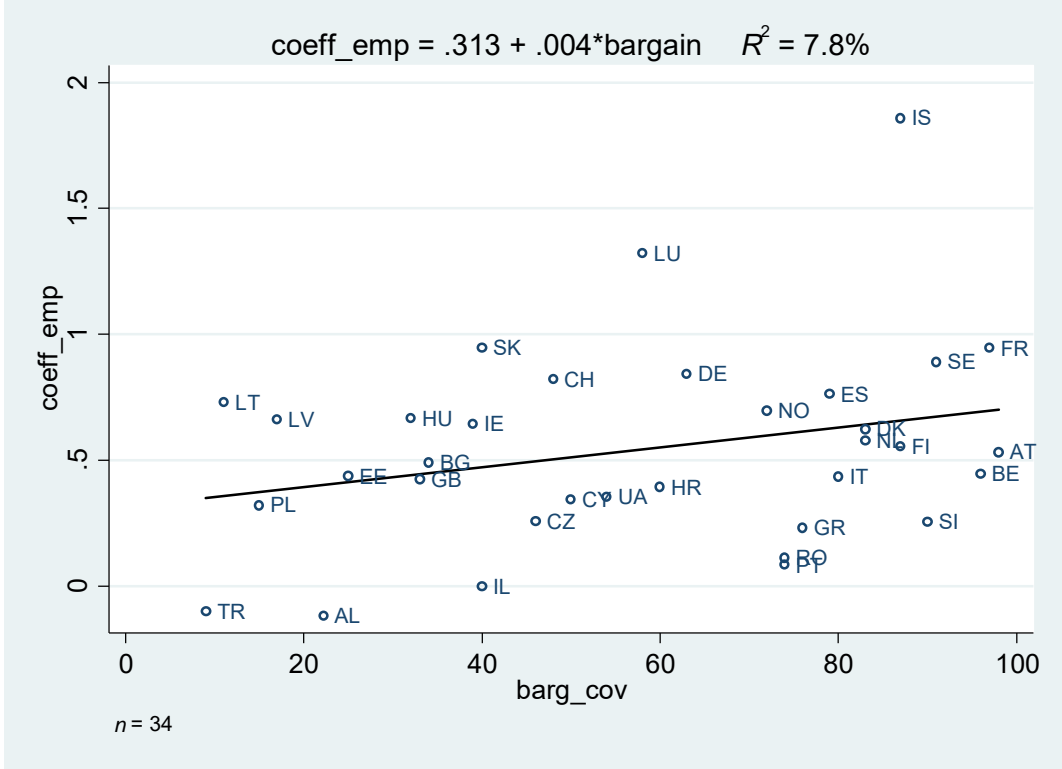


Figure 4.3. Employment – wellbeing relationship and the share of vocational students (secondary level)

