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CHRISTINE ERHEL

christine.erhel@univ-paris1.fr

CEE, Université Paris 1, CES

MATHILDE GUERGOAT-LARIVIERE

mathilde.guergoat@cee-recherche.fr

Université Paris 1, CES, CEE

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LABOUR MARKET STATUS, TRANSITIONS AND GENDER: A EUROPEAN PERSPECTIVE

Christine Erhel, Mathilde Guergoat-Larivière

SUMMARY

This article analyses the determinants of labour market statuses (the choice between part-time employment, full-time employment, and non-employment), and of yearly transitions between non-employment and employment, in Europe. It uses the cross-sectional 2006 EU-SILC database. The results show strong links between initial education level and full-time employment integration as well as the probability of finding a job when in non-employment to begin with. Gender and family variables also exert a strong influence on labour market statuses and mobility: being a woman, and even more so being the mother of a young child, increases the probability of being in non-employment, or in part-time employment, and also in experiencing difficult transitions. In terms of policies, the article shows that the use of childcare is positively correlated with parents' employment and favourable transitions. Finally, heterogeneity within the EU appears high, with significant country effects on both statuses and flows.

Key words: labour market status, labour market flows, European comparisons, childcare.

Choix d'activité, transitions et genre : une perspective européenne

Résumé

L'article analyse les choix d'activité (emploi à temps plein, emploi à temps partiel, non-emploi) et les transitions (non-emploi-emploi) sur le marché du travail en Europe, à partir de l'enquête européenne EU-SILC (base transversale 2006), disponible pour vingt-sept pays. Il se fonde sur une perspective croisant analyses de flux du marché du travail, marchés transitionnels et perspective de genre, présentée dans une première section. Sur la base de statistiques descriptives puis de régressions logistiques, l'article montre l'effet des facteurs individuels sur les choix d'activité et la qualité des transitions, ainsi que le rôle des modèles nationaux. Outre les caractéristiques individuelles usuelles (âge, sexe, nationalité, niveau d'éducation), l'analyse inclut des variables concernant la situation familiale (vie en couple, présence de jeunes enfants) et le recours aux modes de garde. Pour l'ensemble de l'Union européenne, les résultats attestent la relation entre le niveau d'éducation et, d'une part, l'insertion dans l'emploi à temps plein, d'autre part le maintien en emploi (ou la probabilité de retrouver un emploi à partir du non-emploi). Être une femme, a fortiori *avec un enfant de trois ans ou moins, augmente la probabilité d'être en non-emploi, ou à temps partiel, et celle de connaître une transition défavorable, tandis que les pères de jeunes enfants sont au contraire plus intégrés dans l'emploi. Pour les parents, le recours à la garde d'enfant joue favorablement sur l'insertion dans l'emploi et les transitions. Enfin, les différenciations internes à l'Union européenne apparaissent fortes, le pays de résidence constituant un déterminant significatif de la situation sur le marché du travail et des transitions.*

Mots-clés: *choix d'activité, flux sur le marché du travail, comparaisons européennes, garde d'enfant.*

Over the last ten years, the developments of the European Employment Strategy and of the Lisbon Strategy have promoted both a gender perspective on European labour markets (with the goal of a 60% female employment rate in 2010, and several indicators of gender equality), and a dynamic perspective focusing on transitions and careers[1]. The latter appears through secondary indicators of the EES (such as transitions from non-employment towards employment, or upward wage mobility, etc.), but also in the "flexicurity" guidelines and the various reports on this issue, published since 2005 (European Expert Group on Flexicurity, 2007)[2].

Nevertheless, despite these recommendations, policy goals and indicators, empirical evidence combining gender, labour market status and transition outlooks remains relatively limited for the EU 27. This article tries to fill this gap, using recent comparative data from the EU-SILC survey. The goal of the empirical analysis is to provide some insights concerning the individual determinants of labour market situations and transitions in the EU, in order to provide some empirical foundations for potential European policy recommendations. From a gender equality perspective, which is consistent with the current EES guidelines, the effects of family situation and childcare should be assessed. Besides, given the differences in labour market institutions and policies inside the EU, the issue of inter-country heterogeneity and the role played by national models should be taken into account.

1. THE IMPACT OF GENDER ON LABOUR MARKET STATUS AND TRANSITIONS

Recent European labour market policy orientations can be related to several analytical backgrounds which are combined in the present article. First, dynamic approaches of the labour market based on the analysis of jobs and worker flows have become more and more widespread in economic literature. Indeed, some empirical evidence shows that traditional approaches in terms of stocks may lead to a truncated vision of labour market functioning, so that there is a rationale for a more dynamic approach to labour market phenomena. From a theoretical point of view, these analyses are mainly based on matching models (Pissarides, 1990; Mortensen and Pissarides, 1994) in which labour market equilibriums are seen as "flow equilibriums", depending on firms' hire and fire decisions. Such models are used to analyse how institutions influence job creation and destruction, and thus global labour market performances. They generally conclude in favour of "flexicurity" principles, *i.e*. combinations of low job protection and labour market security policy, like in the Danish model (Brown and Snower, 2009). From an empirical point of view, two main perspectives are adopted alternatively in the literature on job and worker flows (Davis *et al.*, 2006): one is centred on firms' behaviour and based on firm-level data, while the other focuses on workers' mobility and rather uses individual longitudinal data, to point out hires and fires or transitions between employment, unemployment and inactivity. In recent research concentrating on these issues, it appears that individual characteristics such as age, gender and education level influence transitions greatly: youth, women and unskilled workers on

[1] The Laeken indicators of job quality that belong to the EES monitoring process include various gender gap indicators (employment rate gap, unemployment rate gap, and the pay gap). They are published every year by the European Commission in the Compendium for monitoring the Employment Guidelines.

[2] These indicators also belong to the Laeken list.

average experience more transitions in the labour market, but women and unskilled workers are particularly worse-off, since they have a lower probability of experiencing a "good" transition (towards employment) (European Commission, 2009). Indeed, "good transitions" tend to be concentrated among some privileged groups (men, highly qualified professionals, etc.), whereas the risks of experiencing outflows from employment towards non-employment and potential durable exclusion are mainly borne by women, seniors, unskilled persons, immigrants, etc. From this perspective, it is then essential to know better the determinants of transitions, and to figure out which social groups are the most at risk in terms of mobility.

Second, this article also refers to various analyses that focus on workers' choices and more generally on activity choices of the working age population, notably women, relying either on socio-economic perspective (or life course perspective) models, or on more standard labour supply models. Research relating women's labour supply to economic, institutional or cultural features is considerable. Some papers dealing with women's labour market integration use a dynamic perspective, but they generally focus on a specific angle of labour market conditions such as the number of hours worked (Kalmijn *et al.* 2005) or wages (Sigle-Rushton, Waldfogel, 2007; Meurs *et al*., 2008), etc. This dynamic perspective seems particularly appropriate since labour market patterns of women are much more chaotic than men's, over the life course. However, proper transitional variables are barely used in the literature in a comparative perspective. The paper by Dex *et al.* (1996) is rare in using transition variables directly, in order to understand the determinants of mothers' transitions between employment and non-employment, before and after childbirth in three European countries.

Some other analyses of women's employment behaviour are based on non-linear models that use the employment status of women as a dependent variable (Kenjoh, 2005; Chaupain-Guillot *et al*., 2007). These studies can thus compare the behaviour of mothers and non-mothers, according to a given number of family characteristics and institutions.

Comparative research in this field shows clearly that the extent of labour market integration patterns varies considerably across countries, with strong differentiations by age and gender. Besides, having a family and young children has a strong gender-differentiated impact on labour market participation and working time patterns, with large differences across countries. European comparisons in this field show that very different "models" of labour market integration still coexist in Europe (Anxo *et al.*, 2007). In particular, women's life-time working patterns vary widely according to their marital status, the number of children, the age of children, etc. but also according to their country. Numerous studies show that having children impacts negatively on women's labour supply but that this impact greatly differs across countries. For example, Anxo *et al.* (2007) show how employment rates and hours worked are combined and how much they vary according to the type of household (age of adults, number and age of children, etc.) in seven different European countries. Working time flexibility is the main adjustment variable in the Nordic countries, with a majority of mothers staying in employment, whereas in Southern countries women tend to leave the labour market when they get married or have a child.

Considering the overall negative impact of children on women's employment and the disparities observed in cross-national comparisons, research often tries to link these differences to the various public policies supporting women's employment and childcare. In particular, most of studies analyse the impact of having children on women's labour supply by focusing on how family characteristics and institutions interact and some in particular seek to compare the efficiency of different kinds of public policies (Jaumotte, 2003; De Henau *et al*., 2010).

