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Breadwinner models revisited: How a couple's combined work histories influence the retirement transition

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Abstract

As populations age, policymakers seek to stabilize pensions systems by encouraging late retirement and discouraging early economic inactivity. This study takes a novel approach to exploring an individual's retirement transition into pension or early economic inactivity, locating individual choices in relation to their breadwinner status. It explores gender- and country-differences in Dutch, Spanish, and Swedish life-history data, which show that men who work less than their partners and dual-earners retire into pension. Breadwinner status is particularly relevant in the Netherlands and for early retirement.

Keywords

household, life-course, paid work, retirement, gender

Introduction

Population ageing has made policymakers increasingly interested in when and how people retire. They strive to increase the retirement age to ensure a sufficiently large workforce and financially sustainable pension schemes in part by increasing the pension age and discouraging people from transitioning into economic inactivity before retirement (Myles 2002; Organisation for Economic Co-operation and Development [OECD] 2017). There is a rich body of knowledge, showing that the retirement transition depends on characteristics of the individual, their family and workplace situation, pension regulations, and the socio-historical context (see e.g. Arza and Kohli 2008; Frericks, Maier, and De Graaf 2007; McLaughlin and Neumark 2018; Whitaker and Bokemeier 2018). This study makes creative use of breadwinner models to study the influence of an individual's family situation on their retirement transition.

Traditionally, breadwinner models are used to describe which distribution of tasks is typical for couples in a country (e.g., Crompton 1999; Leschke and Jepsen 2014; Lewis 1992, 2001, 2002, 2007; Lewis, Campbell, and Huerta 2008a, 2008b; Mosesdottir 2000; Oliver and Mätzke 2014; Pfau-Effinger 1998, 2004). This study introduces a new take on the idea of breadwinner models to explore how a person's relative workforce position within a couple shapes their retirement transition. Shifting the focus of the breadwinner model from the country to the individual, it uses a person's breadwinner status to explain whether they retire into pension or into early economic inactivity, for example into periods of homemaking, leisure or poor health before retirement age.

An individual's breadwinner status influences their retirement transition, because it reflects their lifeworld (Habermas, 1997a, 1997b). It is a role this individual plays in their everyday lives, highlighting whether the individual is oriented towards the labor market, the family, or both (Cooke 2006; Lewis 1992; Pfau-Effinger 1998). The social role and the orientation influence whether an individual will strive to work until they qualify for pensions or whether they would consider early withdrawal from the workforce (Hook and Pettit 2016; Lewis 2002; Lewis, Knijn, Martin, and Ostner,

2008b). Policymakers can use knowledge of how dynamics within couples influence the retirement transition to better design family policies and work-life-balance oriented policies. Such knowledge is also important for the academic community, because it highlights within-country variation in breadwinner models and advances our understanding of family dynamics and the retirement transition.

To explore the influence of breadwinner status, this study answers three research questions: (1) How does an individual's breadwinner status influence their retirement transition? (2) How does the influence of the breadwinner status differ between men and women? And (3), how does the influence of the breadwinner status differ across countries? It compares the situation in three countries: Spain, which represents the male-breadwinner-model that typically considers men the sole workers in their families (Aboim 2010; McDonald 2000); Sweden, which represents the dual-earner model that typically has both partners participating in the labour market on equal terms (Ciccia and Blijenberg 2014; Mosesdottir 2000); and the Netherlands, which represents the one-and-a-half-breadwinner model that typically sees women working part-time to supplement their spouses' income (Lewis et al. 2008a; Visser 2002).

The breadwinner status and retirement

Breadwinner models yield insight into how spouses coordinate their workforce participation to generate sufficient household income whilst ensuring that household tasks are performed. Three common coordination strategies have been identified. The first strategy is the male-breadwinner model. In this model, men work for pay, generating the income for the entire household while women are in charge of the household. This model reflects traditional gender roles, and is common in countries that heavily rely on informal caregiving, such as Southern and Central European countries (Aboim 2010; Lewis 2006). The one-and-a-half breadwinner model also considers men the main providers of the household income, but allows women to combine paid work with household tasks

though work that is either part-time or temporary in nature. As such, women supplement their husbands' incomes, but do not carry equal responsibility for the household's financial well-being. The primary example for this type is the Netherlands, although some researchers argue that Central European countries such as Germany, France, and Switzerland may also adhere to this model (Aboim 2010; Lewis 2002, 2006; Visser 2002). In the dual-earner model, both spouses contribute equally to the household income. To balance the women's workforce participation, men also have to take over household chores to some degree. This model is common in the Northern European countries, which have a well-developed care service sector that helps women to combine paid work and caregiving (Ciccia and Blijenberg 2014; Pfau-Effinger 2004). Although researchers agree that these three strategies capture the majority of couples' workforce arrangements, they also acknowledge that arrangements may change over time, possibly resulting in new strategies (Lewis 2002; Pfau-Effinger 1998; Visser 2002). Possible alternative strategies designate women as the sole or main breadwinner.

