2. Employment status and well-being amongst youth: explaining variation across European countries

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1 INTRODUCTION

In this chapter we seek to ascertain why in some countries the difference in subjective well-being between employed and unemployed youth is large, whereas in others it remains small or even negligible. We hypothesize that the relationship between employment and well-being is particularly strong in countries where young people are able to obtain jobs of decent quality in terms of employment security, autonomy at work and opportunities for skill development. The quality of young people's employment is affected by two groups of factors, characterizing the education system and industrial relations, respectively. In the empirical part of the chapter we analyse whether differences in these institutional features can explain cross-country variation in the relationship between employment and well-being.

This study contributes to the wider thinking of policy evaluations in which the level of subjective well-being becomes an important criterion. This area of scientific investigation has been gaining in popularity and importance over the last few years for several reasons. First, despite its shortcomings, the self-reported level of well-being has turned out to be a meaningful and reliable proxy for quality of life (see Stiglitz et al., 2009). Second, studies have proved that subjective well-being (proxied by self-reported measures) is policy amenable. These results have made well-being proxies potential candidates for indicators of societal progress or policy effectiveness (Boarini et al., 2013: 106). Finally, the methodological progress outlined above was accompanied by the implicit and explicit recognition of subjective well-being as an important goal of policymaking. For instance, Wulfgramm states that 'improving the well-being of the socially disadvantaged in society is a core task of the welfare state' (Wulfgramm, 2014: 259) and emphasizes its importance in Europe 2020, the EU growth

strategy. The OECD initiative 'better policies for better lives', which aims to provide evidence on well-being patterns, is another example of this tendency. Thus, the OECD initiative recognizes subjective well-being as one of the elements defining and measuring a 'better life'.

Throughout the chapter we will refer more frequently to the relationship between employment and well-being than to that between unemployment and well-being. Since in the empirical part of the analysis we have compared the well-being of employees and the unemployed, the relationship between employment and well-being and that between unemployment and well-being seem to be two sides of the same coin. There are, however, subtle differences between them. Our emphasis on the former relationship reflects the theoretical underpinning of the analysis, in which the central element is the concept of employment quality (in terms of job security, degree of autonomy at work, variety of skills used, opportunities for professional development and work–life balance). We hypothesize that the relationship between employment and well-being will be stronger in countries with employment circumstances characterized by higher-quality jobs. The remainder of this chapter is organized as follows: Section 2 contains the literature review and summarizes methodological challenges related to the estimation of the relationship between employment and well-being. In Section 3 we have analysed this relationship in a comparative perspective, using the European Social Survey (ESS) data set for this purpose. Section 4 contains concluding remarks.

2   LITERATURE REVIEW AND KEY METHODOLOGICAL CHALLENGES

The detrimental effect of job loss on individual well-being is relatively well documented (Bell and Blanchflower, 2009; Dolan et al., 2008; Dooley and Prause, 2004; Dooley et al., 2000; Harrison et al., 2016; Kapteyn et al., 2015; McKee-Ryan et al., 2005; Russell et al., 2015; Tøge and Blekesaune, 2015; Winkelmann, 2009; Winkelmann and Winkelmann, 1998). This relationship has been confirmed in studies performed for different countries: Germany (Frijters et al., 2004; Winkelmann and Winkelmann, 1998); Switzerland (Frey and Stutzer, 2000); United Kingdom (Bell and Blanchflower, 2010, 2011; Clark, 2003; Clark and Oswald, 1994; Thomas et al., 2005); and other, non-European countries (McKenzie et al., 2014). These analyses focus on individuals of working age, whereas the effects for youth are rarely examined − with the exception of the work of Russell et al. (2015), who focused on 'flexicurity' systems, insecurity and well-being for young people (15–34 years) in Europe during the Great Recession.

There are two channels through which the unemployment–well-being relationship emerges. The direct, non-pecuniary effect of unemployment on well-being can be attributed to unsatisfied needs amongst unemployed individuals. According to Jahoda (1982), employment provides a time structure, collective purpose, social contact, status, activity allowing for mastery and creativity, and a source of financial income. The 'vitamin model' suggested by Warr (1987, 2007) explains the relationship between employment status and well-being along similar lines. Many job characteristics satisfy personal needs of working individuals, thus positively affecting their well-being. The following characteristics represent these beneficial features: opportunity for personal control, social interaction and skill use, physical security, supportive supervision and a valued social position. The second, pecuniary effect of unemployment on well-being stems from the reduced income related to the job loss. Both effects usually coincide. However, Winkelmann and Winkelmann (1998) suggest that the non-pecuniary, psychological cost of unemployment is stronger. Moreover, the negative impact of unemployment on well-being does not disappear once the period of unemployment is over. It is relatively well documented that persons who have lost their jobs declare, on average, a lower level of life satisfaction or happiness regardless of their current employment status. In the literature this phenomenon is called a 'scarring effect' (Clark et al., 2001; also see Helbling et al., Chapter 4 this volume).