The occurrence and reversibility of transitions are indeed much dependent on public institutions and policies, such as childcare structures, fiscal policies, working-time arrangements, etc. These policies can play in favour or against women's participation in the labour market (Jaumotte, 2003; Bothfeld, O'Reilly, 2002) and are likely to influence considerably women's "strategies" in the labour market. While some institutional contexts would lead to pure and simple exit of women from the labour market, others favour either "entry-exit" strategies during the life course, or "reconciliation" strategies, between family and professional responsibilities (Moschion, 2007).

Finally, this article also draws on the Transitional Labour Market perspective that has been developed since the end of 1990s, and has led to one of the theoretical influences of the EES (Schmid, Gazier, 2002; Muffels, 2008). This perspective is particularly interesting since it offers a broad analytical framework, including an analysis of choices and of transitions both in the labour market and within employment. It also stresses the recent development of "intermediate" states between some well-identified positions (employment, unemployment, inactivity), such as part-time work, training, parental leave, etc. Furthermore, it emphasizes the role played by national institutions and policies in structuring these transition patterns. But the TLM perspective also takes a normative point of view, and supports the idea that the renewal of the European Social Model should be based on principles such as empowering individuals and providing them with a capacity for making choices, *and* a capacity to reverse choices. From this point of view, good transitions are defined according to criteria of the reversibility of choices, and not only according to short term satisfaction. This is especially important for women who are more concerned by career discontinuities and part-time jobs that may affect their employment and earnings prospects. Indeed, the "transitional" approach focuses notably on gender issues since women and men experience very different kinds of trajectories over their life course (Anxo *et al.*, 2008). This approach is then of particular interest when one concentrates on women's integration in the labour market, as they are on average more concerned by multiple transitions: in particular, childbirth and childcare cause interruptions in most women's careers.

In this article, we aim at combining an analysis of labour market integration choices, including family and childcare variables, with some insights into labour market mobility, and especially into the transitions between unemployment, inactivity and employment. Both types of analyses will include a gender perspective, but the analysis is not limited to women so that it is possible to propose a comparison of the impact of children and of childcare use on men's and women's labour supply.

As we have seen before, studies that analyse women's labour supply either concentrate on one specific country on the basis of national data or try to consider several countries using different national databases or harmonised data. Our article follows this latter option and it is among the first, to our knowledge, to make a comparison for the enlarged European Union. Using the EU-SILC database, harmonised data are available for 2006, for twenty-four countries of the EU. This makes it possible on the one hand to check if well-known features about women's labour supply are confirmed at the level of the enlarged EU, and on the other hand to get a more detailed picture of European differences in terms of gender differentiation in the labour market. By including a large number of countries characterised by very different labour market functioning (OECD, 2006; Amable, 2005; Davoine *et al.*, 2008), this analysis provides some new elements to compare different European models in terms of transitions. In particular, it allows usual typologies based on employment and unemployment performance to be compared to the new picture that emerges considering transitions.

This article is structured as follows. The second section of the article is devoted to the description of the database, definition issues and methodology. In Section 3, we present some statistics about labour market situations and transitions between these situations. The fourth section analyses the influence of individual variables (including marital status, the presence of children under 3 and the use of childcare) on labour market status and yearly transitions between them.

2. A COMPARATIVE EUROPEAN DATABASE

2.1. The EU-SILC survey (Survey on Income and Living Conditions)

The EU-SILC survey is an instrument which aims to collect multidimensional micro data on income, poverty and social exclusion, at the household level. It also contains information about individuals' labour market situation and health. The EU-SILC database includes both cross-sectional data and longitudinal data: cross-sectional data pertain to a given time period with variables on income, poverty, labour market position, social exclusion and other living conditions; whereas longitudinal data enable individuals to be followed up over time, observed periodically, typically over a 4-year period.

The EU-SILC was launched in 2004 in thirteen member states (+Norway and Iceland), and extended in 2005 to the rest of the EU. The first release of the cross-sectional data refers to 2003 as the income reference year, and covers only Luxembourg, Greece, Portugal, and Denmark. For 2004, the survey includes thirteen member states and Norway. It reached its present extent in 2005, with the twenty-five EU countries plus Norway and Iceland, and should be completed eventually by Turkey, Romania, Bulgaria and Switzerland. Therefore, for most countries both types of data (cross-sectional and longitudinal) are now available for 2005 and 2006.

In the EU-SILC survey, individual labour market status can be approached through two variables: the basic activity status, that offers a distinction between employment, unemployment and inactivity, and a self-defined economic status differentiating between part-time and full-time employment, as well as between different types of inactivity[3]. We use both variables here, given the importance of part-time work in a gender-oriented perspective.

In these databases, labour market mobility and transitions between labour markets statuses can be identified in two ways. First, the cross-section survey includes a question about the most recent change in activity status, indicating if there has been a modification in individuals' situation since the last interview (or in the last twelve months for the first query). In case of several changes, the latest is taken into account. A typology of transitions is proposed in the questionnaire, corresponding to all possible changes between four statuses, unemployment, employment, retirement, and other inactivity. Second, in the longitudinal database, annual transitions can be derived from basic variables about labour market status (employment, unemployment, inactivity) or more detailed information about the self-declared economic status that allows for distinctions between part-time and full-time work. The longitudinal database is thus useful to obtain a precise decomposition of transitions. But a number of interesting variables, which can be seen as potential determinants of labour

[3] Details about the variables are provided in Appendix 1.

market transitions, are not included in these data. This is the case of the nationality variable[4], but also of all information about children and the use of childcare that is only contained in the cross-section data. Given the focus of this article, dealing with the relationships between gender and labour market situations, such variables are crucial and therefore our econometric analysis is based on the declared transitions and on the cross-section database. The counterpart of this choice is that we cannot study transitions within employment (between part-time and full-time, or temporary and permanent contracts), as we were able to do in another study, using the panel dimension (Erhel, Guergoat-Larivière, 2009; Begg *et al*, 2010). Besides, given the limited availability of the self-declared transition variables for some countries in 2006, the sample of countries is reduced to 16 in this part of the empirical analysis.

The cross-section database provides the main individual, socio-economic indicators, such as gender, age, level of education according to ISCED classification (Levels 0 to 6, as proposed by UNESCO).[5] Other variables like marital status (living as couple or not) and health status (self-declared chronic illness) will also be included in the analysis. Children and childcare variables have been constructed by matching children (and related childcare) with their parents. In the EU-SILC survey, childcare is divided into several categories (see Appendix 1 for details): in the present article we use a formal childcare variable, corresponding to the use of any type of childcare service (pre-school, day-care centre, professional child-minder at the child's home or at the child-minder's home), for children aged 0 to 3.

2.2. Methodological issues

As in the existing literature (European Commission, 2004, 2009; OECD, 2009a; Burda, Wyplosz, 1994), we account for transitions between the three main labour market statuses, employment, unemployment and inactivity. The descriptive analysis is based on transition matrices, expressing the number of transitions from a given status to another, as a percentage of individuals in the initial situation. In order to identify the role played by some socio-economic variables in the structure of individual transitions, these matrices have been calculated by gender, by age group, and for parents of young children (aged less than 3, with a distinction between mothers and fathers). They are also broken down by country, in order to get a first view of heterogeneity across European countries. These descriptive results are analysed in Section 3. In this section, we also present standard descriptive statistics concerning the distribution of full-time/part-time employment and non-employment (unemployment and inactivity), focusing on gender issues.

A further step is to distinguish between these different effects and to obtain results that can be interpreted "other things being equal". For this purpose, we run two types of logistic regressions: first binomial logits to explore the relationship between socio-economic variables and transitions between non-employment and employment, second multinomial logits to account for the choices between part-time, full-time employment and non-employment. Independent variables are the same in all the regressions.

In these econometric analyses we consider individuals aged 15 to 65. Each independent variable that includes more than two modalities is replaced by as many dummies as there are modalities. We also choose a reference category for each variable:

[4] Country of birth, with three categories: national, other EU countries, outside the EU.

[5] The corresponding categories are detailed in Appendix 1. In EU-SILC data, categories 5 and 6 are merged.

- For age, the intermediate age class (25-54);
- For nationality, being born in the country of current residence;
- For education level, low education level (corresponding to ISCED 0 and 1 that have been regrouped).

For purely dichotomous variables, references are the following: male, living in a couple, not suffering from any chronic illness, without a child aged 0 to 3.

We control for country heterogeneity through the introduction of country fixed effects. We discuss the coefficients obtained for these country dummies in the perspective of a European comparison of labour market transitions. Depending on data availability, we take either Germany or France as the reference country, because they are among the most populated countries in the EU[6].

An interaction term is also introduced in some regressions to differentiate between the effects of some determinants according to gender. For instance, we can assume that having young children is likely to have different effects on men and women's labour market situations (Angrist and Evans, 1998). When this interaction term is introduced, it should measure the variation of transition probability that is predicted following a concomitant variation of the two variables (for instance, gender and children 3 or less).

