Integrating Life Course and Pension Policy Perspectives

The Case of Poverty Among Elderly Women

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THE YOUNG AND THE ELDERLY AT RISK

Individual Outcomes and Contemporary Policy Challenges in European Societies

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ABSTRACT

The young and the elderly are among the most vulnerable groups in contemporary societies, especially in times of economic slowdown. The current retrenchment of the welfare states is buffering the growing demographic and economic pressures in European countries at the expense of the young and the elderly, and particular subgroups with intersecting high-risk characteristics. However, both investing in the young, who determine a society's future, and providing public support for the elderly, the most deserving needy group, are seen as musts. How well young people fare in their early stage of life is related to their success in the labour market and later well-being, which in turn impacts the sustainability of the welfare state. Challenges for the welfare state are as well that the elderly are being pushed and pulled too early into (pre-)retirement schemes and that many of them find themselves in precarious situations despite their pension income.

This book reflects on when and why the young and the elderly are at risk in European welfare states, as well as whether and how specific welfare policies respond to their needs. It also identifies particularly vulnerable groups who cumulate being young or old with other risk characteristics, such as being a woman or having a migration background, and investigates how these disadvantages could be tackled.

The reader is presented with selective studies addressing policies and institutional settings, as well as individual outcomes and attitudes towards governmental responsibilities. Focusing on the young in its first part, this book reveals the contribution of ethnic and social capital to educational outcomes, and the role of national and European policies in the transition from school to work, the duration of unemployment and the minimum income dependency of Europe's youth. The second part of the book focuses on the elderly and discusses intersections with gender and ethnicity in old-age poverty, pension outcomes of mobile (cross-border) workers, the impact of the recent social security reforms and the possible outcomes of including financial assets and housing wealth in old-age income protection. The final chapters address the potential erosion of the solidarity of and towards the young and the elderly, as a challenge for the European welfare states.

DEDICATION

This book is dedicated to Professor Jos Berghman (1949–2014), initiator and director of IMPALLA, the International Master in Social Policy Analysis by Luxembourg, Leuven and Associated Institutes.

Photo: Jos Berghman

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We acknowledge CEPS/INSTEAD (now LISER – Luxembourg Institute of Socio-Economic Research) and ESPAnet (European Network for Social Policy Analysis) for having organised the conference in 2013, which brought together the authors who contributed to this book. In addition, we are grateful to CEPS/INSTEAD for organising and supporting financially and morally the IMPALLA programme over 12 years, since its beginning, as well as to its initiators, Prof. dr. Gaston Schaber and Dr. Pierre Hausman (both CEPS/INSTEAD), Prof. dr. Jos Berghman (KU Leuven), and Prof. dr. Jean-Claude Ray (Université de Lorraine), Prof. dr. Jacques Hagenaars (Tilburg University), Prof. dr. Jean-Paul Lehners (Université de Luxembourg). Last but not least, a thank you to all those not mentioned here but who have supported us, whether directly or indirectly.

Ioana Salagean, Catalina Lomos and Anne Hartung
The editors

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PREFACE

Wim van Oorschot

While the welfare state, as a modern social institution taking responsibility for the fair re-distribution of life chances, as well as for creating an inclusive society, is regarded as a European invention, and while the existence of an encompassing welfare state has often been depicted as one of the defining criteria of Europe, the concept of the European welfare state and its concrete manifestations in specific social policies became substantially challenged in the past two decades. In this period European welfare states were, and at present still are, challenged by intensified international economic competition threatening their redistributive capacity; by social developments as demographic aging and the rise of new family arrangements confronting them with a series of 'new social risks' associated with postindustrial society; by increasing labour market flexibility and inflow of cheap migrant labour having consequences for the structure of the wages and benefits system of countries; and by the European Union becoming a critical intervening level in domestic processes of welfare state change leading to an era of semi-sovereign welfare states. The combination of these challenges results in a precarious social-political context marked by intensified discussions about the generosity, universalism and scope of European welfare states. As a result, substantial welfare reforms are visible in European countries, taking various forms (of retrenchment, recalibration, and partly extension as well), and leading to new perspectives on the welfare state goals and approaches governments should adopt. Clearly, welfare states are changing all over Europe, but in different speeds and directions. However, the European welfare state is not only challenged by structural economic and social processes, increasingly it is subjected to more ideologically grounded accusations of undermining individual responsibility, of damaging traditional social ties and of weakening private forms of mutual solidarity and self-help. Ideas of collective, public responsibilities for the contingencies of modern life, which are at the base of the solidaristic welfare state 'European style', are giving in to a perspective that emphasizes the value of individual responsibility and, related to this, of private and informal welfare arrangements. All this contributes to rising concerns on the future sustainability of the European welfare state, in economic and political terms, as well as in terms of social legitimacy.

It is in this context that, at the occasion of its tenth anniversary, IMPALLA, the International Master in Social Policy Analysis of Luxembourg, Leuven and Associated Institutes, organised an international conference on *Building blocks for an inclusive society: empirical evidence from social policy research* in cooperation with ESPAnet, the Network for European Social Policy Analysis. At this conference, hosted by LISER (Luxembourg Institute of Socio-Economic Research, formerly CEPS/INSTEAD) in Luxembourg, where the international student group of IMPALLA and the program's alumni convened with European welfare state scholars and experts from various countries, disciplines and policy domains, the central focus was on the welfare state's objective of contributing to an inclusive society. Fully in line with the overall character of the IMPALLA program, which combines the theoretical and empirical comparative study of social policies, the conference papers and lectures addressed research that can contribute to policy making that aims to integrate various social groups and their needs in a balanced approach, thereby fostering overall social cohesion and inclusion. Such balance is increasingly necessary, now that at the level of individual citizens new forms of social risk have grown out of increasingly precarious and insecure life-courses, and old balances and social contracts between social classes and groups are disturbed.