Numerous studies have identified a large set of factors moderating the relationship between employment status and well-being. The detrimental effect of job loss is usually weaker amongst women. This phenomenon can be explained using the social production function theory, which emphasizes gender differences regarding the acquisition of social approval. In this context professional work is much more important to men (see Van der Meer, 2014). The negative psychological consequences of job loss are reduced by social support (family, religiosity). However, also the quality of employment is important: the beneficial effect of employment on well-being is less apparent when someone is not committed to or is dissatisfied with their work (Dooley et al., 2000; Warr, 2007), or is employed part-time or on a fixed-term contract (Krueger and Mueller, 2012; Voßemer et al., 2017). The negative consequences of unemployment for well-being tend to diminish with time as individuals get used to their status. This phenomenon was studied by Clark et al. (2001) and is known as the 'habituation effect'.

There are at least two key methodological challenges in the estimation of the employment–well-being relationship: the reversed causality problem (employment can increase well-being but also, inversely, intrinsically more happy individuals might be more successful at finding and maintaining a

job); and the omitted variable bias (the relationship between well-being and employment could be heavily influenced by other factors that should be taken into account – e.g., the state of health, which influences both well-being and employment status).

The first problem is usually addressed through the instrumental variable approach or through the application of fixed-effect models that exclude the impact of time-invariant omitted variables (such as the intrinsic level of happiness; see, e.g., Winkelmann and Winkelmann, 1998). The cross-sectional structure of ESS data sets used in Section 3, where we have analysed the employment−well-being relationship from a 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 emphasized by Ferrer-i-Carbonell and Frijters, 2004). For this reason, our estimates of interest (a regression coefficient denoting the relationship between employment status and well-being) can be biased. Using a data set from the German Socio-Economic Panel, Gerlach and Stephan (1996) showed that simple ordinary least square (OLS) models overestimate the effect of unemployment on well-being compared to fixed-effects models. However, Winkelmann and Winkelmann (1998) obtained the opposite result. In both cases the relative differences between OLS and fixed-effect estimates amounted to between 10 per cent and 15 per cent. As specified in Section 3, we are more interested in the comparative aspect of the analysis. We will perform our analysis using cross-sectional data.

We will address the second methodological challenge (omitted variable bias) through the application of a multiple regression model in which we will control for respondent characteristics that can influence both employment status and well-being. It should also be emphasized that the measurement of subjective well-being is itself a challenging task. Since we do not conduct our own surveys but rather use existing data sets, we have decided not to consider these challenges. A detailed discussion on this topic can be found in such studies as Kahneman and Krueger (2006) or OECD (2013).

3 EMPLOYMENT STATUS AND WELL-BEING OF YOUTH. A COMPARATIVE PERSPECTIVE

3.1 The Empirical Strategy

In the empirical part of the study we applied a two-step regression procedure such as that used by Woessmann et al. (2005) and Bol and Van de Werfhorst (2013). In the first step we used micro data from the

ESS and regressed individual life satisfaction Y_i on employment status E_i, controlling for other variables X_i. This procedure allowed us to estimate the strength of the relationship between employment status and well-being proxied by life satisfaction (θ) separately for each country. In order to increase the sample sizes, we pooled the data from all the available waves for each country. In the second step the estimated country-level coefficients measuring the association between employment and well-being constitute a dependent variable (θ_c), which is regressed on the set of the country-level independent variables (D_c). These constitute possible determinants of the employment−well-being relationship.

$$Y_i = \beta_0 + X_i\beta + \theta E_i + \varepsilon_i \qquad (2.1)$$

$$\theta_c = \gamma_0 + D_c\gamma + \mu_c \qquad (2.2)$$

As emphasized by Woessmann et al. (2005), the dependent variable in Regression (2.2) is the outcome of the estimation procedure rather than a precise observation. We therefore followed the strategy adopted by Bol and Van de Werfhorst (2013) and used the inverse of the standard errors of the coefficients θ as weights in the second step. In the second step, as a result, the cases (countries) for which the employment−well-being relationship is less precisely estimated have less importance.

In both steps of the estimation procedure we ran OLS models. This might appear problematic particularly in Model (2.1), 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 an ordinal variable, we will treat it as if it were a 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).

3.2 Micro- and Macro-Level Determinants of Well-Being

All the variables used in the Step 1 estimation have been adopted from the ESS. Since the focus of our study is on youth, we only included persons aged 36 or less in this analysis. As mentioned in Section 3.1, the dependent variable in Model (2.1) 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 selection of the independent variables is based on a literature review on the effects of employment status on well-being (Clark and Oswald, 1994; Gerlach and Stephan, 1996;

Ilmakunnas and Böckerman, 2006; Lindbeck et al., 1999; Winkelmann and Winkelmann, 1998). In our specification we controlled for the following aspects: disability status, migration status, the assessment of household financial situation, past unemployment, level of education, household composition (being a parent, being married or in a partnership, being head of family), age, gender and year. The most important independent variable proxies the employment status (a binary variable that takes the value of 1 if a respondent worked as an employee and 0 if a respondent was unemployed; respondents with other employment status categories were excluded from the analysis). It should be emphasized that by controlling for household income (the assessment of household financial situation) we ensure that the estimated employment–well-being relationship refers to the direct, non-pecuniary effect of economic activity (e.g., work affects individuals' well-being by providing a structured day, opportunities for mastery and creativity, shared experiences and status; see Jahoda, 1982). We also estimated the second version of Model (2.1), which additionally breaks the group of employees down into those employed with unlimited-duration contracts and employees with temporary contacts (including workers with no contract at all). This modification allows us to investigate the employment–well-being relationship while considering the different levels of job security. We will refer to this modified model mostly at the stage of the descriptive statistics.