While breadwinner models do not explicitly discuss the retirement transition, nevertheless they indicate which considerations influence the retirement transition, and which options the individuals have. In the male-breadwinner model, men's retirement decision is driven by economic considerations, and they delay retirement as long as economically necessary, ideally retiring into pensions. In contrast, women are driven by family-oriented considerations (Aboim 2010; Ciccia and Blijenberg 2014). Only a limited number of women participate in the workforce, and those women who retire are prone to do so whenever it is beneficial for the family, leading them to retire into early economic inactivity filled with caregiving and homemaking tasks. The one-and-a-half-breadwinner model means that the financial pressure on men is weaker than in the male-breadwinner-model, because women supplement the household income. Consequently, men's retirement decision is driven by financial considerations, leading them to retire late and into pension, but women's financial support gives them some leeway to retire early if, for example, their health requires this. The number of women participating in the labor market is higher in this model than in the male-breadwinner-

model, which entails that more women can also retire from paid work (Ciccia and Blijenberg 2014). These women have to consider both, financial aspects and their family-situation, when deciding about their retirement transition, which makes women's retirement transitions heterogeneous. Depending on their familial circumstances, they may either retire late and into pension, or in early economic inactivity. Finally, in the dual-earner model financial considerations play a role for both men and women, but the more equal distribution of the financial responsibility lowers the financial pressure on each of them (Lewis et al. 2008a; Pfau-Effinger 2004). Family-related considerations also play a role for both, but as the well-developed public social services and the more equal distribution of familial tasks lower the pressure on both, there is little need for them to retire into early economic inactivity for family reasons, although they would have the option to do so.

The discussion of the influence of an individual's breadwinner status on retirement reveals several mechanisms. First, financial considerations lead main breadwinners and dual earners to work longer, striving to retire into pension. Similar considerations likely affect the decisions of apply female main breadwinners and individuals without a partner. Therefore, the first hypothesis is: main breadwinners, dual earners, and persons without a partner are more likely to retire into pension, whereas minor breadwinners are more likely to retire into early economic inactivity. Second, because retirement into pension is guided by pension regulations, whereas retirement into early economic inactivity is not subject to these regulations, the second hypothesis is: breadwinner status has a stronger influence on retirement into early economic inactivity than on retirement into pension. A third hypothesis captures the gender-differences: that breadwinner status has a stronger influence on the retirement transition among women than among men.

Country-differences in the influence of breadwinner status on retirement

The influence of breadwinner status on the retirement age may differ across countries. Countries with more traditional gender roles often have welfare state arrangements that transfer social rights from

working spouses to their stay-at-home partners. Countries that prefer an equal workforce participation of men and women usually tie social rights to the individual (Evertsson 2016; Pfau-Effinger 1998; Sainsbury 1999). As a result, women in countries with more traditional gender roles have better options for retiring into early economic inactivity, if they so desire. The expectations towards women play out in a similar vein, with countries with more traditional gender roles being more likely to accept women's retirement into early economic inactivity than those that expect workforce participation from both partners (Aassve, Fuochi, and Mencarini 2014; Lyness and Judiesch 2014; Sainsbury 1999). Moreover, a country's retirement regulations influence the retirement transition. Countries with flexible retirement regulations facilitate retirement into pensions, whereas countries with strict retirement regulations lead more people to retire into early economic inactivity (Tikanmäki, Sihvonen, and Salonen 2015).

In this study, countries were selected as most different cases in terms of breadwinner models and also show differences in their culture and retirement regulations. Spain represents the male-breadwinner model, the Netherlands represents the one-and-a-half breadwinner model, and Sweden represents the dual-earner model (Aboim 2010; Ciccio and Blijenberg 2014; Lewis et al. 2008a). The fourth hypothesis is: The breadwinner status has a stronger influence on the retirement transition in Spain and the Netherlands than in Sweden.

Of course each country represents the breadwinner ideal type only to a certain degree, but never perfectly. Moreover, country characteristics can change over time, possibly leading countries to represent different ideal types at different points of time (Aronovitch 2011). Thus, the ideal types of breadwinner models were originally developed in the 1990s and 2000s (for example, Lewis 1992, 2002; Mosesdottir 2000; Pfau-Effinger 1998, 2004). Studies taking a more critical stance towards the typology underline that the male breadwinner model declines over time, with countries shifting either towards the one-and-a-half breadwinner model or towards the dual-earner model (Ciccio and Bleijenberg 2014; Crompton 1999). The countries included in this study to some extent also

experienced such a shift.

In Spain, the share of the population that supports traditional gender roles decreased and the share of working women increased over time (see Table 1). Despite these shifts, Spain still has comparatively strong support for traditional gender roles and comparatively low female workforce participation. The employment rate among women exceeded 50 percent for the first time only in the late 2000s (see Table 1). These characteristics mean that although the male breadwinner model in Spain weakened over time, it nevertheless still prevails. The Spanish pension system consists of a mandatory public pension insurance only, which distributes benefits to individuals aged 65 years and older. Early retirement options for workers in physically demanding occupations and for the long-term unemployed exist (OECD 2011). As a result, there is a little flexibility in the pension age, which helps those individuals that do work for pay to work until they receive pensions.

