DemoSoc Working Paper

Paper Number 2012--47

Do Women in Female-Dominated Occupations Exit The Labour Market More? Evidence From Italy, Spain, Denmark and The Uk

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May, 2012

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Abstract

Literature on sex occupational segregation has typically focused on the micro and macro determinants of it, on mobility patterns over the life course, on implications of segregation and mobility for gender inequalities. Rarely the link between sex-type occupations and women’s risk of labour market interruptions over family formation has been explored. In this piece of work we shall analyse whether women who are working in female-dominated, male-dominated or integrated occupations have more or less chances to remain attached to the labour market, controlling for qualifications, class, sector and contract positions. By drawing from ECHP, and comparing Italy, Spain, Denmark and the UK, we shall in particular see whether such connection varies across countries with different institutional and cultural configurations.

We find that, ceteris paribus, only in the UK the sex-composition of an occupation matters: women in female occupations are more likely to move to inactivity than women in mixed or male occupations. In the other countries considered the main cleavages lie elsewhere. In Italy what matters most is the sector of employment (public vs. private). In Spain the sector is relevant too, but also social class and the type of contract held (permanent vs. temporary). In Denmark women’s transitions to inactivity are largely independent of human capital and job characteristics.

Keywords
Sex occupational segregation, female employment interruptions, public sector, type of contract, ECHP

Acknowledgements

We acknowledge financial help from the Spanish government (grant CSO2008-03222). Also we would like to thank the Demosoc Research Group for the stimulating discussions and the useful advices in the use of ECHP during our staying at Pompeu Fabra, in March 2010.
1- Introduction

In the second half of the twentieth century, women’s employment rates increased in all advanced countries, largely due to the behaviour of married women and mothers. As compared with their mothers and grandmothers, younger women not only entered the labour market to a larger extent, they also exited in much smaller numbers, or shortened their family-care breaks. Although these trends have occurred everywhere, there is considerable variation across countries in the extent to which, and for whom, women’s employment patterns over the life course have changed (e.g.: Blossfeld and Drobinc 2001). The types of adjustment women make around family formation vary depending on a complex set of resources, material and symbolic, to which women and couples have access in different countries: resources of human capital, income, and time; and resources furnished by the women themselves, their partners, kinship networks or the state (through reconciliation measures). Moreover, the types of adjustment depend on women’s position in the labour market: their class, type of contract, and sector of employment.

A question that has been less explored in the literature is the impact of occupational segregation, which stands for another cleavage in the labour market. Rarely has the question been addressed as to whether women who are working in a female, male or mixed occupation, have, ceteris paribus, greater or fewer chances of remaining attached to paid work over family formation (Trappe and Rosenfeld 2004; Stier and Yaish 2008).

In this chapter we analyse the link between the sex-type of occupations and women’s probability of employment interruption. By drawing from the European Community Household Panel (ECHP, 1995-2001), we study whether such a link varies across Spain, Italy, Denmark and the UK, i.e., countries with different labour markets, welfare policies and gender norms. Given that we are interested in movements related to the gender allocation of family responsibilities, we concentrate on women aged 18-45 who have finished full-time education, and who are of childbearing age and who, therefore, can potentially form a family. We model their probability of moving from paid work to housework. Our aim is to capture how much of this probability depends on the sex-type of the occupation the woman is in, controlling for her family situation, education, class, contract, sector of employment (private vs. public), and hours worked. More generally, we ask: What are the main cleavages segmenting the female labour force in these countries: is it occupational segregation, class, hours worked, the sector of employment or the nature of the contract (permanent vs. temporary)? How does the salience of these different cleavages relate to the institutional and cultural setting of each country? More specifically we ask: Do Mediterranean countries stand out from the rest and are there also differences among them?

1 For a review of the debate surrounding the various factors affecting women’s employment continuity see Solera 2009, Chapter two.
2- The theoretical debate

Classical accounts of women’s labour market participation have not theorised explicitly on the relationship between occupational sex segregation, employment continuity and family formation, but we can deduce their conclusions in this regard easily. There are two leading “classical” approaches to explaining occupational sex segregation: the human-capital perspective, and the employers’ discrimination perspective. The first offers a supply-side explanation which focuses on the individual’s preferences and rational maximisation of income over the life course. Women who are family-oriented and/or are aware of traditional gender allocations of domestic and care responsibilities anticipate intermittent labour force participation and so self-segregate into “women’s jobs”. Even though these jobs are less paid and qualified than others, women prefer them because they impose lower penalties for intermittent employment (Polachek 1985).

The second perspective offers a demand-side explanation. For employers, either because they prefer one sex to the other (“taste discrimination”) or because they believe that workers of one sex or the other are more costly or less profitable to employ (“statistical discrimination”), it is rational to segregate the workforce into occupations of unequally valued skills and of unequal turnover costs (Bielby and Baron 1986). Although pointing at different underlying mechanisms, these two classical accounts yield the same prediction on the link between occupational sex segregation, employment continuity and family formation: women in female-dominated occupations are expected to exit the labour market more around family formation than women in male or mixed occupations.