This book presents a selection of conference papers that address specifically the life chances of the younger and the older generations in European welfare states. Both groups are at risk, due to high unemployment rates among the young, and the retrenchment of pension provisions for the old. Due to fiscal constraints, in an ever more direct way the social protection of both groups is experienced as a zero sum game, in which welfare states have to balance between creating life opportunities for new generations on the one hand, and caring for those who contributed so much to society in the past on the other. When it comes to generations, an inclusive society assumes sustained levels of inter-generational solidarity, that is, of a commonly supported social contract between the young and the old. Empirical research, as it is presented in this book's contributions, can add much to our understanding of how this social contract, and by extension also others, like the social contracts between the active and inactive, the healthy and the sick, and the rich and the poor, can be sustained, economically, politically, as well as socially.

I thank the editors of this book for their efforts, which have resulted in this important contribution to the on-going welfare state debate,

Wim van Oorschot
Professor of Social Policy at KU Leuven and Honorary President of ESPAnet

CONTENTS

CHAPTER 4

INTEGRATING LIFE COURSE AND PENSION POLICY PERSPECTIVES: THE CASE OF POVERTY AMONG ELDERLY WOMEN*

Hans Peeters & Wouter De Tavernier

ABSTRACT

While elderly women are found to be vulnerable to poverty in many countries, we still lack in depth insight as to why this may be. While previous studies rightfully stress the importance of work history, family history and pension regulations in this regard, we demonstrate how an explicit focus on their interaction can improve our understanding of the mechanisms producing poverty among elderly women. To this end, we use Belgian register data covering the lifespan of roughly 9.000 women aged 65 to 71 in 2008. We find that pension policies largely determine how lifecourse events affect old-age poverty risk – whether directly, or indirectly – through their influence on labour market participation. However, an explanation of poverty risk among certain groups of women, such as among married women, purely in terms of pension policy is incomplete. Our analyses suggest that, for those women, asset ownership may also be key for poverty prevention.

Keywords: pension policy, lifecourse, female employment, poverty, elderly women

1. INTRODUCTION

Poverty among elderly women is a pressing issue, but by no means a new one. The abundant literature explaining this phenomenon, can largely be divided in two strands: social policy, which mainly focuses on pension regulations

* An earlier version of this chapter has been published in *Ageing and Society*, 35(6): 1171–1199.

in circumventing old-age poverty (e.g. Zaidi *et al.*, 2006; Smeeding and Williamson, 2001), and family sociology, which examines family transitions, career trajectories and their interactions relative to old-age poverty (e.g. Brown and Lin, 2012; Wilmoth and Koso, 2002). While both fields have successfully illustrated their merits, there has been little convergence between the two.

In this chapter, we illustrate the necessity of investigating how family histories, career histories and social policy *interact*. Research studying elderly women's income packages in industrialised countries has shown that their largest source of income consists of pension benefits (Choi, 2006). Arguably therefore, the level of pension benefits largely determines poverty risk among elderly women. Consequently, detrimental lifecourse events can be mitigated by the pension regulations in place. This contribution examines how integrating both a lifecourse and a pension policy perspective improves our understanding of poverty among elderly women in Belgium.

To investigate how family histories, career histories and pension regulations interact to influence the incidence of poverty among elderly women, register data are used. A random sample of over 9.000 formerly privately employed women living in Belgium in 2008 and aged 65 to 71 is drawn. Data on poverty risk (operationalised as receipt of means tested benefits) are linked to over 45 years of career and family data. Note that as we only analyse Belgian pension regulations for employees, our results cannot be generalised to other pension systems, yet similar analyses are of interest especially in countries where marital status influences pension entitlements.

2. INCIDENCE OF POVERTY AMONG ELDERLY WOMEN

International studies have consistently shown that poverty risk among elderly women is higher than among elderly men, independent of the type of indicator, the data used or the country surveyed (European Commission, 2006; OECD, 2008; Smeeding and Williamson, 2001). To account for variation *among* women, such studies usually correlate poverty risk to marital status, living situation and number of children. In terms of marital status, poverty risk has been found to be lowest among married women without exception. Most research found poverty risk to be highest among divorced and never married women, and somewhat lower among widows (Haider, Jacknowitz and Schoeni, 2003; Harrington Meyer, 1990; Harrington Meyer and Herd, 2007). Furthermore, all studies agree that, in terms of living situation, poverty risk is higher among elderly women living alone than among their counterparts not living alone (Choi, 2006; OECD, 2008; Smeeding and Williamson, 2001). Finally, there is a positive correlation between number of children and elderly women's poverty risk (Choudhury and Leonesio, 1997).

To account for the aforementioned findings, most of these studies suggest that such results are products of the specific gender roles in the male breadwinner paradigm, whereby the husband performs paid labour outside of the home, while the wife performs the unpaid domestic labour. This division of labour is particularly pronounced for mothers, whose care for young children is seen as their principal role. When women do work, they frequently do so in the 'secondary' labour market, characterised by low wages, part-time and/or temporary jobs and less occupational pension build-up (Ginn, 2003; Ghilarducci, 2008). Accordingly, elderly women have lower individual incomes than men. Naturally, as long as the woman lives with the breadwinner, her lower individual income is not necessarily a cause for concern. However, in the event of separation, the moment the woman does live alone, her risk of falling into poverty greatly increases with the loss of economies of scale, potentially forcing her to fall back on her own lower income. Some studies attribute widows' relatively auspicious financial positions, when compared to divorced women, to differential pension regulations based on marital status (Choi, 2006; Haider, Jacknowitz and Schoeni, 2003; Harrington Meyer, 1990).