In the Netherlands, the support for traditional gender roles was already initially lower than in Spain and it further weakened over time. At the same time, women streamed into the workforce, with about every other Dutch woman working in 1993 and about three out of four women working in 2009. However, the vast majority of Dutch women work part-time, and this share is still increasing (64 per cent in 1993; 74 per cent in 2009) (see Table 1). The proliferation of part-time work in the Netherlands happened during the last decades of the 20th century, and it was so pronounced that Visser (2002) even labelled the Netherlands as the first part-time economy. Because of this labor market shift, the Netherlands transitioned from the male breadwinner model to a one-and-a-half breadwinner model, for which it is the archetype. The Dutch pension scheme has two tiers: a public and an occupational one, with 65 years being the pensionable age in both. However, until the early 2000s, early retirement options were available and pension schemes were commonly used as an alternative to early retirement (OECD 2005, 2011). When these options were limited, the pension age became less flexible, and the chance for retirement into early economic inactivity decreased.

Finally, Sweden already was the prime example of the dual earner model in the 1990s, and it

only solidified this standing since then (see Table 1). The Swedish pension system relies on a combination of public and occupational pensions, with occupational pensions giving individuals more flexibility in their retirement age. The pension age was lowered from 67 to 65 years in 1976 and in the 1990s a flexible retirement age from 61 to 67 years introduced (International Social Security Association 2018; OECD 2011; Scruggs, Jahn, and Kuitto 2017). This reform made it easier to retire into pensions.

[Table 1 about here]

Material and methods

Data

This study uses data from wave 3 of the Survey of Health, Ageing and Retirement in Europe (SHARE). SHARE is a panel study collecting information on the employment and health status, social situation, and social network of Europeans aged 50+ years. The data is collected from all household members (Börsch-Supan et al. 2013). Wave 3 contains life-history interviews (collected in 2008/09) which describe the respondents' work history, family situation, and health situation from age fifteen on, as well as their socio-demographic characteristics. These interviews used event history calendars to ensure an accurate recollection (Schröder 2011). . The dataset contains information on 6 694 men and women in the Netherlands, Spain, and Sweden. In a first step, this study selects those individuals who were economically active, meaning working or unemployed, at the age of fifty (Clasen et al., 2006). The resulting size of the dataset is 4 561 individuals, with the number of women decreasing especially in the Netherlands and Spain. In the Netherlands, about half of the women were excluded, and in Spain about three quarters of the women were excluded. These low rates of women's workforce participation are in line with the discussions on breadwinner models (see e.g. Aboim 2010; Lewis 2002; Visser 2002). In a second step, those individuals whose marital status changed after the age of fifty were excluded. The resulting sample size is 4 513. In a third step, those individuals whose

partners were not surveyed were excluded. The resulting sample size is 3 927, with especially the numbers among Swedish men and women decreasing. All partnerships observed were heterosexual ones. In a final step, individuals with missing data were excluded. About thirteen per cent of the individuals in the sample had missing information, with the share being highest among the Dutch and the Swedes. The information missing was almost exclusively on the variables describing work histories. An analysis of the missing data suggests that information was missing at random (Allison 2002). The final sample size is 3 402, with Table 2 showing the sample size by country and gender.

[Table 2 about here]

Variables

The study uses information on the respondents' gender ('male'/'female') and country of residence ('Netherlands'/'Spain'/'Sweden') to stratify the sample. The control variables are the birth cohort ('1911-1944'/'1945-1959'), number of children, age when leaving full-time education (in years), experience of a spell of poor health before or at age fifty ('yes'/'no'), and number of working years until age fifty including. The explained variables are when (age in years) and how ('pension'/'early economic inactivity') a person retires. The retirement age indicates the age which the respondent first receives old age pensions (public or occupational) or first experiences a spell of economic inactivity after the age of fifty. The explanatory variable is a person's breadwinner status, with the categories being: 'equal breadwinner', which marks partners with equal levels of workforce participation; 'main breadwinner', which denotes the main breadwinner in a male-breadwinner or a female-breadwinner or one-and-a-half-breadwinner model; 'minor breadwinner', which denotes the minor breadwinner in the one-and-a-half-breadwinner model; and 'no partner', which indicates individuals that are neither married nor in a legally registered partnership. Persons without a partner are included in the study for the purpose of comparison. The categorization of people as equal, main, or minor breadwinners was made after comparing the work histories ('0-25 full-time working years'/'26-36 full-time working

years') of both partners. The number of full-time working years is calculated as the total of working years from age fifteen to fifty, with part-time work counting as half a working year. A total of 26+ working years is counted as a full working career, because this number signifies that the respondent entered the labour market at the age of 25 years at the latest, which corresponds to the average age of finishing higher education among the cohorts surveyed (Brzinsky-Fay 2007; Murtin and Viarengo 2011). A lower number signifies a partial working career, where the respondent entered the labour market at a later age, had a career interruption, or worked part-time. If an individual had not yet reached the age of fifty, then the remainder of their working career until age fifty was projected to be identical to their previous work history.

