



What matters most?

The role of late fatherhood and grandfatherhood on retirement timing in Sweden

Linda Kridahl, Sofi Ohlsson-Wijk and Ann-Zofie Duvander

What matters most?

The role of late fatherhood and grandfatherhood on retirement timing in Sweden

Linda Kridahl, Sofi Ohlsson-Wijk and Ann-Zofie Duvander

Department of Sociology, Stockholm University

Abstract

Across Western countries, men's retirement decisions are increasingly being linked to their family circumstances. At the same time, postponed childbearing and increasing family complexity, such as separations and repartnering, have led to greater possibilities for men to have children later in life and to have young children and young grandchildren during the same period of their life. This study investigates whether having children later in life and potentially young grandchildren at the same time, is associated with retirement timing in Sweden among men born 1940-1956. Using role theory, the study first examines the retirement timing of men who have children after age 45 compared to men who have children earlier in life and childless men. Thereafter, it examines the retirement timing among men who have either young children (aged 0-3) or young grandchildren (aged 0-3) or both, compared to other fathers/grandfathers and childless men. Event-history analyses based on full-population register data show that men who had a child after age 45 (except ages 66-70) retire later compared with men who only had children at age 45 or earlier. The analyses also reveal that it is especially men with young children (without young grandchildren) who retire latest. Men with young children and grandchildren retire instead earliest. Concluding, late fatherhood and, in particular, having young children, important for men's retirement timing as it leads to postponed retirement, possibly due to the traditional provider role among fathers, whereas having both young children and young grandchildren early-set retirement instead, potentially due to role overload.

Keywords: Late fatherhood, grandfatherhood, family circumstances, retirement timing, Sweden

Stockholm Research Reports in Demography 2022:21

ISSN 2002-617X

© Linda Kridahl, Sofi Ohlsson-Wijk and Ann-Zofie Duvander



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

Introduction

The interdependence between family circumstances and retirement in Western countries, including Sweden, is well known (Dentinger & Clarkberg, 2002; Kridahl, 2017; Szinovacz et al., 2001). The family circumstances of women and men reflect the different roles that they take on or are given in the family. Men's roles in the family may, for instance, be providers or care givers, or both, and have shown to alter retirement timing in different ways. For instance, the need to provide financially for family members generally postpone retirement, (Hank & Korbmacher, 2013; Szinovacz et al., 2001), whereas the presence of young grandchildren, tend to speed up the transition to retirement (Hochman & Lewin-Epstein, 2013; Kridahl, 2017; Van Bavel & De Winter, 2013). The increasing diversity and combinations of family-related roles men may have when approaching retirement have not yet been investigated.

Men's roles at retirement and the increasing diversity of these roles are connected to the significant demographic changes that the countries in the industrialized world, with Sweden among the forerunners, have gone through (Bengtson, 2001; Lesthaeghe, 2014). Increased life expectancy and improved health have enhanced life quality among many groups of older individuals (Meyer et al., 2020; Oeppen & Vaupel, 2002; Vaupel, 2010). Long-term increases in divorce have generated a growing number of remarriages and stepfamilies (Bengtson, 2001). Remarriage is almost as common as first-time marriages in Sweden, and later-life marriages have increased over time (Andersson et al., 2017). Studies from Sweden indicate that entering a new union (after children and divorce/separation) increases the desire to have a common child (Vikat et al., 1999). Overall, family formation pathways have become more diverse, including the type and size of kinship networks and intergenerational relationships. This has made it more likely for men to have children later in life, which may influence their retirement behavior.

The family-demographic changes lead to another emerging family pattern, where men and women have a greater possibility of experiencing parallel family-related events that were typically sequential events in the past (Bengtson, 2001; Hagestad, 2003). Thus, an interesting and potentially increasing group of men has emerged: those who have both young children and young grandchildren when approaching retirement age. This group may still be relatively small; previous research has not yet found any great overlap between men's childrearing years and grandparenthood. For example, one of a few studies examining this phenomenon

has shown that the end of active parenthood (for men mean age 48 in Sweden) typically preceded grandparenthood, that grandparenthood normally preceded retirement and that the age gaps between these transitions are large overall (Leopold & Skopek, 2015). However, the study included Swedish men born 1930-1947, and it is possible that the gaps are narrowing and overlaps are growing among the more recent older cohorts, potentially changing the importance of men's different roles on retirement. In addition, that study focused on the typical patterns and did not reveal the proportion who have overlapping family-related events or men who had children very late.

This study investigates whether the presence of young children and young grandchildren speeds up or delays the retirement age. When men who have young children and/or young grandchildren approach retirement, they may decide differently on the timing of their retirement, mainly because being a father and grandfather are two distinct roles. For example, most young children are more dependent on their fathers' care than grandchildren are on their grandfathers' care. At the same time, grandparenthood is often recognized as an important role in men's lives, and older men may see spending time with grandchildren as an enjoyable retirement activity (Hochman & Lewin-Epstein, 2013). By the guidance of *role theory* (Biddle, 1979) and using event-history analysis, this study first examines variations in the risk of retirement for men who had children after age 45 compared with men who had children at age 45 or earlier and childless men. In a second analysis, the study examines retirement among men who have both young children and young grandchildren. 'Young children/grandchildren' are defined as children aged 0-3. The analyses are based on Swedish registers covering the entire population of men born 1940-1956, with linked data on all their children who were born or ever resided in Sweden.

The main contribution of this study is its novel focus on men's fertility in later life and grandfatherhood in nexus with retirement decisions. An increase in both diversity in life courses and possibilities for men to have children at different life stages and the potential consequences for the conditions of families and the labor market make this study's focus an important research topic. In particular, the study contributes novel information about men's new combinations of roles and can ultimately show how they take on fatherhood and grandfatherhood in ways that may not be comparable to previous generations. Additionally, Sweden is an interesting country to study variations in retirement timing by men's fertility in later life and grandfatherhood as the pension system does not have any fixed pension age. It

is possible to take 25, 50, or 75 percent, or the entire part of the income pension, starting from age 61. The system encourages postponed retirement, as additional years in paid labor generates higher pension benefits (Sjögren Lindquist & Wadensjö, 2009; Sundén, 2006). Over time, there has been an increase in average retirement age, and more men are working after age 67 (Larsen & Pedersen, 2017). It is also possible to retire at an earlier age with occupation pension, which for some occupation can be used at age 55 (SOU, 2011). Overall, the pension system gives significant individual freedom to decide when to retire, and personal reasons may motivate retirement decisions, but retiring before age 61 is relatively uncommon.

Previous research and theory

The section on previous research first describes the trends in late childbearing for men. Thereafter, the potential association between late fatherhood and retirement is discussed, followed by what research has shown regarding grandparenthood and retirement. This is followed by a subsection about role theory with regard to fatherhood and grandfatherhood as well as the combination of those two roles in relation to retirement timing. Finally, the discussion materializes into two hypotheses.

