Only a Husband Away from Old-Age Poverty? Women's Life Courses and Financial Security in Later Life in West Germany and the Netherlands

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Abstract

Population aging and increasing family diversity raise concerns about women's financial security in later life, as a greater share do not live with a breadwinning spouse. Women's financial security is particularly jeopardized in conservative welfare states that limit women's options to accrue independent pension entitlements. This study examines women's work–family life courses and financial security in later life in two conservative welfare states with distinct pension policies: West Germany with a Bismarckian pension system and the Netherlands with a more universalistic pension system. Drawing on SHARELIFE data, we apply multichannel sequence and cluster analysis, and regression methods to link work-family life course typologies to individual pensions, survivor benefits, and household equivalence income. Findings show that the work-family life courses in the two countries strongly resembled each other, characterized by a strong care orientation and weak labour force attachment of married mothers. However, women with care-oriented life courses receive substantially higher individual pensions in the Netherlands, which grant Dutch women higher financial autonomy. In contrast, women's survivor benefits and household income were slightly higher in West Germany, affording a higher living standard but less financial autonomy, and a higher risk of poverty following a potential separation compared to the Netherlands.

Keywords: pension systems, life course, gender, women's economic wellbeing, pension income, retirement, conservative welfare state regimes

1. Introduction

Population aging across Europe raises concerns about the sustainability of pension systems and the financial security of retirees, particularly as large baby boom cohorts are now entering retirement. In most European countries, women receive lower pensions than men (e.g., Hammerschmid & Rowold, 2019). Today, women's financial security in later life is shaped by two potentially conflicting developments. On the one hand, increasing family diversity, including rising shares of never-married and divorced women, can undermine financial security in old age at the household level, particularly in conservative welfare states that promote economic dependence on male breadwinners (Fasang et al., 2013; Schmauk & Kridahl, 2024). On the other, women's growing labour force participation strengthens their independent pension entitlements, raising personal retirement income. By comparing three financial outcomes, including the individual and household level, we offer a holistic perspective into how these developments relate to financial security in later life.

The comparison of West Germany and the Netherlands is particularly informative about which pension arrangements are most effective in securing women's financial security in old age within conservative welfare states (Esping-Andersen, 1990). In both countries, women of our study cohorts (1930-1950) experienced their work and family life courses in strongly conservative welfare state environments that encouraged female care or part-time work, marriage, and women's economic dependence on male breadwinners. However, the Dutch and German pension systems differ substantially. West Germany exemplifies a Bismarckian pension system, in which public pensions are the primary pension type and are closely tied to prior employment and earnings. The Netherlands represents a Beveridge system with a (nearly) universal basic pension and more widespread occupational pensions. Consequently, the Dutch welfare state is often classified as a hybrid welfare state with conservative, social-democratic, and, to a lesser extent, liberal elements (Arts & Gelissen, 2002). Comparing women's financial security in the more privatized, yet also more universalistic, Dutch pension system to West Germany, where pension privatization is a more recent development

and remains limited, allows us to identify which pension policies most effectively secure women's financial well-being in conservative welfare states. We build on the premises of differential life course sociology (Fasang & Mayer, 2023; Mayer, 2005) by comparing specific birth cohorts in two countries to unpack how different policies that were in effect earlier and later in women's life courses jointly shape their work family life courses and financial well-being in old age (see Madero-Cabib & Fasang, 2016; Rowold et al., 2024 for similar comparative approaches).

We address the following research questions: 1) Are women's typical work and family life-course patterns from ages 20-60 indeed similar in West Germany and the Netherlands, given similar conservative family and labor market policies? 2) How are similar work and family life-course patterns in Germany and the Netherlands differentially rewarded by the Dutch and German pension systems? Specifically, which typical work and family life-course patterns are associated with greater financial security in Germany or in the Netherlands? We answer these questions using data from the Survey of Health, Aging and Retirement (SHARE), multichannel sequence analysis, cluster analysis, and regression methods.

Our contribution to the literature is twofold. First, we present a theoretically motivated country comparison to inform which pension policies more effectively secure financial security for women in later life, whose work-family life courses have evolved in conservative welfare state environments. Second, we add to previous studies with a more comprehensive measurement financial security in old age by focusing on three indicators of financial security: Independent individual pensions as an indicator of financial autonomy, derived individual pensions (i.e., survivor benefits), and household equivalence income as an indicator of actual living standards, assuming that income is split equally among household members.

2. Previous Literature

Previous research linking women's work and family life courses to financial security in later life has largely relied on single-country studies (Mika & Czaplicki, 2017; Peeters & De Tavernier, 2015) or

large-N cross-national comparisons (Ebbinghaus, 2021; Möhring, 2015, 2018, 2021). More recently, small-N comparative studies have emerged that use theoretically motivated designs to disentangle how institutional factors at different points in women's lives shape their financial security in later life (Fasang et al., 2013; Madero-Cabib & Fasang, 2016; Rowold et al., 2024; Schmauk & Kridahl, 2024).

At the individual level, findings are consistent: women with care-oriented life courses receive particularly low pensions in Europe (Fasang et al., 2013; Madero-Cabib & Fasang, 2016; Möhring, 2015; Rowold et al., 2024; Sefton et al., 2011). Mothers fare worse than childless women (Dotti Sani & Luppi, 2021; Möhring, 2018), and married women with weak labor market attachment and many children tend to have very low independent pensions. By contrast, divorced, single, and never-married women often achieve higher individual entitlements (Fasang et al., 2013; Möhring, 2015; Schmauk & Kridahl, 2024).

A growing body of research investigates variation in these outcomes across countries. Employment and family trajectories, as well as the way pension systems incorporate them, determine retirement outcomes (see Figure 1). Conservative regimes generally exhibit the largest gender pension gaps, and West Germany and the Netherlands are no exception, with gaps of 48.8 and 42.3 percent, respectively (Hammerschmid & Rowold, 2019). Despite different pension system characteristics in Germany and the Netherlands, large parts of this gap are linked to gender-exclusive employment experiences in both countries, particularly the lowly rewarded unpaid care work almost exclusively performed by women (Rowold, 2025).

