



# Retrospective explanation of older women's lifetime work involvement: Individual paths around social norms

Antigone Lyberaki<sup>a</sup>, Platon Tinios<sup>b</sup>, George Papadoudis<sup>c,\*</sup>

<sup>a</sup> Panteion University, Greece

<sup>b</sup> University of Piraeus, Greece

<sup>c</sup> University of Central Greece, Greece

## ARTICLE INFO

### Article history:

Received 21 May 2012

Received in revised form 19 October 2012

Accepted 22 October 2012

### Keywords:

Women employment

Social policy

Ageing

Welfare state

Career pattern

Family pattern

## ABSTRACT

This paper uses the retrospective questionnaire of the SHARE survey of Europeans aged 50+ to document the career dilemmas faced by women in Europe over the last fifty years. It charts how social transformation was directly experienced by survey respondents: First, it documents career differences of two cohorts in four geographical regions. Second, it compares outcomes faced by career women who had 'gone against the flow' in countries where they were in a minority, with women who had taken the same decision where career was, already, a majority choice. Third, it examines how far individual career choice was affected by the operation of the welfare state. To do that, we employ a multivariate econometric model that treats entry into the labour market and career choice as linked decisions, which are affected by individual circumstances, macroeconomic conditions but also by social policy parameters. We conclude that the same degree of past social policy effort appears to operate differently in different places. This is broadly consistent with the existence of distinct kinds of welfare state in the different parts of Europe.

© 2012 Elsevier Ltd. All rights reserved.

## 1. Introduction

The second half of the twentieth century was a time of rapid social transformation. Nowhere were the changes more radical than in women's participation in society and work. Women increasingly claimed a fuller and more active position in all societal functions. Though all parts of Europe and all social strata were affected, this process was unevenly distributed over time and space and was driven by a variety of influences. Such influences could have been structural changes in production, transformations in the function of the family, values and attitudes in what woman's position *ought to be*. This period of rapid change

corresponds to the lifetime of individuals in the SHARE survey. When today's (50 plus) female population were young girls, the world they were entering was very different from today. These long term social changes correspond to lived experience of women in the SHARE sample. The women in SHARE were witnesses to the foundation, flowering and retrenchment of the Welfare State. According to a hopeful reading of history this period may start with 'Three (or more, but separate) Worlds of Welfare Capitalism' and corresponds to the construction of the 'European Social Model'. Social policy stances towards maternity and family policy as well as labour market institutions were defining fissures between certain forms of the so-called 'European Social Model'. This paper is a first attempt to explore how these factors – labour and social policy transformation – are imprinted in the lives of women in the SHARELIFE sample as reflected in

\* Corresponding author. Tel.: +30 6973046631.

E-mail address: [page@netpads.eu](mailto:page@netpads.eu) (G. Papadoudis).

micro-data.<sup>1</sup> The data covers the five most important domains of the life course: children, partners, housing, employment and health in a way that is comparable across Europe (Börsch-Supan & Schröder, 2011). Thus the way is opened to approach a number of research questions possibly for the first time.

This paper utilizes the device of examining groups whose characteristics place them in a *minority* in their own country (women going against the flow), yet who are very similar to majorities in other countries in the SHARE sample. Thus family-centred women who have never worked are the exception in Scandinavia, yet are strongly represented in the South. Conversely career women in the South are uncommon, yet are the majority in the North.

These types of comparisons are useful for fixing ideas and for representational purposes. They can also be used to pose complex questions with clarity (approximating in logic to a controlled experiment): given that the kind of obstacles to employment which are held responsible for low labour participation in the South (child care facilities, income support) were patently available in the North, yet the minority chose traditional roles, what were the factors *still* placing obstacles to their participation?

The questions that this comparison motivates are wider: was it limited availability of service infrastructure (e.g. due to location), a question of values, a reflection of ill health or can we discern vestiges of sex discrimination and insufficiency of financial incentives? Conversely, given that the shortcomings of social services are deemed sufficient to explain persistence of traditional roles for the majority in the South, how did career women cope with the pressures of balancing work and family? Did they have fewer children, did they have access to child care from family resources, or were they forced to work by financial pressure? How did women's own (socially conditioned) preferences affect their choices? What are the outcomes of similar choices in contexts characterised by different social norms? Once we try to control for other factors, did social policy lead or follow developments?

In order to be able to disentangle this many separate effects, it is important to employ a carefully structured multivariate model. The last section of the paper approaches these questions by embedding them in a model explaining labour force entry and length of career as linked decisions. This enables us to examine whether social policy parameters had added effects having allowed for the influence of individual characteristics.

<sup>1</sup> This paper uses data from SHARELIFE release 1, as of November 24th 2010 & SHARE release 2.5.0, as of May 24th 2011. The SHARE data collection has been primarily funded by the European Commission through the 5th framework programme (project QLK6-CT-2001-00360 in the thematic programme Quality of Life), through the 6th framework programme (projects SHARE-I3, RII-CT-2006-062193, COMPARE, CIT5-CT-2005-028857, and SHARELIFE, CIT4-CT-2006-028812) and through the 7th framework programme (SHARE-PREP, 211909 and SHARE-LEAP, 227822). Additional funding from the U.S. National Institute on Aging (U01 AG09740-13S2, P01 AG005842, P01 AG08291, P30 AG12815, Y1-AG-4553-01 and OGHA 04-064, IAG BSR06-11, R21 AG025169) as well as from various national sources is gratefully acknowledged (see <http://www.share-project.org> for a full list of funding institutions).

## 2. Identifying the groups: dominant and atypical patterns

Patterns of female paid work vary hugely in Europe, as do work-care models. Evolving 'models of family' (i.e. the shift away from the male breadwinner model in the direction of dual-earner families – Lewis, 2001) and 'preferences' (home-, work-centred or adaptive – Hakim, 2000, 2004, chap. 1) have been ways of analysing complex trends. At the same time, economists have noticed the existence of two ideal-types which may be rationalized as the result of two equilibria in Europe regarding women's work patterns: a high labour force participation, good social infrastructure and high fertility rates equilibrium characterising Northern countries, and a low participation, low fertility and missing social infrastructure equilibrium characterising Southern economies (Bettio & Villa, 1998; Boeri, 2003; Boeri, Del Boca, & Pissarides, 2005, chap. 1). This brings the welfare state into the discussion as an important influence. Esping-Andersen's welfare state typology (Esping-Andersen, 1990, chap. ix, expanded by Ferrera, 1996 to add the Mediterranean as a distinct type) leads one to expect that patterns of female paid work observe the boundaries of the 'Worlds of Welfare Capitalism'. The exact typology of Esping-Andersen has been questioned in the context of gender (Crompton & Lyonette, 2006; Hobson, 2004; Lewis, Campbell & Huerta, 2008). However, this criticism leaves the geographical division unaffected. The effect of the type of welfare state can be seen indirectly as the underlying cause of inter-country differences, or might be included explicitly through modelling specific areas of intervention of major importance, such as family policies (Ferrera, 2005; Goodin, Headey, Muffels & Dirven, 1999, chap. 1). As Daly (2002) states in reviewing the current state of knowledge, evidence on direct links between policies and particular female labour profiles is still inconclusive (also, Jaumotte, 2003).

The original rise in women's labour force participation took place in times when both dominant gender roles, workplace structures or the family division of labour were not supportive (O'Rand & Henretta, 1999, chaps. 3, 7–9). However, since that time gender roles and expectations have adapted. Hence, the present circumstances of *today's* older people may only be understood by reference to their prior life course (Arber, Davidson & Ginn, 2003). As Morgan and Kunkel (2007, chap. 2) point out, older cohorts of women are more likely to have to depend on survivor benefits, whereas their younger counterparts are more likely to have built up their own social insurance rights.<sup>2</sup>

The SHARELIFE sample of people aged 50+ includes data on 14,859 women. The majority (85%) had some work experience in the past (one third had just one job during their careers); but at the time of the interview only 23% were still working. Almost 14,000 had been married at

<sup>2</sup> The shift towards own pensions is often accompanied by an intra-generational redistribution (in actuarial terms) from those who work longer towards the pensions of those who have shorter or no working careers (Timonen, 2008, chap. 5).

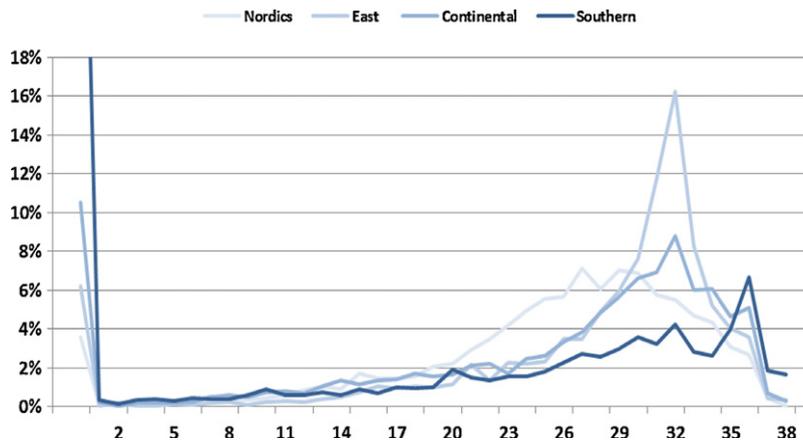


Fig. 1. Distribution of career length to 50, by country group.  
Source: SHARELIFE release 1.

least once (more than 8% have married again) while 82% had more than one child. SHARELIFE, by providing data on the entire life of respondents (rather than synchronic information) allows us to introduce a time dimension. The data collection utilized a life grid or calendar to help respondents recall major events about their family or work background. If one seeks information pertaining to distant events that shaped older individuals' lives in Europe, the only realistic alternative is retrospective data collection, which depends on respondent's recall. This type of data may be problematic especially if the period of recall spans decades (e.g. Bound, Brown, & Mathiowetz, 2001). SHARELIFE attempted to minimize recall bias by using devices such as computerized Life Calendar Modules, which allowed for top-down retrievals and recalls within a theme and also across different themes (Schröder, 2011).<sup>3</sup> Ex post analysis checking for *internal* consistency of SHARELIFE data, as well as by comparing recall information with external cross-country historical information (Mazzonna & Havari, 2011) concluded that scepticism about data quality is not warranted.

In defining female work patterns a number of ideal-types stand out; these are usually associated with the country groups in which they are prevalent. Hakim's (2000, chap. 1) work predisposes to find women distributed in clusters around these behaviour norms. Our first concern is to identify whether such clusters exist. In doing so, the simple expedient of comparing years worked would introduce bias, as older respondents will include years of work *after* 50 and will systematically exhibit longer careers than 50-year olds who are still working. Moreover, if women retire earlier than men, a retirement effect will 'contaminate' our indicator. To allow for this, the key indicator to be analysed is years of work of each respondent *until he/she reached the age of 50* – regardless of current age. Thus we disregard periods of work after age 50. Fig. 1 shows the distributions of this variable for

the four geographical groups which roughly correspond to distinct types of welfare state: The North (Sweden, Denmark), Centre (West Germany, the Netherlands, Belgium, France, Switzerland, Austria), South (Italy, Spain, Greece) and East (Poland, Czech Republic, East Germany<sup>4</sup>). These groups loosely follow the typology of Esping-Andersen (1990, chap. ix). Given that the bulk of the analysis refers to periods before the 1990s, the Netherlands is included with social-insurance type systems of Central Europe.