Unfortunately, most of the above studies share key shortcomings. For one, complex lifecourses are reduced to a few socio-demographic variables, such as being married or not. As a result, several distinct groups are bundled together (e.g. divorced and widowed women, cf. Dewilde, 2012). Secondly, when lifecourse events are used to explain old-age poverty risk, either they are absent in the analyses (e.g. Harrington Meyer, 1990), or the intermediary mechanisms are not explicitly modelled (e.g. Choudhury and Leonesio, 1997). In such studies, the precise ways in which lifecourses influence old-age poverty risk usually remain vague, with researchers either merely concluding that lifecourses are important (e.g. Vartanian and McNamara, 2002) or that the ways in which lifecourses influence later life are too complex to allow the development of specific hypotheses (Sefton, Evandrou, Falkingham and Vlachantoni, 2011). Finally, existing research almost exclusively focuses on liberal welfare states (mostly the United States and the United Kingdom) despite Esping-Andersen's (1990) seminal contribution illustrating that social policy institutions differ manifestly across regime type.

In response to the above-mentioned limitations, we demonstrate how a focus on the interaction between lifecourses and pension regulations can provide greater insight into the mechanisms that produce poverty among elderly women in a Continental European welfare state, such as Belgium.

3. FAMILY AND CAREER FROM THE LATE 1950s IN BELGIUM

The cohort under study was reaching the late teens/early twenties around 1960, when adherence to the male breadwinner model was at its historical peak in most Western countries, including Belgium (Lewis, 2001; Vanhaute, 2002). The institution of marriage was sacrosanct, divorce exceptional. Once married, women were expected to raise children and run the household. While this male breadwinner ideal was frequently unrealistic, figures show that female labour market participation was historically low during this period (Vanhaute, 2002). Unsurprisingly, various studies from that era stated that the general majority of women considered home-making to be their vocation, while full-time or part-time work outside of the home was only a secondary consideration (Rostow, 1964 for U.S.; Joseph, 1961 for U.K.; Bruntz, 1962 for France).

However, the large number of sociological studies emerging from the late 1950s onwards on working wives (Myrdal and Klein, 2003 [1956]; Yudkin and Holme, 1963) indicated the beginning of a gradual transition. Mainly due to a booming economy and the growth of the service sector, more and more (married) women began working in the formal economy. Meanwhile, important changes were occurring in marital life – that other central tenet of the male breadwinner model. From the early 1960s (especially from the mid-1970s) onward, divorce figures increased spectacularly: Of all marriages entered into in 1955, 8 per cent were dissolved after 25 years; of marriages entered into in 1970 the same percentage of divorce was reached after only 10 years of marriage (Matthijs, 2009).

4. BELGIAN PENSION REGULATIONS AND THE MALE BREADWINNER MODEL

The Belgian pension system gradually arose in the first half of the twentieth century, culminating in the defining pension acts of the 1950s and 1960s (Berghman, 1981), which are still central to understanding Belgian pension regulations. Born in a male-breadwinner context, the pension system has a dual eligibility structure: one is either entitled to a pension based on personal employment history (retirement pensions – mostly for men) or based on that of one's (former) spouse (derived pensions – mostly for women).[2]

Retirement pensions are based on one's own employment history. For every year worked, pension rights are built up equalling 1/45th of 60 per cent of the wage earned in that year. Hence, a full retirement pension requires a 45-year career and equals 60 per cent of the average wage earned over those 45 years. In this calculation, some periods of inactivity, e.g. due to disability, unemployment

[2] The following discussion only focuses on the main pension regulations. See Berghman and Peeters (2012) for a more technical discussion of Belgian pension regulations. This article is limited to regulations applying to employees, not those applying to civil servants or the self-employed (see section 6.1). It does not consider occupational pensions as their importance for our research population is minimal.

or maternity/paternity leave, are assimilated to periods of employment. These 'assimilated period' pension rights are (virtually) identical to those built up during employed periods. While assimilated periods are not unique to Belgium (OECD, 2003), the extent of their usage is: around one-fourth of male and one-third of female pension build-up consists of such periods (Peeters and Larmuseau, 2005).

Unlike retirement pensions, *derived pensions* are based on the career of the (previous) breadwinner.[3] Varying by marital status, derived pensions reflect the social reality of when these pension regulations were constructed. Generally speaking, married women are assumed to benefit from their husbands' family income, while the state replaces the former breadwinner as the supplier of income for divorced and widowed women. Unmarried women (i.e. those women who have never been married) cannot receive derived rights. The calculation of the different derived rights is illustrated in Figure 1. The woman's derived pension is presented as a percentage of her (previous) husband's retirement pension on the Y-axis, while her retirement pension is displayed on the X-axis, again as a percentage of her (previous) husband's retirement pension. A woman's total pension, relative to that of her (previous) husband, can be calculated by summing up the values of both axes.

We first examine married women. As a married woman is assumed to be covered by the breadwinner's income, she does not receive derived pension benefits. Conversely, her husband receives additional spousal benefits equalling 25 per cent of his own retirement pension to provide for his wife. However, these additional benefits are only granted on the condition that the wife's retirement pension does not exceed 25 per cent of the husband's. When it does not exceed 25 per cent, the wife's retirement pension is not paid out to her: rather, her own pension rights (if any) are transferred to her husband (hence the negative derived rights).

Derived pensions granted to widows equal 100 per cent of the deceased spouse's retirement pension (without spousal benefits). Furthermore, a survivor's pension can be kept integrally as long as the wife's retirement pension equals 10 per cent or less of that of her deceased husband. If the wife's retirement pension exceeds this 10 per cent, the survivor's pension is diminished proportionally, implying that whether the widow has built up her own rights amounting to 10 per cent or up to 110 per cent of her husband's retirement pension (or anything in between), makes no difference for the total pension (add-up percentages on the X- and Y-axes in Figure 1).