The effects of pension policies on women's pension income go beyond general welfare regime typologies. Three studies by Möhring (2015, 2018, 2021) use a large-N comparative design to investigate the relationship between life courses, motherhood and pension outcomes across Europe. The studies show similar patterns: A weaker relationship between employment trajectories and pension outcomes in countries with a strong and (nearly) universal basic pension, often combined with quasi-mandatory occupational pensions, like in the Netherlands. A great share of private pensions, on the

other hand, has negative consequences for the pension outcomes of those with weak labor market attachment (often women), unless combined with a strong redistributive public pension system (Möhring, 2015). Dotti Sani and Luppi (2021) arrive at similar conclusions with regards to the positive impact of a universal basic pension when investigating the consequences of absences after childbirth. On the other hand, pension systems with a 'childcare credits' system, intended to compensate for mothers' absences from the labor market, do not perform well in international comparison (Möhring, 2018). This is further supported by studies on the West German context evidencing that childcare credits fail to fully compensate for the losses experienced through motherhood (Mika & Czaplicki, 2017; Möhring et al., 2025).

Two small-N country studies find a stronger relationship between employment biographies and pension outcomes in the conservative West German welfare state when compared to the liberal system of the UK/Britian (Fasang et al., 2013; Sefton et al., 2011). Madero-Cabib & Fasang (2016) compare West Germany and Switzerland and find that care-oriented life courses are experience a higher pension penalty in the liberal Swiss system when compared to Germany.

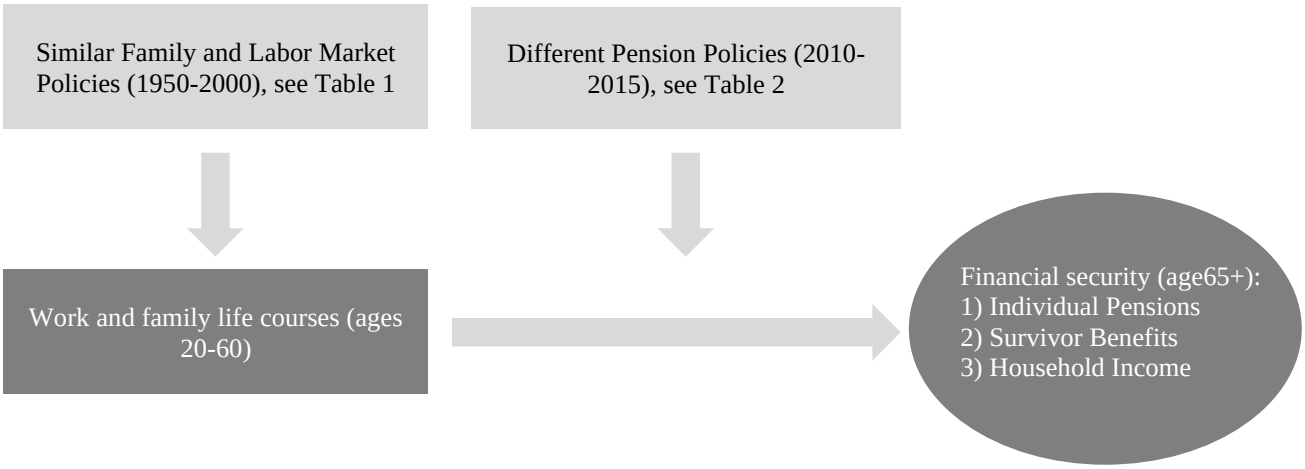
Most comparative literature investigates women's financial outcomes at the individual level. Fewer studies consider the household perspective. Using SHARE data, Möhring, (2021) finds that childbearing combined with employment interruptions lowers household income for women across Europe. Madero-Cabib and Fasang (2016) show that women with part-time life courses experience lower household equivalence incomes in Switzerland than in Germany. In Germany, Weiland and Möhring (2020) show that women's employment interruptions reduce household income unless compensated by high partner earnings. Focusing not on household income but poverty, Ebbinghaus (2021) uses a large-N country comparison to show, analogous to individual pensions, that countries with a solid minimum public pensions fare best in terms of preventing poverty on the household level.

3. Background

Comparative research on women's work-family life courses and household-level outcomes remains sparse. Yet including the household perspective is crucial, especially in male-breadwinner contexts where household resources can buffer or mask individual-level insecurities. Building on existing small-N comparisons, our study examines the relationship between women's life courses and both individual and household income in West Germany and the Netherlands. We thereby contribute to understanding how male-breadwinner welfare states shape financial security in later life at both levels.

Our comparative design is based on the fundamental premises of differential life course sociology, which posits that different contextual conditions across individual life courses jointly shape later life outcomes (Fasang, 2012; Mayer, 2005). Specifically, our study cohorts experienced similar conservative family and labour market policies during their family formation and working lives between 1950 and 2000 when they were between ages 20 and 50, but the pension systems differed substantially. Figure 1 illustrates our comparative design, detailed in Tables 1 (similarities in family and labour market policies) and 2 (differences in pension systems).

Figure 1: Comparative Design for West Germany and the Netherlands



3.1 Similar Family and Labor Market Policies 1950-2000

In both countries, our study cohorts (1930-1950) experienced family formation and labor market trajectories in strong male breadwinner contexts, deeply rooted in cultural norms and reinforced by

policy measures (de Groot, 2022; Trappe et al., 2015). As a result, we assume similar work-family life course types in both countries (research question 1). Table 1 summarizes key similarities in conservative family and labor market policies for our study cohorts. Both countries applied joint taxation of married couples, which disincentivized female employment (Klammer et al., 2017; Knijn, 2004). Marriage was culturally, but also legally, tied to exiting the workforce for women in both countries. The marriage bar for female civil servants in the Netherlands remained common in municipalities and private companies until it was banned in 1975 (Visser, 2002). In West Germany, husbands could terminate their wives' employment until 1977 on the grounds of neglect of 'marital and family duties' (Allmendinger et al., 2008). Conversely, childcare was mainly situated within households in both countries. The provision of day care for all became an explicit goal of the Dutch government only in 1989 (Kuijsten & Schulze, 1997). Similarly, in West Germany, the lack of adequate childcare facilities, effectively placed childcare responsibilities mainly on women (Trappe et al., 2015). During the 1970s and 80s, both West Germany and the Netherlands saw a rise in women's part-time employment (OECD, 2019). The Netherlands institutionalized part-time work through inclusive labor market reforms in the 1990s, granting part-time workers nearly equal rights and fostering its acceptance across all sectors and social groups (OECD, 2019). In contrast, West Germany maintained a more conservative stance, supporting part-time work primarily as supplementary income, reinforcing traditional gender roles (Rosenfeld et al., 2004). However, given that the shift toward more inclusivity of part-time work in the Netherlands only happened in the 1990s, we assume that most women in our cohort were established in their employment trajectories by this point, following a more male breadwinner-oriented path with weak labor market attachment, similar to West German women.