When considering two interacted dummy variables x_1 and x_2 and a vector X of additional independent variables, the conditional mean of the dependent variable can be written as follows (Ai, Norton, 2004):

$$E(y \mid x_1, x_2, X) = \frac{1}{1 + e^{-(\beta_1 x_1 + \beta_2 x_2 + \beta_{12} x_1 x_2 + X\beta)}} = F(u)$$

With $u = \beta_1 x_1 + \beta_2 x_2 + \beta_{12} x_1 x_2 + X\beta$ and F as the logistic function

The interaction effect between x_1 and x_2 is then the cross-partial derivative of the expected value of y:

$$\frac{\partial^2 F(u)}{\partial x_1 \partial x_2} = \beta_{12} F'(u) + (\beta_1 + \beta_{12} x_2)(\beta_2 + \beta_{12} x_1) F''(u)$$

3. TRANSITIONS, LIFE COURSES AND NATIONAL MODELS

Both employment statuses and transitions are considered in this research. We present first the results of some comparative transition analysis, and then some comparative data of employment rates for the whole population aged 15 to 64, for women, and for mothers with children aged less than 4.

3.1. Transition heterogeneity across the EU

The EU-SILC database also allows labour market dynamics to be monitored through the transitions of individuals across different types of employment status (employed, unemployed, and inactive). Such transitions might be identified either through individuals' declarations of

[6] Transition variables are not available for Germany.

their most recent change of activity status (in both the longitudinal and the cross-sectional databases), or using their (yearly) declared main activity status in the longitudinal database. We computed both types of data, but we use here the declarative variable, since our econometric analysis is based on cross-section databases for 2005 and 2006.

Transition rates are calculated as shares relative to individuals' previous labour market status, which imply that they are not comparable across different initial statuses. Given the definition of the variable in the EU-SILC survey, the time scope is not necessarily homogeneous: individuals are asked whether they have experienced a change in activity in the last twelve months: if there was more than one change in their individual activity status, then the most recent change should be recorded (Eurostat, 2008). Labour market mobility tends therefore to be underestimated in the survey, and the transition rate reflects the share of people having experienced at least one transition of this type over the last twelve months.

Given these limitations in the descriptive statistics, we concentrate on transitions' structure rather than interpreting the probabilities of making a given transition, using 3 x 3 matrices. Some empirical evidence is presented on labour market transitions, at both the aggregate level and a number of breakdowns, such as by gender, age, and presence of children. In the present section, the analysis remains descriptive and comments on some first intuitions to be explored, concerning the sources of heterogeneity in labour market transitions.

The results show a clear differentiation of transitions rates by gender. Overall transitions rates (Table 1) from unemployment or inactivity to employment are lower for women than for men. Symmetrically, the probability of transiting towards inactivity (out of employment or unemployment) is higher for women than for men, indicating a reinforced risk of labour market exclusion. These gender differences concern both the young (15-24) and prime age (25-54) groups, but appear more limited for seniors.[7] Moreover, this gender gap increases for parents of young children (aged 0 to 3), as shown in Table 2: the unemployment-employment transition rate decreases for mothers and increases for fathers, which appears consistent with other results concerning labour market statuses over the life course. According to Anxo *et al* (2007), men's employment rates and hours worked tend to increase with a child birth, whereas the reverse trend is observed for mothers. Also, in our data, transition rates towards inactivity are notably higher for mothers than for the general female population, even if their transition rates out of inactivity (especially towards employment) also stand at a higher level (but far behind men's). This could reflect the impact of parental leave which is still concentrated among women. Nevertheless, transitions of mothers using childcare facilities are far more favourable than the average, and their rates of outflow from unemployment towards employment are close to fathers' rates. On the whole, the transition perspective confirms that women tend to be disadvantaged in the labour market, especially mothers, and points out that childcare is a key factor in the reduction of gender mobility differentials for parents of young children.

Age also plays a role in these transition matrices. Older workers (55-64) tend to have considerably less-favourable transition rates than other age groups: the proportion of seniors declaring a transition from unemployment towards employment over the last 12 months amounts to 15%. Young people (15-24) experience higher transition rates than the general population, whatever their initial situation. Their unemployment-employment transitions rate is higher, but they are also more likely to lose their jobs and leave employment. Besides, they

[7] Some tables crossing age and gender are available on request.

make fewer transitions from inactivity to employment than prime age workers, which may be due to more of the age group being in education.

These results concerning the relationships between demographic variables and transitions are consistent with other studies using different databases (OECD, 2009a; European Commission, 2009). The main originality of the EU-SILC database is that it includes some information about family and the existence of childcare facilities, as in the European Community Household Panel.

Table 1: Transition matrices between labour market statuses, by gender (15-64, 2006, in %)

Status in 2006 / Initial situation	Total			Men			Women		
	E	*U*	*I*	*E*	*U*	*I*	*E*	*U*	*I*
E	92.3	4.3	3.4	93.7	3.8	2.6	90.5	5.1	4.4
U	37.9	53.3	8.7	41.5	51.8	6.7	34.6	54.8	10.6
I	3.4	1.0	95.7	3.6	1.2	95.2	3.1	0.8	96.0

Source: EU-SILC, cross-section database, authors' calculations.
E: Employment; U: Unemployment; I: Inactivity.
Note: Among women who were unemployed, 34.6% found a job and became employed in 2006.

Table 2: Transition matrices of parents (children aged 0 to 3) by gender (2006, in %)

Status in 2006 / Initial situation	Fathers			Mothers			Mothers using childcare		
	E	*U*	*I*	*E*	*U*	*I*	*E*	*U*	*I*
E	96.4	2.9	0.7	82.4	6.7	10.9	89.9	6.6	3.6
U	57.3	40.3	2.4	31.9	50.1	18.0	52.0	39.2	8.8
I	31.7	2.7	65.7	10.9	1.8	87.3	16.7	1.4	81.8

Source: EU-SILC, cross-section database, authors' calculations.
E: Employment; U: Unemployment; I: Inactivity.
Note: Among mothers who were unemployed, 31.9% found a job and became employed in 2006.

Table 3: Transition matrices between labour market statuses, by age (2006, in %)

Status in 2006 / Initial situation	15-24			25-54			55-64		
	E	*U*	*I*	*E*	*U*	*I*	*E*	*U*	*I*
E	81.3	11.9	6.8	94.4	3.8	1.8	87.8	3.1	9.1
U	46.1	44.6	9.3	39.7	53.5	6.8	15.6	69.1	15.3
I	7.2	2.7	90.1	9.3	2.4	88.3	1.6	0.3	98.2

Source: EU-SILC, cross-section database, authors' calculations.
E: Employment; U: Unemployment; I: Inactivity.
Note: Among young persons who were unemployed, 46.1% found a job and became employed in 2006.

From a comparative perspective, transition matrices also show important differences between countries. Focusing on transitions from unemployment towards employment (Figure 1), transition rates range from less than 30% in Belgium, Slovenia, Italy, and Czech Republic, to more 45% in the UK, Spain, Austria, Lithuania and Estonia. The transition rate from inactivity

to employment also varies between 3% or less in France, Belgium, Slovenia, or Spain, and over 5% in Estonia, the Netherlands, Austria, Lithuania and the UK (Figure 2).

Figure 1: Transitions out of unemployment, 2006 (in %)