We have focused in our study on the non-pecuniary impact of (un) employment on well-being and therefore expect that the employment–well-being relationship will be particularly strong in countries where employment quality is high. Here, we refer to two strands of research that might be useful in this context.

The first emphasizes the role of so-called employment regimes in understanding international variation in employment quality (see Gallie, 2007). Employment quality as such is usually defined through characteristics of work experience. Gallie (2007) identifies five core groups of characteristics describing employment quality: the degree of skill use at work; the level of work autonomy; the opportunities for professional development; the extent to which jobs are compatible with work–family balance; and job security (Gallie, 2007: 6). In the literature on employment regimes the institutional setting of a given regime depends on the strength of (organized) workers and their ability to influence work-related policies. The employment regimes differ with respect to characteristics such as the position of organized labour; the scope of initial and continuing vocational education and training; and work and employment integration policies (see Gallie, 2007: 20–32). All of these features also determine employment quality. There are three main types of employment regime. In an inclusive regime

(see Hora et al., Chapter 7 Volume 1), the strong and well-organized labour force favours a high level of employment quality. 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, and both passive and active labour market policies are well developed. The dualist employment regimes are similar, however, with a 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 organized labour is relatively weak, and the labour market is the main coordinating mechanism. The quality of employment and working conditions depend on the bargaining process at company level.

The second strand of research useful for identifying the macro-level determinants of employment quality and, as a consequence, the employment−well-being relationship amongst young people, investigates the process of school-to-work transitions. Raffe defines education-to-work transitions as a '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' (Smyth et al., 2001: 18). Although Raffe mentions various building bricks shaping the transition system, such as 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, 2008: 286; Raffe, 2014: 177), the strongest emphasis, particularly in empirical studies, is on the first two elements.

Initially, the institutional characteristics of the education systems were operationalized in the literature on the basis of two criteria identified by Allmendinger (1989): the standardization of educational provisions and the stratification of educational opportunity. The first dimension refers to the scope of nationwide standards of education quality, for instance with respect to teachers' training, school budgets, curricula or school-leaving examinations. In further studies this last aspect of standardization was defined as the standardization of output, whereas the former was taken as the standardization of input (see, e.g., Levels et al., 2014: 345). The

second of Allmendinger's dimensions characterizes the selectivity of tracking systems in education. A high level of stratification of educational opportunity corresponds to education systems in which the students are selected into tracks at an early age, where the tracks differ in terms of curricula, and mobility between tracks is limited. In the course of further studies, a third dimension was added to this two-dimensional typology: vocational orientation of the education system (Shavit and Muller, 2000). Vocationally oriented education systems are those where not only is there a large proportion of students choosing the vocational track, but where the teaching process of occupation-specific skills also includes practical training at workplaces (so-called dual apprenticeship system).

The second set of indices characterizing transition regimes describes the type of 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 here 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 private companies adjust their human resource strategies to the characteristics of the education system. In a system patterned in a 'qualificational' space, the education system has a vocational orientation and firms use applicants' educational credentials to allocate them to jobs. In a system patterned in an organizational space, specific skills are mostly acquired on the job, hence the links between qualifications and firms are weaker. This dichotomy corresponds to the typology proposed by Marsden (1990), who distinguishes between occupational labour markets and internal labour markets. This conceptual framework is in many respects similar to the varieties of capitalism approach (Hall and Soskice, 2001), which distinguishes between two production regimes − liberal market economies and coordinated market economies. This perspective places its emphasis on how 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 coordinated market economies there is a stronger emphasis on non-market arrangements, whereas in liberal market economies the free market is the main coordinating device. This theoretical perspective allows us to explain why a high level of employment protection coincides with a vocationally oriented education system.

The relationship between characteristics of transition systems and the quality of (transitions into) employment has been explored with the use of various outcome variables: horizontal and vertical education-to-job matching (Levels et al., 2014), youth unemployment rate (Bol and Van

de Werfhorst, 2013; Breen, 2005; Wolbers, 2007), strength of the educa-tion–occupational status relationship (Allmendinger, 1989; De Lange et al., 2014; Shavit and Muller, 2000), temporary employment incidence (Wolbers, 2007), length of transition into first significant job (Wolbers, 2007), length of job search (Bol and Van de Werfhorst, 2013), average job tenure (Bol and Van de Werfhorst, 2013) and sequences of school-to-work transitions (Brzinsky-Fay, 2007).

Drawing on the above-mentioned theoretical perspectives, we selected two sets of macro-level variables characterizing the nature of industrial relations (based on the employment regimes literature) and the education system (based on the school-to-work transitions literature). Table 2.1 pre-sents these variables and their operationalization, as well as the expected impact on the employment–well-being relationship.