Table 1: Overview of similar work and family policies in West Germany and the Netherlands for birth cohorts 1930-1950

	West Germany	Netherlands
Similarities	• Pronounced male breadwinner ideal, conservative norms and policies • Joint taxation of married couples • Legal barriers to employment for married women until 1970s • Limited public childcare infrastructure • Female part-time employment legacy from 1970s	
Differences	• Part-time employment primarily institutionalised as supplementary income	• Equal rights for part-time employment (from late 1980s onward)

Sources: (Allmendinger et al., 2008; de Groot, 2022; Fasang & Aisenbrey, 2022; Klammer et al., 2017; Knijn, 2004; Kuijsten & Schulze, 1997; OECD, 2019; Rosenfeld et al., 2004; Trappe et al., 2015; Visser, 2002)

3.2 Different pension policies (2010-2015)1

The German system follows a Bismarckian logic, whereas the Dutch system more closely aligns with the Beveridge model. This contrast presents an opportunity to examine how different pension designs influence the financial outcomes of life trajectories (see Figure 1). The following paragraph describes the structure of public and occupational/private pensions in the two countries in turn, forming the basis for our hypotheses. Table 2 summarizes key differences between the two countries based on information from around 2013, which is when we observed most of our outcomes.

[1] In this overview, we focus on regulations most relevant to the cohort (1930-1950) and observation window of outcomes (with most information being collected in 2013).

Table 2: Differences between the German and Dutch Pension System, 2013[2]

Characteristic	West Germany	Netherlands
	Public Pillar	
Pension Type	Earnings-related pay-as-you-go defined benefit scheme	Basic flat-rate pension tied to minimum wage
Access	Salaried employees with a minimum of 5 contribution years	Basic flat-rate pension through residency (50 years for full amount) (OECD 2015)
Coverage	87% of those over 65 in 2015 (Bundesministerium für Arbeit und Soziales, 2016)	Nearly universal
Relative Importance	On average 68.5% of the income of those over 65 (OECD 2015)	On average 43.3% of the income of those over 65 (OECD 2015)
Poverty Prevention	Not part of pension payments, needs-tested social assistance available on household level	Through basic pension
Redistributive Elements[3]	Additional childcare benefits Revaluation of part-time employment Pension splitting upon divorce	
Survivor Pension	60% of partner's pension to spouses 45 years and older	None beyond age 65
	Occupational / Private Pillar	
Type(s)	Voluntary occupational or private pension plans	Mandatory sector-wide occupational pension schemes Additional voluntary pension schemes
Coverage	71.3% of the working population in 2013 part of some occupational or private voluntary insurance (OECD 2015)	High coverage of working population (88% in 2013, OECD 2015)
Relative Importance	In total 15.1% of the income of those over 65 (OECD 2015)	Occupational pension payments 39.7%, private pension plans 6.6% of the income of those over 65 on average
Redistributive Elements	Pension splitting upon divorce	Pension splitting upon divorce
Survivor Pension	Some, with varying regulations	Some, with varying regulations

Sources: Beckwermert (2024); Börsch-Supan & Wilke (2004); Kreyenfeld et al. (2023); Leitner (2001); OECD (2015); Starink & Visser (2017)

[2] We use 2013 as a reference year since for most individuals, we use the outcome information from 2013.
[3] In Germany, additional redistributive elements exist, but this table is limited to those most relevant to women and care-related periods.

Public Pensions. Public pensions in West Germany operate as an earnings-related pay-as-you-go system, covering most salaried employees. In 2015, 87 percent of individuals over 65 in West Germany received a statutory pension, a product of the low eligibility threshold at five contribution years (Bundesministerium für Arbeit und Soziales, 2016). In 2014, the statutory pension insurance accounted for 68.5 percent of total income among those aged 65 and older, making it the primary source of old-age income for most of the population (OECD, 2015). As a Bismarckian system, the German statutory pension insurance hence primarily aims to maintain individuals' pre-retirement income status. Hence, pension benefits are closely tied to prior contributions, which puts women at a disadvantage due to their less continuous employment histories (Leitner, 2001). Poverty prevention, by contrast, is not part of the pension system but is instead addressed through means-tested social assistance at the household level (OECD, 2015). However, the system also includes redistributive mechanisms that disproportionally benefit women. First, two measures provide additional pension credits to mothers: Child-reading benefits that equalled 12 months of an average salary per child in 2013, and the raising of part-time employment credits when combined with childcare (Beckwermert, 2024). Second, pension-splitting regulations upon divorce often benefit women by ensuring that pension entitlements accrued during marriage are evenly divided between former spouses (Kreyenfeld et al., 2023). Finally, Germany's survivor pension rules are relatively generous, granting widows aged 45 and older 60 percent of their deceased spouse's pension (Börsch-Supan & Wilke, 2004).

Public pensions in the Netherlands are also organized through a pay-as-you go pension system. However, as a Beveridge system, the eligibility is granted on the basis of residency, with 50 years making one eligible to the full amount (OECD, 2015). The pension is paid as a flat rate amount irrespective of prior contributions. It is somewhat means-tested in that the amount for couples is lower

(1,619.29€ in 2014) compared to individuals (1,149.48€) (OECD, 2015)[4]. Given the flat-rate structure, public pensions constitute a smaller share of the income of those aged 65 and older in the Net than in West Germany, at 43.3 percent (OECD, 2015). The Dutch public pension system, in contrast to the German one, does not provide any additional redistributive mechanisms, divorce splitting, or survivor benefits to older women. Instead, the accessibility of the basic pension functions as a universal safety net.

Private and occupational pensions. Although the significance of second- and third-pillar pensions is increasing in West Germany, their role remains limited for our study cohort. Only about one-third of retirees overall received occupational and one-third received private pensions in 2014 and they jointly made up for only 15.1 percent of pension income of those aged 65 or older (OECD, 2015). Occupational pensions are typically organized through the employer, private pensions are an individual responsibility (OECD, 2015).

In the Netherlands, in contrast, occupational pensions are crucial to status maintenance in retirement. In 2014, occupational pensions accounted for 39.7 percent of overall pension payments (OECD, 2015). They are, in most cases, organized as sector-wide funds. Participation is mandatory, which explains the wide coverage (Frericks, 2013). As in Germany, additional voluntary private pension plans exist, but made up only a small share of overall pension payments in 2014 (6.6 percent) (OECD, 2015).