Table 3 shows sample descriptive statistics by country and gender. It reveals that Spaniards have the highest average number of children, and that men have more children than women in all countries. The latter circumstance suggests that women especially have difficulty combining paid work and childcare, sometimes leading women with children not to work for pay. The average age of leaving full-time education is highest in Sweden and lowest in Spain among both genders. The number of men's full-time working years until the age of fifty is highest in Spain and lowest in Sweden, reflecting the Spaniards' shorter and the Swedes' longer time in education. The ranking is different among women. Among women, the Dutch have the lowest and the Swedes have the highest number of full-time working years until the age of fifty. This order reflects not only the time spent in education, but also the prevalence of part-time work and career interruptions among women. The cohort born between 1911 and 1944 is more numerous than the younger cohort among men in all countries and among Swedish women, reflecting the age distribution in the populations in these countries. Among Dutch and Spanish women, however, the younger cohort is more numerous. This peculiarity arises from the fact that women's workforce participation increased markedly among the younger cohort in these countries. The share of individuals who experienced a spell of poor health before or at the age of 50 was very low in all countries, suggesting that individuals with serious health

problems left the labor market before turning fifty. Being part of a dual-earner model is most common in Sweden and least common in the Netherlands, and it is more common among women than among men in all countries. Also, it is the most common breadwinner status for women in all countries. These facts reflect the country-specific gender roles and care arrangements, and they suggest that dual-earner arrangements make women more likely to be in paid work at the age of fifty. Men in all countries are most likely to be the main breadwinner, with three out of four Dutch and Spanish men and almost every second Swedish men being in this category.

The country-differences again reflect country-specific gender roles and care arrangements. Having no partner is less common, and being the minor breadwinner is almost non-existent among men in all countries. For women, being the minor breadwinner is the second most common status, with the percentage being particularly high in the Netherlands and particularly low in Sweden. These country-differences align with the prevalent gender roles. Being the main breadwinner is the least common status for women, and not having a partner is second to last. Also, not having a partner is more common among women than among men in all countries, suggesting that having no partner may make women more likely to work for pay. The observation time was similar across men and women in all countries. Among men, retirement into pension was the most common state at the end of the observation period, whereas retirement into early economic inactivity was the most common state among women. A continued labor market participation was the least common state among men and women in all countries.

[Table 3 about here]

Analytic strategy

Survival analyses explore how long it takes until individuals experience a defined event, and what influences the timing. In this study, the analyses trace individuals from age fifty on to determine when they retire. The precondition is that these individuals were economically activity at age 50, so that

they could still retire from paid work. This retirement can take place in one of two ways: as retirement into pension or as retirement into early economic inactivity. Because individuals could retire in two different ways, the analyses were set up as competing risk survival analyses. This setup captures not only when people retire, but also which of the two exit routes they take, and what influences the exit route chosen (Mills 2010).

The analyses started out by calculating the cumulative incidence functions of retirement into pension and into early economic inactivity. Then, multivariate regression analysis using the Cox proportional hazard models and cumulative incidence curves were calculated. This approach accounts for the fact that the risks of retirement into pension and into early economic inactivity may not be independent from one another (Mills 2010). The regression analyses were calculated once including the control variables only and once including the control variables and the explanatory variable. This strategy allows for better assessing the explanatory power of the explanatory variable. Finally, the hazard ratios of the explanatory variables were converted into per cent changes in the hazards to make the results easier to interpret. All analyses were carried out for each country and gender separately, because the effects of the explanatory variable are assumed to differ across countries and gender. The calculations were carried out with R, using the packages `mstate`, `survival`, and `cmprsk`.

Results

The cumulative incidence functions show the probability that an event occurs at or before a certain time. Figure 1 shows these functions for retirement into pension and for retirement into early economic inactivity for each country and gender separately. It reveals that the probabilities for retirement into pension and into early economic inactivity differ across countries and gender.

[Figure 1 about here]

The risk of retirement into pension and into early economic inactivity is about equally high for Dutch men. The cumulative risks for both events gradually increase until the age of sixty-five and