Simple visual inspection shows the existence of two polar types. First, the 'full career woman' (FCW) or work-centred woman. In Fig. 1 we see concentrations of women with around 30 years of work or more, which with an entry age of 20 essentially implies uninterrupted stay in employment (for those women with tertiary education, a full career necessarily starts later, so the FCW category is defined to include those with more than 26 years' work). Second, and at the other extreme, we find the family-centred woman – exclusively 'full-time career' or 'full family' woman (FFW) with *no* links to the labour market. Hakim's category of the 'adaptive' woman falls in between (supplemental earner, main carer, in and out of work). This category can be further divided according to work-intensity (i.e. share of working years in total). For the purposes of exposition the continuum is divided into two groups: between 20 and 29 years 'Adaptive Career Woman' (ACW) and, between 1 and 19 years of work 'Adaptive Family Woman' (AFW). What distinguishes the one from the other is the different degree of continuity of employment characterising the two groups. Fig. 1 largely confirms Hakim's expectation and leads to the following classification by country (Fig. 2). There is a clear difference between North and South, but also one between West and East.

<sup>3</sup> We can thus see not only whether patterns exist, but also how they spread through time.

<sup>4</sup> The SHARE sample allows us to distinguish the Eastern part of Germany; given that the career of East German older women was affected by GDR institutions, for the purposes of examining labour force entry it makes sense to include Eastern Germany with the Czech Republic and Poland. For a description of the social policy framework in Eastern Europe, see the papers in Barr (2005, chap. 1).

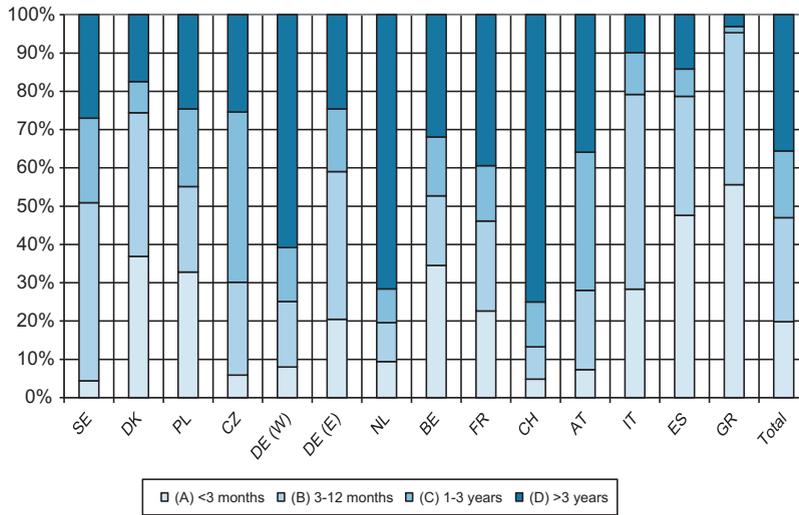


Fig. 2. Women's career pattern by country. Source: SHARELIFE release 1.

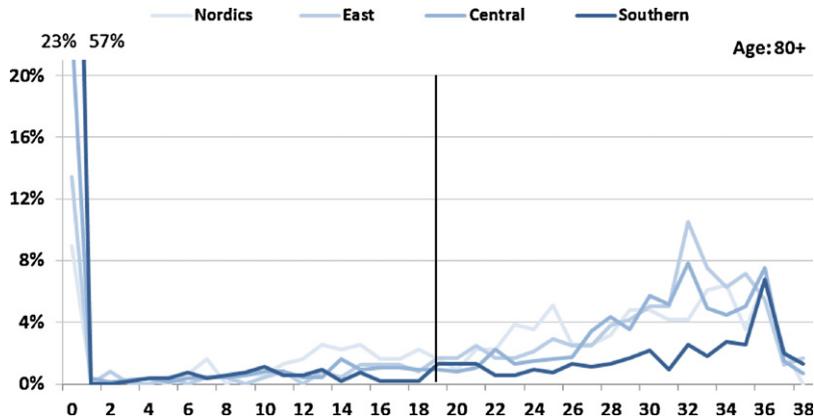


Fig. 3. Career length by country group, 80+ cohort. Source: SHARELIFE release 1.

In the latter case, the distinction carries over to a difference between former East Germany (closer to the Czech Republic) and West (closer to Austria).

Fig. 2 examines the groups by country. In the *never worked group*, the Southern countries are the champions (over 30%, on average, with Greece reaching almost 45%), while only a small minority (below 7%) in six countries (Denmark, Sweden – the Nordics at 1% – Czech Republic, Germany, the Netherlands and Switzerland), followed by France, Austria and Poland (around 10%). By contrast, the *longest careers* are recorded in the Nordics (Sweden and Denmark), the Czech Republic (and also Eastern Germany), with over 60% on average of women working longer than 31 years. Long careers are also the rule in Central countries (ranging from 40% to 60%) – in Austria, Germany, France, Poland and Switzerland and Belgium at the limit. The group of adaptive women (henceforth ‘*adaptives*’) is also largest in the North, signifying the possibility of leaving and then being able to return to

work. The Mediterranean countries and Belgium, on the other hand, have a moderate share of working women in long careers, and few in the intermediate category.

How does this picture change by cohort? If we examine the career length by country group we can observe that in all cases the group of the never-worked women shrinks in younger cohorts. As we move cohorts we generally see a decrease in polarisation in favour of the adaptive group – with more than 19 years employment. We also see a reduction of *very long careers* (35+), connected presumably with later entry into the labour market as a result of the raising of the school-leaving age (Figs. 3–5).

Examining these (essentially bimodal) distributions, we may retain three crucial observations:

- The critical decision – taken early on – is whether to enter the labour market.
- Those entering the labour market appear in many countries most likely to continue on for a full career.

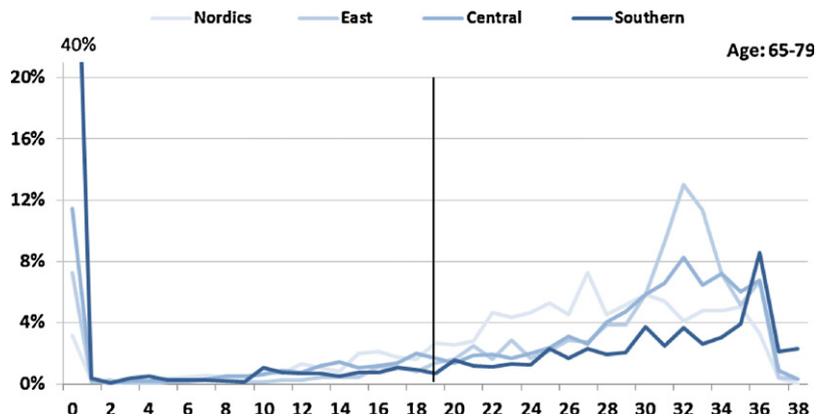


Fig. 4. Career length by country group, 65–79 cohort.  
Source: SHARELIFE release 1.

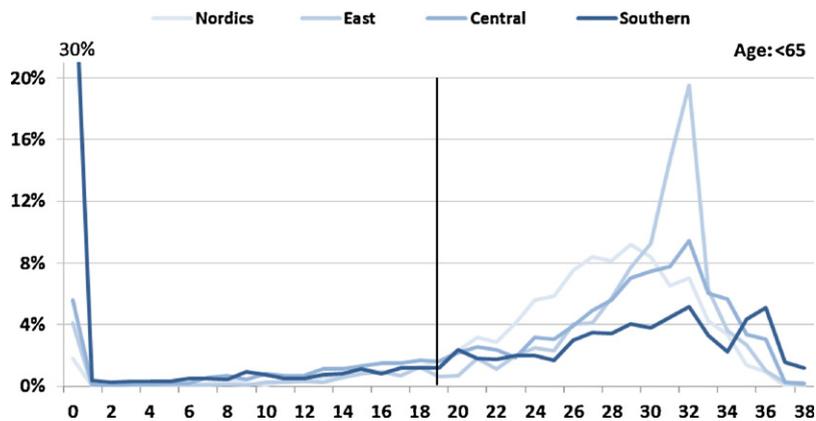


Fig. 5. Career length by country group, <65 cohort.  
Source: SHARELIFE release 1.

- The intermediate group – those exiting and re-entering the labour market – are less well-defined and distinct, though their prevalence is higher in younger cohorts.

Hence it is important to take a closer look at career interruption patterns.

### 3. Career interruptions of women with some work experience and children

The crucial factor in women's working lives is childbearing. Here we focus only on mothers who had been working when they gave birth, i.e. on that 63.3% of women in our sample who have some work experience. We first show whether the arrival of a child affects working patterns (Table 1). The table is derived by analyzing the question on interruptions, which was put to the respondents for each childbirth separately and is thus reliant on the understanding of the respondent herself. Looking at the table, the rule is to stop work temporarily (more than half of working women), although the share of permanent drop outs is substantial, especially in Central Europe. In some cases it is twice as high as in the Southern countries, and could be explained by the fact that Mediterranean women, once they enter the labour market, appear to be more resilient compared to Central women; career interruptions

due to children do not translate into quitting work altogether. Overall, one in four women had no interruption whatsoever after the arrival of their (last) child.<sup>5</sup>

The lowest rate of dropouts from work due to the birth of a child are experienced in the Eastern European countries, Eastern Germany, Sweden and, somehow surprisingly, Greece (due to having dropped out at an earlier stage – i.e. at marriage). The highest dropout rates (over 20%) are recorded in Austria, Germany and the Netherlands, while a cluster including both Central (Belgium, France) and Southern countries (Spain, Italy) but also one Eastern European country (Poland) had the highest shares of women that did not interrupt their career at all when they had their children.

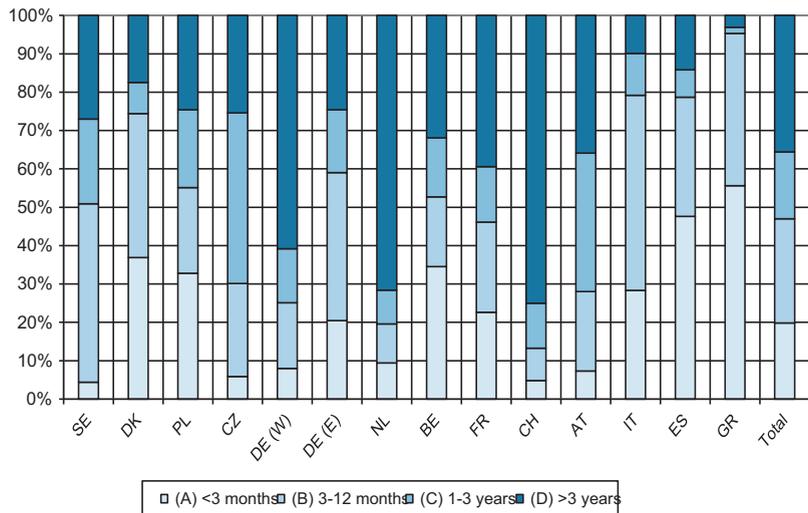
The duration of the interruption due to childbirth is presented in Fig. 6. As plainly illustrated, interruptions tend to be shorter in the low female participation countries (Southern European countries exhibiting a bipolar work pattern for women), followed by Denmark, Belgium, Poland, Czech Republic and Sweden. The longest career

<sup>5</sup> Given our focus on career choice, we looked at return to employment after childbearing was complete, i.e. after the last child. Interruptions between children are thus treated as temporary by definition.