Male fertility and children in later life

Most industrialized countries, including Sweden, have witnessed an increase in the number of children born to parents at much higher ages since the 1970s, albeit with variations at the country level (Beaujouan, 2020; Beaujouan & Sobotka, 2019; Billari et al., 2007; Coleman, 2000; Kohler et al., 2002; Prioux, 2005; Sobotka, 2010; Statistics Sweden, 2001). For example, the proportion of the total fertility that was due to men aged 45+ increased from 2.2% in 1990 to 5.5% in 2014 in Sweden (Beaujouan, 2020). Age 45 is generally a turning point for men to have children (Hassan & Killick, 2003), after which they may experience health impairments or negative sexual behavior that limits their fertility (Harris et al., 2011; Plas et al., 2000; Sartorius & Nieschlag, 2010).

Young children and retirement timing

How can having young children affect the retirement timing for men who approach a typical retirement age? This has not yet been studied but can relate to the typical roles that fathers have. In many families in Western countries, including Sweden, men still have the main

breadwinner role. This is, for example, reflected in the fact that men's income level increases after the birth of a child, but women's income level decreases (Angelov et al., 2016; Duvander et al., 2015; Loughran & Zissimopoulos, 2009). This suggests that men continue to work to the same extent when they have a young child, whereas mothers work less to care for the child. Earnings not only provide economic security but also social standing, social networks and prestige (Erikson & Goldthorpe, 1992), which may be needed when raising a child at any age. In line with this, research has found that the ability to meet the family's economic needs often plays a role in a man's decision to postpone retirement (Szinovacz et al., 2001). Therefore, it is not surprising that a higher number of children has been linked with later retirement in Sweden, especially for men (Kridahl, 2017). Assuming that older fathers with young children embrace their role as providers, it is likely that they will postpone retirement compared with fathers with adult children (see also Hank & Korbmacher, 2013). However, this association may look different depending on when the fathers are born. For example, in recent decades, the development of family and work life has led to women taking on an increasing proportion of the provider role and men taking a larger part in unpaid work and child care work, including an increased proportion of parental leave (Duvander et al., 2015; Hagqvist et al., 2017). It is nevertheless possible that the changes in the nexus of work-family also influence the role of individuals' family history on retirement among the recent 'old' cohorts (Hank & Korbmacher, 2013).

Grandparenthood and retirement timing

Previous studies have showed that grandfathers retire earlier than other men. There are multiple arguments for why they do so (Kridahl, 2017) and why they view spending time with their grandchildren as an attractive retirement activity (Jonsson et al., 1997). Foremost, the increase in years of shared lives (Bengtson, 2001; Leopold & Skopek, 2014), meaning that an increasingly large proportion of life is spent as a grandparent, suggests that both grandmothers and grandfathers have more possibilities to be part of their grandchildren's lives, thus motivating them to be more invested and involved in their grandchild (Buchanan & Rotkirch, 2018; Uhlenberg, 2009). For example, they engage in physical activities (Smorti et al., 2012), serve as mentors for grandchildren (Leeson, 2016; Waldrop et al., 1999), or provide childcare. A cross-European study found that approximately 42% of grandfathers are involved in childcare. In Sweden and in the other Nordic countries, grandparents were found to be responsible for day care less often because municipalities provide childcare, but they

were nevertheless highly involved in other ways (Glaser et al. 2013), particularly among retired couples (Leopold & Skopek, 2014). Overall, Swedish grandfathers have been shown to spend relatively many hours per week on grandchild care compared to other grandfathers (Leopold & Skopek, 2014). Moreover, in European cross-national studies, grandfatherhood has been shown to have positive effects on men's life satisfaction (Powdthavee, 2011; Tanskanen et al., 2019) and subjective well-being (Arpino et al., 2018). Causality may not be established here; however, the positive association of grandfatherhood on men's wellbeing may motivate men to participate in the life of their grandchildren by retiring, for example.

Theoretical framework – role theory

The importance of roles for the associations studied in this study has been briefly touched upon, and this section goes further into explaining role theory and how that is a helpful tool for understanding the phenomena studied here. Role theory assumes that individuals have expectations for how they themselves and others should behave, which are linked to positional expectations for so-called 'roles' (Biddle, 1979; Biddle, 1986; Turner, 1982). Roles, such as 'worker' or 'father', are not isolated phenomena but are tied to social institutions, such as 'work', 'family' or 'retirement'. For example, the expected behavior of a father is that he should economically and emotionally care for his child. The expectations of the father role often change over the life course of the child and the father, and the different obligations may be stronger or weaker at different periods of the life of the child (Palkovitz & Palm, 2009). Individuals must sometimes reach a given position before they can perform the role. For example, a man can retire only when he is approaching retirement age.

Role theory further assumes that roles have functions. Individuals may be motivated to continue their roles (or take on new roles) because they desire and approve the functions that they thereby accomplish. For example, a father's retirement timing may be altered by his adult children's expectations about the father's ability to provide childcare for the grandchild or that a father financially needs to support his young child. The theory assumes that individuals hold several roles simultaneously over the course of their lives. Some elements of the different roles may overlap, whereas other elements may not. For example, for a man who is both a father and grandfather, the characteristics of the roles overlap because both roles include some form of responsibility for a child. However, the roles may have different functions and require different behaviors at the same time. The function of a grandfather is less guided by norms, and a grandfather also has fewer responsibilities toward a grandchild

than a child. As individuals often have several roles simultaneously, role conflicts or role overload may occur. A role overload can be perceived as a stressor if too much is demanded of the individual. For example, a new partner with whom the man conceives a child at a later age may have different expectations compared with the adult child who may want his or her father to care for a young grandchild. A role can sometimes also be inconsistent with the individuals' needs or wishes. For example, a man in his 60s is expected and may want to retire, but if he also has a young child, he may postpone retirement to meet the economic obligations for the child.

At the same time, as role theory assumes that roles are linked to expectations on how individuals should behave, the expectations for a given role may change over time. Turner (1990) defines role change as *"a change in the shared conception and execution of typical role performance and role boundaries"* (Turner, 1990:88). Role changes often occur when there are changes in cultural values assigned to the role, social structural changes, or demographic changes that modify relevant characteristics of role holders or potential holders. For example, the expectation of fathers being financial providers may weaken when they increasingly participate in childcare and women increasingly contribute to family finances. Role changes are also assumed to be linked to contemporary attitudinal and institutional movements within a country, such as greater acceptance of nontraditional family formations (Mahoney, 1994; Turner, 1990). Thus, changes in the circumstances of roles may explain potential cohort changes in how men behave in certain roles, for example, when they are an older father with a young child.