remain stable at about 0.4 from then on. Dutch women, in contrast, are much more likely to retire into early economic inactivity than into pension. The cumulative risk of retirement into pension abruptly increases at the age of sixty and then stabilizes just below 0.2. The risk of retirement into early economic inactivity, however, gradually increases from about fifty-three years on, reaching a probability of about 0.7. Spanish men have about identical cumulative risks of retirement into pension and retirement into early economic inactivity until the age of sixty-five. At this point, the cumulative risk of retirement into early economic inactivity plateaus at about 0.4, whereas the cumulative risk of retirement into pension jumps to 0.6 and plateaus there. Spanish women show a slightly different pattern, with the risk of retirement into early economic inactivity outweighing the risk of retirement into pension among them. The cumulative risk of retirement into pension abruptly increases to about 0.1 at the age of sixty, then gradually increases until the age of sixty-five, where it abruptly increases further to almost 0.4. The cumulative risk of retirement into early economic inactivity gradually increases up to about 0.5, where it plateaus around the age of sixty-five. The cumulative risks among Swedish men resemble those among Spanish men, in that they also gradually increase until about 0.4 at the age of sixty-five, where the cumulative risk of retirement into early economic inactivity plateaus and the cumulative risk of retirement into pension abruptly increases. The increase among Swedish men is slightly lower than among Spanish men, reaching a probability of only about 0.6. Swedish women, finally, have almost identical cumulative risks of retirement into pension and retirement into early economic inactivity. Both cumulative risk functions increase until the age of sixty-five, where they plateau slightly below 0.5. The difference is that that function for retirement into early economic inactivity increases gradually, whereas the function for retirement into pension initially increases slower and then jumps to its final value at the age of sixty-five.

Table 4 shows how much of the variance in the dataset the breadwinner status can explain. This table highlights that the explanatory power is higher among women than among men. Among men, it explains one to two percentage points, indicating a small relevance of men's position within

the household economy for their retirement transition. Among women, it explains three to seven percentage points – indicating country-differences in the influence of breadwinner status. The value of three percentage points in Sweden points to the fact that women there have a good labor market integration, which makes them partly independent from the household economy. The value of three percentage points in Spain indicates a strong selection effect in this country, with those few women who do participate in the workforce doing so largely independent from the household economy. The Netherlands reach a value of seven percentage points, indicating that the breadwinner status has the highest influence on women's retirement transition. Consequently, women who work at age 50 have the strongest embedding in the household economy in the Netherlands.

[Table 4 about here]

Tables 5 and 6 display the hazard ratios for the regression models. Among the control variables, cohort membership, educational level, the number of children and the number of working years until the age of fifty have significant effects. Influences on the hazard for retiring into pension differ across genders. Swedish men with a higher number of working years until the age of fifty have a slightly lower hazard of retirement into pension. Dutch and Spanish women belonging to the older cohort and Swedish women with a higher number of children have a lower hazard, whereas Spanish women with a higher educational level have an increased hazard of retiring into pension. In contrast, influences on the hazard for retiring into early economic inactivity are consistent across genders: belonging to the older cohort lowers the hazard, whereas having a higher educational level in Spain and Sweden and having a higher number of children in the Netherlands and Sweden increases the hazard.

[Table 5 about here]

[Table 6 about here]

Tables 5 and 6 likewise display information on the explanatory variable, which is the breadwinner status. Among men, Dutch and Spanish main breadwinners and singles are less likely to

retire into pension. Their hazards are between 25 and 65 percentage points lower than those of dual earners, with the confidence intervals of all significant effects overlapping. The latter circumstance means that the effect sizes may be identical. Interestingly, the breadwinner status has no significant influence on retirement into pension among Swedish men. By comparison, the influence on retirement into early economic inactivity among men is more varied. Main breadwinners, individuals without a partner, and Dutch men who are minor breadwinners have an increased hazard of retiring into early economic inactivity. Spanish single men are by far the most likely to retire into early economic inactivity. Their hazard is 4.1 times that of dual earners, which is significantly higher than that of main breadwinners in all countries. All other significant effects amount to 1.5-2.7 times the hazard of individuals in dual earner households, with their 95% confidence intervals overlapping. This circumstance means that all significant effect sizes may be identical - except for Spanish singles.

The influence of the breadwinner status plays out similarly among women. Women's hazard for retiring into pension is lower among Dutch main breadwinners and Dutch and Swedish minor breadwinners and singles, being 35 to 67 percentage points below that of dual earners. Again, the 95% confidence intervals of all significant effects overlap, indicating that the effect sizes may be identical. Female main breadwinners, singles, and Dutch and Spanish minor breadwinners have an increased hazard for retiring into early economic inactivity. Their hazard is 1.9 to 3.0 times that of women in dual earner households. The 95% confidence intervals of all significant effects overlap, meaning that the effect sizes may be identical.

Discussion and conclusion

This article has explored how the coordination of workforce participation within couples influences their retirement transition. It is important to understand these dynamics in times of population ageing, where retirement reforms are necessary to maintain a sizeable workforce and financially sound pension schemes. Coordination efforts within couples can limit the potential effectiveness of such

reforms. This study uses the concept of the breadwinner status to look at how workforce participation is coordinated within couples, differentiating between individuals in a dual-earner arrangement, main breadwinners, minor breadwinners, and individuals without a partner.

The first research question is how a couple's breadwinner arrangement influences the retirement transition. The findings show that among men, equal and minor breadwinners are the most likely to retire into pension, whereas main breadwinners and individuals without a partner are the most likely to retire into early economic inactivity. Among women, individuals in dual-earner arrangements are more likely to retire into pensions and less likely to retire into early economic inactivity than everybody else. As a result, the first hypothesis has to be rejected. The findings are in line with the second hypothesis - that the breadwinner status has a stronger influence on retirement into early economic inactivity than on retirement into pension. The breadwinner status has some influence on retirement into early economic inactivity among all countries and both genders, whereas it has no influence on retirement into pension among Spanish women and Swedish men.