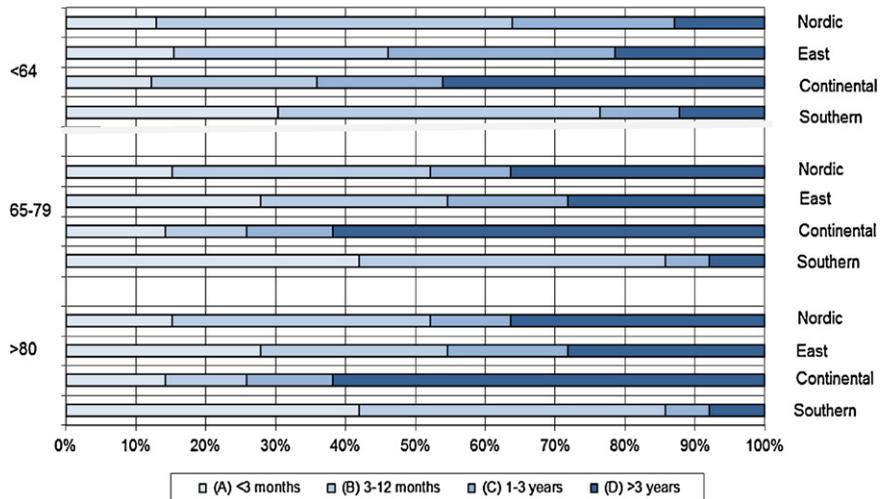
**Table 1**  
Career interruptions due to children.

Country	Never worked again (%)	Stopped working temporarily (%)	No interruption (%)	Women who worked at the time of 1st childbirth (n)
SE	7.3	86.6	6.1	743
DK	14.7	69.7	15.6	754
PL	6.6	59.6	33.8	672
CZ	0.4	94.6	5.0	909
DE (E)	2.0	71.9	26.2	206
DE (W)	29.6	47.1	23.3	539
NL	30.6	54.6	14.8	633
BE	18.7	33.3	48.0	813
FR	17.5	44.3	38.2	785
CH	17.6	55.1	27.3	412
AT	23.4	57.4	19.2	316
IT	19.5	44.3	36.2	487
ES	15.6	45.4	39.0	232
GR	6.0	69.5	24.5	451
Total	17.5	54.1	28.4	7952

Source: SHARELIFE release 1, analysis of question RC029.



**Fig. 6.** Duration of interruption for females who stopped working temporarily because of a child, by country.  
Source: SHARELIFE release 1.



**Fig. 7.** Duration of interruption for females who stopped working temporarily because of a child, by cohort and country group.  
Source: SHARELIFE release 1.

Table 2

"Minorities" patterns comparison based on Exercise 1 (selected outcome).

Full career women	FCW		Adaptive & non-working women (non-FCW)		Significance levels of differences <sup>a</sup>	
	FCW as rule <sup>a</sup>	FCW as exception <sup>b</sup>	Non-FCW as rule <sup>b</sup>	Non-FCW as exception <sup>a</sup>	(2)(1)	(2)(3)
	(1)	(2)	(3)	(4)		
<b>Life satisfaction</b>						
Satisfied with life (8–10)	62.6 [59.4–65.9]	53.0 [49.2–56.8]	40.8 [37.8–43.9]	68.2 [64.5–71.6]	***	***
Look back on life with happiness (often)	48.2 [44.9–51.4]	42.2 [38.5–46.0]	38.5 [35.6–41.5]	54.3 [50.7–57.9]	*	
<b>Family</b>						
Mean number of children	2.08 [2.03–2.14]	2.49 [2.38–2.59]	2.71 [2.61–2.81]	2.32 [2.25–2.38]	***	**
Mean number of marriages	1.09 [1.05–1.12]	0.98 [0.95–1.00]	0.94 [0.93–0.96]	1.12 [1.08–1.16]	***	*
<b>Initial conditions</b>						
Relative position mathematically AT 10 (much better or better)	39.5 [36.4–42.6]	26.4 [23.3–29.7]	22.2 [19.9–24.8]	37.9 [34.7–41.3]	***	*
Relative position to others language AT 10 (much better or better)	49.9 [46.7–53.0]	33.9 [30.4–37.5]	28.8 [26.1–31.7]	52.3 [49.0–55.7]	***	*
Childhood health status (excellent or very good)	72.6 [69.6–75.3]	66.2 [62.6–69.5]	72.0 [69.2–74.6]	71.9 [68.8–74.7]	**	**
Ever had period of hunger (yes)	2.4 [1.7–3.5]	10.8 [8.6–13.4]	9.3 [7.8–11.0]	3.2 [2.2–4.6]	***	
Ever discriminated against (yes)	6.4 [4.8–8.5]	1.4 [0.8–2.4]	1.2 [0.8–1.9]	6.6 [4.7–9.4]	***	
Area of first residence (big city or suburbs)	25.9 [23.0–29.0]	16.0 [13.6–18.8]	13.4 [11.7–15.3]	23.0 [20.1–26.3]	***	
<b>Health</b>						
SPH (excellent or very good)	22.9 [20.4–25.5]	14.8 [12.4–17.7]	14.0 [12.1–16.0]	26.2 [23.5–29.1]	***	
Ever received gyn. check-ups reg. over the course of years (no)	19.1 [17.1–21.2]	36.6 [33.1–40.2]	41.3 [38.5–44.2]	23.0 [20.5–25.7]	***	*
Ever had mammograms regularly (no)	35.9 [33.0–38.8]	31.5 [28.2–35.0]	42.8 [39.9–45.7]	28.5 [25.8–31.4]		***
<b>Finances-work</b>						
Median income decile	5 [4–6]	6 [5–7]	5 [4–6]	5 [4–6]	**	***
Satisfaction with job career	89.5 [86.8–91.7]	73.4 [69.7–76.8]			***	
Had disappointing job career	21.8 [18.7–25.3]	27.5 [23.9–31.3]			*	
Satisfied with achievements	88.7 [85.8–91.1]	68.8 [65.0–72.4]			***	

Source: SHARE Wave 1 and 2 release 2.5.0, SHARELIFE release 1.

95% significance intervals are noted in square brackets.

<sup>a</sup> Countries where FCW as rule: SE, DK, CZ.<sup>b</sup> Countries where FCW as exception: ES, IT, GR.

\* Significant at 5%.

\*\* Significant at 1%.

\*\*\* Significant at 0.1%.

interruptions occur in Switzerland and the Netherlands (Germany, France and Austria follow).

Differences become more apparent when we look at groups of countries. Almost 90% of working mothers in the Mediterranean countries interrupted their career for less than a year after the arrival of their (last) child, while about half of working mothers in Central Europe experience work interruption longer than 3 years. This shorter interval in the South could reflect the problems of maternity protection (e.g. short maternity leaves, non-coverage from maternity protection legislation for numerous groups of women, rigidity of rules excluding choice) for working

women at the time of childbearing of the SHARELIFE group; they either had to leave altogether or get back very soon. Fig. 7 performs the same analysis by cohort and group of countries. It shows that there is some convergence for younger cohorts: the incidence of very short career interruptions (less than 3 months) declines everywhere in consecutive age cohorts. Interruptions up to one year increased only in the Nordic countries, declined in the East and the South, while remained fairly stable in the Central countries. There seems to be a general trend for the period of absence to last between 3 and 36 months, at the expense of *both* longer (>3 years) *and* shorter (<3 months)

interruptions, presumably reflecting maternity leave regulations.<sup>6</sup> In general, the overall impression is one of convergence, with the Nordic countries in the lead.

#### 4. Comparing groups of women diverging from their country's norm

Having established a number of different work-family patterns as well as their prevalence in different countries and regions, we now examine women following a-typical work-family patterns (i.e. exceptions to what was considered 'normal' at the time in their country).<sup>7</sup> A group of 'pioneers' opted for a full career in environments where that was considered unorthodox or even eccentric – chiefly FCW in the South. At the other end of the spectrum, the group of 'recalcitrant women' (henceforth '*recalcitrants*') in the North retained 'traditional' choices and roles, even after those had started being abandoned by the majority. These 'aberrant' choices have implications both about the type of women who undertook them, but also could have had consequences for the way their lives developed once that choice had been taken.

A complete analysis would necessitate a fully specified model of career choice, whereas the study of the consequences of that decision could also amount to a major undertaking. In order to orient our intuition, a quick impression of the factors can be gleaned by means of a series of simple comparisons. We can, *firstly*, compare 'minority women' with majority women in their country. *Secondly*, we may try to establish whether the decision to go against the flow distinguishes them from women following the *same* work-family pattern in a *different* environment (in which those choices were adopted by the majority).

Appendix A structures that comparison by means of two exercises, by focusing on a wide range of variables covering family, education, employment, finances, initial conditions, health, housing and life satisfaction. The tables report average values, 95% confidence intervals and significance levels of the two comparisons: the first exercise examines the group of career pioneers in the South (FCW). The second shifts focus to the recalcitrant family-centred women in the North (FFW).

The idea is to compare women who go against the flow with two separate reference groups. *Firstly*, with other women in their own countries (who follow the norm). *Secondly*, with women in other countries who have pursued the same strategy but as part of the norm in their country. The tables attempt to reproduce this double comparison.

For instance, looking at full career women (pioneers), the first comparison is between column 2 (FCW as an exception) and column 3, which entails looking at women in the same countries. The second comparison looks at

column 2 in comparison with column 1, i.e. compares women who have undertaken the same decisions in different context. To facilitate the use of Table 2 columns referring to the same group of countries are shaded. In this way the two sets of shaded areas show FCW (or FFW) in each and their complements (i.e. non-FCW or non-FFW) in the same country.

So, taking life satisfaction as an example, full career women are more satisfied than other women in their own country context (when pioneers), but clearly less satisfied compared to full-career women in countries where full career is the norm. Testing for differences shows, in general a high level of significance for *both* comparisons. Though the sharpest distinctions are (predictably) between women in different countries, we also find important differences between women who have chosen different paths in the *same* country. The same is true when evaluating job satisfaction indicators: pioneers appear to be carrying a heavy burden.