In both the Netherlands and Germany, private and occupational pensions are subject to divorce splitting under legal regulations similar to those governing public pension benefits in Germany. In the Netherlands, survivor's benefits from occupational pension plans are another widespread feature, which is less substantial in Germany due to the lower spread of occupational pension plans overall (Starink & Visser, 2017).

[4] The individual amount is almost identical to the amount of the couple's pension divided by the square root of two, which is the equivalence scale we apply in the analysis below.

2.4 Three Sources of Financial Security

We conceptualize financial security in later life based on the three routes through which women can acquire retirement income, which we use as a basis for operationalizing different financial outcomes (Ginn et al., 2001) (see right-hand box in **Fehler! Verweisquelle konnte nicht gefunden werden.**).

(1) *Individual Pensions Excluding Survivor Benefits* refer to pension entitlements accumulated independently by individuals through public, occupational, or private pension schemes. These pensions can result from employment histories, citizenship, or redistributive mechanisms such as childcare credits. Individual pensions provide the highest degree of financial autonomy and minimize reliance on potentially unstable interpersonal relationships (Ginn 2001).

(2) *Individual Pensions Including Survivor Benefits*, which additionally include survivor benefits from all sources. Ginn and colleagues (2001) refer to these as benefits derived from a (former) husband's pension entitlements. These benefits are typically tied to widowhood, which can hinder remarriage. Nonetheless, survivor benefits can offer crucial financial security for (widowed) women in later life (Meyer & Pfau-Effinger, 2006).

Household Equivalence Income. Given the couple-centered living constellation of the majority of women within this cohort (see

Table 4), the husband's pension greatly contributes to household income (Ginn et al., 2001; Orloff, 1993). This constellation implies a dependence on a partnership as such, its stability, and the economic resources of the partner. Yet, assuming that household income is shared among spouses, household income is an important indicator of women's standard of living in later life, particularly in male breadwinner contexts (Leitner, 2001).

4. Summary of Hypotheses

Table 3 summarizes our expectations. First, we assume that typical life-course patterns in both countries for women born between 1930 and 1950 are similar (Hypothesis 1). Specifically, employment and married motherhood were essentially competing alternatives for women (Fasang & Aisenbrey, 2022) . We assume a similar work-family interplay: most women will have care-oriented life courses of married motherhood and weak labor market attachment (Hypothesis 1a), and a minority will be full-time employed with non-normative family lives of being unmarried, childless or separated (Hypothesis 1b).

We are particularly interested in the ways in which the socially and politically encouraged conservative female life course with weak labor market attachment (e.g., characterized by longer spells of care work or part-time employment) relates to pension outcomes. For individual pensions excluding survivor benefits, we assume that Dutch women, outcomes are higher, especially for life courses characterized by low labour market attachment (Hypothesis 2). Previous research indicates that basic pensions, like the Dutch one, are more effective at increasing pensions of women and mothers than targeted approaches like the German childcare credit system (Dotti Sani & Luppi, 2021; Möhring, 2015, 2018). For our second outcome measure, we assume that including survivor benefits will lead to a larger increase in pensions in West Germany given the generous regulations that apply to this cohort (Hypothesis 3). However, given the limited number of widowed women in the sample, we assume that this will not compensate for the overall lower individual pensions in West Germany. Lastly, we assume that household equivalence income is similar across life courses characterized by

being in a partnership in both countries (Hypothesis 4). Partnered women likely benefit from their partners income in the two strong male breadwinner societies during the 20th century.

Table 3: Hypotheses

Life Courses	Individual Pensions Excl. Survivor Benefits	Individual Pensions Incl. Survivor Benefits	Household Equivalence Income
1: There are similar Work-family trajectories in the two countries. 1a: Majority of women have care-oriented life courses of married motherhood and weak labor market attachment 1b: a minority of women is full-time employed with non-normative family lives of being unmarried, childless or separated	2: Individual pensions excl. survivor benefits are higher in the Netherlands, especially for life courses characterized by low labour market attachment.	3: Individual pensions including survivor benefits are higher for women in West Germany than in the Netherlands.	4: Household equivalence Income is similar in both countries especially for life courses characterized by low labour market attachment.

5. Data and Methods

5.1 Data

We used the Survey of Health, Ageing and Retirement in Europe (SHARE). For the retrospective employment and family trajectories, we used waves 3 and 7 (SHARElife). During waves 6 and 7, the Netherlands did not participate in SHARElife. Therefore, we only use retrospective information for individuals who participated in wave 3 for the Netherlands. We used cross-sectional information from wave 5 on pension outcomes where an observation at age 65 or older is available. If this information was missing, information from other waves was used to maximize the sample size in the following order: 4, 2, 6, 7, 8 and 9. This order was chosen because the waves up to wave 5 separated individual and derived occupational pensions, while the newer waves (6 to 9) do not. For household income we

used the same wave as for pension income. Table 4 shows that the majority of the data comes from wave 5 in both countries (63-64 percent).

5.2 Sample

Our sample included women who were born in the Netherlands or Germany between 1930 and 1950. For women in Germany, we also required that they lived in West Germany in 1989 at the time of reunification. All participants must have participated in SHARElife and have employment and family histories from age 20 to 60 with gaps of two years maximum. Those with remaining missing values were excluded from the analyses[5]. In addition, we required at least one observation on pensions after age 64 and on household income, with no missing control variables in the respective year (

[5] For a full overview over our sample restriction, see Table A1 in the Appendix.

Table 4)[6]. For more details, please also see sections 2 and 3 in the Appendix.

[6] If a respondent answers ‘no’ to receiving a pension, their outcome is recorded as zero, but they remain in the dataset.

