

# LABOUR MARKET TRANSITIONS IN EUROPE A MULTILEVEL ANALYSIS OF AGE COHORTS AND INSTITUTIONS ACROSS 13 COUNTRIES

#### FERRY KOSTER AND MARIA FLEISCHMANN

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#### **Abstract**

This report serves the following purposes. First it provides an overview of the major labour market transitions across 13 European countries using monthly data of individual transitions over a period of 8 years (1994-2001). Secondly, it investigates how these labour market transitions relate to people's life-course by identifying different age cohorts. Finally, the study investigates to what extent cross-national differences in labour market transitions can be explained by institutional arrangements, namely the Unemployment Replacement Rate (URR), employment protection legislation (EPL) and labour market policies (LMPs). By doing so, the report contributes to Work Package 6 of NEUJOBS as it shows how labour market models affect individual behaviour in the labour market. Furthermore, the empirical part of this report is based on a new data set that was compiled in an earlier stage of the WP. The research results provide policy relevant information about the sustainability of labour market institutions and the extent to which they produce intended and unintended outcomes. This is for example illustrated by the differences between countries regarding the transition from employment to retirement. While in Luxembourg, France and the United Kingdom this transitions marks the end of one's career, it is not uncommon in countries like Finland, Portugal and Denmark that people retire and return to employment. Furthermore, the relative low inflow from education into employment in countries like Spain and Greece may be partly due to their relatively high levels of employment protection legislation (EPL), which is unlikely to be intended. And, finally it shows that the labour market institutions investigated here do not have an impact on transitions from employment to employment, and therefore do not produce the outcomes for which they are intended (neither stability nor flexibility).





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#### 1. Introduction

The state of the art report "Labour market models in the EU" (Koster et al., 2011) of the NEUJOBS Work Package 6 (WP 6: Labour relations and modes of employment) shows that labour related public policies vary across European countries. For example, the report provides figures showing that levels of employment protection and labour market activation differ between these countries. Besides establishing that these differences exist, the state of the art report argues that in order to understand whether these differences matter, researchers should focus on the societal impact of labour market models. In the present report, we aim at understanding some of the consequences of labour market models by investigating the labour market transitions of individuals and the extent to which they can be explained by cross-national differences in labour market institutions. This means that we focus on peoples' movements on the labour market and aim to answer the question whether and how labour markets institutions contribute to this kind of individual behaviour. By focusing on transitions, a number of other valuable labour market indicators, such as temporary jobs, job tenure and risks of unemployment, are not included in the present analyses.

To measure the impact of institutions we utilize indicators that are available through existing data sets provided by the OECD. Besides that, we use data compiled by Van Vliet and Caminada (2012) as a part of their NEUJOBS WP 6 report. We explicitly address the question whether these labour market institutions produce intended or unintended outcomes, namely by examining if these institutions affect labour market transitions in the direction for which they are devised (do they increase of decrease transitions as planned?) or whether they lead to unforeseen results, which indicates the level of public support and legitimacy of these arrangements (Koster and Kaminska, 2012).

Besides this international comparative perspective on transitions, we investigate to what extent labour market transitions relate to the life-course of individuals. Changes in the demographic composition of countries, in particular the combination of an ageing population with declining fertility rates, are believed to influence the public policies and the labour market models of these countries. To investigate the impact of the age composition on labour market transitions, the transitions of different age groups are compared to see whether these transitions differ over the life-course. That 2012 is chosen as the "European Year for Active Ageing and Solidarity between

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Generations" is a good example that there is a widespread believe that ageing will have a major impact, now and in the near future (European Commission, 2012). Although the main focus of the year's theme is on what happens after retirement (to which the "active ageing" part refers), which also receives most attention, the part on "solidarity between generations" can be interpreted as a plea to take the interests of both older and younger generations into account at the same time. Before offering solutions how to deal with increasing inflows into the labour market and issues concerning the ageing of populations, more information is needed about the labour market positions of the different age groups and to what extent these groups are affected by existing institutional arrangements. The present report aims at analysing these matters by focusing on the labour market transitions of different age groups and investigates whether they are related to age-specific institutions.

Since its introduction and popularization by Schmid (1998), the term 'Transitional Labour Market' (TLM) received considerable attention both among policy makers and social scientific researchers. That the concept is welcomed by both groups can be understood by realizing that the idea of the TLM combines two relevant aspects of labour markets, namely (1) it offers a conceptual and normative model of the labour market; and (2) it serves as a framework guiding empirical research. With regard to the first aspect, the idea of a TLM turns out to be popular among policy makers as it serves as a general framework to look for discrepancies that need to be dealt with to improve the functioning of the labour market. Here the TLM is viewed as an ideal type offering a frame of reference to evaluate policy performance and is of practical relevance. In this normative model, the general belief is that labour markets ought to be flexible to respond to the needs of employees, for example in the sense of enabling them to adapt their labour market career to the different phases in their life-course. The second aspect of the TLM model focuses much more on the actual movements taking place on the labour market to generate insights into the level of flexibility on the labour market, for example. Here, the use of the model is much more analytical and this conception of the TLM is mostly relevant from a social scientific point of view. In a recent overview of the TLM literature, Gazier and Gautsie (2011) explicitly state that the studies conducted so far incorporate at least one of these conceptualizations of the TLM and that it serves both political and analytical goals. As such, it aims at improving the functioning of the labour market as well as understanding and explaining labour market transitions.