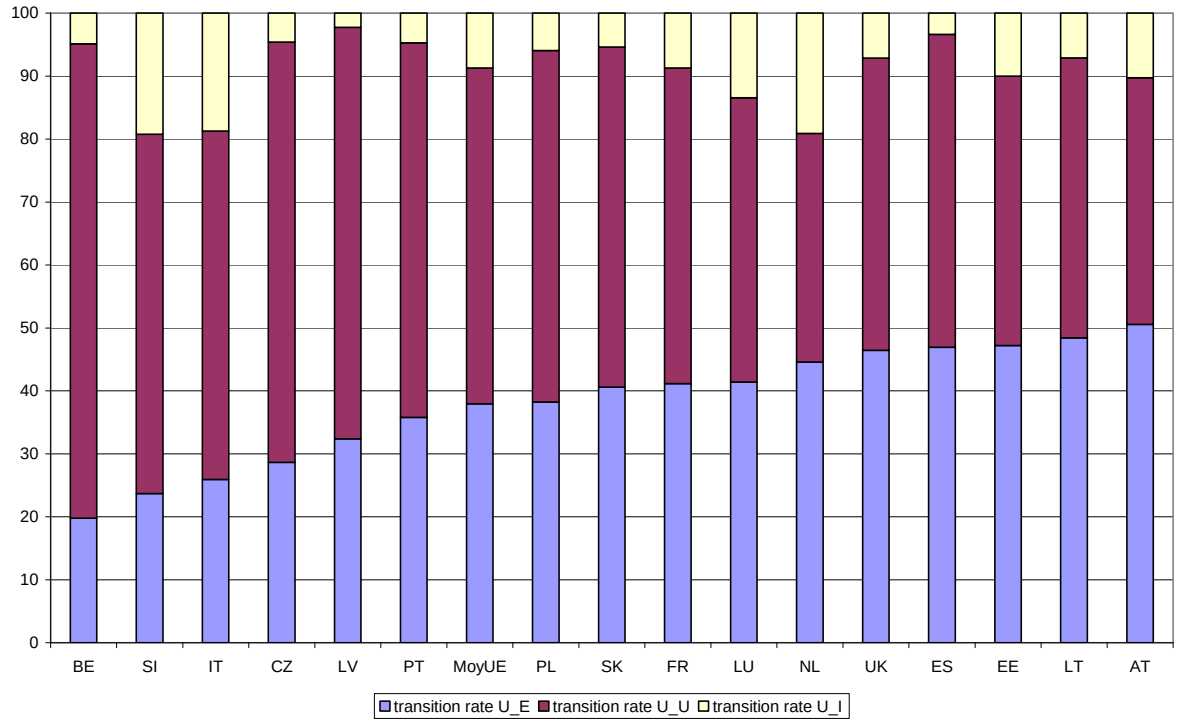
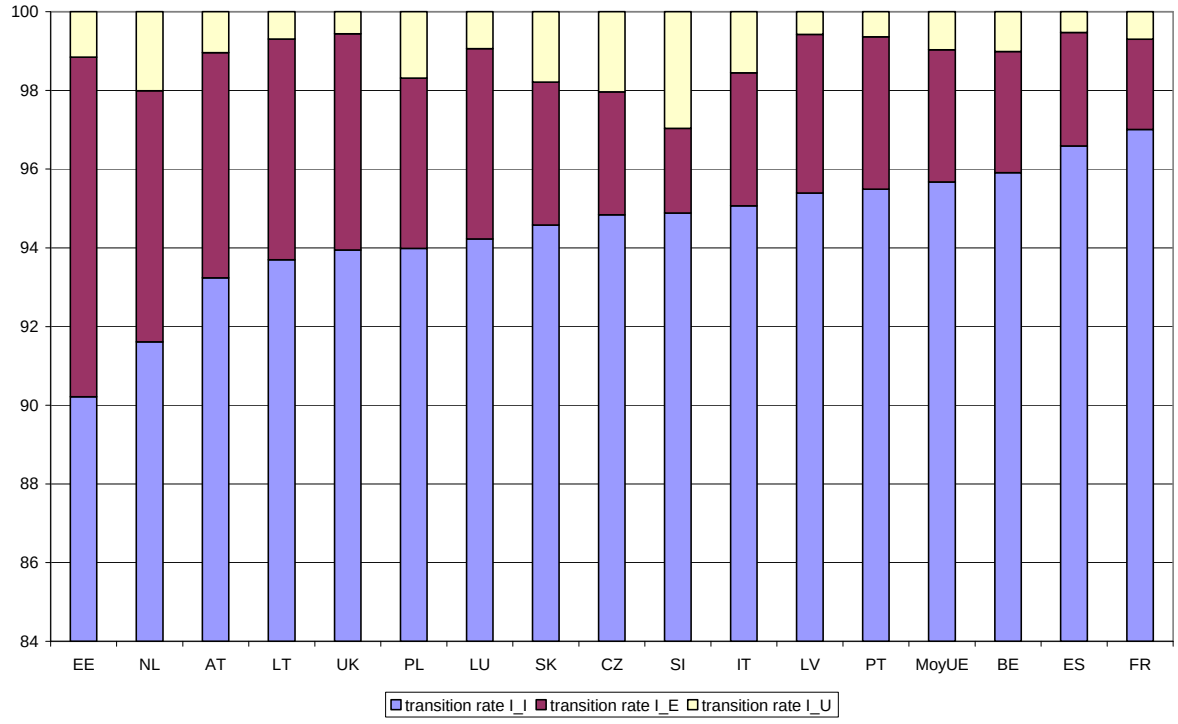


Figure 2: Transitions out of inactivity, 2006 (in %)



NB: Given the importance of the number of individuals staying in inactivity, the minimum of the scale has been set at the level of 84%, in order to increase the visual impact of the figure.

Moreover, the extent of the gender gap varies substantially across countries, especially for the transition from unemployment to employment[8]. Women tend to be disadvantaged in Spain, Portugal, Slovakia, whereas their situation appears more favourable in the Netherlands, Austria, Lithuania, and Estonia. The role of inactivity and the transitions from and towards this situation also differ across countries. The gender gap appears rather large in Poland, Lithuania, Latvia, the Czech Republic and Slovakia, where women have higher probabilities of leaving employment for inactivity. Of course such comparisons have to be considered with care. First, the transition rates are likely to be unstable from one year to another, so that the relative positions of countries may vary. Second, in depth comparisons have to include stocks, to take into account the relative position of women in the labour market.

3.2. The differentiated employment rates of women and mothers

Our database confirms quite well the characteristics known of employment rates for women and mothers across the EU (Table 4). On average (for 26 countries), the female employment rate is lower than for the whole population in the age group 15 to 64 (56% compared to 63%). And for mothers of young children (aged 0 to 3) the difference is greater still, with an employment rate of 53%. Inside employment, they are more likely to work part-time: in our sample, part-time employment rate amounts to 18.5% for women, and 23.9% for mothers of young children, in comparison to 11.8% for the whole population. The gender and maternity effects appear thus to be very strong in the European Union.

Nevertheless, this overview hides substantial differences between countries. In Southern countries (Spain, Greece, and Italy), as well as in some East European countries (the Czech Republic, Hungary, and Poland), women's employment rates stand below the European average. In contrast, Nordic countries (Denmark, Iceland, Norway, and Sweden) along with the UK exhibit high female employment rates (over 60%). From this point of view, the Baltic States (Estonia, Lithuania, and Latvia) are close to this group. Finally, an intermediate group includes continental countries such as Austria, France, Germany, but also the Netherlands, Slovenia and Slovakia: these countries are close to the average, with a few of them just reaching the EES target of 60%. The frequency of part-time work differs widely across Europe: almost 43% of Dutch women work part-time, against less than 5% in almost all new member states. Apart from the Netherlands, part-time employment also stands at a high level in Germany (33%), in the UK (25%), as well as in Ireland, Luxembourg, and Sweden (over 20%).

For mothers of young children, country heterogeneity is even more striking. In some countries, a majority of them are non-employed: more than 80% of mothers do not work in the Czech Republic and in Hungary, 76% in Austria, 67% in Estonia, 59% in Finland, 56% in Germany. These countries correspond to the first cluster identified by Chaupain-Guillot *et al.* (2008) on the basis of ECHP data and of some policy variables concerning childcare, parental leave and family allowances. In their results (which are limited to the EU 15 due to the data source they use), Austria, Finland, France and Germany constitute a group characterised by a long parental leave, resulting in lower employment rates for mothers of young children than for other women (or even mothers of older children). According to our results, which are more limited because we use only employment rates,[9] this group of

[8] The figures for women are available on request.

[9] This explains why France is not in this group. France was included in this cluster because of the generosity of family allowances.

mothers with large employment gaps should be extended to some East European countries and could be explained by the presence of long maternity leave (OECD, 2009b). In contrast to this, in Nordic countries (Sweden, Denmark, and Norway), but also in Portugal and the Netherlands, more than 70% of mothers of young children are in employment.

In countries where part-time work is developed (equal to the EU average or above), mothers' part-time employment rates tend to be higher than for women in general. This is especially true in the Netherlands, where 64% of mothers with young children are working part-time, in Germany and the UK (36%), in Belgium (28%), or in France (25%).

These descriptive statistics suggest that the labour supply behaviour by women and even more by mothers differs according to national models, which include a whole set of policies and institutions that are heterogeneous across Europe. This was clear from previous work on the EU 15 (Chaupain-Guillot *et al*, 2008, Kenjoh, 2005), but is reinforced in the enlarged Union.