Hypotheses

Based on previous empirical findings and theory, this study has two hypotheses. The first hypothesis is broad and proposes that all men who have experienced late fatherhood are compared with men who had children earlier in life and childless men. We assume that men who have a child later in life have a carer role but that the role as provider and the perceived need to contribute to household income are stronger than the carer role among the cohorts studied here. For men who approach retirement age but became parent earlier in life, their children are much older and more independent and may even have their own incomes and families. That group of men may thus retire earlier than men who experienced late fatherhood. Childless men, on the contrary, do not have (their own) children to provide for

and may postpone retirement, as their working role is likely more central for them (see, e.g., Kridahl & Silverstein, 2020). Therefore, the first hypothesis is as follows:

Hypothesis 1: Men who had children at age 45 or earlier have the highest risk to retire (retire earliest), followed by men who had children after age 45, and childless men have the lowest risk to retire (retire latest).

In the second hypothesis, the focus is on the specific group of men who have both a young child and a young grandchild, i.e., 0 to 3 years old. For this group of men, role theory emphasizes that being a father and grandfather are two roles with different functions. These parallel roles with multiple obligations, together with the worker role, may contribute to experiencing overload and too little time for family life. Men with both young children and young grandchildren would therefore retire earlier than the other groups of men. In Sweden, grandfathers with young grandchildren most often do not have an economic provider role but more a caring role, and have been found to retire earlier than men without grandchildren (Kridahl, 2017). This study expects to replicate that finding for men with young grandchildren. In line with Hypothesis 1, we further assume that older fathers with young children (0-3 years-old) would retire later than those with older children. This association may be even stronger than the association in Hypothesis 1 as these men have very young children. Childless men are assumed to retire latest also in this hypothesis. Thus, the second hypothesis is as follows:

Hypothesis 2: Men who have young children and young grandchildren (i.e., 0 to 3 years old) have the highest risk of retiring (retire earliest), followed by (in order) men who have young grandchildren (and older children), other fathers/grandfathers, men who have young children (and no young grandchildren, including grandchildless), and childless men (retire latest).

Data and methods

Data

This study's analysis is based on population registers including the total Swedish population of men born between 1940 and 1956. These registers provide detailed individual-level information on earnings, marital status, highest achieved education and other demographic information relevant for the study. Much of the information is recorded annually or monthly.

This study draws information on all Swedish-resident men born from 1940 to 1956 and all their Swedish-resident children and grandchildren up to 2017. This method of data selection makes it possible to observe all potential births of children and grandchildren registered in Sweden up to age 77 for men born in 1940 and age 61 for men born in 1956. The cohorts are observed from age 61 (or the earliest age after 61) and followed until they retire or drop out due to death, migration or last year of observation (2017) if that occurs before any retirement. The younger cohorts (mainly 1955-1956) do not have as long exposure time of having a child or grandchild as the older cohorts. Due to the small number of full cohorts (1940-1951) and cohorts where only early retirement may be captured (1952-1956), no expectations regarding development over time are formulated.

Dependent variable

The dependent variable is the event of retirement and can occur during the period 2001-2017. Retirement is defined as occurring when 20 percent or more of total annual earnings come from pension income (equation: pension income/annual earnings). Previous studies have found that using 20 percent as a threshold in register data is a realistic estimation of self-reported pension age (Eyjólfsson et al., 2019; Kridahl, 2017). The pension income variable encompasses income pension, occupation pension, guarantee pension, premium pension, flat rate pension, supplement pension, partial pension, and early pension. Unemployment benefits are considered as labor income because men who receive unemployment benefits strive to have an income and, therefore, are still part of the labor force. Using the definition in the study, the average retirement age among men born 1940-1956 who retire after age 61 is 64.34. A large proportion (35%) of those who retire within the observation window of the study do so at age 65, and 54% retire between ages 61 and 64. A comparably small proportion retires after age 65, that is, 11% (whereof 66% retire at age 66, 25% at age 67, 5% at age 68 and 4% continue past age 68). This is a reflection of the fact that some cohorts are only followed for a few years after age 61.

Independent and adjusted variables

The study has two key independent variables. The first time-varying variable “Age at birth of last child” consists of seven categories, that is, 1) men who only had children at age 45 or earlier, 2-6) men who had their last child at ages 46-50, 51-55, 56-60, 61-65, and 66-70, respectively, and 7) childless men. Age 45 is chosen as a threshold because it is often

considered as having children late in life for men (see, e.g., Beaujouan, 2020). The ages 46-50, 51-55, 56-60, 61-65 and 66-70 are separated, so it is possible to distinguish where in the older age distribution it matters most to have a child. The second variable, “Age of child and/or grandchild”, measures men who have a young child and a young grandchild in the same age range of 0-3 years. This variable is also time-varying, and the categories identify 1) having a child and grandchild 0 to 3 years old, 2) having a child 0 to 3 years old, 3) having a grandchild 0 to 3 years old, 4) other fathers and grandfathers, and 5) childless men. The rationale to define ages 0-3 as “young” is because during these ages, it is likely that the children require a lot of care.

The analyses include several adjusting variables that have been shown to be important for retirement timing in the Swedish and European contexts and that may influence the association between the timing of parenthood and retirement. Those variables include year of birth, age, education level, marital status, country of birth, number of sick leave days and previous income (Damman et al., 2015; Kridahl, 2017). *Year of birth* is a continuous variable. *Age* is categorized as 61-62, 63-64, 65, 66-67, and 68+. Age 65 is separated because it is a normative retirement age in Sweden (Fondberg & Kreuger Wikmark, 2022; Kridahl, 2017). *Education level* is the highest achieved education and is categorized into primary, secondary, and tertiary education. *Marital status* is time-varying and is categorized as married, divorced, remarried, widowed, and never married. *Number of children* is time-varying and is categorized into one child, two children, three children, more than three children, and childless. *Country of birth* distinguishes between men born in Sweden and men born abroad. The variable *Number of sick leave months* is the total number of sick leave days accumulated between ages 40-60 and is an indicator of the individual’s health status. The categories are never on sick leave, 1-6 months on sick leave, 7-12 months on sick leave, 13-24 months on sick leave and more than 24 months on sick leave. *Previous income* is first adjusted for the consumer price index in 2018. Thereafter, the average income for ages 50-55 was calculated from the transformed income and divided into quartiles.

The distributions of the independent and adjusted variables at the first age of observation (61) are presented in Table 1. In total, 3% became fathers after age 45, and 79% became fathers at 45 or earlier, whereas 17% of the men were still childless at age 61. At this age, less than 1% had young children and young grandchildren (N=415). Less than 1% had a 0-3-year-old child

(N=777), and 37% had a grandchild 0-3 years old. In total, 45% are other fathers/grandfathers.