These two conventional accounts have been criticised on many grounds. First, it has been shown that women with more continuous employment histories are not more apt to be in predominantly male occupations than women with intermittent work histories. Also, the earnings of women in predominantly female occupations do not have lower penalties for intermittent participation (England 1982). Choices of certain levels and types of education do not reflect preferences for future combinations of paid and unpaid work. Rather -it is counter argued- they reflect shared transmitted or negotiated views of gender roles and definitions of what is masculine and feminine (Bielby and Bielby 2002;). Similarly, on the demand-side, segregation is maintained by social norms regarding what jobs are appropriate for men and women. Also, there is a process of cultural devaluation of predominantly female activities independently of the sex of the incumbent: men in feminised occupations have lower rewards than men in integrated and male occupations and, as the percentage of men in an occupation increases, wages rise (Reskin and Bielby 2005). Socialisation, “doing-gender”, and cultural devaluation theories develop explanations of occupation segregation that are very different to the ones based on conventional economic accounts. Yet their prediction is similar: Women working in female-dominated occupations do not necessarily have less commitment and effort, but they do suffer worse working conditions. As a result, these women have weaker labour market attachment than women in more rewarding jobs.
Cross-country comparative research highlights another weakness of conventional accounts: the assumption that everywhere female occupations are worse than male or mixed occupations. Female-typed occupations also include clerical and professional jobs in public administrations. In some countries, such as the Scandinavian ones, the public sector accounts for nearly half of female and mixed occupations. These public sector jobs might not offer high incomes, but they offer “good jobs” in other respects: protection, time flexibility, shorter working hours, and good opportunities for promotion (Gornick and Jacobs, 1998; Okun et al., 2007). That is, they offer a career ladder with stability and family-friendly working conditions; as a result, these jobs encourage women’s continuous labour market attachment (Solera and Bettio in this book).

On the other hand, there are female jobs in the private sector, which do not offer such favourable conditions and are precarious and badly paid. Still, they can offer flexible or reduced working hours, and/or easy transitions between jobs, all of which can have reconciliation returns. For example, Taniguchi and Rosenfeld (2002) have shown that the sex-type of occupation has a positive impact on women’s attachment over the life course: a higher percentage of women in an occupation is associated with a slower rate of employment exit. On the basis of this finding, a different prediction can be derived: since female-dominated occupations tend to offer family-friendly conditions, especially in public sector jobs, women in female-dominated occupations have the lowest risk of exiting the labour market.

Cross-country comparative research has also highlighted the fact that the crucial issue is not so much horizontal segregation but vertical segregation and labour-market segmentation. The sex-type of the occupation is not the main line of division in the labour market everywhere and in the same way. Employment and occupation-related conditions and achievements vary across education and skills groups, classes, and the part-time/full-time, public/private, temporary/permanent divisions. These latter divisions might overlap with the sex-typed divisions. Occupational segregation may be less relevant than the difference between public and private employment. The qualification, responsibility and satisfaction in a job might overcome the disadvantages resulting from not being family-friendly, encouraging women continuity. For example Stier and Yaish (2008) find that in Israel stability of employment is higher in both female and male-type occupations (than in mixed-type occupations). The fact that male-dominated occupations are more demanding and rewarding implies that female incumbents tend to interrupt work less often.

Cross-country comparative research also shows that the degree to which education, class, sector or contract polarise women’s labour market continuity depends on how the work-family combination is culturally accepted and institutionally supported. The relative risk of interruption is connected to the type of jobs and segment of the labour market in which women work (e.g.: Saurel-Cubizolles et al, 1999; Bratti et al, 2004). This connection is strong in countries with few policies intended to “defamilialize” caring responsibilities and child costs, and where gender norms are traditional (Gornick and Meyers 2003, Naldini
and and Saraceno 2011). By adopting an institutional perspective, the prediction changes: *each national labour market is segmented along different lines; and women’s labour market position has greater salience in countries where universal reconciliation policies are weaker and there is not a general acceptance of mothers’ labour market participation.*

3- **Italy, Spain, Denmark and the UK: different contexts**

Italy, Spain, Denmark and the UK have different levels of female employment, and the characteristics of their female labour force are also different. In 1995, the year when our observational window with the ECHP data opens, women’s activity rates ranged from 74 percent in Denmark to 66 percent in the UK to around 43 percent in Italy and 45 percent in Spain (OECD 2001). The level of education achieved made a difference in terms of activity rates everywhere, but especially in the Mediterranean countries (OECD 2002). Italy and Spain exhibit an “opt in/opt out” participation pattern: fewer women than in Denmark and the UK start a labour market career, especially if low-educated and in older cohorts, but among those who do, the majority pursue full-time continuous participation. Continuous participation is also the norm in Scandinavian countries; almost all women have worked at sometime. In contrast, discontinuous employment around childbearing has been the typical pattern in the UK, where the age of the youngest child affects strongly women’s labour market participation. However, younger women have increased their labour-market attachment by reducing exits (especially the highly educated) or, if exiting, by returning to work more often between births and more quickly after childbearing (Solera 2009; EIGE 2011; Fondazione Brodolini 2011).

Female labour market continuity is not only influenced by education. First of all, the position in the public sector is crucial (Bettio 2002). The public sector has offered women job opportunities in fields such as education, health and social services. It has also typically offered stable jobs with conditions that have enhanced work-family compatibility with relatively little wage penalty, although they have contributed to maintaining the gender wage gap and gender segregation (Gornick and Jacobs 1998; Mandel and Semyonov 2006). In Denmark, as in other Scandinavian countries, one of the reasons why continuous participation is the norm is the large share of feminised work within the public sector, which accounts for nearly half of female and mixed occupations.

In Denmark continuous participation is also guaranteed by the existence of universal reconciliation policies, especially in the form of childcare services. As far as maternal and parental leave schemes are concerned, Denmark is in an “intermediate” position among comparable developed countries. By contrast, childcare rates and quality are the highest (Grunow and Leth-Sørensen 2006). In 2000 64% of children under three were in formal childcare services, compared to 34% in the UK and only around 7% in Italy and 5% in Spain, although in Spain, over the last decade, care policies towards children have advanced more than in Italy (Jurado and Naldini 2009; in this book). Also the so-called flexi-security of
the Danish system (that is, the combination of high levels of labour market flexibility and trade openness with high levels of social security and social services) helps keep women in the labour market. Flexi-security and generous family policies translate into a high rate of transitions between work, education, family care and leisure which rarely imply complete withdrawals from the labour market (Madsen 2002; Grunow and Leth-Sørensen 2006).