In an (predictably) complex picture, a number of points, nevertheless, emerge:

##### 4.1. Exercise 1: The Full-Career-Model Women as exceptions (Southern career pioneers)

- Compared to other women in their *own* countries, full-career women (pioneers) tend to have better educational achievement scores and tend to be richer. They report higher scores of self-perceived health, while they tend to have their preventive check-ups more often. In terms of life satisfaction, they appear considerably more content in all three life satisfaction indicators.<sup>8</sup> In terms of life satisfaction, 'traditional-by-choice' women tend to report much higher scores in all three indicators.<sup>9</sup>
- Compared with women following the *same* model in contexts where career is the norm, the 'pioneers' have more children and lag in terms of educational attainment, health records (both historically – as children – and contemporary, in the time of their mature years). What is striking, however, is that pioneers with careers tend to report much lower job satisfaction scores, appear to have made more sacrifices for their jobs and are less satisfied with their achievements. The same is true for the overall life satisfaction scores: pioneers are faced with severe challenges and tend to be less satisfied with their life.

To venture a generalised comment, pioneers have invested in their choice, but nevertheless, had to pay a price for differing from the norm.

<sup>6</sup> In a study examining the policies and the determinants of labour force participation of women in the OECD, Jaumotte (2003: 93) found that while paid parental leave tends to boost female labour force participation, beyond 20 weeks the marginal effect of additional parental leave on female participation becomes negative.

<sup>7</sup> For an analysis of work patterns which highlight the norms dominant in different country groups in SHARE, see Brugiavini, Padula, Pasini, and Peracchi (2011).

<sup>8</sup> Life satisfaction is notoriously prone to reporting style effects. Those effects could be corrected by the use of vignettes (e.g. Kapteyn, Smith, and van Soest (2007) for a disability application). Even so, pending a more comprehensive treatment, the 'naked eye' differences are large enough to signal effects important enough to merit further, more comprehensive examination.

<sup>9</sup> Examining the significance levels of the two comparisons, the differences are less sharp than for full career women. They are concentrated in the areas related to career (education, finance, etc.) and are related to rural residence.

#### 4.2. Exercise 2: The Full-Family-Model Women as exceptions (Northern recalcitrants)

- Compared to other women in their own countries (i.e. those working with full career or adaptive), 'traditional' women tend to have more children. They also belong to poorer households (being lower in rank in the income distribution by 20 points), and are less educated. As far as self-perceived health is concerned, full family women tend to report poorer health compared to women in their countries, and lower incidence of various health tests. In terms of life satisfaction, recalcitrant women (out of choice?) report higher incidence of 'ever having a period of happiness in life' compared to the rest of women in their own country, but apart from this, the other two life satisfaction scores (contemporary situation) do not deviate from the norm of their own country.
- Compared with 'traditional' women in contexts where full family is the norm, recalcitrants have more children and a slightly higher number of marriages, higher level of education but lower scores in self-perceived health. In terms of life satisfaction, 'traditional-by-choice' women tend to report much higher scores in all three indicators.

An overall impression could be that the group of recalcitrant women decided to devote themselves to their family partly because their prospects in the labour market were less promising. Their decision to put family before career, nevertheless, appeared to be rewarded with higher life satisfaction than their counterparts where the family focus was the norm. In other words, traditional roles are associated with higher life satisfaction when career for women is the norm. The outcomes of Exercise 2 in detail can be found in [Appendix A](#), together with additional information on Exercise 1.

'Going against the flow' is not a decision without costs, nor is it symmetrical. Taking life satisfaction as shorthand for outcomes, it appears that career pioneers suffer from their choice, whereas family recalcitrants feel that their resistance paid off.

#### 5. Explaining the patterns: Does social policy and employment protection matter?

The 'naked eye' analysis so far has uncovered sea-changes in the patterns of female employment that have taken place in Europe over the life-span of the SHARE sample. To start uncovering relationships and the role of the policies, a carefully structured multidimensional analysis must be the next step. A model must be chosen that can explain individual career choice as a function of individual circumstances, macroeconomic conditions and social policy parameters *at the time of choice*. The latter in our sample will vary by individual and will, anyway, lie in the past; a different set of variables can be hypothesised to affect length of career. Context variables, such as social policy, in this framework must affect individual choice over and above individual circumstances – a rather demanding test.

The patterns we have seen, especially, among the older individuals signal that the crucial decision is taken early on

in the life of women: whether to enter the labour market or not. Once having entered, most continue to a full career, though some drop out. To capture this pattern, our preliminary investigation employs a two stage analysis:

*Firstly*, the participation decision is modelled for the ever-entered the labour market group of women (i.e. those who have worked). Given that this is a decision adopted in their 20s, care is taken to include *only* those variables that would have been known at that time.

*Secondly*, the decision of how long to work, is *conditional* on having entered. The dependent variable is years of work to age 50, in order to avoid bias as between women with completed working lives and those still working, and to abstract from the effects of differential retirement choices.

The structure of decisions is essentially recursive, where the participation and career length decisions are separated in time. Nevertheless, the fact that the group of women remaining in the labour market is essentially self-selected creates a bias, implying that a simultaneous treatment of the two decisions could be necessary.<sup>10</sup> Exploratory tests employing a two-stage recursive approach revealed evidence of selection bias.<sup>11</sup> Thus, a two stage Heckman selection model is estimated (e.g. [Maddala, 1983](#), chap. 8).<sup>12</sup> The recursive-like nature of the issue means that the variables appropriate to selection refer to a different period in a person's life from those affecting the length of career. Thus the bane of Heckman-type models, exclusion restrictions, is of little concern.<sup>13</sup>

The model proposed has clearly much in common with the venerable discussion of women's labour force participation (e.g. [Blau, Ferber, & Winkler, 2010](#), chap. 4; [Borjas, 2010](#), chaps. 2–3; [Goldin, 2006](#); [Long, 1958](#), chap. 7, to mention but a few). [Mincer \(1962\)](#) pointed out that what was involved was a three way choice between leisure, paid work and unpaid family work/housework. In a European context of small family businesses and farms, helping in the family business would count as part of the latter. However, the time structure of the decision, plus the fact that the dependent variable is career length, sharply differentiate our approach and should serve as a warning about drawing easy parallels.

*The participation decision*: The effect we are trying to capture is the ease of entry in the labour market at the time *when the women in our sample were in their 20s*.<sup>14</sup> Thus the unemployment rate and the growth rate at the time enter as proxies of labour market opportunities. High employment protection can be expected to make labour force entry more difficult. The OECD Employment Protection Index (EPI) stands in for this; its earliest available estimate

<sup>10</sup> Procedures as OLS and probit analyses are available from the authors upon request.

<sup>11</sup> Interestingly for the hypothesis that social policy matters, the selection bias evidence is much stronger once country groups are allowed.

<sup>12</sup> The presence of selection bias can also be thought as an omitted variable problem in the selected sample ([Frees, 2004](#), chap. 7; [Wooldridge, 2002](#), chaps. 2, 4, 17).

<sup>13</sup> Variables present in the participation decision and not in the careers length are: age cohorts, educational levels, unemployment rate, EPI index, maternity leave length, maternity leave replacement rate, country group dummies.

<sup>14</sup> A full description of the variables is available in [Appendix B](#).

**Table 3**  
Determinants of 'entry' participation decision in a simultaneous Heckman sample selection model (selected effects).

Dependent variable = Ever worked (i.e. >0 years of work)	Coefficient	Standard error
<b>Demographics</b>		
Constant	2.8187***	0.2061
Mother when 22	0.0372	0.0349
Orphan	0.4488**	0.1469
Family size when child	-0.0733***	0.0134
<b>Initial conditions</b>		
Childhood relative well-being index: for each country ranges from 0 (complete deprivation) to 1 no deprivation	-1.3260***	0.1905
Occupation of breadwinner when 10: Legislator, senior official, manager, clerk	-0.1531**	0.0579
Occupation of breadwinner when 10: Elementary agricultural or fishery worker	-0.2075***	0.0382
Number of books when 10 (>10 books)	0.3077***	0.0413
Period of financial hardship up to age 20	-0.2934**	0.0979
<b>Context variables when 20 (averages by cohort)</b>		
GDP real Growth rate	-11.756***	2.2174
Unemployment rate	-0.0225***	0.0054
EPI index	-0.5610***	0.0285
Maternity leave length by age cohort	0.0154***	0.0018
Maternity leave replacement rate by age cohort	1.3943***	0.0847
Transition country	-0.6251***	0.0822
Number of observations	11,627	
Censored observations	1954	

Source: SHARE Wave 1 and 2 release 2.5.0, SHARELIFE release 1.

Effects not reported of: age 65–79 and 80+ negative & significant; education positive & significant; foreign born, poor health when child insignificant.

\*\* Significant at 1%.

\*\*\* Significant at 0.1%.

refers to the mid-1980s.<sup>15</sup> It is safe to say that employment protection in Europe prior to that was no smaller; the 1980s can be taken as the floor for the 'true' value. The childhood relative well-being index is that described in Lyberaki, Tinios, and Georgiadis (2011), and is a composite of eleven separate indicators concerning absolute childhood well-being or deprivation weighted according to their prevalence<sup>16</sup>: the presence of a fixed bath, cold and hot running water supply, inside toilet, central heating, no or very few books, over-crowded household, experience of financial hardship and hunger, poor health status and a class of origin indicator.

Table 3 reports selected coefficient of the participation decision (the full equation can be found in Appendix B). It shows a strong cohort effect, an effect of being an orphan, as of a large family size at childhood. The 'mother when 22' variable is insignificant and positive, regardless of Goldin's (2006: 14) argumentation that it should be negative. However, its 'wrong sign' should be evaluated together with the large negative effect of the related 'mother at first job' variable in the length of career equation. Relative childhood well-being has a negative effect, signifying that participation in many cases may have been dictated by strained circumstances (in line with Mincer's finding, 1962). This interpretation is strengthened by the negative effect of elementary occupation. For some women starting to work was an imposed necessity, for others (the well-educated, from more cultured families) an active choice.

Context variables attempt to encapsulate in summary form conditions in the labour market at the time of labour force entry for the different age groups contained in the sample. They attempt to capture the parameters of individual decisions that are dependent on institutional features and macroeconomic conditions. If these effects could be fully described, there would be no need to allow for fixed national effects.

Looking at the effects of estimation, an interesting pattern emerges: high national average unemployment at the time when respondents were in their 20s is associated with smaller entrance. High employment protection for those at work translates very strongly for problems to enter. Finally, high real GDP growth is associated with smaller entry probability, which might be thought counter-intuitive.<sup>17</sup> It must be remembered that a large number of important covariates are omitted; high real GDP growth may be standing in for some of these omitted variables: the latter part of Table 5 shows the transformation of the variable, once *country group dummies* are added to this specification. This can be interpreted as allowing for the influence of social protection and labour protection 'styles'.<sup>18</sup> The addition has the effect of limiting the influence of household size and of financial hardship. It similarly limits the effect of unemployment, reduces the

<sup>15</sup> The EPI is an index which measures the procedures and costs involved in dismissing individuals or groups of workers and the procedures involved in hiring workers on fixed-term or temporary work agency contracts (OECD, 2012). The description of other variables appears in Appendix B.