Table 4: Employment rates (full-time, part-time) and non-employment rates, women and mothers of young children (15 to 64) in 2006[10]

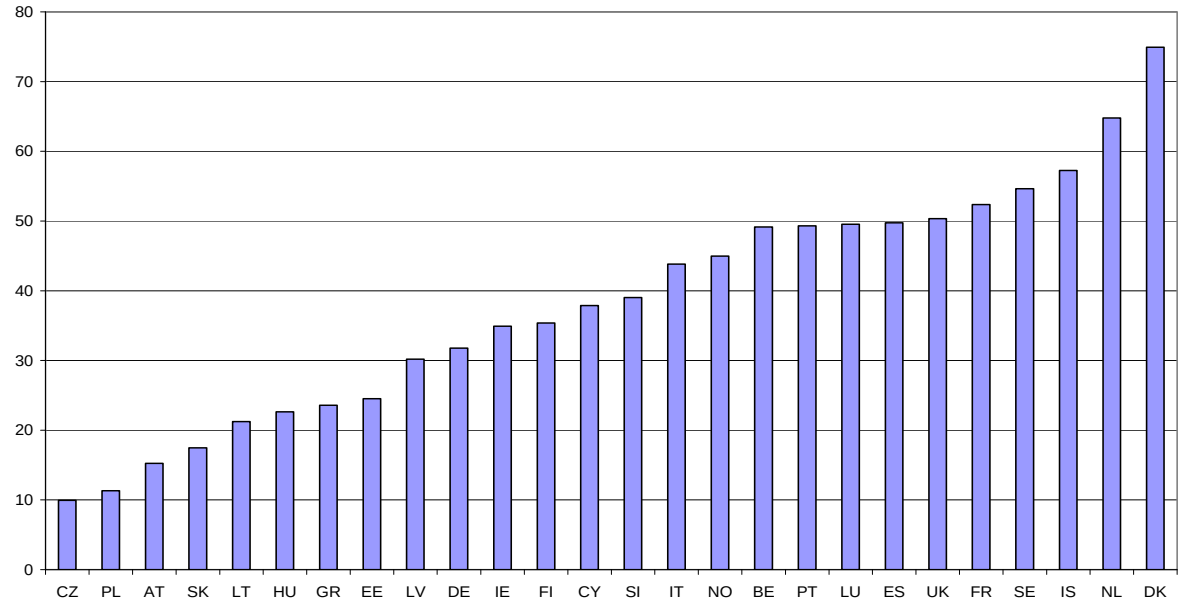
	Women			Mothers with children aged 0 to 3		
	Full-time employment	Part-time employment	Non-employment	Full-time employment	Part-time employment	Non-employment
EU average	38.4	18.5	43.1	30.1	24.0	45.9
AT	36.8	19.0	44.1	9.0	14.2	76.8
BE	32.6	22.6	44.8	43.6	28.9	27.5
CY	51.6	6.3	42.2	65.2	4.9	29.9
CZ	49.7	3.9	46.5	11.0	3.8	85.2
DE	27.7	33.8	38.5	6.8	36.4	56.8
DK	47.6	16.2	36.2	51.8	18.6	29.6
EE	60.3	4.9	34.8	28.1	4.7	67.2
ES	39.5	11.2	49.3	39.1	15.3	45.6
FI	53.2	10.8	36.0	32.7	7.5	59.8
FR	41.8	18.1	40.0	38.3	25.4	36.3
GR	39.3	8.0	52.7	40.3	9.6	50.0
HU	48.0	4.4	47.6	17.3	2.5	80.1
IE	32.8	21.7	45.5	31.8	21.2	47.0
IS	51.4	18.3	30.3	45.3	21.9	32.8
IT	36.4	9.7	53.9	35.6	17.0	47.4
LT	58.0	3.6	38.4	57.6	0.9	41.4
LU	33.4	22.0	44.6	33.4	35.5	31.0
LV	59.0	4.9	36.0	37.4	6.5	56.1
NL	16.9	42.9	40.2	8.1	64.4	27.6
NO	52.1	16.8	31.1	54.0	22.1	23.9
PL	42.8	5.4	51.9	40.6	7.5	51.8
PT	53.6	7.6	38.8	74.9	6.0	19.1
SE	48.1	23.8	28.1	48.8	28.0	23.2
SI	52.0	2.0	45.9	75.0	4.3	20.7
SK	54.5	3.5	42.0	58.7	2.6	38.7
UK	40.1	25.3	34.7	17.2	36.0	46.8

Source: EU-SILC, cross-section database, authors' calculations. Figures in % of the population in the age group.

[10] The meaning of countries abbreviations can be found in Appendix 1.

In our database, variables concerning the use of childcare are the only variables that capture some components of this institutional diversity. The rate of mothers using formal childcare arrangements for children aged 0 to 3 varies greatly in the sample, from 11% in Poland to 74% in Denmark. On the whole, it confirms that childcare is well developed in the Nordic countries, but also in the Netherlands, and to a lesser extent in France and the UK. Among the Southern countries, Portugal and Spain are the most concerned by the use of childcare for young children. The situation in the Eastern countries seems rather specific, with very low rates except, for Slovenia. Informal arrangements (grand-parents, etc.) might constitute a partial compensation for this deficiency in childcare policies, but this situation may hinder the integration of women and mothers in the labour market.

Figure 3: Childcare services use



Source: EU-SILC, 2006 cross-section database, authors' calculations.

4. DETERMINANTS OF LABOUR MARKET SITUATIONS AND TRANSITIONS IN EUROPE

These descriptive statistics show how employment and transition patterns differ in Europe, according to age, gender, parental status, but also across countries. This first picture needs to be confirmed by some additional analysis in order to assess the specific role of each determinant "other things being equal"[11]. As the EU-SILC database contains some information about family statuses (children and childcare), it is possible to test how these factors influence the labour supply and the transitions of individuals. From a gender perspective, a special emphasize is placed on differentiation between men's and women's behaviour and trajectories.

[11] Regressions have also been run on 2005 data, confirming the general results of the analysis for 2006, presented here.

As mentioned before, the cross-sectional database does not contain transition variables that distinguish between some detailed activity statuses (part-time, full-time, etc.) whereas this database is the only one containing some information on children, childcare, etc. Given these limitations, the analysis proceeds in two steps.

In the first step (Section 4.1), binomial logit regressions are run to study the relationships between various individual characteristics and the probability of moving between two given states: employment and non-employment. Non-employment aggregates unemployment and inactivity. These two states could not be considered separately, because of sample size problems when studying transitions from unemployment. Two series of regressions are run in this first part: on the one hand, considering people who are employed to begin with; on the other hand, considering individuals who start in non-employment. In each case, the dependent variable is a dummy variable with a value of 1, if the individual makes a "good" transition, namely a transition to employment. This allows coefficients to be interpreted more easily: for each independent variable, a positive coefficient means that the variable is positively related to the transition to employment and thus plays literally a positive ("normative") role. The value added of this first step comes from the use of transition variables as dependent variables that leads to a better account of labour market dynamics, especially considering career discontinuities experienced by women.

In a second step (Section 4.2), we model the probability of being either non-employed or employed, distinguishing between full-time work and part-time work for people in jobs. This break-down into three states, as well as the analysis through a multinomial logit model follows the lines of other studies on women's employment (Chaupain-Guillot *et al.*, 2008, Kenjoh, 2005). It seems crucial to assess the impact of the different variables considered here on the choice between part-time and full-time work. Indeed, it is well-known that part-time work is viewed in many European countries as a way of reconciling work and family life. However, women's employment, as well as the use of part-time work vary greatly in Europe, according to the public policies implemented for families and particularly the availability of childcare structures. In this second step, the reference state is non-employment and coefficients thus measure the correlation between each independent variable and the probability of being either in part-time work or in full-time work, compared to the probability of being non-employed.

In the first as well as in the second step of the analysis, different models are tested. All of them include the main socio-economic variables namely: gender, age, education level, marital life, health status and nationality. In each series of regressions, four models are presented: the first one includes a variable on the presence of young children (aged 3 or less); the second one tests the hypothesis of a different effect of young children on women and men through the inclusion of an interaction term between young children and gender. The two following models (numbered [3] and [4]) are run on a smaller sample that only contains parents of children aged 3 or less, in order to study the links between childcare use and labour market status or transitions of parents. In Model [3], a variable on the use of childcare structure is introduced, and in Model [4] we test the hypothesis of a differentiated effect of childcare on mothers' and fathers' labour market status and transition patterns, by introducing an interaction term between childcare and gender.

In every model, country dummies are introduced to control for heterogeneous effects across the European Union. Coefficients for these dummies are presented in Appendix 2 and discussed at the end of this section. The interpretation of these effects is not straight forward as they can be related to some very diverse aspects of countries (macroeconomic shocks,

institutions, cultural features, etc.). However, the introduction of variables on childcare allows the specific influence of family policies on labour supply of individuals to be distinguished.

4.1. Transitions between employment and non-employment and the role of family variables

The first model confirms the impact of the main socio-economic determinants on the quality of transitions. Some specific groups appear particularly disadvantaged in terms of mobility, including women but also youth, seniors (aged 55 or more) and people suffering from a chronic illness. They are all less likely both to stay in employment when employed, and to move to employment when non-employed (see Table 8 in Appendix 2 for transitions from non-employment). Citizens from outside the EU are also less likely to stay in employment, compared to nationals, whereas no effect is observable for citizens from another EU country. However, citizens from outside the EU and to a lesser extent those from the EU are more likely to move to employment when they are non-employed, compared to nationals.