The UK offers quite a different picture. Compared to Denmark, it has similar female employment rates among the highly educated, and a similar degree of gender segregation (Bettio and Verashchagina 2009, table A1). Yet, in the UK tertiarisation has not been driven by the state, as in Denmark, but by the market; it has entailed less employment and pay protection, stimulating the growth of low-paid feminised part-time employment (Crouch 1999). In 1995 in the UK part-time employment accounted for 44% of female employment vs. 35% in Denmark (European Commission 2007, Annexe 2). Part-time employment has expanded within a liberal family policy framework with limited childcare policies. In the 1990s British maternity policy benefits were among the lowest in Europe and, until 2003 there were no statutory provisions for it (Plantenga and Remery 2005). Conservative governments understood childcare arrangements as a private matter. New Labour launched the National Childcare Strategy in 1998 but the main achievement has been a tax-credit system aimed at low- and middle-income families (Lewis 2003). With this liberal policy framework, being able to have a continuous career around motherhood depends on own resources (Solera 2009). In the UK in the 1980s and 1990s the difference between highly-educated women in high–income jobs and women with low education qualifications in low-paid jobs increased; the latter take more and longer breaks, and return to employment through part-time jobs more often (Dex et al. 1998; Solera 2009). In the absence of universal and generous reconciliation policies, in the UK part-time work has been the facto reconciliation strategy for many women, especially the low-educated. Yet, part-time employment forms a secondary labour market in itself (O'Reilly and Fagan 1998).

In Italy and Spain tertiarisation and gender segregation has followed another path. Tertiarisation has arrived later than in Northern Europe and it has been partial. Also, tertiarisation has been limited by a family-centred welfare regime, which has inhibited the externalisation of female-intensive goods and services (Bettio and Villa, 1998). In these countries there has traditionally been the widest employment rate gap between highly and poorly educated women, as well one of the largest gaps, by level of education, of public sector employment among working women (Solera and Bettio in this book). Simultaneously, there is a low level of gender segregation. At least until the 1990s, fewer women worked in Mediterranean countries than in Northern European countries, but those who worked were highly self-selected: they were the highly educated and/or the ones who could enter in the public sector.

In Italy and Spain the public sector is smaller than in Denmark, but it is still a major employer of the female labour force. Given the weak demand of high qualifications in the private labour market, and the scarce universal reconciliation.
policies, the convenient work-family conditions in the public sector, have been particularly attractive for highly educated women, especially in Italy (Solera and Bettio in this book). Among the convenient work-family conditions stands out the *de-facto* short full-time workday given the relatively little diffusion of part-time jobs: in 1995 part-time employment accounted for only 6-7% of total employment in Italy and Spain (European Commission 2007, Annex 2).

In Italy and Spain there is also a cleavage distinguishing the informal and official sectors, small and big firms, and employees vs. self-employed workers. In the post-war decades, work protection was built around the industrial worker, typically a man with a full-time and permanent contract. This Fordist regulation left large sectors of the population unprotected. The deregulatory reforms of the 1980s and 1990s further eroded employment protection for new entrants and deepened the segmentation of the labour force (Barbieri 2009; Polavieja, 2005). Segmentation by type of contract is particularly relevant in the Spanish labour market. In 1995 in Spain fixed-term contracts accounted for 35% of employees, compared to 11% in Denmark and 7% in Italy and the UK (European Commission, 2007, Annexe 2). Women and young people have been particularly affected by this flexibilisation. But the worker’s level of education has an important effect in this regard: for the better-educated workers temporary contracts tend to be stepping-stone, whereas low-educated workers tend to remain entrapped in them (Casquel and Cunyat 2005; Barbieri and Scherer 2009).

Denmark, Italy, Spain and the UK differ not only in the structure and regulation of the labour market and in the reconciliation policies in place. They also differ in terms of the gender norms regarding the division of domestic and care work. The harmonised European Time-Use Survey (HETUS) of 14 countries reveals that the narrowest gender gap in the amount of daily time spent on unpaid work among dual-earner couples is in Spain and Sweden (together with Belgium and France). There the gap stands at roughly one and a half hours, rising to two and a half hours in the UK and to four hours in Italy (Fagan 2010). According to other data, in Denmark, as in Sweden, fathers’ time devoted to unpaid work, as well as fathers’ take up rate of leaves, is one of the highest in Europe (Esping-Andersen *et al.* 2007).

Attitudes seem to go in the same direction as behaviour and policies. Attitudinal data from the 1990s show that in Britain there is a high level of agreement with the opinion that married women without small children should work full-time, the level of agreement drops markedly when children are young. In Scandinavian countries approval of mothers’ involvement in full-time paid work is general. By contrast, in Italy gender and education polarise attitudes strongly. According to the cluster analysis performed by Treas and Widmer (2000) on the basis of the 1994 ISSP, if only men were considered, Italy falls into a “motherhood-centred” attitudinal regime; whereas, if only women were considered, it would fall into the “work-oriented” regime, as Nordic countries do. By taking the overall population, Spain in the 1990s would fall in the “motherhood-centred” category. Yet, as shown by Naldini and Jurado (in this book), in the last decade Spain has moved
away from Italy in gender models, having witnessed strong changes in approval of mothers’ involvement in paid work and fathers’ involvement in unpaid work.