The second research question is how the influence of the breadwinner status differs between men and women. Hypothesis 3 suggests that the breadwinner status has a stronger influence on the retirement transition among women than among men. Findings show that the effect size does not significantly differ among men and women – with the exception of Spanish male singles who transition into early economic inactivity. Therefore, the hypothesis has to be rejected. However, the effect pattern differs between men and women, with men being more likely to retire into pension if they are equal or minor breadwinners, whereas women are more likely to retire into pension if they are equal breadwinners. This finding suggests that it is not so much the strength of the effect but rather the mechanism that gives the breadwinner status a gender-specific effect.

The third research question is how the influence of the breadwinner status differs across countries. This question acknowledges the importance of social context for individual behavior and suggests that the countries studied differ sufficiently to generate differences in behavior. The fourth

hypothesis was that the breadwinner status has a stronger influence on the retirement transition in Spain and the Netherlands than in Sweden. Findings show that in the Netherlands, the risk of retiring into early economic inactivity increases for men and women of all breadwinner statuses other than the dual earner. The risk of retiring into pension drops for Dutch main breadwinners and individuals without a partner, but for minor breadwinners it only decreases among women. In Spain, the risk of retiring into early economic inactivity increases among main breadwinners and individuals without a partner, and for minor breadwinners it increases only among women. The risk of retiring into pension in this country only drops for men who are main breadwinners or who have no partner. In Sweden, the risk of retiring into early economic inactivity increases among main breadwinners and individuals without a partner, but being a minor breadwinner does not have an effect. The risk of retiring into pension is lower only among women who are minor breadwinners or without a partner. These findings indicate that the effect of the breadwinner status is most pronounced in the Netherlands and less pronounced in Spain and Sweden. As such, the findings are not in line with the third hypothesis and the hypothesis has to be rejected.

The findings have theoretical and practical implications. Theoretical implications arise because the findings expand our knowledge about breadwinner models and the retirement transition. A first insight generated by applying the models to individuals is that more breadwinner models exist than have been discussed, as all three countries see some women being the main providers in their households. Discussions of breadwinner models need to include this option and explore its implications for gender roles and household dynamics. An example of such implications comes from the second insight generated by this study, namely that the breadwinner status has gender-specific effects: The crucial question for men is whether they have the main responsibility for generating household income, whereas the crucial question for women is whether they are in an equal work relationship. A third insight is that when applied to the individual level, the breadwinner model demonstrates that the retirement transition is not only influenced by an individual's work history, but

also by their relative position in a partnership. As a result, an individual's work history does not only carry objective information, but also a subjective and relative element that needs to be interpreted in social context. This insight opens up a new field of application for discussions on breadwinner models, and it can lead to a revival of these discussions in the context of retirement studies.

A second theoretical implication arises from the fact that this article studied countries representing different breadwinner models. The gender-differences among older workers were most pronounced among the Dutch, and less among the Spaniards and the Swedes. The higher level of gender equality in Sweden stems from high female workforce participation rates, whereas in Spain there is a strong selection bias on who works in old age. The prevalence of the male-breadwinner model in Spain means that most women there do not work in old age. Those who do work set themselves apart from prevailing gender roles and expectations and they often do not have a partner. This insight links discussions about breadwinner models to discussions about retirement, suggesting that retirement research can utilize the concept of breadwinner models to better understand how gender roles shape workforce participation in old age and limit the possible impact of pension reforms.

Practical implications arise because the findings demonstrate the connection between the retirement transition and how couples coordinate their workforce participation, with the latter factor largely depending on women's workforce participation. This study showed that being in a dual-earner model lowers the chances that an individual retires into early economic inactivity, and it increases the chances that an individual retires into pension. Considering that women's workforce participation increases and that the dual-earner model becomes more common over time as a consequence, we can also expect to witness an increase in retirement into pension. Retirement into early economic inactivity, in contrast, will probably become less common. Policymakers can therefore expect pension reforms to become more effective over time. In consequence, it appears that a key to increasing the effectiveness of pension reforms lies in facilitating women's workforce participation. Researchers

like Esping-Andersen (2009) and McDonald (2000) argue that a key to increasing women's workforce participation, in turn, is to develop a more comprehensive offer of childcare services, which allows women to combine paid work and childcare more easily. Considering the findings of this study, the topic of pension reforms can be added to the already discussed connection between childcare reforms and workforce participation, creating a chain of causal influences in welfare policies.