Table 4: Sample Descriptives

Variable	West German	Dutch	Total
N	784 (57.6%)	578 (42.4%)	1,362 (100.0%)
Individual Pensions Excl. Survivor Benefits	8,408.660 (7,004.554)	11,537.596 (6,339.369)	9,736.505 (6,903.475)
Individual Pension Payments Incl. Survivor Benefits	9,775.839 (7,888.778)	12,252.076 (7,331.052)	10,826.694 (7,751.602)
Household Equivalence Income	22,871.806 (12,239.934)	22,546.325 (11,652.210)	22,733.680 (11,990.774)
Living Constellation			
Living with Partner	494 (63.0%)	380 (65.7%)	874 (64.2%)
Living Alone	192 (24.5%)	175 (30.3%)	367 (26.9%)
Living with Partner + Other(s)	56 (7.1%)	11 (1.9%)	67 (4.9%)
Living with Others (not Partner)	42 (5.4%)	12 (2.1%)	54 (4.0%)
Marital Status at time of interview			
Not married	19 (2.4%)	13 (2.2%)	32 (2.3%)
Married / Reg. Partn.	576 (73.5%)	422 (73.0%)	998 (73.3%)
Divorced	42 (5.4%)	43 (7.4%)	85 (6.2%)
Widowed	147 (18.8%)	100 (17.3%)	247 (18.1%)
Educational Background			
Basic	201 (25.6%)	356 (61.6%)	557 (40.9%)
Intermediate	454 (57.9%)	116 (20.1%)	570 (41.9%)
Tertiary	129 (16.5%)	106 (18.3%)	235 (17.3%)
Cohort			
1930-39	283 (36.1%)	222 (38.4%)	505 (37.1%)
1940-50	501 (63.9%)	356 (61.6%)	857 (62.9%)
Foreign Born	102 (13.0%)	21 (3.6%)	123 (9.0%)
At least 10 years in Civil Service	45 (5.7%)	51 (8.8%)	96 (7.0%)
Wave of Outcome Measure			
2	60 (7.7%)	57 (9.9%)	117 (8.6%)
4	73 (9.3%)	101 (17.5%)	174 (12.8%)
5	500 (63.8%)	361 (62.5%)	861 (63.2%)
6	116 (14.8%)	0 (0.0%)	116 (8.5%)
7	4 (0.5%)	0 (0.0%)	4 (0.3%)
8	27 (3.4%)	41 (7.1%)	68 (5.0%)
9	4 (0.5%)	18 (3.1%)	22 (1.6%)
Number of Children			
0	58 (7.4%)	68 (11.8%)	126 (9.3%)
1	159 (20.3%)	59 (10.2%)	218 (16.0%)
2	307 (39.2%)	242 (41.9%)	549 (40.3%)
3 or more	233 (29.7%)	209 (36.2%)	442 (32.5%)

Note: Values for Individual Pensions Excl. Survivor Benefits, Individual Pension Paymfents Incl. Survivor Benefits, and Household Equivalence Income are presented as Mean (Standard Deviation). All other values are presented as N (%).

We had slightly more German women in our sample (57.6 percent compared to 42.4 percent of Dutch women,

Table 4). Overall, characteristics were very similar across countries. Substantial differences were only visible for education and migration background. The share of women who only reach basic education was much higher in the Netherlands (61.8 percent compared to 25.6 percent of German women). A larger share was foreign-born in Germany, which we controlled for in our regression models.

4.2 Operationalization

Employment and Family Trajectories. We constructed retrospective employment and family biographies between ages 20 and 60 from the SHARElife questionnaires. We used the Job Episodes Panel, that facilitates the analysis of employment biographies (Brugiavini et al., 2013, 2019). We choose the states for the sequences aiming to minimize complexity while fulfilling our theoretical guidelines (Scherer & Brüderl, 2010). For the employment trajectories, we used six different states: 'education', 'full-time work', 'part-time work', 'caring for home or family', 'unemployed, sick, disabled, retired or other'. The subsumption of unemployment, sickness, disability and retirement into a single spell was due to the rarity of these states. Our choice of family states was grounded in the focus on marriage as a legal institution tied to pension rights (e.g. pension splitting upon divorce, survivor benefits) and the presence of children, acknowledging the well-documented motherhood penalty in pensions (Möhring, 2018): 'unmarried, childless', 'unmarried, with child(ren)', 'married, childless', 'married, with child(ren)', 'divorced', and 'widowed'. Divorce and widowhood included both mothers and childless women, since both states are quite rare.

Individual Pension (Excl. Survivor Benefits). For the individual pension measure, we added income from public, occupational, and private pensions based on individuals own entitlements, as well as annual life insurance payments. Since the share of pension entitlements derived from pension splitting upon divorce was not distinguishable from individual entitlements, these also fell under this first measure. From a conceptual standpoint, counting pension splitting toward independent pensions is reasonable, because pension splitting creates personal, stable rights that do not depend on future

partnerships or means-testing.

Individual Pension (Incl. Survivor Benefits) combine individual entitlements and survivor's benefits from public pensions (all waves) and occupational pensions (up to wave 5, see specifics of operationalization in Appendix section 3).

Household Income uses the *thinc2* variable which is based on aggregated information from individual SHARE questionnaires and includes imputations provided by the SHARE team. Assuming joint financial management within the household, we used the square root equivalence scale by dividing household income by the number of household members. All outcome measures are adjusted for purchasing power in the given country and year and top coded at the 95th percentile to avoid outliers driving our results.