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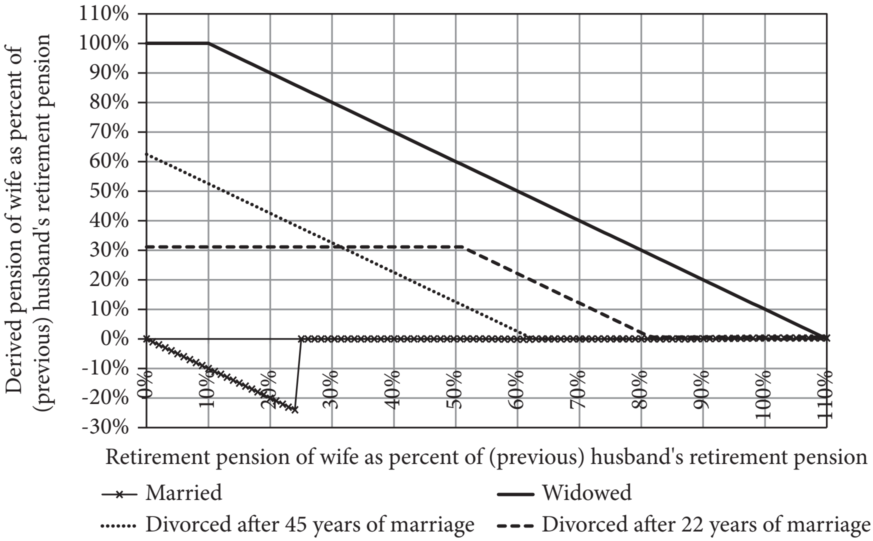
[3] As the article deals with women's old-age poverty, we assume that derived pensions are only granted to women. However, as a consequence of an important legislative change in 1984, derived pensions can also be granted to men. In practice, on the contrary, this change in legislation has had little impact: based on data from the Pension Register (See section 6.1), we know that in 2008, 97 per cent of all individuals receiving survivor pensions were women, while divorce pensions were granted exclusively to women. Spousal benefits, on the other hand, were granted to less than one percent of women (compared to 36 percent of men).

Figure 1. Derived pension rights in Belgium by marital status and retirement pension build-up, as a proportion of the (former) husband's retirement pension



Source: Authors' calculations based on Belgian pension regulations.

The current divorce pension, established in 1975, holds that upon retirement, an ex-wife is entitled to a maximum of 62.5 per cent of her former husband's retirement pension. Yet, this maximum is only granted if the ex-wife has no retirement pension of her own and has been married to her ex-husband for the duration of his 45-year career (cf. Figure 1; divorced after 45 years of marriage). However, if the ex-wife is entitled to her own retirement pension, the derived pension is diminished proportionally: no derived benefits are granted if the wife's retirement pension exceeds 62.5 per cent of the husband's retirement pension (see X-axis). Alternatively, if the couple had been married for less than 45 years, only a fraction of the divorce pension is granted to the ex-wife. Since, in the study cohort, women divorced on average after just 22 years of marriage, only 22/45th of a full divorce pension is granted, equalling 30 per cent of the ex-husband's retirement pension (cf. Figure 1; divorced after 22 years of marriage). Paradoxically, if the ex-wife has a retirement pension of her own that has been built up outside of marriage, the derived rights granted are not reduced accordingly and can, therefore, be higher than in the case of a 45-year marriage.[4]

The above figure assumes that women marry, divorce or widow only once. Reality is more complex, with many women having more elaborated marital

[4] A detailed explanation of how the level of divorce pension entitlement interacts with a woman's own retirement pension and with the duration and timing of marriage lies outside the scope of this article. For more information, see Peeters, De Tavernier and Berghman (2013).

histories. However, this does not render the figure less accurate, as only current marital status determines derived rights. Currently divorced women who married more than once are the exception to this rule, as they can reclaim divorce and/or survivor's pensions from previous marriage(s).

5. HYPOTHESES

We develop hypotheses on how pension regulations can explain *how* detailed lifecourses impact old-age poverty risk. We first examine the *direct* impact of marital history on elderly women's poverty risk. We then consider the *indirect* impact of family history (marital and parenthood histories) on poverty risk through its impact on women's work histories and retirement pension build-up.

5.1. THE DIRECT IMPACT OF MARITAL HISTORY ON OLD-AGE POVERTY RISK

Controlling for living situation and, if applicable, for the income of the other household member(s), as well as for work history, we expect that women who receive the highest derived pension benefits will have the lowest poverty risk, as they are the least 'penalised' for periods outside the labour market. We, therefore, expect widows to have the lowest poverty risk, and unmarried and married women the highest. Divorced women's poverty risk, we believe, will lie somewhere in between (Hypothesis 1). Though our expectation of high poverty risk among married women may seem counter-intuitive, as they are presumably safeguarded against poverty by their husband's income, do recall that we explicitly control for the incomes of other household members, such as husbands. Finally, and contrary to typical lifecourse studies, on the basis of derived pension regulations, we predict that only current marital status is important in determining poverty among elderly women (Hypothesis 2).[5]

5.2. THE INDIRECT IMPACT OF MARITAL AND PARENTHOOD HISTORIES ON OLD-AGE POVERTY RISK

While the previous section considered the *direct* impact of marital history, most existing studies focus on the indirect impact of marital and parenthood history

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5 We expect there to be only one exception to this general rule: divorced women who widowed previously have a low poverty risk. Unfortunately, we lack sufficient cases to take these women into consideration.

on elderly women's poverty risk. Most studies implicitly assume that family history influences work history, that work history influences individual pension rights, which, in turn, determine old-age poverty risk (e.g. Quadagno, 2001: vii). In what follows, we first examine the impact of work history on old-age poverty risk through its expected effect on retirement pension build-up. We then go on to formulate hypotheses on the *indirect* impact of family history on elderly women's poverty risk.