In the light of these cross-country differences we expect the liberal British labour market to be strongly segmented by gender and part-time. The risk of employment interruptions should be higher for women working in female dominated occupations because they form a secondary segment of the labour market in the UK. In the UK, where support for reconciliation is minimal and intergenerational family solidarity is weaker than elsewhere (such as in Spain and Italy), class also should mark a strong difference. In the other countries, sex-type of occupation should matter less, *ceteris paribus*, in shaping women’s exits from employment. In Italy the main line of division is expected to arise from the sector of employment (public vs. private) and, in Spain, by type of contract (temporary vs. permanent). In Denmark, where maternal employment is fully accepted and there is “flexi-secured” work arrangements that are not segmented along occupation lines, we expect women to remain attached to paid work regardless of their position in the labour market.

4- Data and variables

Our empirical analyses are based on the European Community Household Panel (ECHP) from 1995 to 2000.\(^2\) Our sample consists of non-student women aged between 18 and 45 at any given wave in the observational window –that is, they are women in a moment in their life course when family formation, and in particular childbirth, is possible. Since we are interested in transitions related to the gender division of family responsibilities, our dependent variable indicates whether the respondent moved from work to inactivity in the following year, disregarding movements from work to unemployment. Moreover, as shown by Bernardi (1999), the latter respond to different causal mechanisms.

We analyse transitions from work to inactivity without worrying about their parity number. Clearly, over the life of the panel a woman can experience more than one transition from work to inactivity but most women experience just one during the observation period.\(^3\) In addition, trying to distinguish between first and higher-order transitions would be misleading because the ECHP is left-censored: we do not have any information on what happened before the observation period started. What we would label as first transition could actually be the second or third one in the life course of the woman.

Although we are interested in the labour market behaviour of women who are in a position to form a family, we do not restrict our sample only to women in partnerships or to women who give birth. There are two reasons for this. First, we

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\(^2\) The ECHP starts in 1994 but one of the covariates, whether the respondent’s contract is fixed-term or permanent, is missing in 1994. We also lose 2001, the final year in the ECHP, because our dependent variable is a lead dummy.

\(^3\) Table available on request.
want to avoid the sample selection problems inherent in research that studies only specific groups of women. As Drobnic argues (2000), if we analyse data on only women with children, or only married women, it is not possible to distinguish the impact of other factors that may affect all women similarly. Second, reducing the sampling size would negatively affect the statistical analysis of countries with a small number of transitions from work to inactivity because in countries such as Denmark continuous employment is, by far, the norm.

Table 1 shows the sample size and descriptive statistics for the outcome variable. The UK is the country where there were more transitions from work to inactivity on average in the period considered (1995-2000): almost 6.5% of all person-year observations. In Spain the corresponding figure was 4.9% and in Italy 3.9%. As expected, the Danish case is in stark contrast: only 1.3% of the person-years made the transition. Thus, the two countries with the highest rates of labour market participation among the sampled women (66.6% and 80.9% in the UK and Denmark, respectively, in 1995), and of permanent presence in work over the observational period, have an opposing pattern in terms of the probability of exiting from the labour market. In Italy and Spain an “opt in/opt out” participation pattern emerges: 33.8% of women in Italy and 27.3% in Spain have never worked in the years we observe. All these figures are in line with what previous studies on women’s labour market entry and permanence over the life course in the different countries have shown, as mentioned in section two.

As mentioned earlier, our interest lies in the effect of the sex-type of the occupation a woman has on her probability of moving to inactivity. This variable is operationalised in three groups: male-dominated, integrated and female-dominated occupations. Male occupations have a workforce whose percentage female is ten percentage points below the average percentage female in the labour force; feminised occupations have a percentage female that is ten percentage points higher; integrated occupations are in-between both.

In order to test whether the effect of sex-type remains after controlling for other relevant lines of divisions in the labour market, other variables on the women’s position in the labour market are included in the models: class (proxied by grouping the original 18 occupational categories into four categories: high professionals, associate professionals, routine white collars, manual workers in the industrial sector or unskilled service sector), public sector (public employee, private employee, self-employed), type of contract (permanent vs. temporary)

\footnote{Among British women present in seven or more waves, 38.4% were observed in work always vs. 50.2% among Danish women.}

\footnote{The percentage female of occupations and of the labour market was derived by using the 1995 European Union Labour Force Surveys (EU-LFS) and merging the information with the ECHP dataset. We have checked that the feminisation of occupations remains largely stable during the observation period. Had we constructed a time-varying variable for percentage female, it would have been impossible to identify the effect of a change in occupation from the effect of occupations changing percentage female over time.}

\footnote{We use the ECHP instead of the more recent EU-SILC because the ECHP has 8 years and the EU-SILC only 4. Also, the ECHP, unlike the EU-SILC, offers information on sector of employment (public or private). As our results show, in many countries the public/private divide is...
and working time (full-time vs part-time). In the regression models we also include labour market experience (years since first job), education level, net income (logged) and family situation (number and age of children and whether the woman is in a partnership and, if she is, the education level of the partner\(^7\)). Table 2 provides descriptive statistics for all the covariates included in the models.

### Table 1. Descriptive statistics of observations and transitions from work to inactivity

<table>
<thead>
<tr>
<th>Panel 1. Observations</th>
<th>Denmark</th>
<th>Italy</th>
<th>Spain</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>N women</td>
<td>1,645</td>
<td>3,168</td>
<td>3,433</td>
<td>2,894</td>
</tr>
<tr>
<td>N women-year</td>
<td>5,932</td>
<td>12,192</td>
<td>10,983</td>
<td>11,934</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel 2. Transitions from work to inactivity (percentage in brackets)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N women-year in work not making the transition from work to inactivity</td>
</tr>
<tr>
<td>N women-year in work making the transition from work to inactivity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel 3. Permanence in the labour market Women present in 7-8 waves (column percentages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never in work</td>
</tr>
<tr>
<td>Always in work</td>
</tr>
<tr>
<td>Changed between work and non-work</td>
</tr>
<tr>
<td>N total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel 4. Women’s economic activity in 1995 (Column percentages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In work</td>
</tr>
<tr>
<td>Unemployed</td>
</tr>
<tr>
<td>Inactive</td>
</tr>
<tr>
<td>N. total in 1995</td>
</tr>
</tbody>
</table>

*Note:* Women aged 18-45 (students excluded)

*Source:* ECHP individual data; authors’ calculations.