Table 5:Transitions from employment[12]

	Model 1		Model 2		Model 3		Model 4	
	Estimate	Pr > ChiSq	Estimate	Pr > ChiSq	Estimate	Pr > ChiSq	Estimate	Pr > ChiSq
Intercept	2.2315	<.0001	2.1047	<.0001	1.6557	<.0001	1.8121	<.0001
educlevel2	0.0542	0.1976	0.0606	0.1511	0.2421	0.1060	0.2529	0.0922
educlevel3	0.3469	<.0001	0.3611	<.0001	0.7920	<.0001	0.7946	<.0001
educlevel4	0.5631	<.0001	0.5815	<.0001	0.8591	<.0001	0.8822	<.0001
educlevel5	0.7904	<.0001	0.8290	<.0001	1.2160	<.0001	1.2214	<.0001
woman	-0.5231	<.0001	-0.3341	<.0001	-2.1502	<.0001	-2.4225	<.0001
ag15_24	-1.2030	<.0001	-1.1706	<.0001	-0.5267	<.0001	-0.5337	<.0001
ag55_64	-0.9078	<.0001	-0.8926	<.0001	0.00525	0.9960	0.0595	0.9539
couple	0.4172	<.0001	0.4311	<.0001	0.2485	0.4456	0.2655	0.4174
illness	-0.4593	<.0001	-0.4713	<.0001	-0.0819	0.4250	-0.0838	0.4173
eu	-0.1578	0.0561	-0.1587	0.0566	-0.3242	0.1347	-0.3104	0.1505
oth	-0.3055	<.0001	-0.3233	<.0001	-0.5869	<.0001	-0.5995	<.0001
kid3	-0.7657	<.0001	0.1237	0.0436				
woman*kid3			-1.5423	<.0001				
childcare					1.0520	<.0001	0.2016	0.1283
woman*childcare							1.1731	<.0001
Country dummies	Yes		Yes		Yes		Yes	
Number of observations	130307		130307		13645		13645	

Source: EU-SILC, 2006 cross-section database, authors' calculations.

[12] Comments refer to results on transitions from employment, but also to the results on transitions from non-employment that can be found in Table 8, in Appendix 2.

The level of initial education has a clear-cut effect on the probability of making good transitions: the more educated an individual, the more likely s/he will stay in employment or move from non-employment to employment. However for individuals who attained Level 2 in initial education, their probability of staying in employment is not significantly different from those people who attained a Level 0 or 1 (who are taken as reference), and they are even less likely to move from non-employment to employment.

Living in a couple has a positive and highly significant effect on the probability of making a good transition, either to staying in employment or to moving from non-employment to employment. It can be assumed that this variable is a proxy for diverse, unobservable variables that are positively correlated with having a job.

From a gender perspective, it is remarkable that having children aged 3 or less lowers the probability of individuals of staying in employment. However, there is no effect on the transition from non-employment.

These first regressions are then complemented with another two (Models 2 in Table 5 and in Table 8) that include an interaction term between the variable on children and the gender variable. This allows possible differentiated effects of young children on transitions of women and men to be distinguished. Indeed, the introduction of the interaction variable between women and young children leads to an interesting result: the coefficient for children aged three or less becomes positive[13], while the coefficient for the interaction term is negative and highly significant. This result supports the hypothesis that the negative influence of children on transitions is concentrated on women. Women having young children are more likely to move out of employment and less likely to move out of non-employment. The positive sign related to the children variable, when the interaction term is included, confirms that this effect is rather reversed for men: having young children implies a higher probability of staying in employment or to moving to employment when non-employed. This differentiated effect can be related to the traditional roles played by women and men with children (especially young children): the "breadwinner model" is still observable in the EU. As mentioned in Section 3, this result is consistent with some other studies of the European Community Household Panel for 2000-2001, showing that households with children are characterized by higher employment rates and longer working time for men, whereas women from these households experience lower employment rates and fewer hours of work, compared to couples without children (Anxo *et al.*, 2007).

In Models [3] and [4], the sample is restricted to parents of children aged 3 or less, in order to study the relationship between childcare use and transitions of men and women. This restriction of course causes a huge drop in the number of observations, but these complementary regressions display interesting results: the use of childcare services is positively and significantly correlated with transitions to employment (coming from employment or non-employment). The effect of marital life is not significant anymore when the sample is reduced to people with children aged 3 or less, as these individuals mainly live in couples. Models [4] test the hypothesis of a different effect of childcare on women's and men's transitions. It appears that childcare use is not significant anymore, when an interaction term between this variable and gender is introduced, whereas the coefficient related to the interaction is positive and significant. The use of childcare services clearly plays a positive role in women's transitions, but does not seem to have any effect on men's

[13] In the regression from employment, this effect is positive and significant, at the 5% level.

transitions. This shows once more that the care of children is mainly borne by women, so that they gain more from the availability of childcare structures in terms of transitions to employment.

4.2 The choice between full-time or part-time employment and non-employment

In order to have a wider view of activity choices by individuals in Europe, from a gender perspective, multinomial logit regressions are run to assess the links between different variables – especially family and family policy variables – and the labour supply of men and women. In this part, three possible states are taken into account: non-employment, part-time work and full-time work.

The simplest model (Model [1] in Table 6) confirms some features already observed in the first part of the econometric analysis: initial education affects non-employment; youth, seniors, people suffering from chronic illness and citizens from outside the EU are less likely to be employed either full-time or part-time. The distinction between part-time and full-time employment in this regression highlights the specific situation of women in terms of hours worked: they are more likely than men to be employed part-time and less likely than men to be employed full-time, compared to be non-employed. As in previous regressions on transitions, the presence of young children is negatively correlated with employment (both part-time and full-time).

Table 6: The determinants of activity choices

		Model 1		Model 2		Model 3		Model 4	
Parameter	Employ-ment status	Estimate	*Pr > ChiSq*	Estimate	*Pr > ChiSq*	Estimate	*Pr > ChiSq*	Estimate	*Pr > ChiSq*
Intercept	PT	-0.6120	*<.0001*	-0.6245	*<.0001*	-1.4107	*<.0001*	-1.1520	*<.0001*
Intercept	FT	0.8731	*<.0001*	0.7564	*<.0001*	0.1975	*0.0779*	0.3665	*0.0012*
educlevel2	PT	0.000994	*0.9732*	0.00344	*0.9076*	0.2234	*0.0738*	0.2331	*0.0634*
educlevel2	FT	0.1272	*<.0001*	0.1339	*<.0001*	0.4718	*<.0001*	0.4804	*<.0001*
educlevel3	PT	0.5278	*<.0001*	0.5333	*<.0001*	0.8008	*<.0001*	0.8171	*<.0001*
educlevel3	FT	0.8254	*<.0001*	0.8405	*<.0001*	1.2307	*<.0001*	1.2386	*<.0001*
educlevel4	PT	0.7424	*<.0001*	0.7511	*<.0001*	1.0491	*<.0001*	1.0761	*<.0001*
educlevel4	FT	1.2338	*<.0001*	1.2597	*<.0001*	1.4536	*<.0001*	1.4721	*<.0001*
educlevel5	PT	0.9074	*<.0001*	0.9189	*<.0001*	1.2506	*<.0001*	1.2732	*<.0001*
educlevel5	FT	1.5794	*<.0001*	1.6208	*<.0001*	2.0355	*<.0001*	2.0443	*<.0001*
woman	PT	0.7514	*<.0001*	0.7825	*<.0001*	-0.1498	*0.0363*	-0.4824	*<.0001*
woman	FT	-1.1777	*<.0001*	-1.0182	*<.0001*	-3.3230	*<.0001*	-3.5655	*<.0001*
ag15_24	PT	-1.4689	*<.0001*	-1.4721	*<.0001*	-0.5494	*<.0001*	-0.5534	*<.0001*
ag15_24	FT	-1.9442	*<.0001*	-1.9175	*<.0001*	-0.7210	*<.0001*	-0.7335	*<.0001*
ag55_64	PT	-1.1748	*<.0001*	-1.1818	*<.0001*	-0.7960	*0.1572*	-0.6798	*0.2222*
ag55_64	FT	-1.7017	*<.0001*	-1.6771	*<.0001*	-1.8172	*<.0001*	-1.6999	*<.0001*
couple	PT	0.4564	*<.0001*	0.4573	*<.0001*	-0.1099	*0.5391*	-0.1082	*0.5479*
couple	FT	0.5218	*<.0001*	0.5176	*<.0001*	0.0498	*0.7609*	0.0539	*0.7412*
illness	PT	-0.4954	*<.0001*	-0.5002	*<.0001*	-0.3443	*<.0001*	-0.3548	*<.0001*
illness	FT	-0.8697	*<.0001*	-0.8809	*<.0001*	-0.5877	*<.0001*	-0.5925	*<.0001*

eu	PT	-0.00371	*0.9470*	-0.0054	*0.9228*	-0.2337	*0.1381*	-0.2312	*0.1448*
eu	FT	0.0986	*0.0107*	0.0919	*0.0187*	-0.1658	*0.1977*	-0.1611	*0.2123*
oth	PT	-0.1435	*0.0009*	-0.1424	*0.0010*	-0.8491	*<.0001*	-0.8643	*<.0001*
oth	FT	-0.2503	*<.0001*	-0.2636	*<.0001*	-0.9296	*<.0001*	-0.9412	*<.0001*
kid3	PT	-0.3172	*<.0001*	0.2145	*0.0007*				
kid3	FT	-0.5846	*<.0001*	0.7086	*<.0001*				
woman*kid3	PT			-0.8056	*<.0001*				
woman*kid3	FT			-2.0871	*<.0001*				
childcare	PT					1.2880	*<.0001*	0.2361	*0.0749*
childcare	FT					1.2091	*<.0001*	0.4000	*<.0001*
woman* childcare	PT							1.2369	*<.0001*
woman* childcare	FT							1.0420	*<.0001*
Country dummies		Yes		Yes		Yes		Yes	
Number of observations		291650		291650		25615		25615	

Source: EU-SILC, 2006 cross-section database, authors' calculations. PT: part-time / FT: full-time.