<sup>16</sup> In the spirit of Delhauss, Lutgens, and Perelman (1993).

<sup>17</sup> The countries with particularly high growth in the 1960s and the 1970s were the countries starting from a low base (usually in Southern Europe). Given the unique characteristics of social policy in the Mediterranean Welfare States, high historical growth may be acting as a proxy for omitted variables or errors in measurement such as unequal implementation.

<sup>18</sup> An alternative specification was run with a GDP 'Southern slope dummy'. The latter was strongly positive, implying that the generalised growth effects may have operated in different ways in different contexts.

**Table 4**  
Determinants of career length in a simultaneous Heckman sample selection model.

Dependent variable = Years of work to 50 work > 0	Coefficient	Standard error
Constant	27.8260 <sup>***</sup>	0.4847
<b>Demographics</b>		
Number of children (1)	1.8528 <sup>***</sup>	0.2359
Number of children (2)	0.8974 <sup>***</sup>	0.2044
Number of children (3+)	0.2064	0.2219
Divorced	1.0012 <sup>***</sup>	0.2278
Married when got first job	-3.8329 <sup>***</sup>	0.2613
Mother when got first job	-6.9623 <sup>***</sup>	0.2982
Ever left job because of ill health or disability	-1.3297 <sup>***</sup>	0.1945
<b>Occupational information</b>		
Number of jobs	-0.6714 <sup>**</sup>	0.0370
Ever been civil servant	0.7233 <sup>***</sup>	0.2125
Got pension before the age of 50	1.4498 <sup>***</sup>	0.2199
<b>Historical context variables when 40 (avg by cohort)</b>		
EPI 1980s (Employment Protection Index)	0.0209	0.1605
Unemployment by cohort	-0.0498 <sup>†</sup>	0.0254
Social protection on "family function" as (% of GDP by age cohort	0.3061 <sup>**</sup>	0.1094
Minimum wage as % of average in 1970s, 1980s, 1990s by age cohort	-0.9818 <sup>†</sup>	0.3106
Maternity leave length by age cohort	-0.0030	0.0065
Maternity leave replacement rate by age cohort	2.2947 <sup>***</sup>	0.4651
Transition country	1.9062 <sup>***</sup>	0.3523
Number of observations	11,627	
Censored observations	1954	

Source: SHARE Wave 1 and 2 release 2.5.0, SHARELIFE release 1.

Effects not reported: age 65–80 and 80+ negative & significant; education negative & significant; industry negative & significant; occupational self-employed status significant.

Marginal effects are noted in Table B.2.

\* Significant at 5%.

\*\* Significant at 1%.

\*\*\* Significant at 0.1%.

influence of employment protection and reduces the effect of growth. These transformations may be taken as indicative that those variables may have opposing influence in different policy settings; once the overall effect of country groups is allowed for, the within-group variation is able to exhibit itself. The weakening of public policy variables once the influence of large country groupings is allowed for can be taken as evidence that most of the public policy effect comes from *between* country group variation. This is as we might expect, given that the 'three worlds of welfare capitalism' were at their most distinct at the time when our sample's participation decision was taken – from the 1950s to the 1980s.

*The career length decision:* To examine the length of career, the dependent variable is defined as number of years worked *until the age of 50*. In this way the spurious correlation is avoided between age and years at work, given that we have both women currently working and women already retired. A further advantage of this definition is to abstract from considerations relating to pensionable age, which are bound to introduce differentiations at the top end. The continuous decision on career length appears in Table 4.

*Children and marriage:* Being married and being a mother at the time of labour force entry are both very important, subtracting 11 years from the predicted value. This confirms Goldin's (2006) observation for the US that being in the labour force before marriage and childbearing cements a permanently strong labour force attachment. The magnitude of the other children variables should be

seen in this light: beyond the first child, the *marginal* impact of an additional child is negative and decreasing. *Education and health:* Given the cut-off at 50 the negative effect of education is due to later entry. Poor health is important only if the problem was sufficiently serious to necessitate *leaving* a job – re-entry presumably is then harder. *Occupation:* The frequency of changing jobs leads to a lower expected length (re-entry problems). Later entry presumably accounts for shorter careers in public administration (corrected by a positive sign for being a civil servant). Owning a business has an effect on length of career, as is being eligible for a pension before 50.

*Context variables:* A high minimum wage relative to the average leads to reductions in careers, as returns to the labour market after an interval of absence are more difficult. Social protection expenditure on family policies and mainly the replacement rate of maternity allowance have an important influence (see Brugiavini, Pacini, & Trevisan, 2012); those variables together may be standing in for a more diffuse, society-wide, 'reconciliation of family and work effect'. Unemployment has a negative effect (as it did in participation), implying that high unemployment prevented labour entry and reduced careers. The EPI index appears only to affect participation and to have no effect on career length.

However, once the same specification is run *with* country group dummies, the influence of social policy context variables is completely transformed (Table 5). The key differences could well be due to the differences of the 'Mediterranean welfare states' (to follow Ferrera (1996)

Table 5

Context variables in the Heckman regression once country groups are distinguished (selected coefficients only).

Dependent variable = Years of work to 50 work > 0	Coefficient	Standard error
Constant	27.8095***	0.6242
<b>Historical context variables when 40 (avg by cohort)</b>		
EPI 1980s (Employment Protection Index)	-0.7489***	0.1907
Unemployment by cohort	-0.0673 <sup>†</sup>	0.0265
Social protection on "family function" as (%) of GDP by cohort	1.4670***	0.2060
Minimum wage as % of average by age cohort	-0.2341	0.3591
Maternity leave length by age cohort	-0.0383**	0.0088
Maternity leave replacement rate by age cohort	2.0456***	0.4276
Central	-0.1602	0.3130
South	2.5553***	0.7110
Transition	2.8567***	0.4025
<b>Selection equation = Ever worked</b>		
<b>Historical context variables when 20 (avg by cohort)</b>		
EPI 1980s (Employment Protection Index)	-0.2720***	0.0495
Unemployment by cohort and 1960s, 1970s, 1980s	-0.0030	0.0057
Growth rate by cohort and 1970s, 1980s, 1990s	-7.5658***	2.1407
Maternity leave length by age cohort	0.0004	0.0028
Maternity leave replacement rate by age cohort	0.7734***	0.1123
Central	-0.9603***	0.1149
South	-1.5020***	0.1130
Transition	-0.8888***	0.1271
<b>Number of observations</b>	11,627	
<b>Censored observations</b>	1954	
Rho	0.5204	
Sigma	6.4446	
Lambda	3.3539	

Source: SHARE Wave 1 and 2 release 2.5.0, SHARELIFE release 1.

\* Significant at 5%.

\*\*\* Significant at 0.1%.

rather than Esping-Andersen). Once the Southern European factor is allowed for, virtually all context variables become significant and have the expected signs. This means that the parameters of choice encapsulated in the context variable explain differences *within* groups, whereas differences *between* groups must be due to more diffuse systemic differences, which interact with our simple variables. For instance, the EPI index is large and negative, while social protection on the family function becomes large and positive.

The influence of maternity leave provisions must be commented on. Despite the crudeness of the indicator (context variables for that did not penetrate beyond a certain date) these variables are important both for the selection equation *and* the length of career. The complexity of the effects and the way they change once country groups are distinguished, reinforce their interpretation of a generalised 'reconciliation of work family life effect'. Indeed, in the typologies of welfare states, the Mediterranean state is supposed to stand out by placing all emphasis on pensions and little on the family function. During the working life of the SHARELIFE sample, in the Mediterranean both social protection family policy would have been absent (or only applied to a small group of 'insiders'), while employment protection would not be extended to women.

Given that most of our context variables essentially capture social policy *effort*, the transformation of the effects once a generalised 'Southern' effect is allowed for, implies that the *same* effort in different parts of Europe had

different effects. This could be due to the same effort (expenditure) being dedicated to pursuing different *objectives*. We would observe that in those cases where different welfare states obeyed distinct *logics*, *these logics permeate many omitted variables*. Such would be the case in the welfare state typology. This can be taken as an indication that – *in the period when the women in our sample were still young* – the workings of the welfare systems and the way those related to the economy were to a large extent distinct – at least between North and South.

## 6. Conclusions

The 50 years encompassed in the lives of women in the SHARELIFE sample capture the periods of development, apogee and consolidation of distinct 'worlds of welfare capitalism' into what many call the 'European Social Model'. In this paper we have attempted to chart how this social transformation was directly experienced by survey respondents of a rich sample survey. Our analysis, despite using methodologies not usually employed by analysts of social administration, has shone some light on this transformation, in at least five areas:

First, the working lives initially followed a bipolar pattern, which is, nevertheless becoming less polarised with time. Rather than two distinct groups, younger cohorts contain more women with adaptive careers, leaving and re-entering the labour market. This process is visible everywhere, though it is still very uneven in its geographical and social spread.

Second, social norms matter: individual experiences of women following the *same* work family pattern in *different* countries lead to varying outcomes. The pioneers who ‘went against the flow’ and opted for work (by choice or necessity) were burdened with some additional difficulties possibly connected to their minority status.

Third, the econometric analysis found some evidence for convergence. In a multivariate model where the effect individual circumstances can be allowed together with key parameters of the welfare state, we saw that social policy appeared more efficacious regarding the length of career, rather than for participation. The latter was a decision, which was taken earlier and on the basis of the situation pertaining before the 1980s.

Fourth, the further back in time we go, the more distinct the national styles of welfare state appear to be. In any case, that is a plausible explanation of the reversal of many estimated impacts of social policy variables once country group dummies are added.

Finally, all analyses seem to concur that there appear two large fissures in Europe: one regarding the transition countries, and another regarding the Mediterranean. Indeed social policy parameters seem to change their meaning and significance once we allow for a generalised ‘Mediterranean’ effect.

Including context variables in econometric equations, such as social protection as a percentage of GDP, in a linear fashion, presumes that the policy ‘effort’ is homogeneous, and the differences quantitative: spending half as much on social protection is half as good. In the Mediterranean, though, low spending was the result of system *fragmentation*: low overall spending was the outcome of providing more cover for some sections of the population, rather than others. The welfare state, especially in the field of pensions, proceeded by filling gaps rather than methodically extending universal benefits.<sup>19</sup> In such cases, the observed differences between the low spending South and the high spending North are qualitative. In other words, it is not that overall effort social policy effort was deficient, but that the ends to which this effort was applied may have been distinct.

An example may help to fix ideas: in Greece or in Italy the welfare state was held to be fragmented and also

incorporated in the mechanism of a ‘clientelistic’ state (Ferrera, 1996). Much of social policy expenditure was directed towards social policy ‘insiders’ with limited wider impact. Similarly, employment protection legislation was selectively implemented, leaving most of the labour market effectively unregulated. Thus the same value for, say, the EPI index or the same percentage of social protection expenditure would have lower impact or would even serve a different ‘logic’ than, say in Central Europe or Scandinavia. This logic implies many contextual variables would be devoted to serve different objectives and hence can be expected to operate differently in different contexts. It would also explain the apparent instability of effects once a generalised ‘regional effect’ is allowed for; context variables, especially when referring to past decades, move in relatively fixed clusters according to type of welfare state or perhaps of the level of economic development. The process of European integration could thus be seen as a process where the different ‘logics’ gradually merge.