What both approaches share is their focus on generating information based on changes in the labour market (either as a policy instrument or an analytical tool). Therefore, the TLM approach has the potential of providing insights into the actual flexibility of people on the labour market. Moreover, it offers the possibility to investigate the direction of these movements (e.g. whether people are moving from employment to unemployment and vice versa). This is clearly an advantage compared to other labour market approaches. For example, while labour market statistics such as the duration of unemployment and the number of flexible contracts give insights into the state of the labour market in a country, they also obscure parts of the labour market that may be of interest for policy makers and analysts. Clearly, knowing how long people are unemployed is an important indicator for the speed with which people get back to work. However, such measures are not only affected by the number of people making the transition from unemployment to employment, but are also the results of other



transitions, such as for example withdrawal from the labour market. Similarly, knowing how many employees have a flexible contract is valuable information if one wants to assess the flexibility of labour markets, but it does not capture the actual movements of people and for example fails to recognize that permanent contracts does not exclude the possibility of labour market flexibility. A focus on the labour market transitions of individuals, from one state to another, thus gives much richer information about how flexible employees really are. This means that the TLM framework offers a research instrument the analyzes the labour market dynamics underlying the, more static, labour market indicators.

#### 2. The transitional labour market

There is not one agreed upon TLM approach. Instead, the term refers a variety of ways to analyse labour market dynamics. As a result, researchers have focused on different parts of the labour market and have approached these dynamics differently using the TLM as a general framework. A number of these differences are discussed here to position the present report in relation to prior studies.

First, these studies differ with regard to the kind of transitions they investigate. Certainly, the general thrust across TLM studies is a focus on transitions related to the labour market instead of all potential transitions that a person can make during the life-course. Yet, some researchers choose to focus on a specific transition (e.g. from unemployment to employment, from full-time employment to part-time employment), while others aim at including a much wider range of transitions (Ashton and Sung, 1992). In relation to that, the second difference in these studies concerns the question whether they include transitions as well as non-transitions. This choice depends on the goal of the analyses. If researchers want to give a summary of the dynamics of a labour market as a whole, they have to include both the transitions from one state to another and the people who are staying in the same category (Muffels et al., 2002). Researchers who are interested in specific transitions and try to give a detailed account of them are more likely to ignore the non-transition category as they regard it as less informative. The third difference between TLM studies concerns the level of analysis. With regard to that, studies vary from micro level transitions (e.g. individual employment transitions) to macro level indicators of labour market dynamics (e.g. aggregated figures at the country level accumulating into an mobility index) (Magnac and Robin, 1994; Meghir and Whitehouse, 1997; European Commission, 2004; Brzinsky-Fay, 2007). Fourthly, and in addition to the former difference, studies diverge with respect to the type of information they offer. Some studies for example report the incidence of a number of transitions for a certain period, while others aim at distilling an indicator capturing the dynamics of the labour market in a single measure (European Commission, 2004). Finally, TLM studies differ regarding the extent to which they apply a comparative analysis, either by comparing transitions across different countries or by distinguishing transitions of different groups.

Given the variety in TLM studies, it is clear that there are several ways in which labour market transitions can be approached and examined. Each approach has it specific strengths and weaknesses (for example in terms of breadth and detail offered in the analysis). Our approach in this report is the following. We only include employment-



related transitions (excluding the non-transition state) and conduct an international comparative analysis at the individual level.

#### 3. Identifying labour market transitions

#### Kind of transitions

In the analysis presented in this report, we focus on some of the core transitions that people can experience in the labour market (Lassnig, 2005; Koster et al., 2011). Based on the idea that people's life-course follows a number of consecutive steps, namely going to school, trying to get a job, and retiring in the last phase of a career, a number of transitions are distinguished. Since these transitions are not necessarily unidirectional, reciprocal paths are also taken into account in this report (see Figure 1).

#### 1. Education - employment

Before people decide whether to participate in the labour market, they will spend a certain time in education. After receiving a degree, the most common step is to find a job. The transition from education to employment mostly centres around questions concerning the position of youth on the labour market. Literature focusing only on this transition investigates for example the role of the first job for the further development of individuals (whether it is a stepping stone or a trap) and the role of human capital accumulation.

#### 2. Employment – education

People may also choose to go (back) to school after they have been employed for some time. There are several reasons for such a transition. One possibility is that these individuals concluded during the start of their career that need additional education and another possibility is that they dislike the job that they do and schooling may be a way of finding a different, more suitable, job. This labour market transition may also result from the fact that a lot of schools start at a fixed date and that people spend time working to bridge this gap.

#### 3. Employment - unemployment

There may be different reasons for transitions from employment to unemployment. An important question here is how easy it is for employers to fire employees. This mainly results from institutional arrangements, such as the level of employment protection in a country. Furthermore, restructuring of organisation can play a role as it can lead to downsizing and job displacement. And, besides that, employees can choose to be unemployed for a while if they want to move to another organisation.

#### 4. Unemployment – employment

Whenever people become unemployed, they will most of the time try to find employment again. Here questions of labour market activation, welfare state dependence resulting from the generosity of institutional arrangements and individual work motivation play an important role. Furthermore, the ease of hiring (together with the ease of firing) someone is a relevant issue from the point of view of employees.



#### 5. Employment – employment

Being active on the labour market does not necessarily mean that individuals are employed at the same place for their entire working life. Instead, they will move from one employer to another if that improves their position. In this regard, the main question is how easily people can move from one organisation to another.

#### 6. Employment - retirement

Finally, people will move out of the labour market and into retirement. There is a whole range of factors at the institutional, organisational, job, and individual levels that influence the decision to retire. It should be noted that retirement can have different meanings: on the one hand it refers to the transition towards official retirement, while on the other hand it can refer to withdrawal from the labour market before someone reaches the official employment age.

#### 7. Retirement - employment

After retirement, the most common path to follow is to remain inactive (in terms of formal employment): however, there is the possibility that people return to the labour market after retiring. Two different motivations can play a role here. People can return because of necessity (e.g. they need additional financial resources) or they miss their former job (or other aspects of work) and decide to become active on the labour market again.