Table 1. Descriptive statistics of the variables in the study at age 61

Variable	Categories	%
Age at birth of last child	45 or earlier	79.53
	46–50	3.25 (N=14416)
	51-55	2.20 (N=4716)
	56-61	0.72 (N=1873)
	61	0.29 (N=253)
	Childless	17.22
Age of child and/or grandchild	Child and grandchild 0–3 years old	0.06 (N =15)
	Child 0–3 years old	0.12 (N=777)
	Grandchild 0–3 years old	37.54
	Other fathers/grandfathers	45.06
	Childless	17.22
Cohort (1940-1956)	Mean	1948.33
Highest achieved education level	Tertiary	29.22
	Secondary	43.29
	Primary	27.50
Civil status	Married	54.35
	Divorced	16.93
	Never married	17.57
	Widow/Widower	1.02
	Remarried	10.13
Number of children	One child	14.85
	Two children	40.01
	Three children	20.09
	Four or more children	7.83
	Childless	17.22
Country of birth	Swedish-born	96.80
	Foreign-born	3.29
Number of sick leave months	Never on sick leave	63.30
	1-6 months	27.52
	7-12 months	4.22
	13-24 months	3.28
	More than 24 months	1.68
Average income ages 50-55	1st quartile	22
	2nd quartile	26
	3rd quartile	26
	4th quartile	26
Total N		654399

Analytical strategy

This study employs discrete-time event-history analysis (i.e., complement log-log models) to model the risk of retirement in a set of separate models. The main results in Table 2 are for men who became fathers after age 45 compared with men who had children at age 45 or earlier and childless men (Hypothesis 1). In Table 2, the main results are for men who have young children and young grandchildren compared with the other groups of fathers/grandfathers and childless men distinguished in Hypothesis 2. Both models are adjusted for age, year of birth, highest achieved education level, marital status, number of children, country of origin, number of sick leave months and average income at age 50-55. Moreover, the results are reported as hazard ratios with corresponding 95% confidence intervals. As the population includes all Swedish-resident men born between 1940 and 1956 (with the abovementioned exclusions), reporting p values is less informative. Instead, the report focuses on effect sizes and directions.

Results

Descriptive results

To show how late fatherhood changes over time, Figure 1 displays the proportion and number of men who had children after age 45 by cohort, measured at age 61. The figure indicates that the proportion of men who experienced late fatherhood (at ages 46-61) is stable for the 1941-1947 cohorts, whereas there is an evident but slow tendency to increase for the 1950s cohorts (3.12%-3.70%). In raw numbers, the increase is close to 85% from the 1940 cohort (836 men) to the 1956 cohort (1518 men). Figure 2 shows that having young children and young grandchildren at age 61 ('young' is defined as 0-3 years old) is rather stable over cohorts, with a tendency of a small increase among the early 1950 cohorts. The figure also shows that having young children (0-3 years old) but no young grandchildren increases over cohorts from 0.09% to 0.12%. In this figure, the proportion that has a young child, irrespective of the presence or age of any grandchild (gray line), is additionally calculated, thus summing up the other two lines. Not surprisingly, the trend shows a slight increase. Due to the low percentages, not all groups of men are displayed in Figure 2. Instead, Figure A1 in the Appendix shows the percentage of men who have a young grandchild but not a young child, other fathers/grandfathers and childless men by cohort, with a different scale on the y-axis. The proportion of men who have young grandchildren at age 61 is rather stable, and the

proportion of all other men who are fathers/grandfathers is decreasing. At the same time, the proportion of childless men has increased from 15% to 20% for the studied cohorts. To conclude, there are overall small numbers of men who have children later in life and even fewer who have both young children and young grandchildren in this life stage, although the proportions are slightly increasing among the youngest cohorts. The groups that are in focus in this study are modest in size, but Sweden could be at the beginning of a change in these variables.

Figure 1. Percent (y-axis) and number (in parentheses) of men who had children at ages 46-61 by the studied cohorts born 1940-1956 (calculated % of cohort; N=654399)

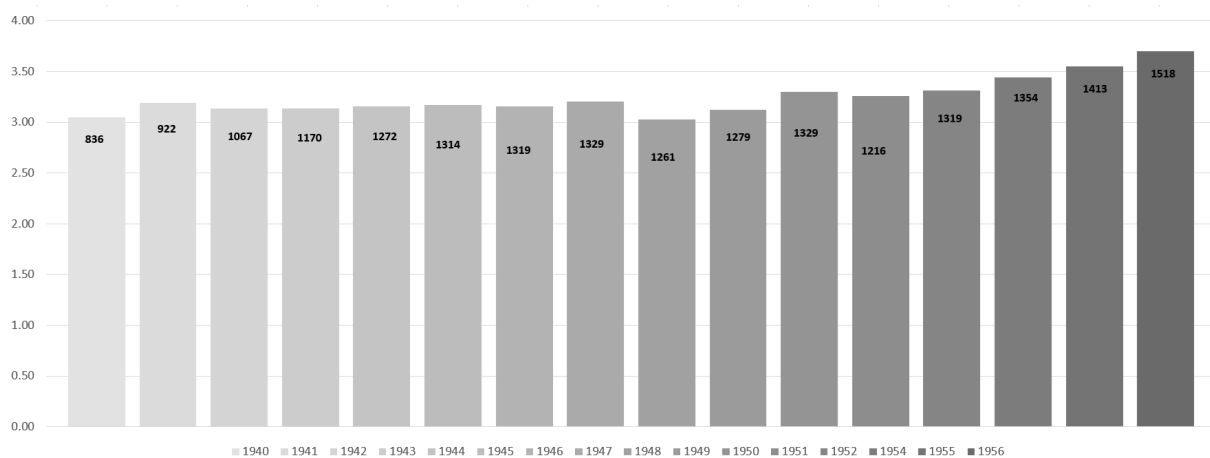
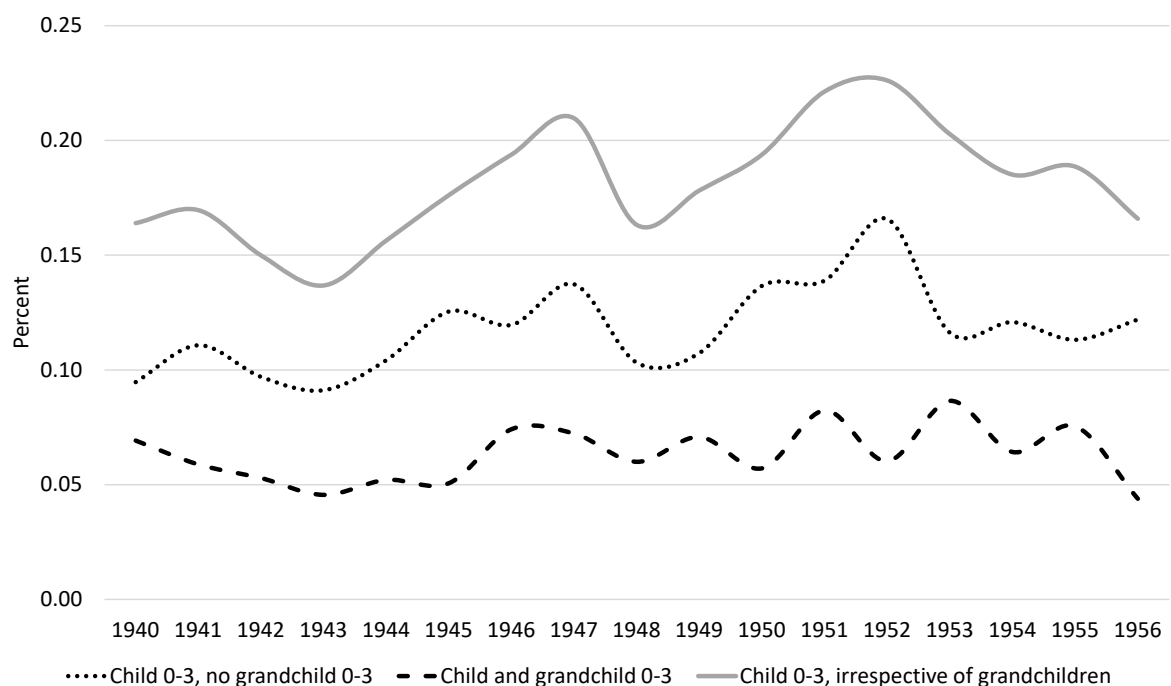