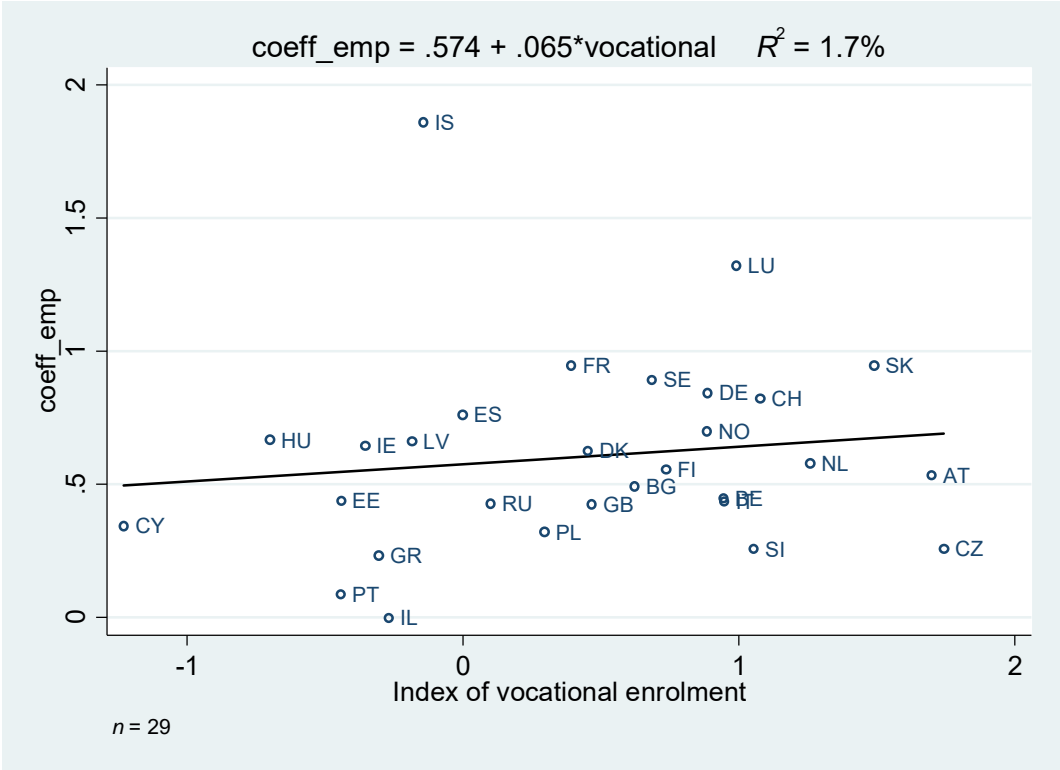


Figure 4.4. Employment – wellbeing relationship and educational stratification

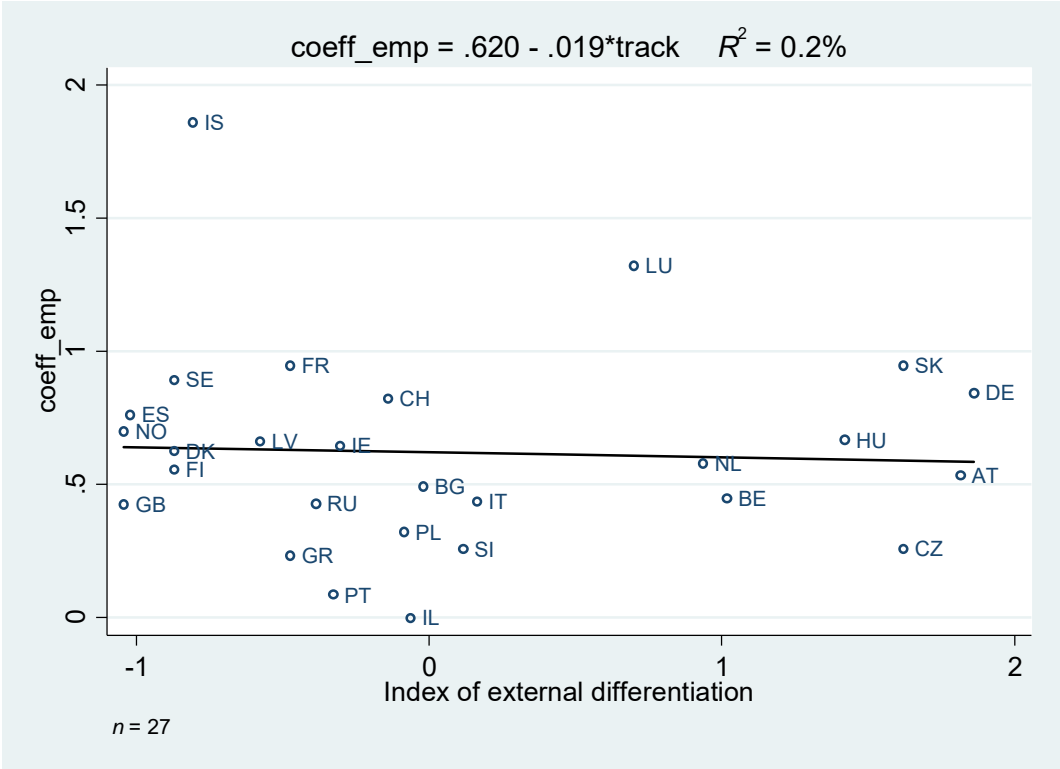