The second regression shows that behind the global negative effect of children on employment, women's employment remains much more affected by the presence of children. Indeed, the interaction term between gender and young children is negative and highly significant, for both part-time and full-time work, compared to non-employment, whereas coefficients for children become positive in this regression. This confirms that the negative impact of children is concentrated on women, while men are more likely to work than to be non-employed when they have young children.

Models [3] and [4] focus of the relationships between childcare and activity status considering only parents of young children (aged 3 or less). They reveal that the use of childcare structures is positively correlated with employment, since people using childcare are more likely to be employed full-time or part-time, rather than non-employed. However, the number of hours of childcare is not considered here and it can be assumed that distinguishing between different ranges of hours would lead to more precise results and particularly it may lead to a different impact on part-time and full-time employment.

The introduction of an interaction term in the Model [4] shows that the positive relationship between childcare and employment is stronger for women, but that childcare also correlates positively with the probability of working full-time for men, compared to being non-employed. Among fathers of young children, those who use childcare structures are more likely to work full-time than to be non-employed, compared to fathers who do not use childcare structures. However, this result should be handled with care, since no income variable is included in regressions and there may be correlations between the use of childcare and income (especially in countries where childcare is expensive).

Whatever the perspective that is adopted for individuals' labour market situations (current status or flows) the results display the importance of the initial education level, as well as the role of family variables. Gender inequalities appear clearly for the whole population, as well as for parents of young children, with a corrective role of childcare that tends to promote women's employment. The results then suggest two main policy orientations to enhance

labour market integration and the reversibility of transitions, namely an increase in initial education levels, and the development of childcare policies.

4.3. Country heterogeneity

In all the models presented, country dummies are generally significant, confirming the hypothesis of cross-country heterogeneity in the determinants of labour market statuses and transitions.

In the sample that is used to assess the impact of individual variables on transitions, France is taken as a reference. Given the persistence of non-employment in the French context[14], country dummies all have a positive sign (except in Poland), indicating a positive impact of living in other EU countries on the probability of staying in employment. The coefficients associated with these effects are the highest in the Netherlands and Portugal, and the lowest in Spain and Austria. Considering transitions from non-employment, living in some countries does not seem to impact the probability of moving to employment, compared to France: dummies are not significant for Italy, Belgium–and Slovenia. In the absence of Nordic countries in this sample, these results are consistent with other studies displaying the differences in national transition rates: mobility generally appears less favourable in continental and southern countries (European Commission, 2009)[15].

Table 7: Country, fixed effects in Model 1 of each regression (from employment and from non-employment)

	Model 1 (from employment)		Model 1 (from non-employment)	
	Estimate	Pr > ChiSq	Estimate	Pr > ChiSq
Intercept	2.2315	<.0001	-1.5990	<.0001
educlevel2	0.0542	0.1976	-0.2096	<.0001
educlevel3	0.3469	<.0001	0.4536	<.0001
educlevel4	0.5631	<.0001	0.8259	<.0001
educlevel5	0.7904	<.0001	1.0788	<.0001
woman	-0.5231	<.0001	-0.6605	<.0001
ag15_24	-1.2030	<.0001	-0.6807	<.0001
ag55_64	-0.9078	<.0001	-2.0484	<.0001
couple	0.4172	<.0001	0.1814	<.0001
illness	-0.4593	<.0001	-0.6750	<.0001
eu	-0.1578	0.0561	0.2692	0.0005
oth	-0.3055	<.0001	0.1650	0.0022
kid3	-0.7657	<.0001	0.00795	0.8392
AT	0.2293	<.0001	0.5246	<.0001
BE	0.7275	<.0001	-0.1434	0.0666
CY	0.7452	<.0001	0.8126	<.0001

[14] This already appears in descriptive statistics, and might correspond to the high share of long term unemployment in the French labour market, and to difficult reintegration after a period of inactivity.

[15] Our results, using the longitudinal database, also confirm these comparative findings (Erhel, Guergoat-Larivière, 2009). Nevertheless, comparisons based on transition variables should be treated with care, as the results are quite sensitive to the period of observation.

CZ	0.5823	<.0001	0.3047	<.0001
EE	0.3427	<.0001	0.8855	<.0001
ES	0.2387	<.0001	0.5064	<.0001
IT	0.7009	<.0001	0.0160	0.7804
LT	0.3705	<.0001	0.5897	<.0001
LU	0.7363	<.0001	0.3378	<.0001
LV	0.5094	<.0001	0.5016	<.0001
NL	1.1560	<.0001	0.7121	<.0001
PL	-0.0948	0.0265	0.5356	<.0001
PT	1.0759	<.0001	0.5840	<.0001
SI	0.4750	<.0001	-0.0560	0.5112
SK	0.6638	<.0001	0.5084	<.0001
UK	0.7572	<.0001	0.3842	<.0001
Observations	130307		130307	

Concerning gender, the last multinomial regression presented in Table 6 (Model [4]) provides interesting results regarding the relationships between national contexts and women's employment[16]. The reference country in this regression is Germany, where part-time work is relatively prevalent (see Section 3). It shows that living in the New Member States, as well as in Austria, Spain, Finland, and Greece, has a negative impact on the probability of being in part-time work (in comparison to non-employment). In contrast, country dummies are not significant for Belgium, France, Luxembourg, Denmark, Norway, Iceland, Ireland, the UK, Italy and Portugal, showing that they are close to the German case. The only two countries that increase the probability of part-time work are the Netherlands and Sweden[17]. Most country dummy coefficients for full-time employment (versus non-employment) are positive, with the exceptions of Austria, the UK, the Czech Republic and Hungary, meaning that living in all other countries increases the probability of working full-time. The cross-country differences in the incidence of part-time work for women, that appear using descriptive statistics (see Section 3), are confirmed when controlling for the contribution of the main individual determinants of labour market statuses.

CONCLUSION

Analyzing the determinants of labour market statuses and mobility in the European Union leads to some interesting results for the implementation of employment policies. First, it underlines the crucial role of the initial education level in labour market position, which appears consistent with the Lisbon Strategy and the goals to rise the percentage of upper secondary education and to reduce the number of school drop outs. Second, from a gender perspective, it confirms the negative impact of being a woman and especially a mother, on the probability of being in employment, or of experiencing a good transition. But the

[16] Table 9 in Appendix 2 presents the dummy coefficients.

[17] The coefficient for Sweden is significant at the 2% level.

empirical analysis also stresses the positive role of childcare with regard to women's relative situations, and therefore to gender equality. This corresponds again to the content of the Lisbon Strategy and the EES. More generally the approach in terms of individual transitions globally confirms the determinants of the choices between full-time/part-time employment or non-employment, and thus the characteristics of the most fragile persons in the labour market, namely poorly educated, older people (but also young people), women, and foreigners. For all these groups, the management of mobility should be a priority for labour market policies, in order to avoid irreversibility.

Our comparative database also provides results concerning the heterogeneity of labour market regimes in the EU, especially concerning the situation of women, but also the outlook for transitions. They confirm the good performances of the Nordic countries, but also the high degree of heterogeneity across the EU 27.

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APPENDIX

Appendix 1: Description of variables

Transition variable (used in Section 4.1): [18]

The transition variable between employment and non-employment is constructed using the respondent's activity status (RB210) and his/her most recent status change over the last twelve months (PL180). This latter variable can take 12 values that are all possible transitions between employment, unemployment, retirement and other inactivity. From these two available variables, the transition variable used in this paper is constructed by distinguishing four possible transitions: from employment to employment, from employment to non-employment, from non-employment to employment and from non-employment to non-employment.