\(^7\) Other information on the partner could have been included, such as his employment status or income. Yet, this would have increased parameters to estimate in a context of quite small sample sizes. Since the role of partner in pushing or preventing women’s exits from the labour market is not the focus of this paper, and since there is abundant evidence that, over time, a partner’s characteristics have lost relevance in favour of women’s own characteristics (Blossfeld and Drobinc 2001), this exclusion should not be a problem.
Table 2. Descriptive statistics of covariates in the regressions for women in work in 1995 (column percentages for each variable; means for years since first job and log income)

<table>
<thead>
<tr>
<th></th>
<th>Denmark</th>
<th>Italy</th>
<th>Spain</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Human capital - education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Tertiary educated</td>
<td>53.94</td>
<td>12.64</td>
<td>43.37</td>
<td>49.83</td>
</tr>
<tr>
<td>- not tertiary educated</td>
<td>46.06</td>
<td>87.36</td>
<td>56.63</td>
<td>50.17</td>
</tr>
<tr>
<td><strong>Human capital - labour market experience</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Average years since first job</td>
<td>15.35</td>
<td>12.07</td>
<td>12.66</td>
<td>13.73</td>
</tr>
<tr>
<td><strong>Children - age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- no children</td>
<td>24.38</td>
<td>49.22</td>
<td>50.4</td>
<td>55.62</td>
</tr>
<tr>
<td>- youngest child is 0-2 years</td>
<td>16.50</td>
<td>10.86</td>
<td>8.35</td>
<td>11.2</td>
</tr>
<tr>
<td>- youngest 3-5</td>
<td>16.94</td>
<td>11.89</td>
<td>12.53</td>
<td>8.85</td>
</tr>
<tr>
<td>- youngest 6-15</td>
<td>29.34</td>
<td>28.03</td>
<td>28.72</td>
<td>24.33</td>
</tr>
<tr>
<td><strong>Children - number</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Number of Children (mean in 1995)</td>
<td>1.07</td>
<td>0.84</td>
<td>0.97</td>
<td>1.02</td>
</tr>
<tr>
<td><strong>Partner</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- No partner</td>
<td>23.62</td>
<td>36.99</td>
<td>43.08</td>
<td>37.32</td>
</tr>
<tr>
<td>- Has partner; with less than tertiary education</td>
<td>46.06</td>
<td>55.08</td>
<td>38.60</td>
<td>37.11</td>
</tr>
<tr>
<td>- Has partner; with tertiary education</td>
<td>30.32</td>
<td>7.93</td>
<td>18.32</td>
<td>25.57</td>
</tr>
<tr>
<td><strong>Sex - type of occupation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- male</td>
<td>9.82</td>
<td>16.03</td>
<td>10.40</td>
<td>19.14</td>
</tr>
<tr>
<td>- integrated</td>
<td>30.42</td>
<td>28.20</td>
<td>27.33</td>
<td>23.43</td>
</tr>
<tr>
<td>- female</td>
<td>59.76</td>
<td>55.77</td>
<td>62.27</td>
<td>57.43</td>
</tr>
<tr>
<td><strong>Class</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- High professionals</td>
<td>17.15</td>
<td>12.06</td>
<td>23.08</td>
<td>24.33</td>
</tr>
<tr>
<td>- Associate professionals</td>
<td>24.60</td>
<td>13.73</td>
<td>10.77</td>
<td>15.06</td>
</tr>
<tr>
<td>- Routine white collar</td>
<td>44.55</td>
<td>46.41</td>
<td>42.49</td>
<td>48.86</td>
</tr>
<tr>
<td>- Manual workers</td>
<td>13.70</td>
<td>27.80</td>
<td>23.66</td>
<td>11.75</td>
</tr>
<tr>
<td><strong>Sector</strong></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Self-employment</td>
<td>3.59</td>
<td>15.60</td>
<td>14.07</td>
<td>5.60</td>
</tr>
<tr>
<td>Private employee</td>
<td>43.43</td>
<td>52.91</td>
<td>59.03</td>
<td>64.10</td>
</tr>
<tr>
<td>Public employee</td>
<td>52.98</td>
<td>31.40</td>
<td>26.90</td>
<td>30.30</td>
</tr>
<tr>
<td><strong>Contract (among employees)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permanent</td>
<td>84.80</td>
<td>86.20</td>
<td>55.60</td>
<td>91.9</td>
</tr>
<tr>
<td>Temporary contract</td>
<td>15.20</td>
<td>13.80</td>
<td>44.40</td>
<td>8.10</td>
</tr>
<tr>
<td><strong>Full-time/part-time</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time job</td>
<td>86.20</td>
<td>90.50</td>
<td>85.10</td>
<td>71.80</td>
</tr>
<tr>
<td>Part-time job</td>
<td>13.80</td>
<td>9.50</td>
<td>14.90</td>
<td>28.20</td>
</tr>
<tr>
<td><strong>Mean log of net income equivalised</strong></td>
<td>2.50</td>
<td>1.97</td>
<td>1.48</td>
<td>2.5</td>
</tr>
<tr>
<td><strong>N. total in 1995</strong></td>
<td>927</td>
<td>1,741</td>
<td>1,365</td>
<td>1,447</td>
</tr>
</tbody>
</table>

*Note:* Women aged 18-45 (students excluded)

*Source:* ECHP individual data; authors' calculations.
5- The profile of sex-type of occupations

Table 2 includes the distribution of women in work across the four categories of class; the modal class is common to all countries: around 42% to 49% of the sampled women work in clerical occupations. Yet, the occupation-cum-class distribution shows some distinctive national trends. Spain and the UK have the highest percentage of women in the high professions (24% in both cases). Instead, the distinctive feature of Denmark is the high percentage of women in the associated professions, reflecting the importance of employment in teaching and health in this country. In fact, Denmark stands out as well because more than half its sample was employed by the state. On the other hand, in Italy and Spain, around one quarter of the sampled women work in manual occupations; whereas only around 1 in 8 women in Denmark or the UK do so.