Figure 4.5. Employment – wellbeing relationship and employment protection

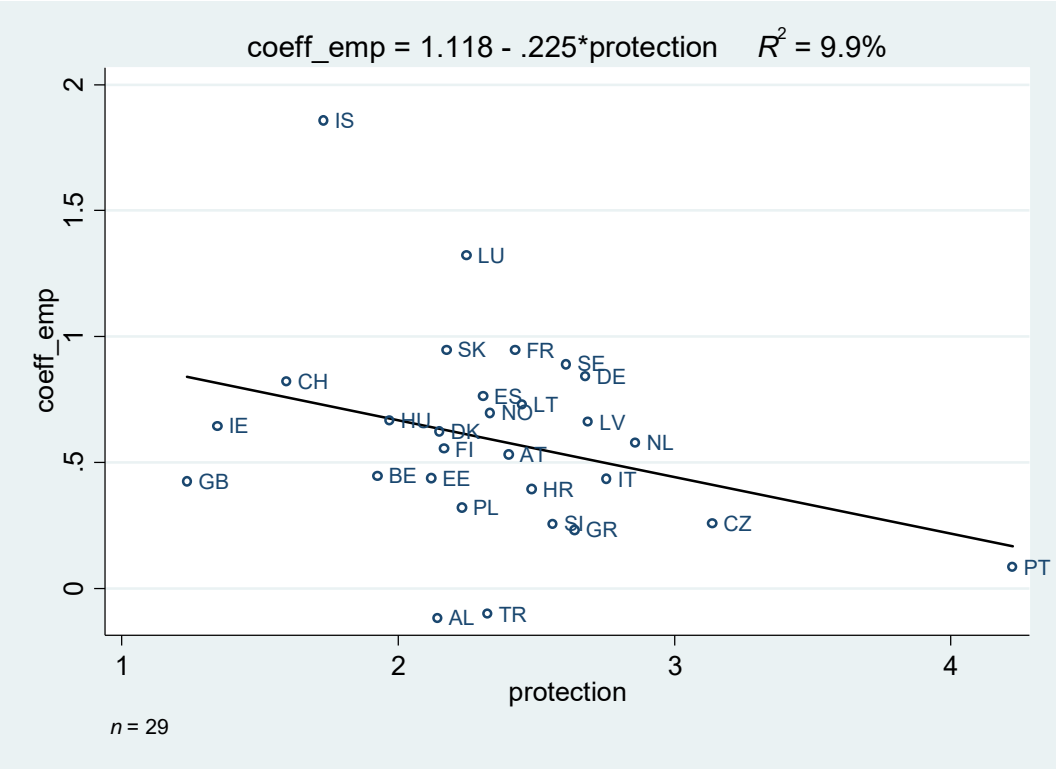


Figure 4.6. Employment-wellbeing relationship and GDP per capita (USD in thousands)