#### Level of analysis

In this report, we investigate individual transitions (monthly for an 8 year time period) within 13 countries. The transitions can be studied both at aggregated and disaggregated levels of analysis. Aggregated measures provide indicators of the labour market, for example at the sectoral or national level. Such an analysis focuses on the structure of all transitions and shows how flexible the labour market is. Here, we do provide some of the measures per country. In addition to that, we focus on the individual level by relating the individual transitions to institutional arrangements at the national level. This analysis consists of comparing each of the transition to the other transitions at the individual level using multilevel modelling. Hence, the focus is on the relative size of the specific labour market transitions and therefore the non-transition category (meaning that an individual remains within the same category from one month to another) is not included in the analysis.

#### Level of comparison

The descriptive part of this report offers two kinds of comparison. The first comparison is international and takes place at the national level. By comparing different countries it is shown how the types of transitions are distributed across the countries. This analysis is extended by focusing on international differences with regard to the share of the labour market transitions and cohort differences across countries.

Next, in the explanatory analysis, the report investigates the labour market transitions of individuals using multilevel modelling. Here two research questions are examined. First, it tests whether labour market transitions are age-specific. Based on a life-course



framework, it can be argued that certain transitions are likely to be closely related to age. For example, transitions related to education are more frequent in the beginning of the career, in the middle phase transitions towards and from unemployment are more prevalent, and retirement transitions are almost by definition concentrated at the end of the career. And, secondly, it answers the question to what extent labour market arrangements provide an explanation for these national differences. With regard to that question, the focus in this report is on how institutional arrangements at the national level relate to individual labour market behaviour. Furthermore, by examining the effects of institutional arrangements on labour market transitions shows if these institutions function as intended or create unexpected outcomes.

#### 4. Methods

#### 4.1 Data

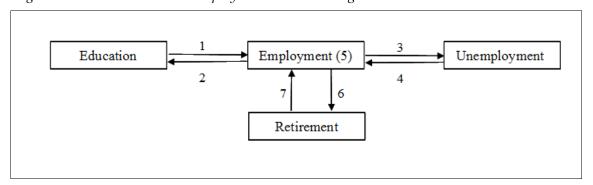
In order to answer our research questions, we make use of the European Community Household Panel (ECHP) survey (Eurostat, 2003). Designed as a longitudinal panel study, the ECHP survey started in 1994 including, at that time, the 12 European member states: Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain and the United Kingdom. In 1994, a nationally representative random sample of about 60,500 households was selected; this equals about 130,000 individuals of the age of 16 or above. In 1995 Austria and in 1996 Finland entered the ECHP. For Sweden similar data is available from 1997 onwards. In the fourth wave (i.e. 1997), the ECHP stopped in Germany, Luxembourg and the United Kingdom, but data from other national surveys were converted to the ECHP format so that longitudinal data is available from 1994 onwards. In the case of these three countries, we use the national surveys instead of the original ECHP survey. In total, the ECHP thus encompasses eight waves, running from 1994 to 2001 and fifteen countries.

For our analyses we include all individuals who participate at any time in the ECHP. Children under the age of 18, for whom parents provided information, and adults over the age of 70 are excluded from our analyses. Due to the longitudinal character of the data, some individuals might make several labour market transitions during these eight years of study, while others might not make a single transition. Thus, individuals add a varying number of observations (transitions) to the data. Furthermore, not every individual is interviewed in all eight waves. Thus, our data are unbalanced because not every individual is observed at every time point and additionally individuals add a varying number of transitions (observations) to our analyses.



#### 4.2 Operationalization

Figure 1. Transitions between employment and other stages



We identify a number of labour market transitions commonly investigated in TLM studies, namely the transitions in the labour market from and to employment, as well as transitions within employment. In all cases, we distinguish both directions of these transitions; this means that we for example include the transition from employment to education as well as the move from education to employment. Figure 1 shows the transitions investigated in this report.

As depicted in Figure 1, we distinguish between possible states in the labour market. In the ECHP data all respondents denote their employment status for each 12 months of the previous year. This means that, when interviewed in 1994, individuals provide information about their labour market status for each month between January 1993 and December 1993, thus for the complete previous year. This way, we retrieve data for respondents' employment for all months between January 1993 (when interviewed in the first wave in 1994) and December 2000 (when interviewed in the last wave in 2001). Regarding their employment status, respondents could choose between the following categories 1 "Paid employment, whether full-time or part-time", 2 "Paid apprenticeship or training under special schemes related to employment", 3 "Selfemployment (with or without employees)", 4 "Unpaid work in family enterprise", 5 "In education or training", 6 "Unemployed", 7 "Retired", 8 "Doing housework, looking after children or other persons", 9 "In community or military service", 10 "Other economically inactive", -8 "not applicable", or -9 "missing". We define employment as being either in "paid employment" (category 1), in "paid apprenticeship" (category 2), or "self-employment" (category 3). Education as being "in education or training" (category 5), retirement when someone indicated to be "retired" (category 7), and *unemployment* when someone said to be "unemployed" (category 6).

Using these states, we can distinguish the following transitions (see Figure 1): 1 "from education to employment", 2 "from employment to education", 3 "from employment to unemployment", 4 "from unemployment to employment", 5 "from employment to employment", 6 "from employment to retirement", and 7 "from retirement to employment".