Figure 2. Proportion of men who have young children and young grandchildren at age 61 (calculated % of cohort; N=654399)



Results from event-history analysis

Table 2 presents the hazard ratios of retirement and confidence intervals based on the complementary log-log models with all adjusted variables. The first hypothesis is addressed in Model 1 in Table 2, in which it is expected that *men who had children at age 45 or earlier have the highest risk to retire (retire earliest), followed by men who had children after age 45, and childless men have the lowest risk to retire (retire latest)*. The results indicate that the hypothesis is partly supported. First, compared to men who had children at age 45 or earlier, men who had a child after age 45 retire earlier, except for men who have a child at ages 66-70. There is a (small) gradient in the risk of retirement in that the later that men have a child, the lower the risk of retirement. The risk is 17% lower for men who had a child at 46-50 compared with men who had a child earlier, 19% lower for men who had a child at ages 51-55, 19% lower for men at ages 56-60, and 24% lower for men who had a child at 61-66. However, men who had a child at ages 66-70 have a 32% higher risk of retirement. This group is very small, and it is possible that it is a result of random variation. The results also indicate that childless men and men who had children earlier have a similar risk of retiring. To conclude, men who had a child after age 45 (except the oldest group) have a lower risk of retirement than men who had children at age 45 or earlier or who were still childless at age 61. An additional analysis which excluded childless men (but was otherwise an identical model as Model 1 in Table 2) showed similar results as presented here.

Table 2. Risk of retirement by age at birth of last child among Swedish men born 1940-1956: Complementary log-log models with estimated hazard ratios and 95% confidence intervals

Variable	Categories	Risk of retirement		
		HR	95% CI	
Age at birth of last child	45 or earlier (ref)	1		
	46–50	0.83	0.81	0.84
	51–55	0.81	0.78	0.84
	56–60	0.81	0.76	0.86
	61–65	0.76	0.69	0.84
	66–70	1.32	0.87	1.99
	Childless	1.01	1.00	1.02
Age	61–62	0.13	0.12	0.12
	63–64	0.17	0.17	0.17
	65 (ref)	1		
	66–67	0.68	0.67	0.68
	68–76	0.45	0.44	0.47
Cohort, continuous		0.92	0.92	0.92
Highest achieved education level	Tertiary	0.87	0.86	0.87
	Secondary (ref)	1		
	Primary	0.97	0.96	0.97
Civil status	Married (ref)	1		
	Divorced	0.97	0.97	0.98
	Never married	0.94	0.93	0.95
	Widow/Widower	1.39	1.36	1.42
	Remarried	1.01	1.00	1.02
Number of children	One child (ref)	1		
	Two children	0.99	0.99	1.00
	Three children	0.96	0.96	0.97
	Four or more children	0.95	0.93	0.96
	Childless	Omitted ¹⁾		
Country of birth	Swedish-born (ref)	1		
	Foreign-born	0.95	0.93	0.97
Number of sick leave months	Never on sick leave	0.87	0.86	0.87
	1-6 months (ref)	1		
	7-12 months	1.12	1.10	1.13
	13-24 months	1.21	1.19	1.23
	More than 24 months	1.26	1.23	1.29
Average income ages 50-55	1st quartile	1		
	2nd quartile	1.05	1.04	1.05
	3rd quartile	1.04	1.02	1.04
	4th quartile	1.02	1.01	1.03
Number of observations 2 385 903				

¹⁾ Omitted due to perfect collinearity with the childless men in the variable “Young child and young grandchild”

Table 3 shows the risk of retirement by having a young child and a young grandchild, thereby addressing the second hypothesis: *men who have young children and young grandchildren (0 to 3 years old) have the highest risk of retirement (retire earliest), followed by (in order) men who have young grandchildren (and older children), other fathers/grandfathers, men who have young children (and no young grandchildren, including grandchildless), and childless men (retire latest)*. This hypothesis is supported for the group of men with young children and young grandchildren (reference category) who displayed the highest risk of retirement. However, the confidence intervals overlap 1 and are somewhat wide, indicating quite large variation. Nonetheless, as the study is based on the entire population of men, it is possible to discuss patterns even if the confidence intervals overlap 1. Compared with men with young children and young grandchildren, men who have only a young grandchild have a 2% lower risk of retiring, and childless men have a 5% lower risk, thus indicating quite small differences. The lowest risk of retirement is among men who have only young children (21% lower risk), followed by other fathers/grandfathers (7% lower risk). In the robustness analysis, four-year-old children were included in the definition of “young” child/grandchild, which showed results similar to those presented here. In conclusion, the analysis reveals a noteworthy variation in retirement risk by having a young child and/or young grandchild. The patterns indicate that on a population level among men who have children late in life, the highest risk of retirement is among men who have young children and young grandchildren (supporting Hypothesis 2), and the lowest risk of retirement is among men who have young children but no young grandchildren.

Table 3. Risk of retirement by having a young child and young grandchild among Swedish men born 1940-1956: Adjusted¹⁾ complementary log-log model with estimated hazard ratios and 95% confidence intervals

Variable	Categories	Risk of retirement		
		HR	95% CI	
Age of child and/or grandchild	Child and grandchild 0-3 years old (ref)	1		
	Grandchild 0-3 years old	0.98	0.86	1.14
	Other fathers/grandfathers	0.93	0.81	1.07
	Child 0-3 years old	0.79	0.66	0.94
	Childless	0.95	0.83	1.11
Number of observations 2 385 903				

¹⁾ Model adjusted for age, year of birth, highest achieved education level, marital status, number of children, country of origin, number of sick leave months and average income at age 50-55.