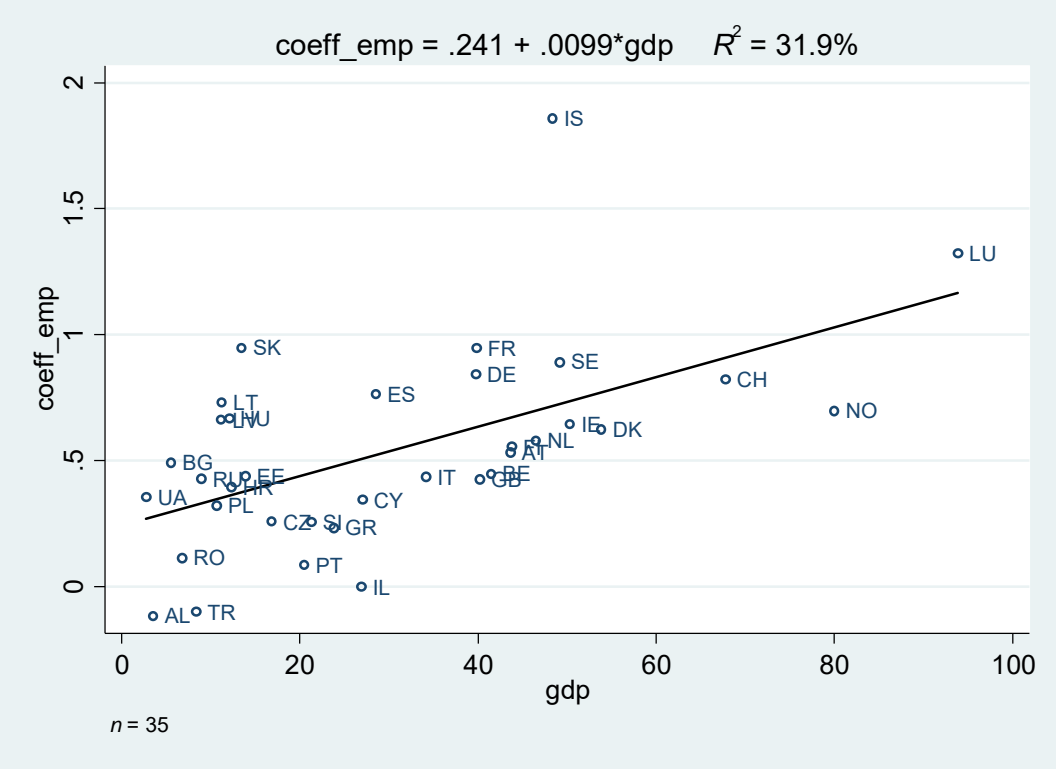


Figure 4.7. Employment-wellbeing relationship and spending for labour market programs (as a share of GDP)