The first three variables characterize the system of education. It is rela-tively well documented that high levels of standardization, stratification and vocational orientation strengthen the education–job match. This should have a positive impact on employment quality and, consequently, on the employment–well-being 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 control variables are closely related to both the employment regimes and the school-to-work transitions literature. We expect that employment integration policies will strengthen the employment–well-being relationship because they will generally strengthen skill– and education–job matches. We have mixed expectations with respect to the level of employment protec-tion. 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 con-trol 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 markets and under favourable eco-nomic conditions, the quality of employment will increase, and this should strengthen the link between employment and well-being.

3.3   Results

In the first step of the analysis a total number of 36 regressions specified in Equation (2.1) were estimated (a separate regression model was run for each country). The most important regression estimates are presented in Table 2.2.

In most cases the coefficients associated with the employment status

*Table 2.1   Description of macro-level variables and their expected impact
on employment−well-being relationship*

Variable	Description	Expected impact
Education system		
Standardization	Standardization of output index constructed by Bol and Van de Werfhorst (2012): a dummy variable indicating whether in a country there is a curriculum-based central exit exam.	Positive
Stratification (tracking)	A tracking index developed by Bol and Van de Werfhorst (2012) based on three sub-indices: (1) age of first selection, (2) percentage of total curriculum that is tracked, (3) number of tracks available for 15-year-olds.	Positive
Vocational orientation	A share of vocational students in upper-secondary education.	Positive
Industrial relations (strength of organized labour)		
Trade union density	A share of workers who are trade union members.	Positive
Collective bargaining coverage	A share of workers to whom collective bargaining agreements apply.	Positive
Control variables		
Employment protection	An index of employment protection legislation (OECD).	Mixed
Employment integration policies	Spending on labour market programmes as a share of GDP.	Positive
Youth unemployment rate	–	Mixed/ negative
GDP per capita	–	Mixed/ positive

Note: Synthetic indicators developed by Bol and Van de Werfhorst (2012) use the data for the period 2002–08. As regards other indicators, we have calculated the country averages for the period 2002–14.

variable were positive and statistically significant at the level of 5 per cent. This can be interpreted as a beneficial effect of employment on well-being or, inversely, as a detrimental effect of unemployment on well-being (more precisely, the value of the coefficient refers to the difference in declared life

Table 2.2   *The impact of employment (vs unemployment) on well-being.*
Regression coefficients by country

Country	Coefficient	N	Country	Coefficient	N
AL	−0.118	182	IL	−0.003	2099
AT	0.533***	1454	IS	1.859***	198
BE	0.446***	2322	IT	0.434	324
BG	0.492**	1068	LT	0.729***	747
CH	0.821***	2187	LU	1.321***	563
CY	0.342	787	LV	0.661	316
CZ	0.256	1848	NL	0.578***	2041
DE	0.842***	2836	NO	0.697***	2214
DK	0.624***	1623	PL	0.321***	2423
EE	0.437**	1578	PT	0.084	2179
ES	0.761***	2699	RO	0.112	324
FI	0.554***	1947	RU	0.426**	1979
FR	0.945***	1744	SE	0.891***	2391
GB	0.424***	2585	SI	0.255	1479
GR	0.232	1532	SK	0.946***	1354
HR	0.393	480	TR	−0.102	711
HU	0.666***	1680	UA	0.355**	1497
IE	0.643***	2727	XK	0.039	224

Note: ***statistically significant at 1%; **statistically significant at 5%.

Source: Author's calculations.

satisfaction between the unemployed and the employed). Some clusters of results can be recognized at first glance. In general, a stronger employment−well-being relationship is observed in the countries representing the inclusive and dualist employment regimes, usually with developed vocational education systems and with well-functioning labour markets.

Tables 2.3a and 2.3b, where countries are clustered according to employment regime, present a clearer picture. Based on the grouping suggested by Gallie (2011), we have assumed that the Nordic countries represent an inclusive regime, that Continental coordinated countries (mostly German-speaking countries) represent a dualist regime and that the United Kingdom is an example of a market regime. For the purpose of the comparison we have also shown the results recorded for Mediterranean countries and transitional/post-socialist economies (it is unclear, however, which of the three above-mentioned regimes these countries represent).

In order to compare inclusive and dualist regimes, in Tables 2.3a and 2.3b we have presented the results of the modified specification of Regression

Table 2.3a   The employment−well-being relationship by contract type in countries representing different employment regimes

Country	Unltd. contract/ unemployed	Ltd. contract/ unemployed	Unltd. contract/ 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
United Kingdom	0.478**	0.302*	0.176	2585

Note: ***statistically significant at 1%; **statistically significant at 5%.

Source: Author's calculations.

Table 2.3b   The employment−well-being relationship by contract type in countries representing different employment regimes, cont'd

Country	Unltd. contract/ unemployed	Ltd. contract/ unemployed	Unltd. contract/ 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

Note: ***statistically significant at 1%; **statistically significant at 5%.

Source: Author's calculations.

Model (2.1), where the group of employees is divided according to contract type (unlimited duration and temporary contracts). The countries where the employment−well-being relationship was strongest represent dualist and inclusive regimes. We have not found any polarization in the employment−well-being relationship between persons employed on different contract types. Such polarization was expected in dualist regimes, which have differences in quality of employment between core and peripheral segments of the labour market (we expected that temporary contracts would be more prevalent in the latter segment). Nordic and Continental coordinated countries constituted a group in which also temporary employment was associated with a strong increase in well-being (in comparison to the unemployed). In other countries, on average, the employment−well-being relationship was much weaker and people employed on temporary contracts often did not report higher levels of satisfaction than the unemployed.