4.3 Empirical Strategy

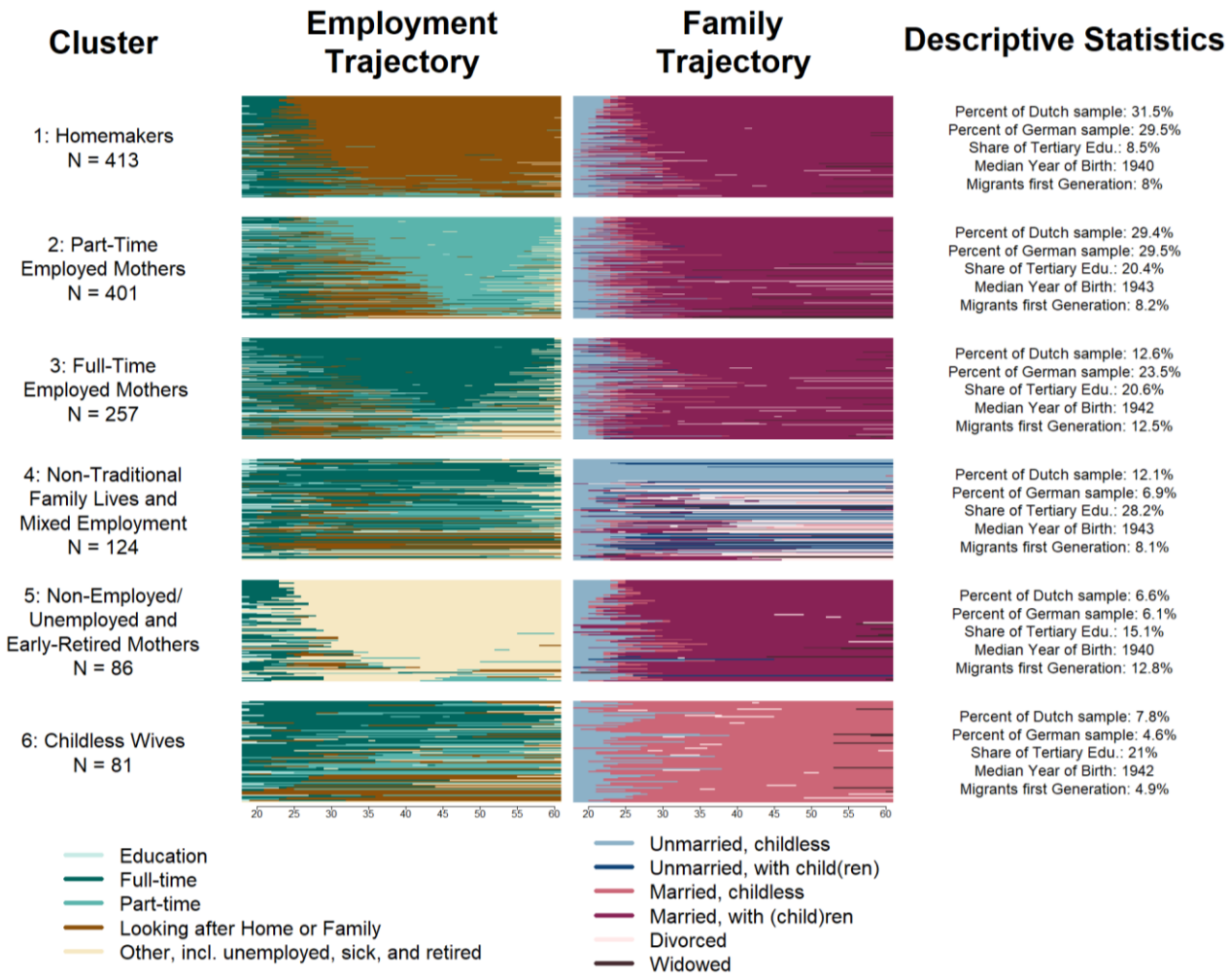
Our empirical strategy proceeds in two steps:

1) Multichannel Sequence- & Cluster Analysis. To analyze work-family life courses, we applied multichannel sequence analysis (MSQA), treating each individual's trajectory as a sequence of states in employment and family (Madero-Cabib & Fasang, 2016; Rowold et al., 2024). MSQA calculates pairwise distances between sequences across both channels. In calculating the distances, we used an optimal matching method where the cost of aligning two sequences was calculated using insertion/deletion and substitution (with the latter being double the cost). Then, we ran a cluster analysis revealing different types of trajectories, using a Ward algorithm. In choosing the parameters (distance measure and cluster algorithm), we used a twofold strategy in finding an optimal solution: Firstly, we used statistical goodness-of-fit measures to find the optimal cluster solution(s) for different distance measures and clustering algorithms (Studer (2013), see also Appendix section 5). We then used theoretical considerations to choose the optimal solution for our research interest.

2) Linear regression. In the second step, we used the cluster membership as a predictor in a linear regression model on the three outcome measures: Individual pensions excluding survivor benefits, those including survivor benefits, and household equivalence income. We controlled for cohort (dummy indicating whether participant was born before 1940), the wave of the outcome measure and nativity. We also included a dummy indicating at least 10 years of employment in civil service, which we interacted with country to control for the separate civil servant pensions scheme in Germany.

5. Results

Figure 2: Results of the Multichannel Sequence and Cluster Analysis



5.1. Similar work-family life courses in West Germany and the Netherlands

Figure shows results of multichannel sequence analysis and cluster analysis to inform hypothesis 1. The clusters are sorted by relative size within the sample, with the largest group at the top. The figure shows sequence index plots for each cluster, where each line represents the life course of one individual. The sequences within each group are sorted by closeness to the medoid within the cluster with the strongest cluster representatives at the top.

As anticipated (Hypothesis 1a), the majority of clusters (1, 2, 3 and 5) show a traditional family structure with stable marriages and children, representing the cultural ideal of the time in both

countries. The two largest clusters, the *Homemakers* and the *Part-Time Employed Mothers* are additionally characterized by weak (part-time) or non-existent labor market attachment (Hypothesis 1a). The fifth, *Non-Employed/ Unemployed and Early Retired Mothers* cluster also falls within this umbrella, although the reasons for absence from the labor market seem to be more diverse in this case. Cluster 5 is characterized by a great share of early retirement, followed by employment and voluntary and community work (see Appendix Table A6). The three clusters jointly make up for about two thirds of the sample in both countries. The traditional family structures and weak labour market attachment of women in these clusters reflect the male breadwinner model that prevailed at the time, thereby validating our expectations regarding the similarity of the cohort in the two countries (Hypothesis 1 supported). Moreover, in line with expectations (Hypothesis 1b), women with stronger labor force attachment are a small minority and more often experienced non-normative family lives (cluster 4 and 6).

A minority of clusters deviates from the male breadwinner ideal. Cluster 3, *Full-Time Employed Mothers,* is more prevalent in West Germany than in the Netherlands (23.5 percent versus 12.6 percent). Additional insights into the characteristics and income distribution of this cluster reveals substantial heterogeneities within the full-time employed mothers, implying a broad range of selection mechanisms into this life course type (Appendix Table A2 and Figures A4-A6). In Cluster 4, *Non-Traditional Family Lives and Mixed Employment*, Dutch women are slightly overrepresented (12.1 percent versus 6.9 percent). In this cluster, family structures deviate from the dominant ideal of continuous marriage, with some individuals remaining unmarried, others experiencing early divorce or widowhood. The employment trajectories are characterized by a high degree of heterogeneity, with more full-time employment than in the care-dominated clusters 1 and 2 (see Table A5). Lastly, the *Childless Wives* cluster (6) represents a very small share of women who were married but did not have children. Similarly to the *Non-Traditional Family Lives* cluster, employment trajectories are mixed for this group but with generally stronger labor force attachment. Overall, in line with our expectations,

most women in our sample adhere to a male breadwinner or 1.5 earner constellation, with only a minority of life courses deviating from this ideal.