Of course, this study also has some limitations. First, it compares only three countries. Accordingly, the results are not sufficient to pinpoint the exact mechanisms in other countries, especially in non-Western countries. It would, therefore, be interesting if future research could replicate the study design in additional countries, for example from the Asian or African context. Second, this study only considers those individuals who were economically active at the age of fifty. Individuals who were economically inactive at that age were excluded from the sample. As a result, the sample contained only few individuals who had experienced health problems before the age of fifty, and it contained no individuals who had never worked or who had stopped working at a young age. This selection effect is stronger among women, particularly in Spain. Consequently, we need to keep in mind that the results do not describe the entire population in these countries, but only a subsection of it. Third, the selection effect just described reduced the sample size, especially among Spanish women, which makes it harder for effects in this country to reach higher significance levels. It is possible that the breadwinner status would have a stronger effect if the sample size were increased. Therefore, it would be worthwhile if a future study with a larger sample of working Spanish women could repeat the analysis to determine whether yet unobserved effects emerge once the sample size is increased.

Taken together, this study demonstrates that the breadwinner model is not only useful for characterizing countries, but also for characterizing the situation of individuals in partnerships. When broken down to the individual level, information on an individual's breadwinner status emerges,

which affects the retirement transition. Individuals in dual-earner relationships and men who do not have a partner are more likely to retire into pension. Considering women's increasing workforce participation rate, dual-earner arrangements will become more common over time, thereby probably also facilitating retirement into pension at the cost of retirement into early economic inactivity. As a consequence, pension reforms may become more effective if they are aligned with reforms striving to increase women's workforce participation rates.

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Figure 1. Cumulative incidence functions for retirement into non-employment and into pension, by gender and country

Table 1. Indicators for the breadwinner regime, by country and year (in %)

		Netherlands		Spain		Sweden	
		men	women	men	women	men	women
Share of population agreeing with traditional gender roles	1994	19.0		27.4		11.4	
	2002	12.4		24.7		7.6	
	2012	13.2		18.7		5.8	
Share of population employed	1993	78.7	53.5	68.9	33.8	-	-
	2000	84.3	64.1	76.9	44.5	79.0	74.6
	2009	84.9	72.7	71.0	56.8	80.9	75.7
Share of employed population working part-time	1993	11.8	63.6	1.9	14.1	-	-
	2000	15.4	69.4	2.5	16.6	7.9	32.7
	2009	19.2	74.1	4.4	22.0	11.4	39.0

(Eurostat 2018a, 2018b; ISSP Research Group 1997, 2013, 2016)

Table 2. Sample size for each step of the data collection process, by country and gender

	Netherlands		Spain		Sweden		Total
	men	women	men	women	men	women	
Entire sample	1 040	1 240	1 086	1 351	879	1 098	6 694
Select those working at age 50	915	606	897	396	829	918	4 561
Select those with stable marital history	904	600	890	396	812	911	4 513
Select those with information on partner	810	535	843	330	691	718	3 927
Select those without missing values	714	440	801	301	575	571	3 402

Table 3. Sample descriptive statistics, by gender and country

Indicator	Variable	Netherlands	Spain	Sweden
<i>Men</i>				
Mean (S.D.)	Number of children	2.4(1.6)	3.1(2.0)	2.2(1.4)
Mean (S.D.)	Age leaving full-time education	17.9(4.3)	12.5(6.4)	19.0(6.9)
Mean (S.D.)	Number of working years until age 50	31.8(4.3)	33.1(4.1)	30.7(4.6)
Mean (S.D.)	Observation time	12.0(6.1)	11.9(5.5)	12.8(4.3)
Percentage	Cohort: 1911-1944	52.0	61.4	63.7
	1945-1959	48.0	38.6	36.3
Percentage	Illness until age 50: no	98.2	99.1	97.9
	yes	1.8	0.9	2.1
Percentage	Breadwinner status: equal	17.1	18.5	38.4
	main	73.7	73.2	43.1
	minor	1.1	1.1	3.8
	no partner	8.1	7.2	14.7
Percentage	Survival status: survival	19.4	11.2	7.5
	retirement into early economic inactivity	36.8	30.7	36.8
	retirement into pension	43.8	58.1	55.7
<i>Women</i>				
Mean (S.D.)	Number of children	2.1(1.5)	2.6(1.9)	2.1(1.2)
Mean (S.D.)	Age leaving full-time education	17.3(4.0)	13.8(6.1)	20.0(7.2)
Mean (S.D.)	Number of working years until age 50	24.8(7.9)	25.4(9.8)	26.8(6.2)
Mean (S.D.)	Observation time	11.7(6.4)	11.9(7.3)	12.2(4.8)
Percentage	Cohort: 1911-1944	34.3	41.2	52.9
	1945-1959	61.4	58.8	47.1
Percentage	Illness until age 50: no	98.2	99.3	98.6
	yes	1.8	0.7	1.4
Percentage	Breadwinner status: equal	37.6	41.9	52.9
	main	7.7	6.6	6.7
	minor	37.0	32.2	20.5
	no partner	17.7	19.3	20.0
Percentage	Survival status: survival	28.4	21.6	12.1
	retirement into early economic inactivity	55.0	48.8	43.1
	retirement into pension	16.6	29.6	44.8

Note: 'S.D.' means standard deviation

Table 4. Model fit index R^2 , by country and gender

	Netherlands	Spain	Sweden
<i>Men</i>			
Model without breadwinner status	0.25	0.33	0.31
Model with breadwinner status	0.27	0.35	0.32
<i>Women</i>			
Model without breadwinner status	0.20	0.35	0.29
Model with breadwinner status	0.27	0.38	0.32