At first glance, the employment−well-being relationship seems to be moderately correlated with some control variables (56 per cent correlation with GDP, 38 per cent correlation with labour market programme spending) or with variables characterizing the strength of organized labour (36 per cent correlation with union density, 28 per cent correlation with collective bargaining coverage). The scatter plots presented in Figures 2A.1 to 2A.8 (in the Appendix, this chapter) show that in many instances these correlations are strongly affected by two outliers − Iceland and Luxembourg.

In order to inspect the cross-country differences in the employment−well-being relationship more precisely, we have estimated the model specified in Step 2. Due to the small number of cases, we ran two specifications of Step 2 separately − for variables characterizing the strength of organized labour and for variables characterizing the education systems. As mentioned before, the cases (countries) for which the employment−well-being relationship was estimated less precisely obtained lower weights. Since this was the case for two outliers – Iceland and Luxembourg – their influence on the regression results was strongly reduced. The results of the estimation of both specifications are presented in Tables 2.4 and 2.5.

Both specifications have been estimated with and without the set of control variables. The coefficients of variables specifying the education system (stratification, standardization and vocational orientation) have indicated the expected signs, but they are not statistically significant. The coefficients of variables specifying the strength of organized labour are highly insignificant and change their signs to negative after the inclusion of the set of control variables (see Table 2.5). The only variables that seem to influence the employment−well-being relationship are control variables, specifically spending on labour market programmes and GDP per capita. These results are consistent with the explanation that employment integration policies

Table 2.4   *Determinants of employment−well-being 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
LMP 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		

Source: Author's calculations.

Table 2.5   *Determinants of employment−well-being 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
LMP 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		

Source: Author's calculations.

(proxied by labour market policy spending) generally increase skill− and education−job matches, which strengthens the employment−well-being relationship, and that in more developed economies (proxied by GDP per capita) the quality of employment increases, making the association between employment and well-being stronger.

The lack of statistically significant moderating effects of macro-level variables characterizing education systems and industrial relations could result from small sample sizes in the regression analyses. Hence, at this stage it seems to be too early to reject the hypothesis that these factors do not moderate the effect of employment status on life satisfaction. A possible solution to overcome this problem would be the application of a multi-level model with individual-level and country-level variables as regressors. In such a model − less vulnerable to a small sample size problem − the moderating effects could be identified by cross-level inter-action terms. This empirical strategy would enable a more precise estimation of the coefficients and enlarge the set of macro-level factors that potentially moderate the relationship between employment status and life satisfaction.

Some recent studies suggest potential candidates for such variables. Eichhorn (2013) has studied the moderating role of age and income distribution in a country. His results suggest that in older societies, where public pension systems are under more pressure, a job loss is particularly damaging to well-being. Furthermore, higher income inequality weakens the employment−well-being relationship because the disparity affects the reference group framework. As explained by Graham: 'countries with high inequality are also, on balance, poorer than other countries, so the unemployed may have less far to fall' (Graham, 2009: 181).

The other group of macro-level variables includes attitudinal and cultural factors. Eichhorn (2013) and Stam et al. (2016) have proved that losing a job is more detrimental in societies that appreciate work highly and is less damaging in countries where more value is attached to individuals' free choice and autonomy. Finally, Wulfgramm (2014) and Voßemer et al. (2017) have distinguished between the active and passive (unemployment benefits) components of labour market policy and have analysed separately their impact on the employment−well-being relationship. These authors claim that both types of measures should buffer the negative consequences of unemployment on well-being because active labour market programmes (e.g., apprenticeships) to some extent imitate 'real jobs', while unemployment benefits reduce the income insecurity of the unemployed. Their hypotheses have found mixed empirical support, suggesting that in future research it would be interesting to test the moderating role of labour market policy at a lower level of aggregation (e.g., regarding a particular labour market measure). To sum up, the empirical strategy outlined above should increase the statistical significance of the results. Such a framework would also offer sufficient flexibility to test different specifications of regression models and to verify what macro-level factors have the strongest impact on the relationship between employment status and well-being.

4　CONCLUSIONS

The detrimental effect of unemployment on individual well-being is relatively well documented. However, most of the analyses studying this phenomenon concern individuals of prime age. The aim of this chapter was to estimate the employment−well-being relationship with a focus on a particular cohort, that is, individuals at the beginning of their professional careers. In the empirical part of the chapter we used data from the ESS and adopted a comparative perspective, seeking to identify the macro (country-level) factors influencing the strength of the relationship between employment status and level of individual well-being. We assumed that international differences in the employment−well-being relationship could be explained through differences in employment quality as determined by the characteristics of education systems and industrial relations. In most of the countries studied we identified statistically significant associations between employment status and well-being. At the level of the descriptive statistics, the strength of the employment−well-being relationship followed the expected pattern – the strongest relationships were identified in German-speaking and Nordic countries, compared to a much weaker relationship in the United Kingdom and the Mediterranean countries, while the states from Central and Eastern Europe did not reveal any common pattern. Such a clustering of results might suggest that the employment−well-being relationship is particularly strong in countries with well-functioning labour markets, a high quality of employment as well as education systems that facilitate smooth labour market entry. This is in line with previous studies (e.g., Krueger and Mueller, 2012) reporting that the employment−well-being relationship does not refer to any job in particular, rather to employment of a certain level of quality. However, the more detailed investigation based on the regression analysis did not confirm these findings. Only two macro-level variables turned out to be statistically significant determinants of the employment−well-being relationship: GDP per capita and expenditure on labour market policy.