Table 2 also includes the distribution of sampled women through sex-typed occupations, which is remarkably similar across countries: there is a 10-30-60 distribution through male, integrated and female occupations in terms of percentages. Instead, Table 3 shows that the class composition of female, male and integrated occupations has some commonalities across countries but also some distinctive profiles. First, in all countries white-collar occupations are the most common in the female sex-type. Also in all countries integrated occupations consist predominantly of teaching and health occupations; in Italy, however, they also include a large share of clerical services. More interestingly, a divide between Southern and Northern Europe emerges. On the one hand there are Spanish and Italian women in male occupations who work, almost exclusively, in the manual sector. In the main, these are occupations to do with the most menial jobs in sales. Instead, in Northern European countries women in male occupations are also found in professional occupations.

The rest of the work-related variables show important differences among countries (Table 2), signalling different ways in which their labour markets are structured and segmented. As said earlier, Denmark stands out because more than half its sample was employed by the public sector in 1995. Spain is an outlier in relation to the percentage of fixed-term contracts (44.3% of the sampled women in 1995). Also, Spain, together with Italy, stands out in relation to their levels of self-employment (14-15% vs. 4-6% in Northern Europe). Finally, the defining characteristic of the UK is its high percentage of part-time contracts (28% of our women).
Table 3. Class composition of sex-type of occupations for women working in 1995 (Column percentages within each sex-type)

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Integrated</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Denmark</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- High professionals</td>
<td>53.85</td>
<td>39.01</td>
<td>0</td>
</tr>
<tr>
<td>- Low professionals</td>
<td>0</td>
<td>46.81</td>
<td>17.33</td>
</tr>
<tr>
<td>- Routine white collar</td>
<td>0</td>
<td>0</td>
<td>74.55</td>
</tr>
<tr>
<td><strong>N. total in 1995</strong></td>
<td>91</td>
<td>282</td>
<td>554</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Integrated</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Italy</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- High professionals</td>
<td>7.17</td>
<td>13.85</td>
<td>12.56</td>
</tr>
<tr>
<td>- Low professionals</td>
<td>0</td>
<td>48.68</td>
<td>0</td>
</tr>
<tr>
<td>- Routine white collar</td>
<td>0</td>
<td>29.53</td>
<td>68.28</td>
</tr>
<tr>
<td>- Manual workers</td>
<td>92.83</td>
<td>7.94</td>
<td>19.16</td>
</tr>
<tr>
<td><strong>N. total in 1995</strong></td>
<td>279</td>
<td>491</td>
<td>971</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Integrated</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spain</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- High professionals</td>
<td>7.04</td>
<td>46.65</td>
<td>15.41</td>
</tr>
<tr>
<td>- Low professionals</td>
<td>0</td>
<td>39.41</td>
<td>0</td>
</tr>
<tr>
<td>- Routine white collar</td>
<td>0</td>
<td>0</td>
<td>68.24</td>
</tr>
<tr>
<td>- Manual workers</td>
<td>92.96</td>
<td>13.94</td>
<td>16.35</td>
</tr>
<tr>
<td><strong>N. total in 1995</strong></td>
<td>142</td>
<td>373</td>
<td>850</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Integrated</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UK</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- High professionals</td>
<td>55.96</td>
<td>35.1</td>
<td>9.39</td>
</tr>
<tr>
<td>- Low professionals</td>
<td>0</td>
<td>64.31</td>
<td>0</td>
</tr>
<tr>
<td>- Routine white collar</td>
<td>0</td>
<td>0</td>
<td>85.08</td>
</tr>
<tr>
<td>- Manual workers</td>
<td>44.04</td>
<td>0.59</td>
<td>5.54</td>
</tr>
<tr>
<td><strong>N. total in 1995</strong></td>
<td>277</td>
<td>339</td>
<td>831</td>
</tr>
</tbody>
</table>

*Note: Women aged 18-45 (students excluded)*

*Source: ECHP individual data; authors' calculations.*

Figure 1 gives a general profile of the demographic composition of sex-typed occupations by using the shares of all workers (16-65 age group) in each type that are tertiary educated, in the highest class made of professional occupations, that are working part-time or with a temporary contract. Summarising, we observe that everywhere tertiary educated or high-class workers tend to be employed in integrated occupations, although to a larger extent in the UK and to a lesser extent in Italy. The public sector is a distinctive feature of both female and integrated occupations in Denmark (half of the workers in these sex-typed occupations are employed by the public sector) and in the UK (30%). In Mediterranean countries 30% (in Spain) to 40% (in Italy) of workers in female occupations are employed by the public sector, less for integrated occupations. Part-time contracts are a distinctive feature of female occupations everywhere. By contrast, fixed-term contracts do not differentiate female from male and integrated occupations, except in Spain, where they are widespread in male occupations.
Summing up, everywhere integrated occupations are the “best” in terms of job quality. And, everywhere workers in female occupations are concentrated in routine white collar and manual occupations. However, the manual component weighs the most in Spain and the least in Italy. Indeed, in Italy female occupations are fewer but better than in other countries: half of them are clerks. Moreover, in Denmark and especially in the UK one out of two manual workers is in a female occupation. In this sense female occupations are worse than male and mixed occupations. Instead, in Mediterranean countries male occupations are the worst in terms of the education and class profile of their incumbents. Indeed, whereas in Denmark and the UK male occupations include a quite equal share of manual and professional occupations; in Italy and Spain manual jobs account for more than 80% of male occupations. Finally, everywhere part-time is concentrated in female occupations, except in Italy where an equal share is in integrated occupations.