Belgian retirement pensions are calculated as a function of the number of years worked and/or the number of years assimilated. Accordingly, a negative correlation is expected between the number of years worked, wages earned and the number of years assimilated and old-age poverty risk (Hypothesis 3). However, as was discussed in section 4, more career years, or assimilated years, or higher wages do not necessarily translate into a substantial increase in total pension rights. Drawing directly from Figure 1, we expect that these career variables will most strongly affect the poverty risk of unmarried and married women, and will less strongly affect divorced women. We do not expect there to be any effect among widows (Hypothesis 4).

For the women in the generation under study, childbirth usually signified either a withdrawal from the labour market (Guilbert and Isambert-Jamati, 1958; Girard, 1958; Klein, 1959) or, for those who did remain active in the workforce, a low-paying job (Rostow, 1964). Earlier research showed that being younger at the time of first childbirth, having a greater number of children (Girard, 1958) and undergoing a longer period of rearing children under the schooling age (Klein, 1959) caused women to exit the labour market or to work in low-paying jobs for a longer period of time. As it was still not widely accepted for women to return to the labour market after their children were grown-up (Dumon, 1973), we expect to find a negative correlation between the woman's age at first childbirth and old-age poverty risk, as well as a positive correlation between number of children and years rearing children under the schooling age and old-age poverty risk (Hypothesis 5).

It was not unusual for women to already scale down labour market participation after marriage (Guilbert and Isambart-Jamati, 1958). Hence, we expect that the older the woman was at (first) marriage, the lower her old-age poverty risk; and that the age at divorce has the opposite effect (Hypothesis 6). In line with Hypothesis 4, we expect that these family variables will be most pronounced among unmarried and married women, less so among divorced women and non-existent among widows (Hypothesis 7).

6. DATA, OPERATIONALISATION AND METHOD

6.1. DATA

We use data of the Belgian Datawarehouse Labour Market and Social Protection where anonymised individual identification numbers common to three national registers allow the matching of individual records: The Pension Register database contains all pension payments, including receipt of old-age social assistance benefits; the National Register contains data on household composition and a complete account of marital and parental history; and, the Sigedis dataset includes career data and data on pension build-up from 1955 onward.

The research population consists of women aged 65 to 71, living in Belgium in 2008, excluding those receiving pension benefits from the self-employed and civil servants schemes (36 percent of all women in that age group), because the pension regulations applying to these groups differ manifestly from those of the employee pension scheme. First generation immigrant women as well as women having built up pension benefits abroad (9 percent of the women in the aforementioned age group) are excluded. A 5 percent random sample is drawn from the research population, totalling some 9300 elderly women. After removing 102 cases of separated women (because of their low prevalence), 79 individuals who went through more than four marital status transitions, 61 cases with inaccurate family and career histories and 185 severely handicapped or institutionalised women[6], a sample of 8944 elderly women remains. In 2008, 270 of these women were unmarried, 6866 were married, 671 were divorced and 1137 were widowed.

By using register data, we avoid several difficulties characteristic of using survey data for lifecourse research (Wallgren and Wallgren, 2007). For instance, due to the relatively small number of respondents in existing surveys, lifecourse researchers often have to reduce complex lifecourse histories to simple socio-demographic variables (as is the case in Choi, 1995), or group women with distinct lifecourse histories, such as unmarried and divorced women, into one single category (see e.g. Vartanian and McNamara, 2002; Dewilde, 2012). In the absence of complete and detailed life course information, studies use panel survey data and/or retrospective modules of surveys to reconstruct lifecourses. While the former are plagued by selective drop-out between waves (Robine, Thinggaard and Christensen, 2008), the latter are marred by substantial and stratified memory bias (Drasch and Matthes, 2011). Another serious problem facing survey researchers is non-response, which cannot be assumed to be random (Stoop, Billiet, Koch and Fitzgerald, 2010). Therefore, when available, register data are preferable to survey data for lifecourse research. Naturally, register data have their own limitations, one being that not all relevant information is registered. Most importantly, the

6 For an analysis of poverty among institutionalized elderly, see Peeters, Debels and Verpoorten (2013).

educational level is unavailable for the cohort we study. Additionally, register data show the 'official' situation, which can deviate from reality – for instance regarding household composition. But these shortcomings are dwarfed by the advantages of using administrative data for research questions such as ours.

6.2. OPERATIONALISATION OF VARIABLES

Poverty risk is measured using a dummy variable indicating receipt of means-tested benefits in 2008 for people who had already reached the official retirement age. Every individual who received benefits from this social assistance scheme in 2008, irrespective of the benefit level or the number of times received, is considered poor in our study. In 2008, pensioners were entitled to means-tested old-age benefits only if 90% of their monthly total pension income did not exceed 811 euro (individual living alone) or 541 euro (individual living with another adult). The poverty line determined based on social assistance eligibility is comparable to the conventional 60 per cent median income threshold, which is 899 and 674 euro, respectively (Eurostat, 2013). However, contrary to the much-used relative poverty threshold, the means-test also takes into account the household members' assets (such as home ownership and additional financial resources). Although non-take up of social assistance benefits is possible, for the age group under study, the pension administration automatically investigates entitlement to social assistance, making non-take up less likely (Ooms, 2008).