In this study two groups of factors were of particular interest to us – the characteristics of industrial relations and education systems. From the practical point of view, the latter group is more interesting since education seems to be more policy amenable. The analysis initiated in this chapter adds to our understanding of education's core function – the labour market allocation of graduates. So far, this allocative efficiency has been tested with the use of various outcomes such as youth unemployment rate, strength of the relationship between education and occupational status, temporary employment incidence, duration of transition into first significant job, duration of job search and average job tenure. We contribute to

this discussion by studying another potential quality of education systems – the ability to match graduates with satisfactory jobs.

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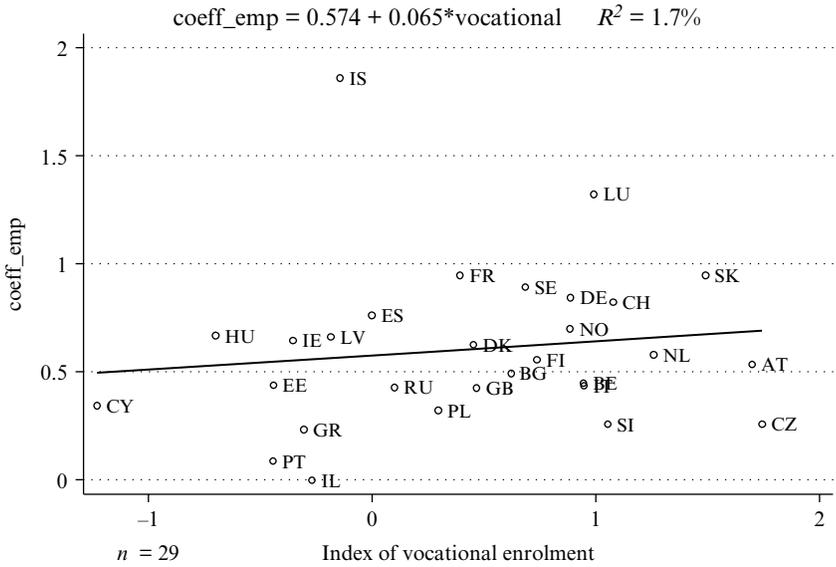
APPENDIX

coeff_emp = 0.317 + 0.0069*density R^2 = 12.7%
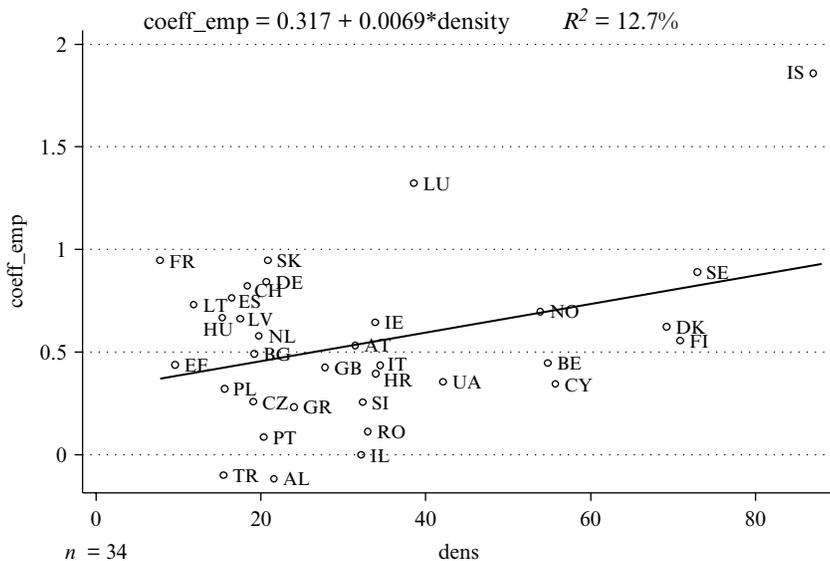
Source: Employment–well-being coefficient: European Social Survey. Trade union density: OECD.