Finally, we define several age cohorts. The age of the respondent is included in the data. As respondents get older over time, their age increases with each wave. We identify the following age groups: 18-25 years, 26-35, 36-45, 46-55, 56-65, and 66-70



years. It should be noted that the lowest and the highest age group have to be treated with a little caution. These age group may contain a smaller number of transitions, the first because of the 8-year period restriction of the data and the last because it spans 5 years. These age groups refer to different stages in the labour market. While the youngest group will most likely make the transition from education to employment, the middle groups might return to education, go between employment and unemployment or switch job. The oldest two age groups will increasingly make the transition from employment to retirement (and back).

#### 4.3 Age cohorts and labour market institutions

After empirically identifying the labour market transitions shown in Figure 1, we conduct a multilevel analysis to compare the transitions across age cohorts and countries. A major advantage of a multilevel analysis is that it enables to investigate data at different levels simultaneously (Snijders and Bosker, 1999). We conduct the multilevel analysis in two parts. In the first part of the analysis, we focus on individual level effects, namely whether age cohorts differ with regard to their labour market transitions. Secondly, the effects of a number of labour market institutions are included in the models the investigate whether these national level institutional arrangements explain cross national differences in labour market transitions. We measure these labour market institutions with the three indicators explained below.

#### *Unemployment replacement rate (URR)*

Based on Scruggs' (2005) Welfare State Entitlements Data Set, Van Vliet and Caminada (2012) constructed an updated and more extensive data set (both including a longer time period and across a larger number countries) indicating the generosity of unemployment arrangements within countries, measured with the unemployment replacement rate.

#### Employment Protection Legislation (EPL)

The strictness of Employment Protection Legislation (EPL) indicator is constructed by the OECD to indicate the level of protection that employees have. The EPL index is based on 18 items measuring three main areas, namely protection against dismissal, specific requirements for collective dismissals and regulation of temporary forms of employment.

#### *Labour market policies (LMP)*

The third institutional indicator is based on the passive and active labour market policies (Van Vliet and Koster, 2011). The OECD provides statistics measuring labour market policies. Passive labour market policies involve financial support through public arrangements. Active labour market policies refer to public activities to get unemployed people back to work, for example through job placement, training and job creation.

These three aspects of labour market models, unemployment replacement rates, employment protection and labour market policies, are devised to investigate whether certain policy goals are reached. The replacement rate indicates how generous the



arrangements are and one of the intended effects may be to guarantee that people have an income if they become unemployed and strictness of EPL protects individual employees against dismissal. Both of these policies may lead to more labour market stability. In contrast, labour market policies are applied by governments to support transitions to employment (from education, unemployment and employment), hence increasing labour market flexibility. Therefore, the general expectation based on these policy goals is that the unemployment replacement rate and employment protection decrease labour market transitions, for example because they affect incentive to work and make it harder to fire employees, while passive and active labour market policies increase labour market transitions if they function as planned. If these institutional arrangements lead to other effects than intended, we speak of unintended consequences. It should be noted that the term refers to outcomes that are not foreseen, whether these outcomes are preferable or not require a normative analysis which is not provided in this report.

The three national level indicators measuring institutional arrangements are summarized per country in Table 1. Table 1 shows that there are considerable differences across the 13 countries. It is also clear that the indicators measure different aspects of the labour market models of these countries since countries having a high score on one of the indicator do not automatically score high on the rest of the indicators. For example, compared to the other countries, the value of the unemployment replacement rate and employment protection are high in Luxembourg, while this country spends less on passive and active labour market policies. Spain, on the other hand combines active labour market policies with strict employment protection legislation. Finally, the UK scores consistently low on all indicators investigated here.

Table 1. Indicators of labour market institutions

	URR	EPL	PLMP	ALMP
Austria	0.27	2.21	0.85	1.49
Belgium	0.62	2.18	1.41	2.38
Denmark	0.61	1.50	1.62	1.73
Finland	0.57	2.02	0.92	1.89
France	0.70	3.05	0.98	1.42
Germany	0.60	2.34	1.00	1.52
Greece	0.35	3.50		0.69
Ireland	0.29	0.93	0.87	2.62
Italy	0.45	2.01	0.44	1.39
Luxembourg	0.84	3.25	0.49	0.87

URR=Unemployement Replacement Rate; EPL = Employment Protection Legislation; PLMP = Passive Labour Market Policy; ALMP = Active Labour Market Policy

Sources: Van Vliet and Caminada (2012) and OECD (2012)



#### 5. Results

#### 5.1 Descriptive results

Tables 2 and 3 show the distribution of the labour market transition per country and age cohort. In Table 2 we summarize the percentages of the transitions for all countries. Of all transitions, moving from unemployment into employment (35 percent) and from employment to unemployment (32 percent) are the largest. Combined with the notion that 8 percent of the transitions take place from employment to employment (indicating that someone moves without any break in employment from one job to another), this suggests that employees tend to be unemployed for some time before they find employment again. Furthermore, Table 2 shows the distribution of labour market transitions per country. There are some noteworthy country differences. The education-related transitions constitute a comparatively large share in Finland and Ireland, indicating that the direct path from education to employment is relatively high in these countries and therefore spells of unemployment for school leavers are small in these countries. In Greece and Italy, in contrast, education-related labour market transitions constitute a small part of the transitions. Spain has the largest share of transitions related to unemployment. As a share of all transitions, employment to employment transitions are large in Denmark and Germany. In Luxembourg the employment to retirement transition is relatively large. Finally, countries differ with regard to the incidence of transitions from retirement back to employment. Countries like Portugal and Greece have the largest share of this type of transition.