Family histories are distinguished by marital and parenthood histories. Marital history consists of the chronological sequence of marital statuses observed for each person, covering their full lifespan. The following marital status sequences are identified: Unmarried (U, n = 270), Married (M, n = 6447), Married and Divorced (MD, n = 597), Married and Widowed (MW, n = 1061), MDM (n = 336), MWM (n = 50), MDMD (n = 65), MDMW (n = 92), MWMD (n = 9) and MWMW (n = 17).[7] To account for the timing of changes in marital status (and indirectly for the duration of marital periods), we consider the 'age of marriage', which refers to the woman's age at her first marriage and the 'age of divorce', which indicates the age of the woman at (first) dissolution of marriage through divorce. For assessing the impact of parenthood, we include whether one ever had children, the 'number of children', the 'duration of child rearing' (number of years rearing children under the age of six) and the 'age of the mother at first childbirth'.

Work history is modelled based on whether one ever worked, the 'number of years worked', the 'the number of years assimilated' and the 'average daily wage'. The number of years worked and the number of years assimilated refer to full-time equivalents: if someone performed two years of half-time work, this is compressed

7 Due to their small number, women with marital status sequences MWMD and MWMW will not be included in analyses using the marital status variables.

into one year of full-time employment. The average daily wage is calculated as the ratio of the sum of all wages earned during one's career (adapted to the 2008 consumer price index) to the total full-time equivalent days ever worked.

Three control variables are included: 'age', 'sharing a household' (i.e. whether someone else is registered at the same address), and the 'average income of the other household members', calculated as the ratio of the sum of personal incomes of the individual(s) with whom the woman shares a household to the number of individuals living with her. A similar procedure is followed by the pension administration when performing the means test to determine social assistance entitlement. The personal income considered includes all income from work, from social security (pensions, invalidity benefits, etc.) and from social assistance. Unfortunately, information on (income from) total assets is unavailable in the register datasets.

6.3. METHOD

Logistic regression is applied as the dependent variable is dichotomous (living or not living in poverty). We first test the hypotheses on the *direct* impact of family histories on old-age poverty risk. Two models are constructed for the full sample: Model 1 contains marital history and the previously mentioned control variables; Model 2 also includes total pension income, assessing the extent to which marital history influences old-age poverty risk via the pension system. We implicitly assume that causality goes one way and that therefore pension regulations do not influence marital history.

We subsequently investigate the *indirect* impact of family history on old-age poverty risk. We perform separate analyses for each category of current marital status, as these sub-populations are subject to different pension regulations. For every sub-population, we present one model containing the family variables and the control variables, and a second model including work histories. If family histories indirectly influence old-age poverty risk through their impact on work histories, the effects of family variables should cancel out in the second model.[8] Note that we implicitly assume family events to cause changes in career trajectories, and not vice versa. However, causality is a complex issue in work-family research, where not only family events influence careers, but educational and employment backgrounds simultaneously play roles in determining specific family trajectories (Brewster and Rindfuss, 2000). For instance, it is unclear whether women refrain from entering the labour market in anticipation of

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8 Work history can influence old-age poverty through its effect on the retirement pension build-up, but also via other mechanisms, such as through the ability to save. Unfortunately, as the data do not allow distinguishing retirement pensions from derived pensions, retirement pensions cannot be included in the model, and, therefore, the exact way in which work histories influence old-age poverty cannot explicitly be tested.

bearing children, or whether women who are not gainfully employed are more likely to bear children. However, given the strong adherence of this generation to the male breadwinner model and the related family values, we consider it reasonable to make this assumption of causality. Due to this issue of causality, our first model (not containing career variables) will overestimate the family variables' influence on poverty risk because the estimated effects will reflect both the impact of family variables and that of the omitted career variables. Indeed, women not working or who have low-paid employment – and who are, thus, more vulnerable later in life –, are likely to marry earlier (Henryon and Lambrechts, 1968), tend to have more children (Pauwels, de Wachter, Deschamps and Van Dongen, 1984) and tend to have children at a younger age (Liefbroer and Corijn, 1999).

A complication arises as not all variables apply to all research units. Since not all women have children, the inclusion of the variable 'age of mother at first childbirth' as well as 'duration of child rearing' poses an obstacle. Similar problems arise with 'years assimilated' and 'daily wage' (only applicable to women with careers) and 'average income of the household members' (not all women share households). To be able to generate one model covering the entire sample, we follow Mirowsky's (2013) approach for 'internal moderators'. To account for both women with and without children, we first centre the variables 'age of mother at first childbirth' and 'duration of child rearing'. Childless women are awarded a value of 0 for both variables. Next, a dummy is introduced representing whether a woman has children. Finally, this dummy is multiplied by the variables 'number of children', 'age of mother at first childbirth' and 'duration of child rearing'. As a result, the interaction terms compare the importance of parenthood variables among mothers; the dummy compares childless women with average mothers. Similar procedures are followed with 'work history' (a dummy 'ever worked' compares women who have never worked with women with average careers; the (interaction) variables 'years assimilated' and 'average daily wage' only apply to those having ever worked) and 'average income of household members' (the dummy 'sharing a household' compares women living alone with the average women sharing a household; the variable 'average income household members' only applies to those women sharing a household).

A second difficulty arises when comparing logit coefficients over different populations and models. As highlighted by several authors (Allison, 1999; Mood, 2010; Williams, 2009), logit coefficients not only reflect the effect of independent variables, but also the size of unobserved heterogeneity. As this heterogeneity differs across populations and models, comparisons of logit coefficients are not straightforward. Though various solutions have been proposed, a standard solution remains absent. Therefore, to compare coefficients across populations, we employ three approaches (Mood, 2010): an early approach advocated by Allison (1999), an approach developed by Williams (2009) and linear probability modelling (Hellevik, 2009). Differences between coefficients across populations will only be mentioned if all three approaches produce significant differences at an $\alpha = 0.05$ level. To compare coefficients across nested models, linear probability modelling is used, applying the method advocated by Clogg, Petkova and Haritou (1995). The models used to compare coefficients across populations and models are not presented, but are available from the authors.