Do policies matter? Our verdict is ‘undoubtedly yes’. However, the same policies may produce very different outcomes, while similar outcomes may correspond to very different policies (Daly, 2002). It is interesting to hypothesise on ‘functional equivalents’: if social expenditure is devoted to objectives *other* than social protection, then something (or someone) will have to be found to supply social protection services – i.e. a functional equivalent for ‘real’ social protection. Lack of public social infrastructure may be compensated by the market for such services or even by quiet grannies. The European welfare state encompasses the formal social policy apparatus in the North, and an informal family-based support system in the South (Lyberaki & Tinios, 2013).

The ‘big story’ the researchers should not lose out is the steady but sure convergence of family and work patterns. This convergence, however, still leaves much ground uncovered. Though much of the differentiation observed in today’s older women is the result of older discrimination and cumulated inequities, new types of obstacles may resume where the older ones left off. Alas, convergence of women’s career patterns in Europe is unlikely to be something that will be solved ‘automatically’.

<sup>19</sup> In labour economics there is an appreciation that applying different rules to different parts of the population, as transition arrangements leads to an overall effect which is qualitatively different – e.g. Boeri (2011).

## Appendix A. “Minorities” patterns comparison

See Tables A.1 and A.2.

Table A.1

Exercise 1: full career women.

	FCW		Adaptive & non-working women (non-FCW)		Significance levels of differences <sup>*</sup>	
	FCW as rule <sup>a</sup>	FCW as exception <sup>b</sup>	Non-FCW as rule <sup>b</sup>	Non-FCW as exception <sup>a</sup>	(2)(1)	(2)(3)
	(1)	(2)	(3)	(4)		
<b>Life satisfaction</b>						
Ever had period of happiness (yes)	50.8 [47.6–54.0]	51.5 [47.9–55.1]	47.7 [44.8–50.6]	55.1 [51.7–58.4]		
Satisfied with life (8–10)	62.6 [59.4–65.9]	53.0 [49.2–56.8]	40.8 [37.8–43.9]	68.2 [64.5–71.6]	***	***
Look back on life with happiness (often)	48.2 [44.9–51.4]	42.2 [38.5–46.0]	38.5 [35.6–41.5]	54.3 [50.7–57.9]	*	
<b>Family</b>						
Mean number of children	2.08 [2.03–2.14]	2.49 [2.38–2.59]	2.71 [2.61–2.81]	2.32 [2.25–2.38]	***	**
Mean number of marriages	1.09 [1.05–1.12]	0.98 [0.95–1.00]	0.94 [0.93–0.96]	1.12 [1.08–1.16]	***	*
<b>Initial conditions</b>						
Number of books when ten (0–10)	15.7 [13.8–17.7]	68.1 [64.7–71.3]	70.1 [67.4–72.6]	18.4 [16.1–20.9]	***	
Relative position mathematically AT 10 (much better or better)	39.5 [36.4–42.6]	26.4 [23.3–29.7]	22.2 [19.9–24.8]	37.9 [34.7–41.3]	***	*
Relative position to others language AT 10 (much better or better)	49.9 [46.7–53.0]	33.9 [30.4–37.5]	28.8 [26.1–31.7]	52.3 [49.0–55.7]	***	*
Childhood health status (excellent or very good)	72.6 [69.6–75.3]	66.2 [62.6–69.5]	72.0 [69.2–74.6]	71.9 [68.8–74.7]	**	**
Primary education	21.1 [18.9–23.6]	57.9 [54.2–61.4]	66.4 [63.5–69.1]	23.4 [20.7–26.3]	***	***
Secondary education	57.4 [54.3–60.4]	33.4 [30.1–37.0]	29.4 [26.7–32.1]	55.1 [51.7–58.4]	***	***
Tertiary education	20.5 [18.2–23.0]	8.5 [6.7–10.6]	3.6 [2.6–4.9]	20.6 [18.2–23.3]	***	***
Ever had period of financial hardship (yes)	30.7 [27.8–33.8]	30.3 [27.1–33.8]	28.9 [26.3–31.6]	36.3 [33.1–39.6]	***	
Ever had period of hunger (yes)	2.4 [1.7–3.5]	10.8 [8.6–13.4]	9.3 [7.8–11.0]	3.2 [2.2–4.6]	***	
Ever discriminated against (yes)	6.4 [4.8–8.5]	1.4 [0.8–2.4]	1.2 [0.8–1.9]	6.6 [4.7–9.4]	***	
Area of first residence (big city or suburbs)	25.9 [23.0–29.0]	16.0 [13.6–18.8]	13.4 [11.7–15.3]	23.0 [20.1–26.3]	***	
Area of first residence (large or small town)	35.8 [32.9–38.8]	40.3 [36.8–43.8]	43.4 [40.6–46.3]	39.9 [36.7–43.3]		
Area of first residence (rural area or village)	37.7 [34.8–40.7]	43.6 [40.1–47.3]	43.2 [40.4–46.1]	35.9 [32.9–39.1]	*	
<b>Health</b>						
Ever had physical injury to disability (yes)	12.1 [10.2–14.4]	12.9 [10.8–15.4]	12.3 [10.6–14.3]	19.8 [17.3–22.6]		*
Ever had period of stress (yes)	53.5 [50.4–56.7]	54.3 [50.7–57.9]	48.9 [45.9–51.8]	55.6 [52.2–58.9]		
Ever had period of poor health (yes)	44.2 [41.1–47.4]	42.9 [39.4–46.6]	40.3 [37.6–43.2]	48.3 [44.9–51.6]		
SPH (excellent or very good)	22.9 [20.4–25.5]	14.8 [12.4–17.7]	14.0 [12.1–16.0]	26.2 [23.5–29.1]	***	
Ever received gyn. check-ups reg. over the course of years (no)	19.1 [17.1–21.2]	36.6 [33.1–40.2]	41.3 [38.5–44.2]	23.0 [20.5–25.7]	***	
Ever had mammograms regularly (no)	35.9 [33.0–38.8]	31.5 [28.2–35.0]	42.8 [39.9–45.7]	28.5 [25.8–31.4]		***
<b>Finances-work</b>						
Median income	9.404 [7942–10,864]	10.437 [9661–11,211]	8.866 [8424–9307]	15.954 [15,006–16,901]		***

**Table A.1** (Continued)

	FCW		Adaptive & non-working women (non-FCW)		Significance levels of differences <sup>a</sup>	
	FCW as rule <sup>a</sup>	FCW as exception <sup>b</sup>	Non-FCW as rule <sup>b</sup>	Non-FCW as exception <sup>a</sup>	(2)(1)	(2)(3)
	(1)	(2)	(3)	(4)		
Median income decile	5 [4–6]	6 [5–7]	5 [4–6]	5 [4–6]	**	***
Ever taken out a life insurance policy (yes)	28.8 [26.2–31.5]	10.0 [8.1–12.3]	9.7 [8.0–11.8]	36.3 [33.2–39.5]	***	
Ever been the owner of a business (yes)	4.1 [3.3–5.2]	1.6 [0.9–2.9]	3.4 [2.4–4.8]	4.8 [3.7–6.1]	***	*
Type of private residence (owner)	47.5 [44.4–50.7]	51.7 [48.0–55.3]	62.9 [60.0–65.7]	48.1 [44.7–51.5]		***
Satisfaction with job career	89.5 [86.8–91.7]	73.4 [69.7,76,8]			***	
Had disappointing job career	21.8 [18.7–25.3]	27.5 [23.9–31.3]			*	
Satisfied with achievements	88.7 [85.8–91.1]	68.8 [65.0–72.4]			***	
Sacrificed too much for job	35.8 [32.3–39.5]	31.7 [28.1–35.7]				
Health has suffered at work	31.0 [27.7–34.6]	26.9 [23.4–30.8]				
Ever left job because of ill health or disability	14.1 [12.2–16.3]	10.2 [8.1–12.9]			*	

Source: SHARE Wave 1 and 2 release 2.5.0, SHARELIFE release 1.

95% significance intervals are noted in square brackets.

<sup>a</sup> Countries where FCW as rule: SE, DK, CZ.

<sup>b</sup> Countries where FCW as exception: ES, IT, GR.

\* Significant at 5%.

\*\* Significant at 1%.

\*\*\* Significant at 0.1%.

**Table A.2**

Exercise 2: full family women.

	FFW		All working women (non-FFW)		Significance levels of differences <sup>a</sup>	
	FFW as rule <sup>a</sup>	FFW as exception <sup>b</sup>	Non-FFW as rule <sup>b</sup>	Non-FFW as exception <sup>a</sup>	(2)(1)	(2)(3)
	(1)	(2)	(3)	(4)		
<b>Life satisfaction</b>						
Ever had period of happiness (yes)	45.3 [41.5–49.3]	52.2 [38.2–65.9]	45.6 [43.1–48.1]	51.0 [48.2–53.8]	***	
Satisfied with life (8–10)	39.1 [35.2–43.2]	64.7 [50.2–77.0]	64.0 [61.3–66.5]	48.9 [46.0–51.9]		*
Look back on life with happiness (often)	36.4 [32.6–40.4]	54.4 [39.6–68.4]	54.1 [51.5–56.7]	41.7 [38.8–44.6]		
<b>Family</b>						
Mean number of children	2.87 [2.73–3.01]	3.19 [2.70–3.68]	2.31 [2.25–2.37]	2.49 [2.41–2.58]		***
Mean number of marriages	0.96 [0.95–0.98]	1.06 [0.97–1.15]	1.09 [1.06–1.11]	0.96 [0.94–0.97]	*	
<b>Initial conditions</b>						
Number of books when ten (0–10)	77.9 [74.7–80.7]	47.8 [34.5–61.3]	28.1 [25.8–30.5]	65.2 [62.6–67.8]	***	**
Relative position mathematically	15.3 [12.7–18.3]	25.7 [15.7–39.1]	32.4 [30.1–34.7]	27.9 [25.5–30.5]		
Relative position to others language	22.1 [18.7–25.9]	36.2 [23.9–50.7]	44.5 [42.0–46.9]	34.8 [32.1–37.6]	*	
Childhood health status (excellent or very good)	71.6 [67.9–75.0]	62.1 [48.4–74.1]	54.0 [51.5–56.5]	68.7 [66.0–71.2]	***	*
Primary education	78.5 [75.1–81.5]	17.1 [10.2–27.3]	7.2 [6.3–8.0]	55.5 [52.7–58.3]		

Table A.2 (Continued)