Figure 2A.1   The employment−well-being relationship and trade union density

$$\text{coeff\_emp} = 0.313 + 0.004*\text{bargain} \qquad R^2 = 7.8\%$$
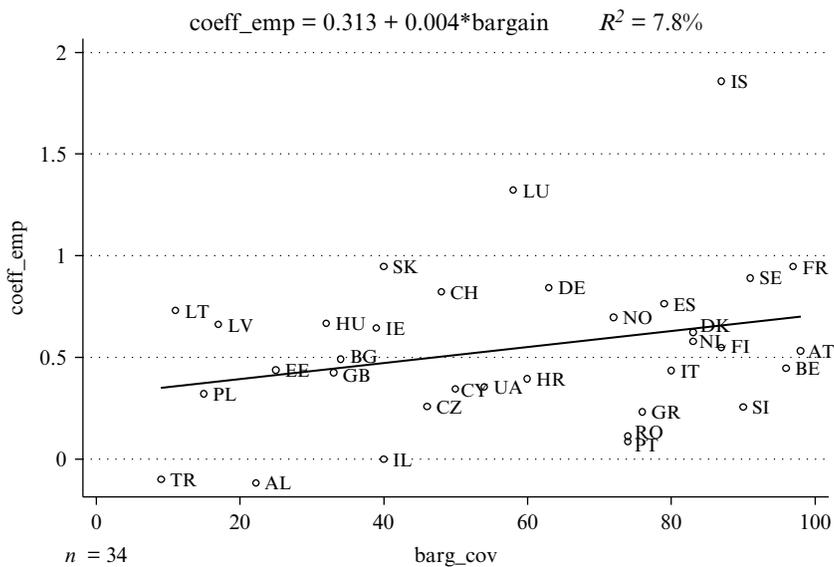
Source: Employment–well-being coefficient: European Social Survey. Collective bargaining coverage: OECD.

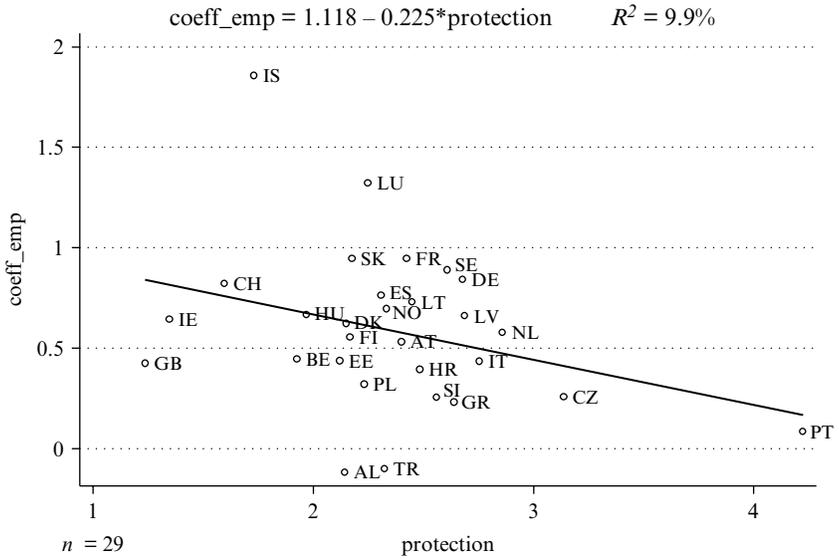*Figure 2A.2   The employment−well-being relationship and bargaining coverage*

coeff_emp = 0.574 + 0.065*vocational $R^2 = 1.7\%$

Source: Employment–well-being coefficient: European Social Survey. Vocational enrolment: OECD.

Figure 2A.3   The employment−well-being relationship and the share of vocational students (secondary level)

coeff_emp = 0.620 – 0.019*track $R^2 = 0.2\%$
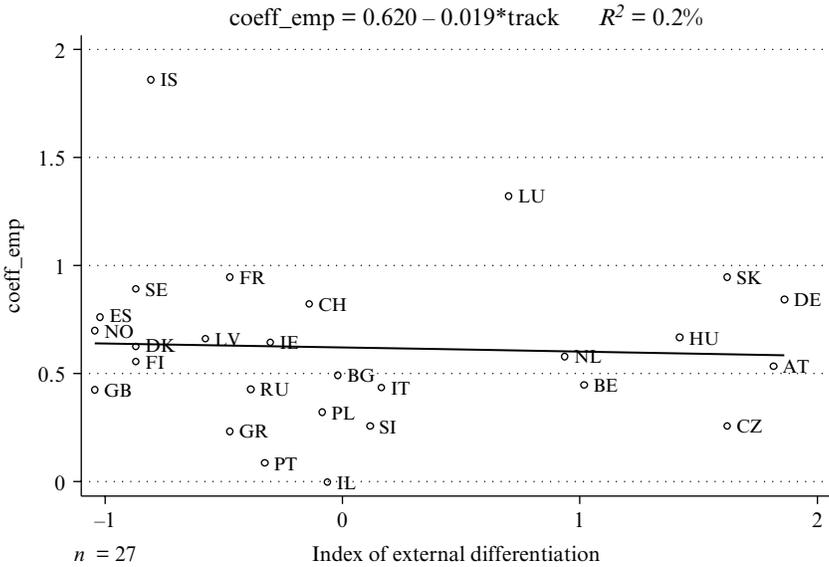
Source: Employment–well-being coefficient: European Social Survey. Index of external differentiation: Bol and Van der Werfhorst (2012).