The report of the results ends with a note on the adjusting variables presented in Table 2. The highest risk of retirement is at age 65, followed by older ages (66 and older), and the lowest retirement risk is at younger ages, 61-64. In regard to year of birth, younger cohorts have a lower risk of retirement, and for each year, it decreases on average by 8%, reflecting a tendency over time to retire later. Men who have either a tertiary or primary education level have a lower risk of retirement than men with a secondary education level. Regarding civil status, widowers have the markedly highest risk to retire, followed by (in order) remarried, married, divorced and never married. The higher parity, the lower the risk of retirement. Regarding country of birth, the results indicate that men born in Sweden retire earlier than foreign-born men; however, the latter group is small (3%). The results for the indicator of health status show that men who have been on sick leave have a higher risk of retiring, and the more days on leave, the higher the risk. Finally, average income at ages 50-55 shows a somewhat inverted u-shaped curve for which the 1st and 4th percentiles have the lowest risk to retire, but the differences are not large.

Discussion

This study investigated the association between having young children and young grandchildren on retirement timing using Swedish population registers, including men born 1940-1956 who retired during the 2001-2017 period. Based on role theory, this study made a set of assumptions about how the presence of young children, young grandchildren, or both

may alter retirement timing. The role as a father and/or grandfather to young children may have different meanings for men as well as the work and family-related demands connected to the roles are different. Primarily, when approaching retirement, men who had children late in life have more responsibilities, such as more acute financial responsibility and caring for young children, than men who had children earlier in life (and thus have older children). The study's first hypothesis focused on all men who had children after age 45 and expected that *men who had children at age 45 or earlier would have the highest risk to retire (retire earliest), followed by men who had children after age 45, and childless men would have the lowest risk to retire (retire latest)*. The results supported the hypothesis. Men who had children after 45 retired later than men who had children earlier or were childless. The older the men are at childbirth, the later they retire. Although there may be many reasons to retire when having young children, continuing working due to the role as a financial provider may be the dominant explanation, as retirement would significantly decrease the level of income. In support of the argument of the financial responsibility of children leading to postponed retirement and in line with earlier findings in Sweden (Kridahl, 2017), the study also found that the risk of retirement decreased with the number of children. Some of these men with multiple children may also be more likely to have young children when they approach retirement. Moreover, the results also showed that the group of men who had a child at ages 66-70 had a higher risk to retire. As this group is still small, we interpret this finding as a result of random variation and not a U-shape pattern. However, the group of men who have children late in life is slowly increasing, and future investigations may evaluate whether the pattern is actually U-shaped. Additionally, childless men and men who had children at age 45 or earlier had a similar risk of retiring. These groups of men may potentially be in a more similar life situation at this age than was initially expected in terms of not having a provider role to fulfill.

The study's second hypothesis expected that *men who have young children and young grandchildren (0 to 3 years old) have the highest risk to retire (retire earliest), followed by (in order) men who have young grandchildren (and older children), other fathers/grandfathers, men who have young children (and no young grandchildren, including grandchildless), and childless men (retire latest)*. 'Young' was defined as children 0 to 3 years old. The hypothesis was partly supported for the group of men with young children and young grandchildren; the highest risk of retirement was among this group of men. This finding is in line with role theory, which predicts that among the group of men who have

young children, men who additionally have young grandchildren experience role overload and thus retire the earliest. The risk of retirement for the other groups of men did not follow that expectation. Instead, after men with young children and young grandchildren, the highest risk of retirement was among 1) men with young grandchildren, 2) childless men, 3) other fathers/grandfathers, and 4) men with young children. The risk of retirement was overall similar between men who had either young grandchildren or young children and grandchildren, whereas the risk of retirement was substantially lower among men who had young children. The latter group may have the lowest risk of retiring for the same argument as in the first hypothesis, i.e., they may need to postpone retirement because of their father role as a financial provider. Another possible reason that they postpone retirement is perhaps to wait until the child starts preschool. Swedish parental leave is 480 days, and at least one parent is at home with the child until the child is on average 1.5 years old.

The demographic trends presented in the study show that there is a slightly increasing proportion of men who have children after age 45. The group of men is still much smaller than the group of men who have children earlier in life, which supports earlier findings that for most men, active parenting precedes retirement (Leopold & Skopek, 2015). Nonetheless, men who have children at an older age are an interesting group, as many of them have dependent children when they approach retirement. To put this finding into a context and compare it with other groups of men with less common life situations in Sweden, a similar proportion of men live alone as widowers (5%) or live with aging parents (4%) (Statistics Sweden, 2022). Moreover, having both young children and young grandchildren around retirement age is even less common in Sweden but perhaps not insignificant for retirement decisions, as shown in this study, and deserves further attention. Future will tell whether this is the beginning of a new trend and part of the general trend towards varied family patterns.

Based on the findings in this study and studies on fertility developments (e.g., Beaujouan, 2020; Billari et al., 2007), it is possible to speculate that it may be more likely for men to have children later in life, especially among the coming generations of men where multipartner fertility and family complexity are more common. The study's main contribution is that it describes a demographic trend that is likely to grow and explores how it may influence behaviors, such as retirement, which may have consequences for both the individual and the labor market. Thus, policymakers and decision-makers may need to acknowledge this possible trend and be prepared that it may have implications for the labor

market and pension systems. For example, policymakers may evaluate whether there is a need to make it easier to combine work and young children at higher ages or to enable old fathers of young children to retire and still be able to fulfil their provider role, e.g., by part-time retirement. This study used a threshold for the definition of retirement and did not examine the degree of retirement (e.g., part-time uptake), which may be an area for future research in relation to the presence of young children/grandchildren.

This study has at least three limitations. First, it is not possible to know from the data whether the studied men have contact with their children and grandchildren, as the registers do not include any measures of quality of kin ties or amount of contact. Second, even though previous findings indicate that family is an important factor in men's retirement decisions, there are predictors of retirement that are more or less important to include in retirement studies and that are not entirely adjusted-for in this analysis, such as health. Third, we limit ourselves to talk about associations in this study. Both qualitative interviews on what are causes of retirement and more advance methodological approaches are needed to claim causality.

This study's findings are a novel contribution to the recent retirement literature and thus set ground for future research in several ways. First, men's late fatherhood in itself as well as in nexus with grandfatherhood requires more extensive investigation. For example, researchers could conduct interviews with men who are approaching retirement and who have had children and grandchildren at different time points in life or in parallel. Second, this study used role theory as an explanatory framework for men's behavior, but future studies may need to investigate the driving forces behind the decisions made by men with young children and grandchildren, especially as this group is not homogenous. Third, future research on retirement timing and later fatherhood may also acknowledge the characteristics of the partners of men who have children later in life compared with other men. Such a perspective would illuminate an important dimension of couple dynamics and gender roles. Fourth, a related research question is to investigate the parental leave uptake of men who have children later in life and the trajectories toward retirement. Such research would explore the importance of the carer role among this group of men. Fifth, cross-country investigations would further nuance the study's findings by adding other settings.