	FFW		All working women (non-FFW)		Significance levels of differences <sup>*</sup>	
	FFW as rule <sup>a</sup>	FFW as exception <sup>b</sup>	Non-FFW as rule <sup>b</sup>	Non-FFW as exception <sup>a</sup>	(2)(1)	(2)(3)
	(1)	(2)	(3)	(4)		
Secondary education	20.5 [17.7–23.8]	80.6 [69.9–88.2]	70.0 [67.7–72.2]	35.9 [33.3–38.7]	***	.
Tertiary education	0.0	0.0	22.1 [20.0–24.3]	8.2 [6.8–9.8]		***
Ever had period of financial hardship (yes)	28.6 [25.1–32.3]	29.6 [18.8–43.3]	37.4 [35.0–39.9]	29.9 [27.4–32.5]		
Ever had period of hunger (yes)	11.3 [9.1–13.8]	12.6 [5.4–26.8]	14.5 [12.5–16.7]	9.3 [7.7–11.1]		
Ever discriminated against (yes)	1.3 [0.7–2.3]	7.6 [3.0–18.1]	7.0 [5.7–8.5]	1.3 [0.9–1.9]		
Area of first residence (big city or suburbs)	12.0 [9.9–14.5]	16.4 [7.8–31.2]	24.9 [22.8–27.1]	15.6 [13.8–17.6]	***	**
Area of first residence (large or small town)	45.3 [41.5–49.2]	17.5 [9.3–30.5]	33.3 [31.0–35.6]	40.6 [38.0–43.4]	**	***
Area of first residence (rural area or village)	42.7 [38.9–46.5]	66.2 [51.6–78.2]	41.6 [39.1–44.1]	43.7 [41.0–46.5]		
<b>Health</b>						
Ever had physical injury to disability (yes)	12.2 [9.8–15.0]	11.5 [5.2–23.8]	9.4 [8.0–10.9]	12.7 [11.0–14.6]		**
Ever had period of stress (yes)	44.6 [40.7–48.6]	36.8 [24.6–51.1]	58.6 [56.1–61.0]	54.0 [51.2–56.8]	.	
Ever had period of poor health (yes)	39.6 [35.9–43.5]	54.3 [40.8–67.3]	51.2 [48.7–53.7]	42.2 [39.5–45.0]	***	***
SPH (excellent or very good)	11.2 [9.2–13.5]	4.5 [2.6–7.5]	17.5 [15.9–19.1]	15.8 [13.8–18.0]		.
Ever received gyn. check-ups regularly over the course of years (no)	48.6 [44.8–52.5]	48.4 [35.1–61.9]	23.4 [21.4–25.6]	35.1 [32.4–37.8]		.
Ever had mammograms regularly (no)	53.5 [49.7–57.4]	58.8 [45.4–71.1]	44.4 [41.9–47.0]	31.0 [28.4–33.7]		
<b>Finances-work</b>						
Median income	8,031 [7636–8390]	13,830 [10,168–17,490]	16,606 [15,861–17,350]	10,533 [11,013–11,070]	***	
Median income decile	4 [3–5]	4 [2–6]	5 [3–7]	6 [5–7]	***	.
Ever taken out a life insurance policy (yes)	5.4 [3.8–7.7]	27.6 [17.1–41.3]	41.3 [38.9–43.8]	11.9 [10.2–13.9]		
Ever been the owner of a business (yes)	2.9 [1.7–4.9]	2.0 [1.0–4.2]	2.4 [1.8–3.1]	2.6 [1.8–3.7]		***
Type of private residence (owner)	63.9 [60.0–67.7]	63.0 [48.6–75.4]	39.8 [37.4–42.2]	55.7 [52.9–58.5]		
Satisfaction with job career			84.0 [81.4–86.3]	72.1 [69.2–74.9]		(3)(4)**
Had disappointing job career			19.2 [16.9–21.7]	28.4 [25.7–31.4]		
Satisfied with achievements			85.3 [82.8–87.5]	68.7 [65.7–71.5]		(3)(4)***
Sacrificed too much for job			23.1 [20.8–25.5]	34.1 [31.2–37.2]		(3)(4)***
Health has suffered at work			28.3 [25.7–31.0]	28.4 [25.6–31.3]		
Ever left job because of ill health or disability			14.9 [13.2–16.9]	11.0 [9.3–13.0]		(3)(4)**

Source: SHARE Wave 1 and 2 release 2.5.0, SHARELIFE release 1.

95% significance intervals are noted in square brackets.

<sup>a</sup> Countries where FFW as rule: GR, IT, ES.<sup>b</sup> Countries where FFW as exception: SE DE, NL, DK, CH, CZ.

\* Significant at 5%.

\*\* Significant at 1%.

\*\*\* Significant at 0.1%.

## Appendix B. A recursive “participation-length of career model”

See Tables B.1 and B.2.

**Table B.1**

Determinants of participation decision and career length in a simultaneous Heckman sample selection model.

	One country group		Country groups are allowed for	
	Coefficient	Standard error	Coefficient	Standard error
<b>Dependent variable = Years of work to 50   work &gt; 0</b>				
Constant	27.8260***	0.4847	27.8095***	0.6242
<b>Demographics</b>				
Age cohort (≤64)	<i>F</i>		<i>F</i>	
Age cohort (65–79)	–0.8245***	0.1829	–1.2964***	0.1945
Age cohort (≥80)	–1.7845***	0.2998	–2.5194***	0.3222
Number of children (0)	<i>F</i>		<i>F</i>	
Number of children (1)	1.8528***	0.2359	1.7966***	0.2351
Number of children (2)	0.8974***	0.2044	0.8431***	0.2037
Number of children (3+)	0.2064	0.2219	0.1859	0.2209
Divorced	1.0012***	0.2278	1.0422***	0.2287
Married when got first job	–3.8329***	0.2613	–3.8326***	0.2611
Mother when got first job	–6.9623***	0.2982	–7.0180***	0.2978
<b>Education and health</b>				
Primary education or lower	<i>F</i>		<i>F</i>	
Secondary education	–0.3426***	0.1027	–0.2684**	0.0996
Tertiary education	–0.3150***	0.0986	–0.2704**	0.0939
Period of poor health	0.2216	0.1352	0.2469	0.1351
Ever had physical injury to disability	0.2236	0.2081	0.2054	0.2082
Ever left job because of ill health or disability	–1.3297***	0.1945	–1.2637***	0.1948
<b>Occupational information</b>				
Number of jobs	–0.6714***	0.0370	–0.6551***	0.0378
Ever been civil servant	0.7233***	0.2125	0.6852***	0.2131
Got pension before the age of 50	1.4498***	0.2199	1.3874***	0.2191
Last job before 50 (legislator, senior official or manager or professional or clerk)	0.0522	0.1648	0.0472	0.1653
Last job before 50 (elementary or agricultural or fishery worker)	0.7204***	0.1706	0.6259***	0.1701
Last industry before 50 (public administration or defense)	–1.0743***	0.2723	–1.0322***	0.2725
Last industry before 50 (education or health or social work)	–1.6248***	0.1663	–1.5778***	0.1666
Been the owner or co-owner of a business which you did not work in	0.8002*	0.3479	0.8049*	0.3488
<b>Historical context variables when 40 (averages by cohort)</b>				
EPI 1980s (Employment Protection Index)	0.0209	0.1605	–0.7489***	0.1907
Unemployment by cohort	–0.0498†	0.0254	–0.0673†	0.0265
Social protection on “family function” as (%) of GDP by age cohort	0.3061**	0.1094	1.4670***	0.2060
Minimum wage as % of average in 1970s, 1980s, 1990s by age cohort	–0.9818**	0.3106	–0.2341	0.3591
Maternity leave length by age cohort	–0.0030	0.0065	–0.0383***	0.0088
Maternity leave replacement rate by age cohort	2.2947***	0.4651	2.0456***	0.4276
Nordic			<i>F</i>	
Central			–0.1602	0.3130
South			2.5553***	0.7110
Transition	1.9062***	0.3523	2.8567***	0.4025
<b>Selection equation = Ever worked (i.e. &gt;0 years of work)</b>				
Constant	2.8187***	0.2061	3.4269***	0.2679
<b>Demographics</b>				
Age cohort (≤64)	<i>F</i>		<i>F</i>	
Age cohort (65–79)	–0.2545***	0.0433	–0.2859***	0.0449
Age cohort (≥80)	–0.3712***	0.0639	–0.5694***	0.0672
Mother when 22	0.0372	0.0349	0.0045	0.0355
Orphan (yes)	0.4488**	0.1469	0.3878**	0.1499
Foreign-born (yes)	0.0343	0.0727	–0.0379	0.0735
Household size as a child	–0.0733***	0.0134	–0.0346*	0.0139
<b>Initial conditions</b>				
Well-being index	–1.3260***	0.1905	–1.0841***	0.1931
Childhood health status (poor or fair)	0.0760	0.0652	0.0633	0.0661

Table B.1 (Continued)

	One country group		Country groups are allowed for	
	Coefficient	Standard error	Coefficient	Standard error
Occupation of main breadwinner when ten: legislator, senior official or manager or professional or clerk	−0.1531**	0.0579	−0.1303 <sup>z</sup>	0.0589
Occupation of main breadwinner when ten: elementary or agricultural or fishery worker	−0.2075***	0.0382	−0.1956***	0.0390
Number of books when ten (more than 10)	0.3077***	0.0413	0.2243***	0.0420
Period of financial hardship (<20s)	−0.2934**	0.0979	−0.1941 <sup>z</sup>	0.0993
Primary education or lower	<i>F</i>		<i>F</i>	
Secondary education	0.1873***	0.0190	0.1591***	0.0194
Tertiary education	0.2997***	0.0237	0.2540***	0.0247
<b>Context variables when 20 (averages by cohort)</b>				
GDP real Growth rate	−11.7560***	2.2174	−7.5658***	2.1407
Unemployment rate	−0.0225***	0.0054	−0.0030	0.0057
EPI index	−0.5610***	0.0285	−0.2720***	0.0495
Maternity leave length by age cohort	0.0154***	0.0018	0.0004	0.0028
Maternity leave replacement rate by age cohort	1.3943***	0.0847	0.7734***	0.1123
Nordic			<i>F</i>	
Central			−0.9603***	0.1149
South			−1.5020***	0.1130
Transition	−0.6251***	0.0822	−0.8888***	0.1271
Number of observations	11,627		11,627	
Censored observations	1954		1954	
rho	0.3744		0.5204	
sigma	6.3526		6.4446	
lambda	2.3783		3.3539	

Source: SHARE Wave 1 and 2 release 2.5.0, SHARELIFE release 1.

F: reference variable for a group variable.

\* Significant at 5%.

\*\* Significant at 1%.

\*\*\* Significant at 0.1%.

Table B.2

Average marginal effects of determinants included in the Heckman sample selection model.