5.2 *Different Associations between work-family life courses and financial security in later life in West Germany and the Netherlands*

Figure 3: Predicted Outcomes by Life Course Cluster from Regression Models

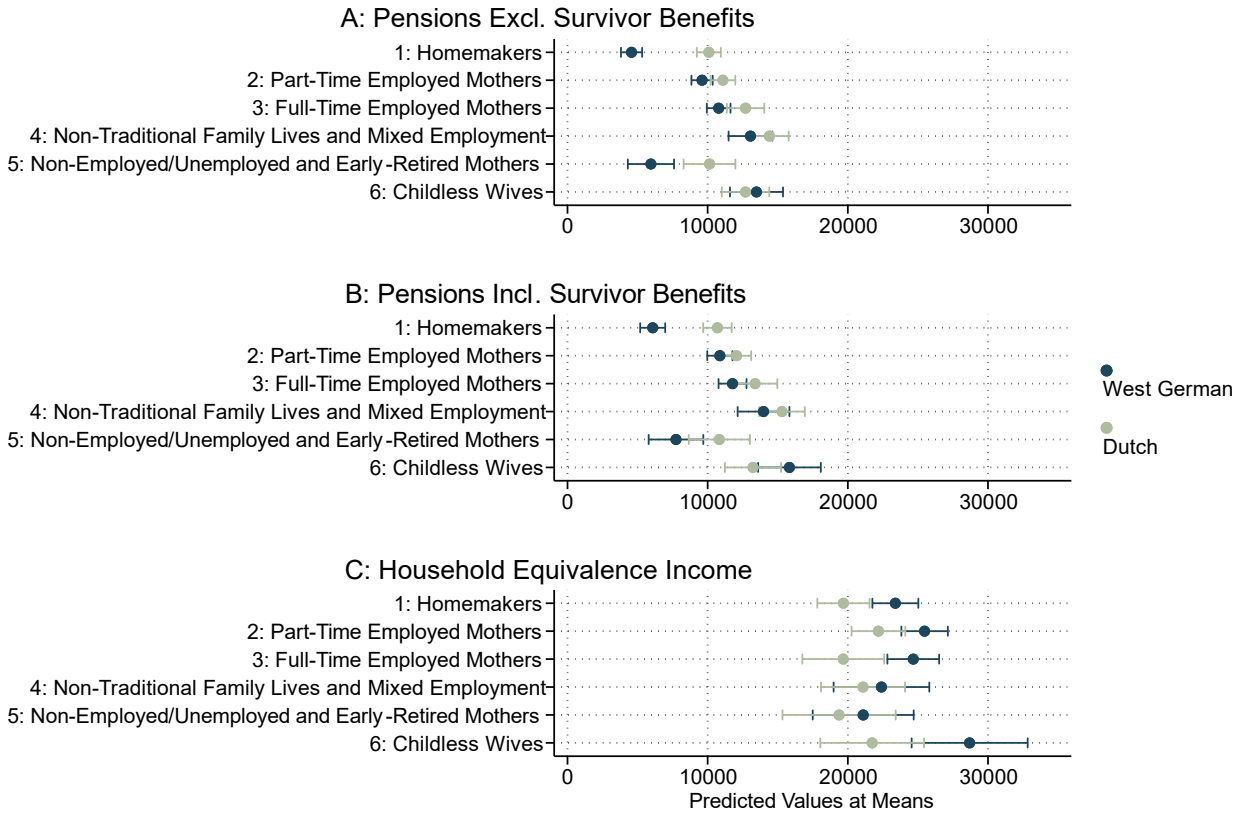


Figure 3 presents the predicted annual pension outcomes at mean values for West Germany and the Netherlands. Starting with individual pensions excluding survivor benefits, we hypothesized that women with weak labor market attachment would receive higher pensions in the Netherlands (H2). The predicted annual pension values (Figure A) confirm this hypothesis for women in almost all clusters and especially in those with very weak labor market attachment. Specifically, the 'homemaker' and the 'mothers in unemployment and early retirement' clusters perform significantly and substantially better in the Netherlands. Homemakers in the Netherlands received roughly twice the pension amount of their peers in Germany. This suggests that the Dutch pension system more effectively secures women with prolonged labor market absences economically.

Other clusters show less pronounced country differences but reveal some interesting patterns. The ‘part-time employed mothers’ cluster (Cluster 2) yield similar mean individual pensions as the ‘full-time employed mothers’ cluster (Cluster 3) in both countries. There could be several reasons for this similarity between full- and part-time working mothers. Most notably, negative selection into the ‘full-time employed mothers’ cluster of women with lower education and earnings, which are discussed in detail in the appendix (section 5). Nevertheless, the similar pension levels between part-time and full-time clusters also highlight the generally poor pension outcomes for women in full-time employment.

Women in the 'non-traditional family lives and mixed employment' cluster (Cluster 4) and the 'childless wives' cluster (Cluster 6) received the highest individual pensions in both countries. These outcomes reflect several potential mechanisms. Some family trajectories in cluster 4 include divorce (which means some women may have benefitted from pension splitting regulations), while others are characterized by early widowhood, which may have pushed some women into the labor force. For cluster 6 especially, fewer caregiving responsibilities may have enabled higher lifetime earnings. While our study is not designed to test these mechanisms directly, we provide an overview of individual pensions by current marital status for Cluster 4 (see Appendix Figure A7). The higher pensions for women in cluster 4 who are not married, divorced or widowed compared to the married women support our interpretation.

Including survivor benefits (Figure B) substantially increases predicted pensions in both West Germany (by about 16 percent to 9,969 Euros/year) and the Netherlands (by about 7 percent to 12,185 Euros/year). This supports hypothesis 3, which held that increases would be higher in West Germany. The magnitude of survivor pensions varies by cluster. Receiving survivor benefits depends on widowhood and the pension income of the deceased spouse, and widowhood prevalence differs across clusters (see Appendix Table A4). Hence, once we include survivor benefits, the increase in predicted pensions is largest for cluster 6, where the share of widows is the highest. Nonetheless, the inclusion

of survivor benefits did not substantially alter our interpretation with regard to individual pensions: The homemaker cluster continus to show significant country differences even after including survivor benefits: on the individual level, female care-oriented life courses are financially more secure in old age in the Beveridgean Dutch pension system.