To conclude, this study sheds light on the importance of the role of men's late fatherhood and grandfatherhood on their retirement behavior. The results show that late fatherhood is

important for men's retirement timing, particularly for men with young children who seem to be postponing retirement. However, having both young children and young grandchildren was linked to early retirement instead. Thus, ongoing changes in family demography and the male life course may have important implications for men's retirement decisions in the coming generations.

Acknowledgments

We are grateful for financial support from the Swedish Research Council for Health, Working life and Welfare (FORTE), grant number 2016-07115.

References

- Andersson, G., Thomson, E., & Duntava, A. (2017). Life-table representations of family dynamics in the 21st century. *Demographic Research*, 37(35), 1081–1230. <https://doi.org/10.4054/DemRes.2017.37.35>
- Angelov, N., Johansson, P., & Lindahl, E. (2016). Parenthood and the Gender Gap in Pay. *Journal of Labor Economics*, 34(3), 545–579. <https://doi.org/10.1086/684851>
- Arpino, B., Bordone, V., & Balbo, N. (2018). Grandparenting, education and subjective well-being of older Europeans. *European Journal of Ageing*, 15(3), 251–263. <https://doi.org/10.1007/s10433-018-0467-2>
- Beaujouan, E. (2020). Latest-Late Fertility? Decline and Resurgence of Late Parenthood Across the Low-Fertility Countries. *Population and Development Review*, 46(2), 219–247. <https://doi.org/10.1111/padr.12334>
- Beaujouan, É., & Sobotka, T. (2019). Late childbearing continues to increase in developed countries. *Population Societies*, 562(1), 1–4.
- Bengtson, V. L. (2001). Beyond the nuclear family: The increasing importance of multigenerational bonds. *Journal of Marriage and Family*, 63(1), 1–16.
- Biddle, B. (1979). *Role Theory. Expectations, Identities and Behaviors*. Academic Press.
- Biddle, B. J. (1986). Recent Development in Role Theory. *Annual Review of Sociology*, 12, 67–92.
- Billari, F. C., Kohler, H.-P., Andersson, G., & Lundström, H. (2007). Approaching the Limit: Long-Term Trends in Late and Very Late Fertility. *Population and Development Review*, 33(1), 149–170.
- Buchanan, A., & Rotkirch, A. (2018). Twenty-first century grandparents: Global perspectives on changing roles and consequences. *Contemporary Social Science*, 13(2), 131–144. <https://doi.org/10.1080/21582041.2018.1467034>
- Coleman, D. (2000). Male fertility trends in industrial countries: Theories in search of some evidence. In C. Bledsoe, S. Lerner, & J. Guyer (Eds.), *Fertility and the male life-cycle in the era of fertility decline*. (Vol. 2000). Clarendon Press.
- Damman, M., Henkens, K., & Kalmijn, M. (2015). Women's Retirement Intentions and Behavior: The Role of Childbearing and Marital Histories. *European Journal of Population*, 31(4), 339–363. <https://doi.org/10.1007/s10680-014-9335-8>
- Dentinger, E., & Clarkberg, M. (2002). Informal Caregiving and Retirement Timing among Men and Women: Gender and Caregiving Relationships in Late Midlife. *Journal of Family Issues*, 23(7), 857–879. <https://doi.org/10.1177/019251302236598>
- Duvander, A. Z., Ferrarini, T., & Johansson, M. (2015). *Familjepolitik för alla? En ESO-rapport om föräldrapenning och jämställdhet. Rapport till Expertgruppen för studier i offentlig ekonomi 2015:5*.
- Erikson, R., & Goldthorpe, J. H. (1992). Individual or Family? Results from Two Approaches to Class Assignment. *Acta Sociologica*, 35(2), 95–105. <https://doi.org/10.1177/000169939203500202>