Table 2. Labour market transitions per country

	EDU-EMP	EMP-EDU	EMP-UE	UE-EMP	EMP-EMP	EMP-RET	RET-EMP
Germany	15	7	30	26	14	8	1
Denmark	14	10	28	30	10	6	2
Belgium	11	4	31	36	9	8	1
Luxembourg	18	7	21	19	11	23	1
France	10	4	35	38	7	6	0
United Kingdom	12	6	34	38	1	7	2
Ireland	28	19	20	24	5	3	1
Italy	7	4	33	40	4	10	2
Greece	4	1	38	41	5	8	2
Spain	7	4	40	43	3	2	0
Portugal	9	3	32	35	10	9	3
Austria	10	5	34	38	5	6	1
Finland	23	19	24	26	4	3	1

Note: Raw shares are reported (the data are not normalized)

123,316 transitions

EDU = education; EMP = employment; UE = unemployment; RET = retirement

Source: ECHP (8 waves, 13 countries).

In Table 3 we report the labour market transitions for each age cohort. Except for the employees belonging to the youngest age cohort, the number of transitions decline with age. This suggests that in their early careers, employees experience more transitions than later on in their career. Besides this general finding, Table 3 shows how the labour market transitions are distributed across the age cohorts. This leads to the



following results. As may be expected, education-related transitions are concentrated in the younger age groups; while a large portion of the people in their twenties move from education into employment and vice versa, these transitions are far less prevalent in the age group of thirty and older. The movement from unemployment to employment and vice versa constitute the main transitions for people in their thirties and forties. And finally Table 3 shows that on average the transition toward retirement begins when people are in their fifties. Also worth noticing is that the incidence of going from retirement to employment is the second largest transition for people above 66.

Table 3. Labour market transitions per age cohort

	EDU-EMP	EMP-EDU	EMP-UE	UE-EMP	EMP-EMP	EMP-RET	RET-EMP	Total
18-25	27	15	24	29	5	0	0	16
26-35	7	4	37	41	10	0	0	22
36-45	2	2	41	43	11	1	0	21
46-55	1	1	42	40	7	7	2	19
56-65	0	0	26	19	2	45	7	15
66-70	0	0	1	1	0	76	20	7

Note: Raw shares are reported (the data are not normalized)

123,316 transitions

EDU = education; EMP = employment; UE = unemployment; RET = retirement

Source: ECHP (8 waves, 13 countries).

In unison, the data provided in Tables 2 and 3 show that the labour market transitions vary across the 13 countries and that the incidence of the transitions changes over the life-course. In the following sections we analyse these differences in more detail.

#### 5.2 Multilevel regression results

In addition to the descriptive results at the national level, we investigate whether the transitions differ for the different age cohorts and to what extent national level institutions are related to the individual labour market transitions. For each of the transitions presented in Figure 1, we conducted a multilevel analysis comparing the transition with the rest of the transitions. In the multilevel analysis, the national level indicators are added separately to investigate their unique relationship with the labour market transition under study. Greece is excluded from the models investigating passive labour market policies because of lack of data (see Table 1).

Education – employment transitions

*Table 4.1. Multilevel analysis of education – employment transitions* 

Educatior Employme (13,540)	ent Educa	ation		
	Coef.	SE	Coef.	SE
Sex (1=male, 2=female)	0.136***	(0.020)	0.147***	(0.025)



Age cohort (ref: 56-60 yrs)				
18-25	4.299***	(0.205)	4.043***	(0.268)
26-35	2.892***	(0.206)	2.752***	(0.269)
36-45	1.631***	(0.210)	1.798***	(0.274)
46-55	0.919***	(0.221)	1.120***	(0.284)
61-65	-0.997*	(0.457)	-0.608	(0.522)
66-70	-0.604	(0.493)	0.333	(0.464)
Wave (ref: 5 (1998))				
1 (1994)	-0.259***	(0.044)	-0.148**	(0.055)
2	-0.177***	(0.040)	-0.114*	(0.051)
3	-0.130***	(0.038)	-0.115*	(0.048)
4	-0.084*	(0.038)	-0.052	(0.047)
6	0.119**	(0.038)	-0.007	(0.048)
7	0.145***	(0.039)	0.074	(0.049)
8 (2001)	0.270***	(0.039)	0.172***	(0.048)
Constant	-5.598***	(0.243)	-6.344***	(0.341)
Macro characteristics				
Unemployment replacement rate	0.119	(0.676)	-0.990	(1.083)
Strictness of employment protection	-0.423**	(0.155)	-0.747**	(0.245)
Passive LM policies	0.358	(0.302)	0.803	(0.529)
Active LM policies	0.227	(0.170)	0.564*	(0.260)

<sup>\*</sup> p < 0.10; \*\* p < 0.05; \*\*\* p < 0.01

Source: ECHP, Van Vliet and Caminada and OECD.

The first two models (reported in Table 4.1) investigate the transition from education to employment and vice versa. Table 4.1 clearly shows that these transitions decrease with age; the younger age cohorts are more likely to move from education to employment and the other way around than the older age cohorts. At the national level, the unemployment replacement rate and passive labour market policies do not influence these transitions. Active labour market policies are positively associated with transitions from employment to education, which is somewhat unexpected as the goals of these policies is to enable transitions towards employment. Besides that, strictness of EPL does affect both education-related transitions. It turns out that stricter employment protection decreases the transitions between employment and education. This seems to indicate that in countries with more employment protection, people find it more difficult to move from education to employment and that if people are employed, they are less flexible in the sense that they less often move to education compared to countries with less employment protection. This finding suggests that EPL may have an unintended side-effect as it makes it more difficult for individuals to



get a job if they finish school, while others are less inclined to move back to education once they are in a secure employment position.

*Unemployment – employment transitions* 

The multilevel analysis of the transitions between unemployment and employment is reported in Table 4.2.