We assumed that household incomes would not differ between West Germany and the Netherlands (Hypothesis 4). However, **Fehler! Verweisquelle konnte nicht gefunden werden.**C shows a small but statistically significant country difference: For the 'homemakers' (Cluster 1) and the 'full-time employed mothers' (Cluster 3), household income levels are significantly higher in West Germany. This pattern suggests a type of "golden cage": West German women with a strong care orientation enjoy a higher standard of living in later life, yet they have less financial autonomy. Crucially, this advantage depends on the presence of a spouse with a male-breadwinner pension. There are two possible explanations for the higher household income in West Germany. First, household income shows greater variance there (Appendix Figure A6). The higher predicted values are thus driven by a larger number of households with very high incomes. This interpretation is supported by the finding that, once we use the log of household equivalence income, the difference is no longer significant (Appendix Figure A8). Second, household income is not limited to pensions but also includes earnings from employment. Such earnings were more common in West Germany, as indicated by the higher share of women who worked in the four weeks prior to the interview (see Appendix Tables A3 and A4).

6. Sensitivity of results

We conducted several sensitivity analyses. First, we applied a log transformation to the three outcome variables instead of top-coding them. This increased country differences for pensions and decreased them for household income, slightly affecting the significance of some country coefficients. Our main finding—the higher individual-level security in the Netherlands—remained robust (Appendix Figure

A8). Second, although education is endogenous to our work–family clusters and was therefore excluded from the main models, we tested its inclusion given substantial cross-country variation (

Table 4). As expected, education mediated part of the cluster effects, reflecting educational differences across clusters (Appendix Figure A9). Third, we included a control for widowhood at the time of the interview to account for age-related variation in pension reporting across clusters. Its inclusion did not meaningfully alter the results (Appendix Figure A10). Finally, to account for slightly higher rates of non-partner cohabitation in West Germany, we added a control for living arrangements in the household income models. This adjustment also had no substantial impact on the findings (Appendix Figure A11). Overall, the sensitivity analyses support the robustness of our findings and do not invalidate our interpretations.

7. Conclusion and Discussion

In this study, we investigated which pension policies most effectively secure women's financial autonomy and living standards in later life in conservative welfare states. Specifically, we used the comparison of West Germany and the Netherlands to assess how similar care-oriented work-family life courses are associated with three distinct measures of financial security in later life. Overall, individual independent pensions, our indicator for financial autonomy, differed most across countries compared to derived pensions and household income. The more universalistic Beveridgean Dutch pension system grants women with care-oriented life courses higher financial autonomy and thereby also higher basic financial security compared to the Bismarckian German system. West German women with a strong care orientation experience some compensation through survivors' benefits, although this only marginally reduced their gap to more employment-oriented life course clusters or to their Dutch peers. Furthermore, we found that women with atypical family life courses are better off in financial terms based on their individual pensions in the Netherlands. In terms of household income, the predicted values for West German clusters exceeded those for the Netherlands. This difference indicates that while women do better in terms of independent pension in the Netherlands, the household level reveals a more complex story.

Focusing on conservative welfare state settings, our study contributes to our understanding of the relationship between pension policy and the financial well-being of women in later life. Systems like the Dutch one, with a (nearly) universal basic pension and widespread occupational pension, have been shown to benefit women and those with atypical employment trajectories more generally (Dotti Sani & Luppi, 2021; Möhring, 2021). Using an in-depth analysis of two conservative welfare states, our study expands upon these findings by differentiating between individual and derived pensions as well as household income. Going beyond previous findings, we find that higher individual pensions in the Netherlands do not translate to the household level. This findings demonstrates that household-level financial well-being in later life follows a different logic and deserves separate attention, as was suggested by one large-N study (Möhring, 2021) and one study comparing Switzerland and Germany (Madero-Cabib & Fasang, 2016) as well as several studies with a focus on Germany (Mika et al., 2016; Weiland & Möhring, 2020).

Our study has several limitations. First, despite including the individual and the household level, we disregard personal wealth and home ownership as a measure of financial well-being in later life. Second, our investigation of survivor benefits should be understood as a glimpse rather than an in-depth analysis of the consequences of widowhood and the effects of different survivor benefit regulations, because few women in our sample were widowed at the time of the interview. Comparing the effects of survivor benefit regulations requires a more in-depth approach (e.g. van Winkle et al., 2024). Lastly, our analysis showed considerably higher household equivalence income in West Germany, which we could begin to understand through the spread of outcome variables and the higher employment rates in West Germany. However, more investigation on the ways in which pension policies affect households, rather than individuals, is needed to understand these country differences.

Our findings have two key implications. First, as previous research has shown, privatization alone is not a sufficient predictor of pension inequalities (Dotti Sani & Luppi, 2021; Frericks, 2013; Möhring, 2015, 2018). Instead, the structure of the public pension system, whether it is universal or

tied to employment and earnings—which continues to operate alongside private and occupational pension plans—plays a crucial role in securing independent pensions for individuals with atypical employment histories, often women. Our results reinforce these findings, underscoring the need for a robust basic pension that goes beyond minimum social assistance, particularly in the context of growing privatization and increasing family diversity in later life, as seen in Germany in recent decades.

Second, our findings emphasize the need for a comprehensive approach to financial security in later life that considers the various income sources available to women. Comparing the two countries reveals different strategies for addressing the financial needs of older women. The Netherlands takes a more individualized approach, while West Germany focuses more on supporting widowed women and households. As a result, individual pensions, both independent and derived, are more stratified in West Germany. At the same time, the higher household incomes of West German women suggest that lower individual pension entitlements do not necessarily lead to income poverty at the household level, as long as they remain with a bread-winning spouse. Still, West German women more so than Dutch women seem to be "a husband away from poverty" (Orloff, 1993, p.319): Their income structure in later life implies greater dependency on marital status and household composition. Due to demographic trends towards more atypical family life courses (Kiernan, 2001) and growing pension privatization in Germany, a generous public baseline securing an *independent* income, such as in the Netherlands, will become more important to protect individuals from old-age poverty risks and provide an ageing in dignity for the majority of the elderly.

Data availability

This paper uses data from SHARE Waves 2, 3, 4, 5, 6, 7, 8 and 9 (SHARE-ERIC, 2024a, 2024b, 2024c, 2024d, 2024e, 2024f, 2024g, 2024h) and the SHARE Job Episodes Panel (Brugiavini et al., 2019). SHARE data are made available free of charge to the scientific community, subject to registration and compliance with the conditions of use. Access to the data can be requested via the SHARE Research Data Center at www.share-project.org

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