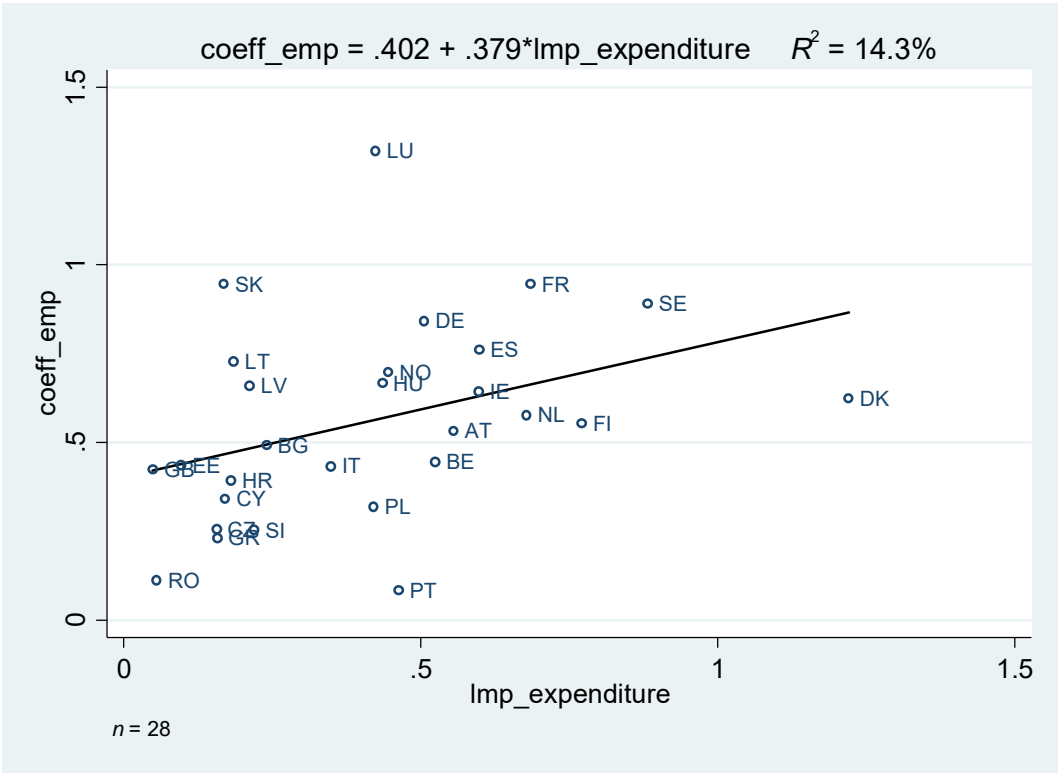
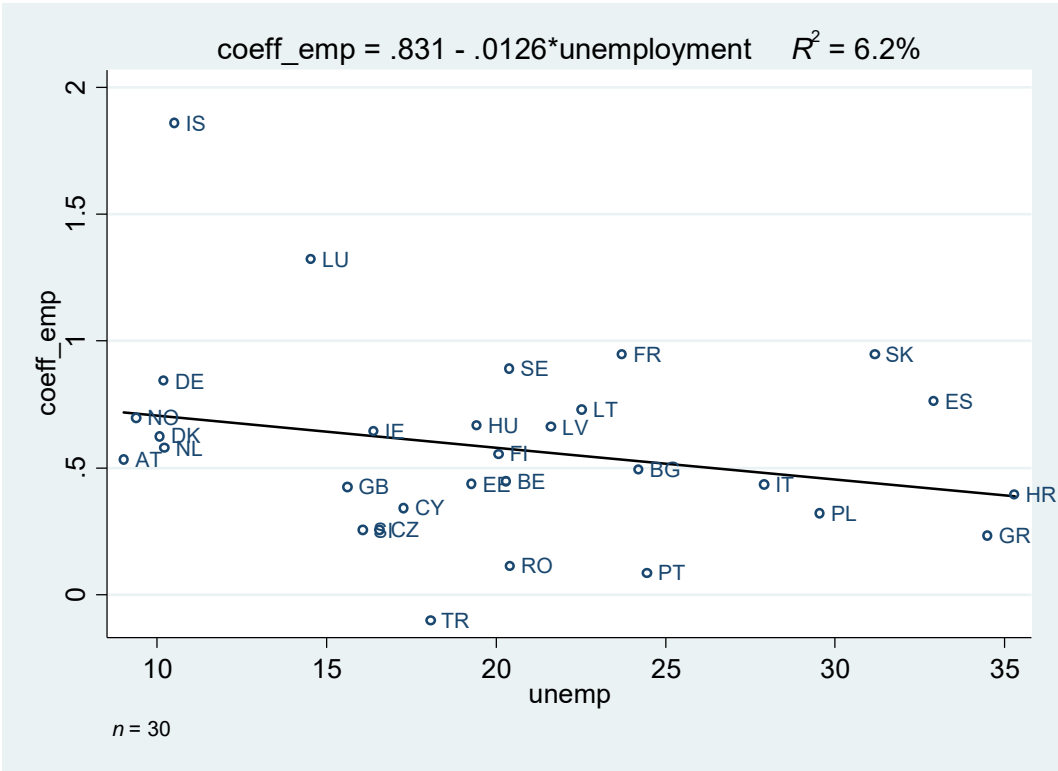


Figure 4.8. Employment-wellbeing relationship and youth unemployment rate



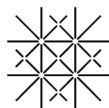
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