Table 4.2. Multilevel analysis of unemployment – employment transitions

Employmen Unemployme (38,026)	oyment oyment (45)					
	Coef.	SE	Coef.	SE		
Sex (1=male, 2=female)  Age cohort (ref: 56-60 yrs)	0.027*	(0.013)	-0.025*	(0.013)		
18-25	-0.467***	(0.031)	0.261***	(0.033)		
26-35	0.126***	(0.031)	0.740***	(0.033)		
36-45	0.332***	(0.032)	0.826***	(0.035)		
46-55	0.348***	(0.034)	0.706***	(0.036)		
61-65	-1.127***	(0.054)	-1.172***	(0.063)		
66-70	-3.624***	(0.186)	-3.389***	(0.200)		
Wave (ref: 5 (1998))						
1 (1994)	0.310***	(0.027)	-0.013	(0.027)		
2	0.122***	(0.025)	0.064**	(0.024)		
3	0.180***	(0.024)	-0.016	(0.024)		
4	0.120***	(0.024)	0.013	(0.024)		
6	-0.044	(0.025)	-0.066**	(0.025)		
7	-0.069**	(0.026)	-0.088***	(0.025)		
8 (2001)	-0.114***	(0.027)	-0.162***	(0.026)		
Constant	-0.819***	(0.069)	-1.058***	(0.076)		
Macro characteristics						
Unemployment replacement rate	0.238	(0.312)	0.114	(0.355)		
Strictness of employment protection	0.239***	(0.063)	0.242**	(0.078)		
Passive LM policies	-0.042	(0.158)	-0.256	(0.172)		
Active LM policies	-0.073	(0.073)	-0.128	(0.082)		

<sup>\*</sup> p < 0.10; \*\* p < 0.05; \*\*\* p < 0.01

Source: ECHP, Van Vliet and Caminada and OECD.



Here the results show that these transitions are concentrated in the middle age cohorts. Between the age of 26 and 55, transitions between employment and unemployment occur more often than in the younger and older age groups. With regard to the national level institutions, Table 4.2 shows that strictness of EPL is the only significant predictor of unemployment - employment transitions. The higher the employment protection in a country, the more transitions there are between unemployment and employment. At first sight, this result may be somewhat surprising as the common expectation would be that more employment protection decreases the changes of moving into and out of unemployment. A possible explanation is that employers respond to the existing levels of employment protection in their country and try to minimize the risks of hiring employees that are hard to fire once they have a permanent contract. They can do this by offering short term contracts to employees. In countries where employment protection is lower, employers do not need to follow such a strategy because it is easier for them to fire employees (Koster, 2005). Nevertheless, as the present analysis does not enable to investigate this claim, this conclusion has to be drawn with caution. Whether this argument holds cannot be answered here and requires additional research.

#### *Employment – employment transitions*

As Table 4.3 shows, people between 26 and 45 are the ones switching employers most often compared to the other age cohorts. The cohorts of 55 years and older are significantly less flexible with respect to employment – employment transitions. Furthermore, the results of the multilevel analysis show that these transitions are not significantly affected by the unemployment replacement rate, strictness of EPL or labour market policies. This means that within this selection of countries these institutional arrangements do not have an impact on this kind labour market flexibility of individuals. With respect to discussions about flexicurity (meaning being flexible, while remaining in employment), it can be stated that the national level policies investigated here do not contribute to it. Nevertheless, even though these results are not statistically significant, it should be noted that the direction of the effects is in the expected direction: while the unemployment replacement rate and employment protection are negatively related to employment-employment transitions, both passive and active labour market policies have a positive association with these labour market transitions.

Table 4.3. Multilevel analysis of employment – employment transitions

Employment – Employment (7,697)						
	Coef.	SE				
Sex (1=male, 2=female)  Age cohort (ref: 56-60 yrs)	-0.300***	(0.025)				
18-25	0.815***	(0.088)				
26-35	1.444***	(0.087)				
36-45	1.433***	(0.089)				



46-55	1.004***	(0.093)
61-65	-0.948***	(0.181)
66-70	-2.190***	(0.388)
Wave (ref: 5 (1998))		
1 (1994)	-0.568***	(0.056)
2	-0.431***	(0.049)
3	-0.262***	(0.047)
4	-0.273***	(0.047)
6	0.185***	(0.044)
7	0.201***	(0.045)
8 (2001)	0.310***	(0.045)
Constant	-3.517***	(0.360)
Macro characteristics		
Unemployment replacement rate	-1.719	(1.140)
Strictness of employment	-0.515	(0.301)
protection		
Passive LM policies	1.450	(0.994)
Active LM policies	0.179	(0.483)

<sup>\*</sup> p < 0.10; \*\* p < 0.05; \*\*\* p < 0.01

Source: ECHP, Van Vliet and Caminada and OECD.

#### *Retirement – employment transitions*

In Table 4.4 we report the results of the multilevel analysis of transitions between retirement and employment. The results confirm that these transitions are concentrated within the older age cohorts. Thus, these outcomes suggest that the transition from employment to retirement can be regarded as the natural end of one's career. However, from Table 4.4 can also be read that there are people moving from retirement to employment, which suggests that retiring is not the end of the career of all employees. There may be different reasons for this kind of transition. First, people may dislike being retired and move back into employment because they prefer working instead. Secondly, it is possible that people retire and realize that they have insufficient financial resources and try to find a job to stay out of poverty. The first interpretation may involve voluntary choices as people choose to work if they prefer to, while the second may also involve involuntary choices of employees as people may be pushed to work because they need the income. Which of these two interpretations holds, cannot be answered here but can be investigated in future research. Of the macro level institutional arrangements, both passive and active labour market policies turn out to be associated with transitions from retirement to employment. These policies decrease the number of transition from retirement to employment. A possible explanation for this finding is that labour market policies are not aimed at smoothening the transition



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from retirement to employment, but focus on the other transitions into employment instead.