Figure 1. The profile of sex-type of occupation by education, class, sector, and contract (All workers 16-65; % within female, integrated and male occupations)
6- Moving from employment to inactivity

The effect of sex-type of occupation and class

Table 4 runs random-intercept logistic models on the probability that the woman is out of the labour market, given that the year before she was employed. In particular it runs, for each country, three models: model one with only the sex-type of the occupation as labour-market variable; model two includes also the other labour market variables; model three includes all labour market variables except sex-type. This three-model strategy allows us to determine whether the effect of sex-type changes when other dimensions of the labour market are included (Model 2 vs. 1), and to what extent the effect of sex-type absorbs the effect of class (Model 3 vs. 2).

The main result of the multivariate regressions is that, as expected, the UK is the only country where the sex-type of occupation makes a difference even after controlling for class and other factors. British women who work in female occupations are almost two times more likely to move to inactivity one year later than women in mixed occupations (Model 2 in Table 4). As discussed in Section 4, in the UK, compared to other countries, female occupations are the “worst” while mixed occupations the “best”. Controlling for the effect of sex-type, in the UK class has an effect in itself through manual occupations: the odds of moving to inactivity for women in these occupations are higher than they are for women in other classes.

Ceteris paribus, women in manual jobs have a higher risk of interruption also in Spain and Italy. In Spain before introducing class into the model (Model 1 in Table 4), women in male occupations are about two times more likely to move to inactivity than women in female or mixed occupations. However, with class this effect disappears. In other words, the effect of male-dominated occupations was reflecting the behaviour of women in manual occupations (Model 2). When sex-type is excluded, Spanish women in the higher professions have a lower risk of becoming inactive as compared to women in clerical and manual occupations. It seems that Spanish women at the top of the occupation hierarchy are the most protected against the risk of moving to inactivity. As discussed earlier, Spain is also the country, together with the UK, with the highest rate of women in these top occupations. In a context where social protection is segmented, reconciliation policies scarce, and approval of maternal employment is not general, at least until the 1990s, a self-selection effect is likely to be at work. Highly motivated Spanish women enter top occupations and remain attached to them, “enjoying” the level and quality of these jobs and using high incomes to compensate for the lack of childcare and to legitimise their career investments.

In Italy the only class that seems to behave differently is the manual class, with the odds of moving to inactivity being 47% higher than women working as clerks or as professionals. In Denmark, as expected, neither sex-type nor class matter.
Table 4. Year-on-year transition from work to inactivity - odds ratios

<table>
<thead>
<tr>
<th></th>
<th>Denmark</th>
<th>Italy</th>
<th>Spain</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M1</td>
<td>M2</td>
<td>M3</td>
<td>M1</td>
</tr>
<tr>
<td><strong>Human capital</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ref: less than tertiary)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Has tertiary education</td>
<td>0.46</td>
<td>0.72</td>
<td>0.72</td>
<td>0.35**</td>
</tr>
<tr>
<td>Labour market experience</td>
<td>0.97</td>
<td>0.99</td>
<td>0.99</td>
<td>0.97*</td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ref: no children)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youngest child under 2</td>
<td>1.84</td>
<td>2.69</td>
<td>2.53</td>
<td>2.73**</td>
</tr>
<tr>
<td>Youngest child aged 3-5</td>
<td>1.64</td>
<td>2.29</td>
<td>2.20</td>
<td>1.47</td>
</tr>
<tr>
<td>Youngest child aged 6-15</td>
<td>0.62</td>
<td>0.88</td>
<td>0.84</td>
<td>1.70</td>
</tr>
<tr>
<td>N. children under 15</td>
<td>0.70</td>
<td>0.61</td>
<td>0.63</td>
<td>0.92</td>
</tr>
<tr>
<td><strong>Partner</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Ref: not in partnership)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partner: less than tertiary</td>
<td>0.71</td>
<td>0.72</td>
<td>0.73</td>
<td>3.08***</td>
</tr>
<tr>
<td>Partner: tertiary education</td>
<td>0.53</td>
<td>0.55</td>
<td>0.56</td>
<td>0.85</td>
</tr>
<tr>
<td><strong>Work</strong></td>
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<tr>
<td>(Ref: integrated occupations)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male occupations</td>
<td>1.49</td>
<td>0.84</td>
<td></td>
<td>1.23</td>
</tr>
<tr>
<td>Female occupations</td>
<td>1.26</td>
<td>0.49</td>
<td></td>
<td>1.12</td>
</tr>
<tr>
<td>(Ref: Routine WC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High professionals</td>
<td>0.29</td>
<td>0.57</td>
<td></td>
<td>1.10</td>
</tr>
<tr>
<td>Associate professionals</td>
<td>0.34</td>
<td>0.51</td>
<td></td>
<td>0.80</td>
</tr>
<tr>
<td>Manual workers</td>
<td>0.78</td>
<td>1.14</td>
<td></td>
<td>1.47*</td>
</tr>
<tr>
<td>(Ref: public employee)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private employee</td>
<td>0.87</td>
<td>0.92</td>
<td></td>
<td>2.41***</td>
</tr>
<tr>
<td>Self-employed</td>
<td>4.43</td>
<td>4.31</td>
<td></td>
<td>1.76**</td>
</tr>
<tr>
<td>(Ref: working full-time)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Part-time</td>
<td>3.36**</td>
<td>3.21**</td>
<td></td>
<td>2.15***</td>
</tr>
<tr>
<td>(Ref: permanent contract)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed-term contract</td>
<td>7.73***</td>
<td>7.61***</td>
<td></td>
<td>2.77***</td>
</tr>
<tr>
<td>Log of net income equalised</td>
<td>1.02</td>
<td>0.99</td>
<td></td>
<td>0.77***</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>0.0083***</td>
<td>0.0086***</td>
<td>0.0043***</td>
<td>0.0063***</td>
</tr>
<tr>
<td><strong>Model parameters</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
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<td>Log-likelihood</td>
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<td>-211.23</td>
<td>-211.77</td>
<td>-1255.26</td>
</tr>
<tr>
<td>AIC</td>
<td>490.88</td>
<td>462.46</td>
<td>459.55</td>
<td>2534.53</td>
</tr>
<tr>
<td>Sigma level 2</td>
<td>2.02</td>
<td>1.68</td>
<td>1.67</td>
<td>2.04</td>
</tr>
<tr>
<td>Rho</td>
<td>0.55</td>
<td>0.46</td>
<td>0.46</td>
<td>0.56</td>
</tr>
<tr>
<td>Chi-sq. test</td>
<td>6.19</td>
<td>3.95</td>
<td>4.01</td>
<td>42.24</td>
</tr>
</tbody>
</table>