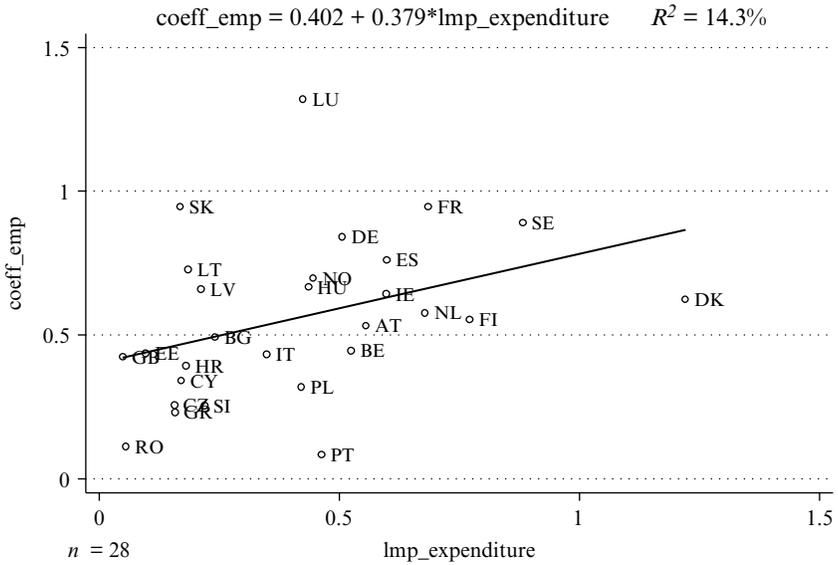*Figure 2A.4   The employment−well-being relationship and educational stratification*

coeff_emp = 1.118 – 0.225*protection $R^2 = 9.9\%$

Figure 2A.5   *The employment−well-being relationship and employment protection*
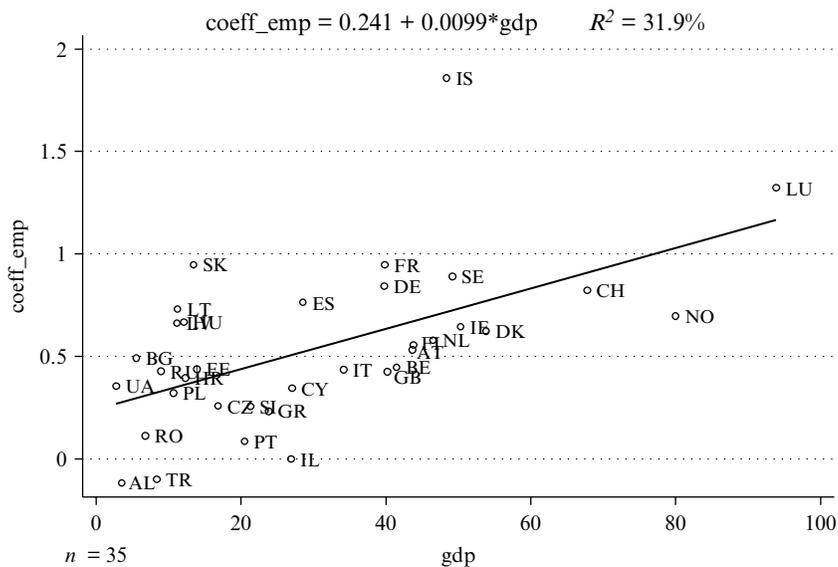
coeff_emp = 0.241 + 0.0099*gdp R^2 = 31.9%

n = 35

Figure 2A.6   *The employment−well-being relationship and GDP per capita (US$ in thousands)*

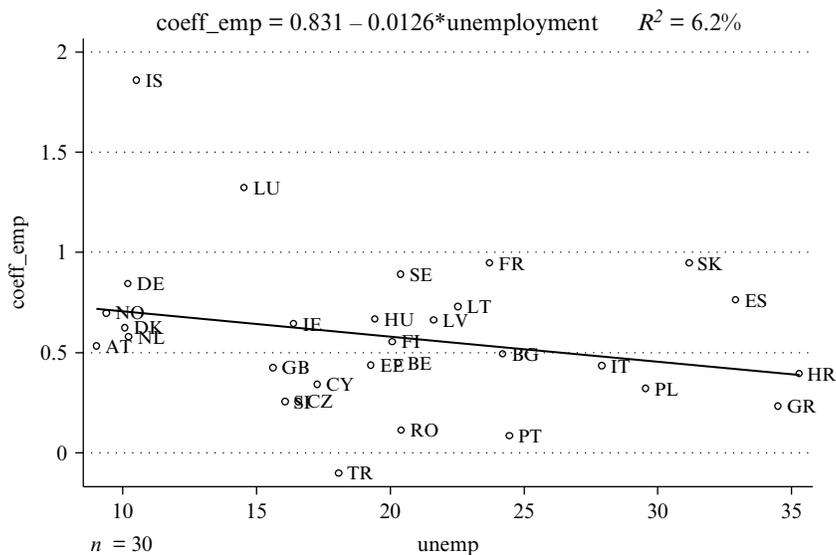coeff_emp = 0.402 + 0.379*lmp_expenditure R^2 = 14.3%

Source: Employment–well-being coefficient: European Social Survey. LMP expenditure:
OECD.

*Figure 2A.7   The employment−well-being relationship and spending on
                labour market programmes (as a share of GDP)*

coeff_emp = 0.831 – 0.0126*unemployment $R^2 = 6.2\%$

Source: Employment–well-being coefficient: European Social Survey. Unemployment rate: OECD.

Figure 2A.8   The employment−well-being relationship and the youth unemployment rate