Selection equation = Ever worked (i.e. >0 years of work)	One country group		Country groups are allowed for	
	Average marginal effects	Standard error	Average marginal effects	Standard error
<b>Demographics</b>				
Age cohort (≤64)	<i>F</i>		<i>F</i>	
Age cohort (65–79)	−0.0423***	0.0072	−0.0452***	0.0071
Age cohort (≥80)	−0.0617***	0.0106	−0.0901***	0.0105
Mother when 22	0.0062	0.0058	0.0007	0.0056
Orphan (yes)	0.0746***	0.0244	0.0613**	0.0237
Foreign-born (yes)	0.0057	0.0121	−0.0060	0.0116
Household size as a child	−0.0122***	0.0022	−0.0055 <sup>z</sup>	0.0022
<b>Initial conditions</b>				
Well-being index	−0.2205***	0.0315	−0.1715***	0.0305
Childhood health status (poor or fair)	0.0126	0.0108	0.0100	0.0105
Occupation of main breadwinner when ten: legislator, senior official or manager or professional or clerk	−0.0255***	0.0096	−0.0206 <sup>z</sup>	0.0093
Occupation of main breadwinner when ten: elementary or agricultural or fishery worker	−0.0345***	0.0063	−0.0309***	0.0061
Number of books when ten (more than 10)	0.0512***	0.0068	0.0355***	0.0066
Period of financial hardship (<20s)	−0.0488***	0.0163	−0.0307 <sup>z</sup>	0.0157
Primary education or lower	<i>F</i>		<i>F</i>	
Secondary education	0.0311***	0.0031	0.0252***	0.0030
Tertiary education	0.0498***	0.0039	0.0402***	0.0039
<b>Context variables when 20 (avg by cohort)</b>				
GDP real Growth rate	−1.9548***	0.3681	−1.1968***	0.3384
Unemployment rate	−0.0037***	0.0009	−0.0005	0.0009
EPI index	−0.0933***	0.0046	−0.0430***	0.0078
Maternity leave length by age cohort	0.0026***	0.0003	0.0001	0.0004
Maternity leave replacement rate by age cohort	0.2318***	0.0137	0.1223***	0.0177

Table B.2 (Continued)

Selection equation = Ever worked (i.e. >0 years of work)	One country group		Country groups are allowed for	
	Average marginal effects	Standard error	Average marginal effects	Standard error
Nordic			F	
Central			–0.1519***	0.0181
South			–0.2376***	0.0176
Transition	–0.1039***	0.0136	–0.1406***	0.0201

F: reference variable for a group variable.

\* Significant at 5%.

\*\* Significant at 1%.

\*\*\* Significant at 0.1%.

### Definitions/sources of context variables

- **Growth rate:** Source OECD (<http://stats.oecd.org/>), rate of gross domestic product computed as an average of a ten-year period corresponding to the period the respondent was at the reference age.
- **Unemployment rate:** Source OECD (<http://stats.oecd.org/>), rate of unemployment as % of the labour force computed as an average of a ten year corresponding to the period when the respondent was at the reference age.
- **Minimum wage:** Source OECD (<http://stats.oecd.org/>), minimum relative to average wages of full-time workers computed as an average of a ten year period corresponding to the period when the respondent was at the reference age.
- **Social protection on “family/children function” as % of GDP:** Source Eurostat (European system of integrated social protection statistics ESSPROS database: [http://epp.eurostat.ec.europa.eu/portal/page/portal/social\\_protection/introduction](http://epp.eurostat.ec.europa.eu/portal/page/portal/social_protection/introduction)), computed as an average of a ten-year period corresponding to the period the respondent was at the reference age.
- **Maternity leave length:** Maternity/parental leave duration in weeks: Source SHARELIFE welfare state context variables (<http://share-dev.mpsoc.mpg.de/index.php?id=162>) computed as an average of a ten year period corresponding to the period when the respondent was at the reference age.
- **Maternity leave replacement rate:** Maternity/parental leave benefits expressed as a percentage of women's wages in manufacturing Source SHARELIFE welfare state context variables (<http://share-dev.mpsoc.mpg.de/index.php?id=162>), computed as an average of a ten year period corresponding to the period when the respondent was at the reference age.

### References

Arber, S., Davidson, K., & Ginn, J. (2003). Changing approaches to gender and later life. In S. Arber, K. Davidson, & J. Ginn (Eds.), *Gender and ageing: Changing roles and relationships* (pp. 1–14). Philadelphia: Open University Press.

- Barr, N. (2005). *Labour markets and social policy in Central and Eastern Europe: The accession and beyond*. Washington, DC: The World Bank.
- Bettio, F., & Villa, P. (1998). A Mediterranean perspective on the breakdown of the relationship between participation and fertility. *Cambridge Journal of Economics*, 22, 137–171.
- Blau, F., Ferber, M., & Winkler, A. (2010). *The economics of women, men, and work* (6th ed.). Boston: Pearson.
- Boeri, T. (2003). *Women on the ‘low equilibrium’*. mimeo.
- Boeri, T. (2011). Institutional reforms and dualism in European labor markets. In Card, D., & Ashenfelter, O. (Eds.), *Handbook of labor economics* (Vol. 4B, pp. 1173–1236). Amsterdam: Elsevier–North Holland.
- Boeri, T., Del Boca, D., & Pissarides, Ch. (2005). *Women at work: An economic perspective*. Fondazione Rodolfo DeBenedetti: Oxford University Press.
- Borjas, G. (2010). *Labor economics* (5th ed.). McGraw-Hill International Edition.
- Börsch-Supan, A., & Schröder, M. (2011). Employment and health at 50+: An introduction to a life history approach to European welfare state interventions. In A. Börsch-Supan et al. (Eds.), *The individual and the welfare state: Life histories in Europe* (pp. 1–15). Heidelberg: Springer.
- Bound, J., Brown, C., & Mathiowetz, N. (2001). Measurement error in survey data. In Heckmann, J., & Leamer, E. (Eds.), *Handbook of econometrics* (Vol. 5, pp. 3707–3833). Amsterdam: Elsevier Science.
- Brugiavini, A., Pacini, G., & Trevisan, E. (2012). The direct impact of maternity benefits on leave taking: Evidence from complete fertility histories. *Advances in Life Course Research*, <http://dx.doi.org/10.1016/j.alcr.2012.10.003>.
- Brugiavini, A., Padula, M., Pasini, G., & Peracchi, F. (2011). Labour mobility and retirement. In A. Börsch-Supan et al. (Eds.), *The individual and the welfare state: Life histories in Europe* (pp. 125–135). Heidelberg: Springer.
- Crompton, R., & Lyonette, C. (2006). Some issues in cross-national comparative research methods: A comparison of attitudes to promotion and women's employment in Britain and Portugal. *Work, Employment and Society*, 20(2), 389–400.
- Daly, M. (2002). A fine balance: Women's labor market participation in international comparison. In Scharpf, F. W., & Schmidt, V. A. (Eds.), *Welfare and work in the open economy* (Vol. II, pp. 467–510). Oxford: Oxford University Press.
- Delhaussé, B., Luttgens, A., & Perelman, S. (1993). Comparing measures of poverty and relative deprivation: An example from Belgium. *Journal of Population Economics*, 6, 83–102.
- Esping-Andersen, G. (1990). *The three worlds of welfare capitalism*. Cambridge: Polity Press.
- Ferrera, M. (1996). The southern model of welfare in social Europe. *Journal of European Social Policy*, 1, 17–37.
- Ferrera, M. (2005). Welfare states and social safety nets in Southern Europe: An introduction. In M. Ferrera (Ed.), *Welfare state reform in Southern Europe* (pp. 1–23). London: Routledge.
- Frees, E. (2004). *Longitudinal and panel data: Analysis and applications in the social sciences*. New York: Cambridge University Press.
- Goldin, C. (2006). The quiet revolution that transformed women's employment, education and family. *The American Economic Review*, 96(2), 1–21.
- Goodin, R., Headey, B., Muffels, R., & Dirven, H. (1999). *The real worlds of welfare capitalism*. Cambridge: Cambridge University Press.
- Hakim, K. (2000). *Work-lifestyle choices in the 21st century: Preference theory*. Oxford: Oxford University Press.
- Hakim, K. (2004). *Key issues in women's work: Female diversity and the polarisation of women's employment*. London: Glasshouse Press.
- Hobson, B. (2004). The individualised worker, the gender participation and the gender equity models in Sweden. *Social Policy and Society*, 3(1), 75–83.
- Jaumotte, F. (2003). Labour force participation of women: Empirical evidence on the role of policy and other determinants in OECD countries. *OECD Economic Studies*, 37(2), 51–107.

- Kapteyn, A., Smith, J. P., & van Soest, A. (2007). Vignettes and self-reports of work disability in the US and the Netherlands. *American Economic Review*, 97(1), 461–473.
- Lewis, J. (2001). The decline of the male-breadwinner model: The implications for work and care. *Social Politics*, 8(2), 152–170.
- Lewis, J., Campbell, M., & Huerta, C. (2008). Patterns of paid and unpaid work in Western Europe: Gender, commodification, preferences and the implications for policy. *Journal of European Social Policy*, 18(21), 21–37.
- Long, C. (1958). *The labor force under changing income and employment*. Princeton: Princeton University Press for National Bureau of Economic Research.
- Lyberaki, A., & Tinios, P. (2013). Informal social protection and family indebtedness: Some hidden economic crisis dynamics, paper in Conference on the Politics of Extreme Austerity, Political Studies Association, University of Strathclyde, Glasgow December 2011. To appear in *Political Studies Review*, special issue 2013.
- Lyberaki, A., Tinios, P., & Georgiadis, T. (2011). Explaining persistent poverty in SHARE: Does the past play a role? In A. Börsch-Supan et al. (Eds.), *The individual and the welfare state: Life histories in Europe* (pp. 19–29). Heidelberg: Springer.
- Maddala, G. S. (1983). *Limited dependent and qualitative variables in Econometrics*. Cambridge: CUP.
- Mazzonna, F., & Havari, E. (2011). Can we trust older People's statements on their childhood circumstances? Evidence from SHARELIFE (August 1, 2011). SHARE Working Paper Series 05-2011. Available at SSRN: <http://ssrn.com/abstract=2004299> or <http://dx.doi.org/10.2139/ssrn.2004299>.
- Mincer, J. (1962). Labor force participation of married women: A study of labor supply. In Universities-National Bureau of Economic Research (Ed.), *Aspects of labor economics* (pp. 63–106). Princeton: Princeton University Press.
- Morgan, L., & Kunkel, S. (2007). *Aging, society and the life course*. New York: Springer Publishing Company.
- OECD (2012). OECD Indicators of employment protection [electronic resource]. <http://www.oecd.org/employment/employmentpoliciesanddata/oecdindicatorsofemploecindicatorso.htm>. Accessed 10/2012.
- O'Rand, A., & Henretta, J. (1999). *Age and inequality: Diverse pathways through later life*. Oxford: Westview Press.
- Schröder, M. (2011). Concepts and topics. In M. Schröder (Ed.), *Retrospective data collection in the Survey of Health, Ageing and Retirement in Europe. SHARELIFE methodology* (pp. 11–19). Mannheim: MEA.
- Timonen, V. (2008). *Ageing societies: A comparative introduction*. London: Open University Press.
- Wooldridge, J. (2002). *Econometric analysis of cross section and panel data*. Massachusetts: The MIT Press.