**Note:** Women aged 18-45 (students excluded); * p<0.05, ** p<0.01, *** p<0.001

**Source:** ECHP individual data; authors' calculations.
The effect of the other labour market variables

In all countries, the variable indicating whether the woman holds a fixed-term or a permanent contract works in the expected direction: women with temporary contracts are more likely to leave the labour market than women with permanent contracts. Also the effect of working part-time or working in the private sector follows a similar pattern in all countries: women in this situation have a higher propensity to move from employment to inactivity. The only exception is Denmark where working in the public or private sector does not matter. As we saw, also class and sex-type of occupation have no effect. In other words, these results, although they need to be taken with caution given the low variability of our outcome variable in Denmark, are in line with the existing literature: they suggest that the Danish labour market has erased most of the dividing lines that typically structure female labour market participation and the latter is less polarized than in other countries.

Instead, these variables have strong effects in the other countries, though to a different degree. In all countries women in the public sector are the most protected from labour market interruptions. Yet, while in Spain and the UK the women more at risk of becoming inactive are the self-employed (especially in Spain), in Italy they are private employees. This is probably due to the large share of family helpers among the self-employed, i.e., women working in small family business. As argued by Bernardi (1999), these family firms offer women the flexibility of combining work and domestic demands.

The effect of family-related variables

In Denmark neither age of children, number of children or marital status differentiate women’s chances of moving to inactivity. The only influence on women’s likelihood of moving from work to inactivity is whether one has a fixed-term or permanent contract and whether one works part-time or full-time. In contrast, and as expected, the UK is the country where the children-related variables have the strongest effect. In Italy and Spain the difference is made before children arrive, in general, that is, it is whether women are in a partnership: partnered women are more likely to exit the labour market than single women, especially if their partner is low-educated. This result signals the permanence of traditional gender models in Mediterranean countries.
7- Conclusions

This paper contributes to the scarce empirical literature investigating the link between occupation sex segregation and employment continuity over the life course. By drawing from the ECHP and comparing different countries, it has explored whether the sex-composition of an occupation matters in relation to women’s likelihood of becoming inactive; or whether other labour market cleavages matter most, such as class, contract, hours worked and sector of employment.

Conventional accounts suggest that female-dominated occupations yield lower rewards and so the costs of moving in and out of economic activity are lowered and, therefore, these occupations suit the requirements of women with family responsibilities. Either because family-oriented women self-select into such occupations or because employers discriminate, such accounts predict that women in female occupations have a higher probability of quitting the labour market. Yet, we have found that, ceteris paribus, during the 1990s only in the UK did the degree of feminisation in one’s occupation influence women’s odds of moving from work to inactivity. In the other countries considered the sex-composition of a job seems not to matter. Instead, the main cleavages lie elsewhere. In Italy what matters most is the sector of employment (public vs. private). In Spain the sector is relevant too, but also social class and the type of contract held (permanent vs. temporary). In Denmark women’s transitions to inactivity are largely independent of human capital and job characteristics.

An institutional account seems appropriate to explain such cross-country variation. In Denmark, where policies and culture support maternal employment and where labour market segmentation is low, women’s decisions seem not to reflect their different locations in the labour market. In a liberal regime such as the UK, the labour market is strongly segmented and the sex-type of occupations is one more cleavage together with class, contract, sector, hours worked and the human capital of women. In familistic regimes like Spain and Italy, where the “extended” family still compensates for the lack of welfare support, women’s probability of becoming inactive is lower than in the UK. Yet, since career opportunities and social protection have been segmented around occupation lines, divisions among women exist: in Italy mainly between public and private employees, in Spain between temporary and permanent employees. As argued by Naldini and Jurado (in this book), Italy and Spain have started to diverge also in social norms: the dual-earner model has become more accepted in Spain than in Italy. This has spilled over into behaviours. We find that less often young Spanish cohorts are permanently excluded from the labour market and more often they reach high classes compared to their Italian counterparts. When they enter the labour market, however, as also shown by Lapuerta (in this book), a higher percentage interrupt. The greater diffusion of temporary contracts without
protections is the main reason for this Spanish finding which contrasts with the Italian case.

References


Bettio, F. and Verashchagina, A. (2009), Gender segregation in the labour market: root causes, implications and policy responses in Europe, European Commission’s Expert Group on Gender and Employment (EGGE), European Commission, Directorate General for Employment, Social Affairs and Equal Opportunities, Unit G1