Activity status variable (used in section 4.2):

In the Section 4.2, we use the EU-SILC variable PL030 to distinguish between part-time and full-time work. This variable includes 9 categories and gives details for the reasons of inactivity: we have gathered together seven of them to get the "non-employment" category. Distinction between full-time work and part-time relies on the respondent's appreciation.

Independent variables :

○ *Individual characteristics*

We use variables for:

- Initial education level according to ISCED classification (see below: categories 0 and 1 of the variable PE040 have been gathered);
- Sex (RB090);
- Age (based on variable RX010 and broken down into three categories: 15-24, 25-54 and 55-64);
- Marital life (a dummy variable "Couple" is constructed gathering categories of legal union and *de facto* union of the variable PB200);
- Health status (based on chronic illness variable PH020);
- Nationality (PB220A) includes three possible values: "national", "citizen from another EU country" and "citizen from outside the EU".

○ *Country of residence (PB020)*

[18] For transition rates, the weight variable used is RB060.

○ *Variables related to children and childcare*

It is possible in the cross-sectional database to match children with their parents, thanks to father and mother ID variables (PB160 and PB170). We then constructed a dummy variable to identify parents of children aged 3 or less.

The cross-sectional SILC database also contains some information on the use of childcare services (RL010: education at pre-school; RL030: child care at centre-based services; RL040: child care at day-care centre; RL050: child care by a professional child-minder at child's home or at the child-minder's home). We have gathered these different variables in order to have a "childcare" dummy variable for children under 3.

ISCED classification

This classification proposed by UNESCO (revised in 1997) includes seven grades:

Level 0 – Pre-primary education; Level 1 – Primary education or first stage of basic education; Level 2 – Lower secondary or second stage of basic education; Level 3 – (Upper) secondary education; Level 4 – Post-secondary non-tertiary education; Level 5 – First stage of tertiary education; Level 6 – Second stage of tertiary education

Countries abbreviations

AT	Austria	NO	Norway
BE	Belgium	PL	Poland
CY	Cyprus	PT	Portugal
CZ	Czech Republic	SE	Sweden
DE	Germany	SI	Slovenia
DK	Denmark	SK	Slovakia
EE	Estonia	UK	United Kingdom
ES	Spain		
FI	Finland		
FR	France		
GR	Greece		
HU	Hungary		
IE	Ireland		
IS	Iceland		
IT	Italy		
LT	Lithuania		
LU	Luxembourg		
LV	Latvia		
NL	Netherlands		

Appendix 2: Complementary results

Table 8: Transitions from non-employment

	Model 1		Model 2		Model 3		Model 4	
	Estimate	Pr > ChiSq	Estimate	Pr > ChiSq	Estimate	Pr > ChiSq	Estimate	Pr > ChiSq
Intercept	-1.5990	<.0001	-1.6704	<.0001	-1.8549	<.0001	-1.6589	<.0001
educlevel2	-0.2096	<.0001	-0.2013	<.0001	0.0244	0.8747	0.0126	0.9344
educlevel3	0.4536	<.0001	0.4675	<.0001	0.5058	0.0002	0.4963	0.0002
educlevel4	0.8259	<.0001	0.8490	<.0001	0.7143	0.0003	0.7247	0.0003
educlevel5	1.0788	<.0001	1.1103	<.0001	1.1284	<.0001	1.1293	<.0001
woman	-0.6605	<.0001	-0.5614	<.0001	-1.9420	<.0001	-2.2203	<.0001
ag15_24	-0.6807	<.0001	-0.6731	<.0001	0.0192	0.8679	0.0233	0.8412
ag55_64	-2.0484	<.0001	-2.0336	<.0001	-2.3370	0.0028	-2.1093	0.0061
couple	0.1814	<.0001	0.1639	<.0001	0.8234	0.0168	0.8230	0.0166
illness	-0.6750	<.0001	-0.6833	<.0001	-0.5156	<.0001	-0.5086	<.0001
eu	0.2692	0.0005	0.2709	0.0005	0.00729	0.9738	-0.00204	0.9927
oth	0.1650	0.0022	0.1476	0.0067	-0.5080	0.0004	-0.5131	0.0004
kid3	0.00795	0.8392	1.0613	<.0001				
woman*kid3			-1.3846	<.0001				
childcare					1.1247	<.0001	0.3277	0.0501
woman*childcare							1.0164	<.0001
Country dummies	Yes		Yes		Yes		Yes	
Number of observations	130307		130307		13645		13645	

Source: EU-SILC, 2006 cross-section database, authors' calculations.

Table 9: Multinomial logit on activity choices (Model [4] with dummies)

Parameter	Employment status 2006	Estimate	Standard Error	Pr > ChiSq
Intercept	PT	-1.1520	0.1486	<.0001
Intercept	FT	0.3665	0.1135	0.0012
educlevel2	PT	0.2331	0.1256	0.0634
educlevel2	FT	0.4804	0.0851	<.0001
educlevel3	PT	0.8171	0.1112	<.0001
educlevel3	FT	1.2386	0.0764	<.0001
educlevel4	PT	1.0761	0.1438	<.0001
educlevel4	FT	1.4721	0.1079	<.0001
educlevel5	PT	1.2732	0.1131	<.0001
educlevel5	FT	2.0443	0.0806	<.0001
woman	PT	-0.4824	0.0886	<.0001
woman	FT	-3.5655	0.0527	<.0001

ag15_24	PT	-0.5534	0.1118	<.0001
ag15_24	FT	-0.7335	0.0759	<.0001
ag55_64	PT	-0.6798	0.5569	0.2222
ag55_64	FT	-1.6999	0.2993	<.0001
couple	PT	-0.1082	0.1801	0.5479
couple	FT	0.0539	0.1633	0.7412
illness	PT	-0.3548	0.0730	<.0001
illness	FT	-0.5925	0.0558	<.0001
eu	PT	-0.2312	0.1585	0.1448
eu	FT	-0.1611	0.1292	0.2123
oth	PT	-0.8643	0.1176	<.0001
oth	FT	-0.9412	0.0807	<.0001
woman* childcare	PT	1.2369	0.1434	<.0001
woman* childcare	FT	1.0420	0.0919	<.0001
childcare	PT	0.2361	0.1325	0.0749
childcare	FT	0.4000	0.0790	<.0001
at	PT	-0.7470	0.2197	0.0007
at	FT	0.1997	0.1933	0.3016
be	PT	0.2639	0.2154	0.2206
be	FT	1.2974	0.1984	<.0001
cy	PT	-1.0207	0.2942	0.0005
cy	FT	2.1589	0.2073	<.0001
cz	PT	-2.3108	0.2885	<.0001
cz	FT	0.1770	0.1921	0.3566
dk	PT	-0.6125	0.2733	0.0250
dk	FT	1.3823	0.2270	<.0001
ee	PT	-1.9280	0.2957	<.0001
ee	FT	0.8092	0.1959	<.0001
es	PT	-0.6390	0.2032	0.0017
es	FT	1.2628	0.1800	<.0001
fi	PT	-1.6492	0.2595	<.0001
fi	FT	0.5677	0.1962	0.0038
fr	PT	-0.0664	0.1987	0.7384
fr	FT	1.0914	0.1820	<.0001
gr	PT	-0.6435	0.2365	0.0065
gr	FT	1.5397	0.1943	<.0001
hu	PT	-2.7888	0.3013	<.0001
hu	FT	-0.0996	0.1871	0.5944
ie	PT	-0.2924	0.2190	0.1819
ie	FT	0.7787	0.1969	<.0001
it	PT	-0.2528	0.1928	0.1898
it	FT	1.3041	0.1756	<.0001
lt	PT	-2.1585	0.4598	<.0001
lt	FT	1.5141	0.2231	<.0001

Lu	PT	0.2542	0.1711	0.1374
lu	FT	1.5574	0.1525	<.0001
lv	PT	-1.4240	0.3116	<.0001
lv	FT	1.1587	0.2121	<.0001
nl	PT	1.6391	0.2237	<.0001
nl	FT	0.8719	0.2220	<.0001
no	PT	0.2838	0.2571	0.2697
no	FT	2.1216	0.2255	<.0001
pl	PT	-1.1300	0.2081	<.0001
pl	FT	1.1869	0.1777	<.0001
pt	PT	-0.3711	0.3172	0.2420
pt	FT	3.0314	0.2263	<.0001
se	PT	0.5491	0.2332	0.0185
se	FT	1.4971	0.2173	<.0001
si	PT	-1.2052	0.3643	0.0009
si	FT	2.4235	0.2248	<.0001
sk	PT	-1.7320	0.3328	<.0001
sk	FT	1.8407	0.1999	<.0001
uk	PT	0.0595	0.1985	0.7644
uk	FT	0.4545	0.1857	0.0144
is	PT	-0.2505	0.2793	0.3698
is	FT	1.4229	0.2390	<.0001
Observations	25615			

Source: EU-SILC, 2006 cross-section database, authors' calculations.

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