7. RESULTS

7.1. DESCRIPTIVE STATISTICS

Table 1 shows the marked importance of current marital status on poverty risk. While almost one in four divorced and one in six unmarried women experiences poverty, few married and widowed women are impoverished. This finding is largely consistent with previous studies, with the advantageous situation of widows being specific to Belgium. In fact, with virtually no poor widows, it becomes impossible, as well as unnecessary, to perform separate analyses for widows.

Table 1. Poverty risk by current marital status, women aged 65 to 71 living in Belgium in 2008

	Unmarried	Married	Divorced	Widowed	Total
N	270	6866	671	1137	8944
% in poverty	16.4	1.7	22.9	0.5	3.6

Source: Data Warehouse Labour Market and Social Protection, authors' calculations.

7.2. THE DIRECT IMPACT OF MARITAL HISTORY ON OLD-AGE POVERTY RISK

We now investigate whether the results on the *direct* impact of marital history on poverty risk are in line with what was expected based on the differential derived pension rights available for the different groups of women (Hypothesis 1). In Table 2, Model 1 shows that, when controlling for other variables, unmarried and divorced women still have the highest poverty risk, while married women and widows are markedly better off. Other analyses (not shown) indicate that widows have significantly lower poverty risk than married women. These results are largely expected, as they reflect differential derived pension benefits. The notable exception concerns married women. On the basis of the derived pension legislation, one would expect that when controlling for background variables, such as living situation and the income of household member(s), married women would have a greater poverty risk than divorced women. Their surprisingly lower risk of poverty implies that factors other than pension legislation determine poverty risk. Model 2, where we also control for the woman's pension income, suggests that the accumulation of wealth (e.g. savings or home ownership) in marriage reduces the poverty risk of married women (Schmidt and Sevak, 2006; Wilmoth and Koso, 2002). In Model 2 the dependent variable is the receipt of means-tested social assistance benefits, which is determined by family income and family assets, but as all family incomes are controlled for in the model, the remaining effects of the marital history variables on poverty risk must reflect the effect of household asset ownership. Here the gap in poverty risk between married and divorced women widens, while that between widows and divorced women diminishes. We conclude that, married and, to a lesser extent, widowed women are (also) protected against poverty through asset ownership, indicating that a stable marriage is a better platform for accumulating wealth than other family situations.

In line with our expectations (Hypothesis 2), we find that previous marital statuses are irrelevant in determining old-age poverty risk among women (Table 2, Model 1). There are no significant differences in poverty risk between women who married once and then divorced, and those who divorced twice. Other analyses (not shown), indicate that previous marital statuses are also irrelevant for all currently married and currently widowed women.

Table 2. The effect of marital status history on poverty risk among women aged 65 to 71 living in Belgium in 2008, logit coefficients†

	Model 1		**Model 2**	
	B	**p**	**B**	**p**
Marital status history				
Married and *divorced* (ref. cat.)				
Unmarried	0.456		–0.123	
Married	–2.674	***	–3.682	***
Married and *widowed*	–5.089	***	–2.970	***
Married, widowed and *remarried*	–2.449	*	–3.401	**
Married, divorced and *remarried*	–2.423	***	–3.386	***
Married, divorced, remarried and *widowed*	–4.099	***	–2.741	**
Married, divorced, remarried & *divorced*	0.371		0.343	
N	8918		8918	
–2 Log Likelihood	1808.71		1707.55	
AIC	1846.01		1747.55	
Nagelkerke pseudo R^2	0.376		0.415	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

† Controlling for parenthood history, work history and control variables. Model 2 also controls for total pension income. See section 6.2 for details on the operationalization of variables and section 6.3 for an explanation of the modelling strategy.

Source: Datawarehouse Labour Market and Social Protection, author's calculations.

7.3. THE INDIRECT IMPACT OF FAMILY HISTORY ON OLD-AGE POVERTY RISK

In Table 3, we investigate the *indirect* impact of marital and parenthood history on poverty risk through work history.

Consider, first, the three hypotheses on the importance of family history. As Hypothesis 6 predicted, divorce at a later age increases women's risk of falling into poverty in old age, while the opposite is true for a woman's age at time of (first) marriage. However, the results for married women deviate from our hypotheses. Regarding the 'child penalty' (Hypothesis 5), only divorced women are affected. As expected, more children lead indeed to a higher likelihood for divorced women to fall into poverty in old age. However, contrary to our expectations, poverty is also higher among divorced women who had their first child later in life. This may be explained by the finding that women having their children early on are more likely to re-enter the workforce (Peeters, De Tavernier and Berghman, 2013). Also contrary to our expectations, we find no 'child penalty' among unmarried and married women. For unmarried women, however, this may be attributable to the fact that only 6 per cent of these women are mothers. Hypothesis 7, stating that family history is most important for unmarried and married women, and less so for divorced women, is also not supported. We find instead that family history is more important in determining poverty risk for divorced women than for the other groups.

Regarding work history, we find that more years worked and assimilated indeed reduce poverty (Hypothesis 3). Women who never worked, are more likely to end up impoverished than the average working woman in every sub-population. However, the average wage does not seem to influence old-age poverty. This is likely a consequence of correction mechanisms in pension calculation, such as minimum and maximum limits on the wage level taken into consideration. Moreover, the average wage is strongly correlated with the number of years worked. We also expected career variables to be most important for unmarried and married women, and less important for divorced women (Hypothesis 4). Table 3 shows indeed that years worked and years assimilated reduce old-age poverty more among unmarried women than among divorced women. However, the effects of these variables are less clear-cut for married women: while years worked seem to matter little for married women, the years assimilated reduce their poverty risk almost as strongly as for unmarried women.