Table 4.4. Multilevel analysis of retirement – employment transitions

Employment Retirement (7,008)		yment		
	Coef.	SE	Coef.	SE
Sex (1=male, 2=female)  Age cohort (ref: 56-60 yrs)	0.006	(0.037)	-0.068	(0.058)
18-25	-6.588***	(0.196)	-3.890***	(0.184)
26-35	-5.685***	(0.132)	-3.353***	(0.156)
36-45	-4.181***	(0.089)	-2.382***	(0.132)
46-55	-1.843***	(0.046)	-0.820***	(0.091)
61-65	1.409***	(0.047)	0.934***	(0.084)
66-70	2.252***	(0.063)	1.596***	(0.087)
Wave (ref: 5 (1998))				
1 (1994)	0.040	(0.077)	-0.676***	(0.148)
2	0.028	(0.066)	0.237*	(0.100)
3	0.072	(0.066)	0.021	(0.104)
4	-0.084	(0.065)	0.236*	(0.097)
6	0.057	(0.068)	-0.113	(0.109)
7	0.047	(0.070)	-0.150	(0.115)
8 (2001)	-0.135	(0.071)	-0.061	(0.111)
Constant	-0.673**	(0.229)	-3.078***	(0.202)
Macro characteristics				
Unemployment replacement rate	0.798	(0.852)	-1.128	(0.704)
Strictness of employment protection	0.311	(0.204)	-0.241	(0.177)
Passive LM policies	-0.552	(0.648)	-0.960*	(0.448)
Active LM policies	-0.476	(0.272)	-0.386**	(0.146)

<sup>\*</sup> p < 0.10; \*\* p < 0.05; \*\*\* p < 0.01

Source: ECHP, Van Vliet and Caminada and OECD.



#### 6. Conclusions

This report provides a follow up of the NEUJOBS state of the art report about labour market models in the EU (Koster et al., 2011) by investigating the labour market transitions of individuals in 13 European countries. Starting with a descriptive analysis, the report provides empirical evidence that the relative size of these transitions (in particular the education-related and the retirement-related movements) varies across the countries included in the analysis. Furthermore, the country patterns investigated here show to what extent these transitions are concentrated within certain age groups. It turns out that these transitions are age-specific as may be expected, in the sense that younger employees experience other transitions than older employees. A particularly interesting finding is that in some countries (in particular Luxembourg, France and the United Kingdom) the transition into retirement seems to mark the end of one's career, while there are also countries in which the transition from retirement to employment constitutes a large part of the transitions of people of 60 and older (e.g. Finland, Portugal and Denmark). Given that most countries face a trend towards population ageing, these transitions will become increasingly relevant in the near future. That labour market transitions are age-specific implies that public policies need to take the country's demographic structure into account to enable and support labour market transitions. This opens the way to extend the analysis by relating the employment to retirement transition and the reverse movement to existing arrangements to establish which of these policies work and are sustainable in the future.

In addition to that, the multilevel analysis provides evidence for the existence of intended and unintended outcomes of national level institutions. With regard to that, a general expectation would be that higher unemployment replacement rates and stricter employment protection are negatively related to labour market transitions and that labour market policies (in particular activation policies) are positively related to these transitions. Here the following conclusions can be drawn. First, based on the indicators included in the present report, two different kinds of labour market approaches can be distinguished looking at how the institutions are related to labour market transitions. The effect of unemployment replacement rates and employment protection legislation are similar to each other and opposed to the effects of passive and active labour market policies. This seems to suggest that two labour market models can be distinguished, namely one aimed at labour market security and one aimed at labour market adjustments. Nevertheless, this does not mean that the first model hinders labour market transitions while the second leads to more flexibility. The outcomes are much more nuanced and complex than that. The analyses presented here emphasize that institutional arrangements may support labour market transitions, but not always as expected. For example, that strictness of employment protection is associated with more transitions between employment and unemployment suggests that employees and employers adapt to the institutional environment. Furthermore, based on the multilevel results it can be concluded that the institutional arrangements do not always lead to the intended result, indicating that it is not a simple job to influence labour market transitions with public policies.

These findings clearly underscore that it may be difficult for policy makers to influence the labour market behaviour of individual. On the one hand, intended outcomes are



not always reached and on the other hand the application of one kind of public policy to affect certain kinds of labour market transitions can have consequences in other domains. Therefore, the general policy implication that follows from this report is that policy makers have to carefully specify what the aim of a policy is, monitor its intended effects while also be aware of the possibility that unintended effects can occur (implying that a multitude of outcomes measures need to be included to evaluate the workings on labour market policies). Whether these unintended consequences are also not preferable is a normative question that the public and governments need to answer. Nevertheless, policy researchers can support this decision process by providing as much information as possible about the functioning of these public policies.

It is important to note here that the present study is based on a relatively small number of countries. As soon as panel data are available for more countries, it is possible to investigate this link in much more detail and with more certainty. Such future research can also investigate how certain mechanisms suggested here work. In addition to that, the analyses can be extended in a number of directions. One of them may be particular fruitful as it sheds a light on how smoothly the transitions take place within the countries. This extension concerns a further analysis of the length of the duration of the phases and the speed of the transitions. As it is now, for example, it is not possible to distinguish between short-term and long-term unemployment. Including the duration of the phases furthers our understanding of the labour market transitions across countries and age cohorts. In addition to that, future studies including other labour market outcomes (e.g. employment contracts, risks of unemployment, and so on) as well as other labour market institutions are welcomed.