Table 5. Hazard ratios, 95% confidence intervals and significance levels for men, by country

	Netherlands	Spain	Sweden
<i>Retirement into pension</i>			
Number of children	0.97(0.90-1.04)	0.97(0.92-1.01)	0.97(0.89-1.06)
Age leaving full-time education	1.00(0.96-1.03)	1.01(1.00-1.03)	0.99(0.97-1.01)
Number working years until 50	1.00(0.96-1.04)	1.01(0.99-1.03)	0.97(0.94-1.00)*
Cohort: 1911-1944	1.24(0.97-1.59)	0.99(0.78-1.27)	0.90(0.70-1.15)
1945-1959	ref.	ref.	ref.
Poor health until 50: no	ref.	ref.	ref.
yes	0.29(0.04-2.11)	1.56(0.49-4.89)	1.85(0.82-4.19)
Breadwinner status: equal	ref.	ref.	ref.
main	0.75(0.58-0.98)*	0.74(0.59-0.92)**	0.88(0.70-1.11)
minor	0.28(0.04-2.02)	0.24(0.06-1.02)	0.74(0.42-1.30)
no partner	0.35(0.19-0.63)***	0.55(0.35-0.87)*	0.86(0.60-1.22)
<i>Retirement into early economic inactivity</i>			
Number of children	1.10(1.01-1.19)*	1.04(0.96-1.12)	1.14(1.03-1.27)*
Age leaving full-time education	1.04(1.00-1.08)	1.05(1.02-1.09)***	1.06(1.02-1.27)***
Number working years until 50	1.03(0.98-1.08)	1.02(0.98-1.07)	1.04(1.00-1.09)
Cohort: 1911-1944	0.04(0.02-0.06)***	0.03(0.02-0.04)***	0.04(0.03-0.07)***
1945-1959	ref.	ref.	ref.
Poor health until 50: no	ref.	ref.	ref.
yes	1.85(0.93-3.70)	2.27(0.72-7.20)	1.62(0.66-3.98)
Breadwinner status: equal	ref.	ref.	ref.
main	1.54(1.11-2.15)**	1.75(1.27-2.43)***	1.54(1.10-2.16)*
minor	2.71(1.20-6.11)*	1.09(0.44-2.72)	1.14(0.50-2.60)
no partner	2.30(1.44-3.70)***	4.08(2.59-6.44)***	2.07(1.40-3.07)***

Note. $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; ref. = reference category

Table 6. Hazard ratios, 95% confidence intervals and significance levels for women, by country

	Netherlands	Spain	Sweden
<i>Retirement into pension</i>			
Number of children	0.98(0.85-1.12)	0.87(0.79-0.97)**	0.89(0.80-1.00)*
Age leaving full-time education	1.02(0.98-1.07)	1.04(1.01-1.07)*	0.99(0.97-1.00)
Number working years until 50	0.98(0.95-1.02)	1.01(0.98-1.03)	0.99(0.96-1.01)
Cohort: 1911-1944	0.45(0.30-0.67)***	0.41(0.27-0.63)***	0.81(0.64-1.02)
1945-1959	ref.	ref.	ref.
Poor health until 50: no	ref.	ref.	ref.
yes	0.37(0.05-2.70)	0.94(0.12-7.10)	0.74(0.27-2.02)
Breadwinner status: equal	ref.	ref.	ref.
main	0.33(0.13-0.83)***	0.66(0.29-1.52)	1.03(0.64-1.65)
minor	0.33(0.19-0.57)***	0.57(0.32-1.01)	0.65(0.47-0.92)*
no partner	0.51(0.29-0.87)*	0.74(0.47-1.17)	0.57(0.40-0.80)**
<i>Retirement into early economic inactivity</i>			
Number of children	1.15(1.03-1.29)*	1.07(0.97-1.19)	1.21(1.08-1.35)***
Age leaving full-time education	1.00(0.97-1.04)	1.04(1.00-1.07)*	1.04(1.02-1.06)***
Number working years until 50	1.01(0.98-1.04)	1.02(0.99-1.05)	1.03(1.00-1.07)
Cohort: 1911-1944	0.06(0.04-0.11)***	0.02(0.01-0.04)***	0.04(0.03-0.07)***
1945-1959	ref.	ref.	ref.
Poor health until 50: no	ref.	ref.	ref.
yes	1.04(0.42-2.57)	2.26(0.29-17.34)	2.48(0.57-9.86)
Breadwinner status: equal	ref.	ref.	ref.
main	2.09(1.27-3.45)**	2.95(1.51-5.74)**	1.94(1.13-3.34)*
minor	2.06(1.34-3.16)***	2.27(1.34-3.84)**	1.50(0.91-2.45)
no partner	2.81(1.94-4.07)***	2.25(1.34-3.77)**	1.91(1.39-2.62)***

Note. $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$; ref. = reference category