Table 3. Determinants of poverty risk among unmarried, married and divorced women aged 65 to 71 living in Belgium in 2008, logit coefficients

	Unmarried				Married				Divorced			
	Model 1		Model 2		Model 1		Model 2		Model 1		Model 2	
	B	p	B	p	B	p	B	p	B	p	B	p
Age at (first) marriage					−0.001		0.007		−0.060		−0.010	
Age at (first) dissolution									0.023	*	−0.020	
Ever had children					0.422		−0.034		0.404		0.148	
Number of children	−0.133		0.179		−0.089		−0.234		0.529	***	0.338	
Age at (first) childbirth					−0.041		−0.046		0.094	**	0.098	**
Years with children younger than 6					0.063		0.067		−0.021		−0.016	
Ever worked			−2.989	***			−2.731	***			−1.059	**
Years worked			−0.162	***			−0.073	*			−0.091	***
Average daily wage			−0.021				−0.013				−0.009	
Years assimilated			−0.134	***			−0.123	***			−0.089	***
Age	0.064		0.052		0.046		0.015		−0.083		−0.103	
Living alone	0.049		0.352						1.069	***	1.079	***
Avg. income other HH members / 100	−0.032		−0.021		−0.158	***	−0.165	***	−0.013		−0.004	
Intercept	−1.814	***	−0.119		−4.965	***	−4.200	***	−1.900		−0.860	
N	270		270		6866		6866		671		671	
−2 Log Likelihood	238.93		137.88		1102.09		1029.46		653.76		517.30	
AIC	248.93		155.88		1118.09		1053.46		673.76		545.30	
Nagelkerke pseudo R^2	0.007		0.535		0.069		0.135		0.131		0.389	

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.
Source: Datawarehouse Labour Market and Social Protection, authors' calculations.

8. DISCUSSION

Poverty among elderly women has been studied from different angles, and various initiatives have been taken to increase awareness of the problem among policy makers. However, despite these efforts, old-age poverty among women remains prominent. And, though our understanding of this phenomenon has improved, we still lack in-depth understanding of the multiple institutions producing it, as well as the manner in which they interact. In this article, we aimed to advance our understanding of this reality by investigating how an explicit focus on pension regulations helps shed light on the way in which family life and employment history influence poverty risk among elderly women. The hypotheses developed in this chapter were tested using a unique and reliable administrative dataset covering the life span of a 5 percent random sample of women aged 65 to 71 residing in Belgium in 2008.

We expected old-age poverty risk among women to be dependent on very specific configurations of marital status, parenthood and work histories, as these factors were expected to differentially influence pension entitlements and, consequently, poverty risk. Current marital status was expected to *directly* affect old-age poverty risk through derived pension regulations. Contrary to other lifecourse studies, we hypothesised that only *current* marital status influences poverty risk, which was confirmed by our results. Accordingly, our results show that while one in six unmarried women and a quarter of divorced women live in poverty after retirement, poverty is low among (re-)married women and is virtually non-existent among widows. *As widows in this age category have had the least education, the shortest careers and the lowest wages, their paradoxically favourable financial status is the consequence of strong derived rights (results not shown).*

We also expected family history to have an *indirect* effect on poverty risk due to its impact on work histories, and, in turn, on retirement pension build-up. However, we only found evidence for this among divorced women. Particularly interesting is that women who divorce at an older age are more likely to end up living in poverty than those divorcing earlier on in life. This is distressing as divorce rates among elderly women are increasing substantially (Brown and Lin, 2012; Corijn, 2011).

Our study also revealed results whereby poverty risk was very different from what one would expect when solely considering pension regulations in interaction with women's lifecourses. The results concerning married women in particular require further research, as even after controlling for total pension income and the income of the husband and other household members, married women have a very low poverty risk. This finding suggests that, apart from pension regulations, wealth is also an important safeguard against old-age poverty. As research in the United States has shown that marriage is an ideal platform for wealth accumulation (Wilmoth and Koso, 2002; Schmidt and Sevak, 2006), the high home ownership rate in Belgium, especially among married couples (Dewilde, 2012), with over 80 per cent of the elderly being home-owners (De Decker and Dewilde, 2010), is likely to be key in this regard.

Our results can feed into recent discussions on pension reform in Belgium. We stress, however, that while a focus on poverty *prevention* is important in devising adequate pension schemes, it is in itself insufficient. Two issues that have thus far remained largely overlooked, but that require further investigation, illustrate why poverty prevention should not be the only concern of policy makers. First, an exclusive focus on poverty prevention overlooks an additionally important function of pension policy, namely the maintenance of living standards after the death of a partner. This policy aim is especially important for women, since their life-expectancy is on average longer than that of men, implying that most elderly women are confronted with the transition from a two-person household with economies of scale to a one-person household – a transition which jeopardises maintaining a comparable standard of living (Peeters, Verschraegen and Debels, 2014). Second, an exclusive focus on poverty prevention also overlooks the issue of women's financial dependency on men. One consequence of the Belgian pension policy is that many women (unlike most men) have to take their marriage vow, 'Till death do us part', literally. Though currently married women might not be poor – nor will be upon the death of their husband – they have a high chance of falling into poverty if they divorce. This situation points to a less visible, but nevertheless critical, component of well-being not typically measured by poverty indicators, including our own: namely, the lack of true financial autonomy or independence for many women (O'Connor, Orloff and Shaver, 1999).

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