Together, this report provides evidence for the general idea that labour market models have an impact on the labour market position and behaviour of individuals. However, the results reported here are mixed. To a certain extent, a higher unemployment replacement rate and more strict employment protection contribute to security and stability, but not always, while active and passive labour market policies enable some, but not all, transitions. This means that the labour market institutions investigated here do not always produce the expected results and sometime create unexpected outcomes. Finally, it is worth considering how combinations of the institutions, functioning as an integrated model, relate to labour market transitions.



#### References

- Ashton, D.N. and J. Sung (1992), "The Determinants of Labour Market Transitions: An Exploration of Contrasting Approaches", Work, Employment and Society, Vol. 6, No. 1, pp. 1-21.
- Brzinsky-Fay, C. (2007), "Lost in Transition? Labour Market Entry Sequences of School Leavers in Europe", European Sociological Review, Vol. 23, No. 4, pp. 409-422.
- European Commission (2004), Employment in Europe 2004: Recent Trends and Prospects, Luxembourg: Office for Official Publications of the European Communities.
- European Commission (2012), Active Ageing and Solidarity between Generations. A Statistical Portrait of the European Union, Luxembourg: Office for Official Publications of the European Communities.
- Eurostat (2003), ECHP user manual. European Community Household Panel Longitudinal Users' Database. Waves 1 to 8, DOC.PAN 168/2003-12, Eurostat, Brussels.
- Gazier, B. and J. Gautsie (2011), "The "Transitional Labour Markets" Approach: Theory, History and Future Research Agenda", Journal of Economic and Social Policy, Vol. 14, No. 1, Article 6.
- Koster, F. (2005). For the Time Being. Accounting for Inconclusive Findings Concerning the Effects of Temporary Employment Relationships on Solidary Behavior of Employees. Universal Press, Veenendaal.
- Koster, F., J. McQuinn, I. Siedschlag, O. Van Vliet (2011), Labour Market Models in the EU, NEUJOBS Special Report No. 1, September 2011, Leiden University/ESRI.
- Koster, F. and M.E. Kaminska (2012). Welfare State Values in the European Union, 2002-2008. A Multilevel Investigation of Formal Institutions and Individual Attitudes. Journal of European Public Policy, Vol. 19, No. 6, 900-920.
- Lassnigg, L. (2005), Lifelong Learning, School to Work and Labour Market Transitions, TLM.net Working Paper, Amsterdam.
- Magnac, T. and J.M. Robin (1994), "An Econometric Analysis of Labour Market Transition using Discrete and Tenure Data", Labour Economics, Vol. 1, pp. 327-346.
- Meghir, C. and E. Whitehouse (1997), "Labour Market Transitions and Retirement of Men in the UK", Journal of Econometrics, Vol. 79, pp. 327-354.
- Muffels, R., T. Wilthagen and N. van den Heuvel (2002), Labour Market Transitions and Employment Regimes: Evidence on the Flexibility-Security Nexus in Transitional Labour Markets, WZB Discussion Paper, WZB, Berlin.
- OECD (2012), Labour Force Statistics, OECD, Paris.
- Schmid, G. (1998), Transitional Labour Markets: A New European Employment Strategy, WZB Discussion Paper, WZB, Berlin.



- Scruggs, L. (2005), Welfare State Entitlements Data Set: a Comparative Institutional Analysis of Eighteen Welfare States, Version 1.1.
- Snijders, T.A.B. and R.J. Bosker (1999), Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling. Sage, London.
- Van Vliet, O. and K. Caminada (2012), Unemployment Replacement Rates Dataset among 34 Welfare States 1971-2009: An Update, Extension and Modification of the Scruggs' Welfare State Entitlements Data Set, NEUJOBS Special Report No. 2, Leiden University.
- Van Vliet, O. And F. Koster (2011), "Europeanisation and the Political Economy of Active Labour Market Policies", European Union Politics, Vol. 12, No. 2, pp. 217-239.



## **ABOUT NEUJOBS**

## "Creating and adapting jobs in Europe in the context of a socio-ecological transition"

NEUJOBS is a research project financed by the European Commission under the 7th Framework Programme. Its objective is to analyse likely future developments in the European labour market(s), in view of four major transitions that will impact employment - particularly certain sectors of the labour force and the economy - and European societies in general. What are these transitions? The first is the **socioecological transition**: a comprehensive change in the patterns of social organisation and culture, production and consumption that will drive humanity beyond the current industrial model towards a more sustainable future. The second is the **societal transition**, produced by a combination of population ageing, low fertility rates, changing family structures, urbanisation and growing female employment. The third transition concerns **new territorial dynamics** and the balance between agglomeration and dispersion forces. The fourth is **a skills (upgrading)** transition and and its likely consequences for employment and (in)equality.

#### **Research Areas**

NEUJOBS consists of 23 work packages organised in six groups:

- o **Group 1** provides a conceptualisation of the **socio-ecological transition** that constitutes the basis for the other work-packages.
- o **Group 2** considers in detail the main drivers for change and the resulting relevant policies. Regarding the drivers we analyse the discourse on **job quality**, **education**al needs, changes in the organisation of production and in the employment structure. Regarding relevant policies, research in this group assesses the impact of changes in **family composition**, the effect of **labour relations** and the issue of financing transition in an era of budget constraints. The regional dimension is taken into account, also in relation to **migration** flows.
- o **Group 3** models economic and employment development on the basis of the inputs provided in the previous work packages.
- o **Group 4** examines possible employment trends in key sectors of the economy in the light of the transition processes: energy, health care and goods/services for the **ageing** population, **care services**, housing and transport.
- o **Group 5** focuses on impact groups, namely those vital for employment growth in the EU: **women**, the **elderly**, immigrants and **Roma**.
- o **Group 6** is composed of transversal work packages: implications NEUJOBS findings for EU policy-making, dissemination, management and coordination.

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