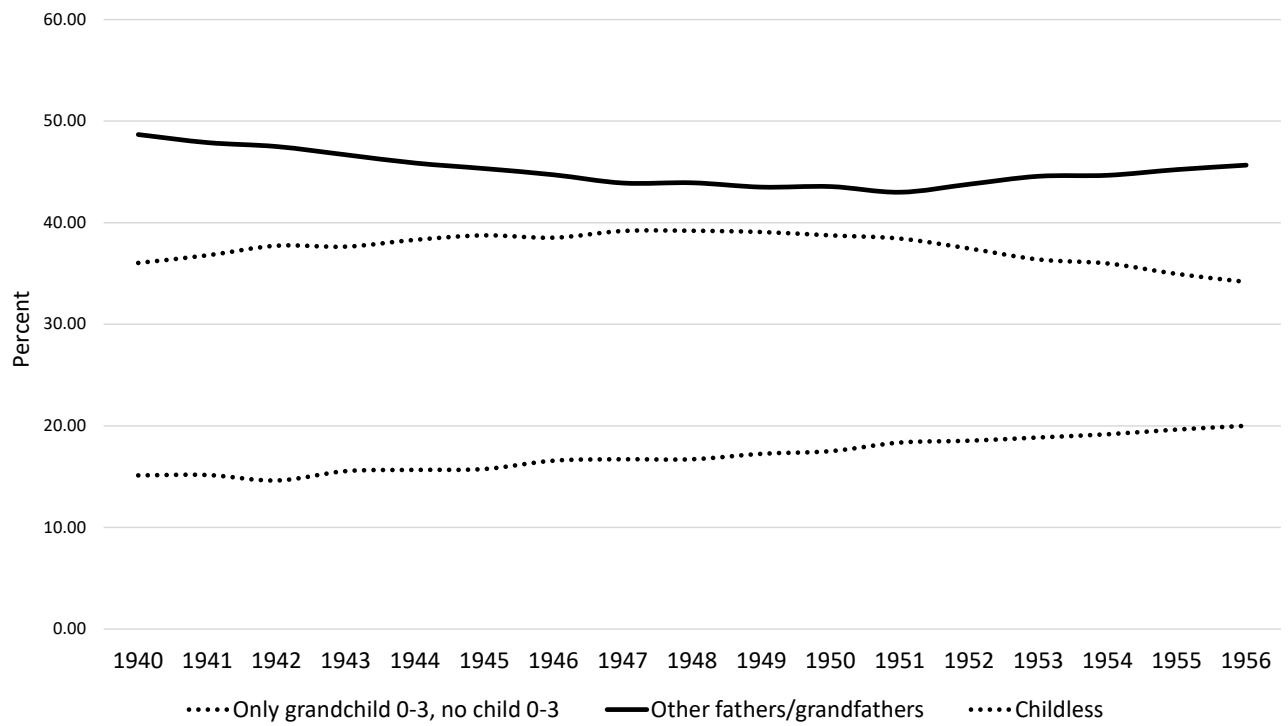
- Eyjólfssdóttir, H. S., Baumann, I., Agahi, N., & Lennartsson, C. (2019). How to Measure Retirement Age? A Comparison of Survey and Register Data. *Journal of Population Ageing*. <https://doi.org/10.1007/s12062-019-09254-6>
- Fondberg, R., & Kreuger Wikmark, L. (2022). *Pensionsåldrar och arbetslivets längd. Svar på regleringsbrevsuppdrag 2022*. Pensionsmyndigheten [The Swedish Pension Agency].
- Hagestad, G. O. (2003). Interdependent Lives and Relationships in Changing Times: A Life-Course View of Families and Aging. In *Invitation to the Life Course: Toward New Understandings of Later Life*. Routledge.
- Hagqvist, E., Nordenmark, M., Pérez, G., Trujillo Alemán, S., & Gillander Gådin, K. (2017). Parental leave policies and time use for mothers and fathers: A case study of Spain and Sweden. *Society, Health & Vulnerability*, 8(1), 1374103. <https://doi.org/10.1080/20021518.2017.1374103>
- Hank, K., & Korbmacher, J. M. (2013). Parenthood and Retirement. *European Societies*, 15(3), 446–461. <https://doi.org/10.1080/14616696.2012.750731>
- Harris, I. D., Fronczak, C., Roth, L., & Meacham, R. B. (2011). Fertility and the Aging Male. *Reviews in Urology*, 13(4), e184–e190.
- Hassan, M. A. M., & Killick, S. R. (2003). Effect of male age on fertility: Evidence for the decline in male fertility with increasing age. *Fertility and Sterility*, 79, 1520–1527. [https://doi.org/10.1016/S0015-0282\(03\)00366-2](https://doi.org/10.1016/S0015-0282(03)00366-2)
- Hochman, O., & Lewin-Epstein, N. (2013). Determinants of early retirement preferences in Europe: The role of grandparenthood. *International Journal of Comparative Sociology*, 54(1), 29–47.
- Jonsson, H., Kielhofner, G., & Borell, L. (1997). Anticipating Retirement: The Formation of Narratives Concerning an Occupational Transition. *American Journal of Occupational Therapy*, 51(1), 49–56. <https://doi.org/10.5014/ajot.51.1.49>
- Kohler, H.-P., Billari, F. C., & Ortega, J. A. (2002). The Emergence of Lowest-Low Fertility in Europe During the 1990s. *Population and Development Review*, 28(4), 641–680. <https://doi.org/10.1111/j.1728-4457.2002.00641.x>
- Kridahl, L. (2017). Retirement timing and grandparenthood in Sweden: Evidence from population-based register data. *Demographic Research*, 37(31), 957–994.
- Larsen, M., & Pedersen, P. J. (2017). Labour force activity after 65: What explain recent trends in Denmark, Germany and Sweden? *Journal for Labour Market Research*, 50(1), Article 1. <https://doi.org/10.1007/s12651-017-0223-7>
- Leeson, G. W. (2016). Out of the Shadows: Are Grandfathers Defining Their Own Roles in the Modern Family in Denmark? In A. Buchanan & A. Rotkirch (Eds.), *Grandfathers: Global Perspectives* (pp. 69–88). Palgrave Macmillan UK. https://doi.org/10.1057/978-1-137-56338-5_4
- Leopold, T., & Skopek, J. (2014). Gender and the Division of Labor in Older Couples: How European Grandparents Share Market Work and Childcare. *Social Forces*, 93(1), 63–91. <https://doi.org/10.1093/sf/sou061>
- Leopold, T., & Skopek, J. (2015). The Demography of Grandparenthood: An International Profile. *Social Forces*, 94(2), 801–832.

- Lesthaeghe, R. (2014). The second demographic transition: A concise overview of its development. *Proceedings of the National Academy of Sciences*, 111(51), 18112–18115. <https://doi.org/10.1073/pnas.1420441111>
- Loughran, D. S., & Zissimopoulos, J. M. (2009). Why Wait? The Effect of Marriage and Childbearing on the Wages of Men and Women. *Journal of Human Resources*, 44(2), 326–349. <https://doi.org/10.3368/jhr.44.2.326>
- Mahoney, A. R. (1994). Change in the older-person role: An application of Turner's process role and model of role change. *Journal of Aging Studies*, 8(2), 133–148. [https://doi.org/10.1016/S0890-4065\(05\)80002-7](https://doi.org/10.1016/S0890-4065(05)80002-7)
- Meyer, A. C., Drefahl, S., Ahlbom, A., Lambe, M., & Modig, K. (2020). Trends in life expectancy: Did the gap between the healthy and the ill widen or close? *BMC Medicine*, 18(1), 41. <https://doi.org/10.1186/s12916-020-01514-z>
- Oeppen, J., & Vaupel, J. W. (2002). Broken Limits to Life Expectancy. *Science*, 296(5570), 1029–1031. <https://doi.org/10.1126/science.1069675>
- Palkovitz, R., & Palm, G. (2009). Transitions within Fathering. *Fathering*, 7(1), 3–22. <http://dx.doi.org/10.3149/fth.0701.03>
- Plas, E., Berger, P., Hermann, M., & Pflüger, H. (2000). Effects of aging on male fertility? *Experimental Gerontology*, 35(5), 543–551. [https://doi.org/10.1016/S0531-5565\(00\)00120-0](https://doi.org/10.1016/S0531-5565(00)00120-0)
- Powdthavee, N. (2011). *Life Satisfaction and Grandparenthood: Evidence from a Nationwide Survey* (SSRN Scholarly Paper No. 1906172). <https://doi.org/10.2139/ssrn.1906172>
- Prioux, F. (2005). Late fertility in Europe: Some comparative and historical data. *Revue d'Épidémiologie et de Santé Publique*, 53, 3–11. [https://doi.org/10.1016/S0398-7620\(05\)84763-7](https://doi.org/10.1016/S0398-7620(05)84763-7)
- Sartorius, G. A., & Nieschlag, E. (2010). Paternal age and reproduction. *Human Reproduction Update*, 16(1), 65–79. <https://doi.org/10.1093/humupd/dmp027>
- Sjögren Lindquist, G. S., & Wadensjö, E. (2009). Retirement, Pensions and Work in Sweden. *The Geneva Papers on Risk and Insurance - Issues and Practice*, 34(4), 578–590. <https://doi.org/10.1057/gpp.2009.21>
- Smorti, M., Tschiesner, R., & Farneti, A. (2012). Grandparents-Grandchildren Relationship. *Procedia - Social and Behavioral Sciences*, 46, 895–898. <https://doi.org/10.1016/j.sbspro.2012.05.219>
- Sobotka, T. (2010). Shifting Parenthood to Advanced Reproductive Ages: Trends, Causes and Consequences. In J. Tremmel (Ed.), *A Young Generation Under Pressure?* (pp. 129–154). Springer. https://doi.org/10.1007/978-3-642-03483-1_7
- SOU. (2011). *Tjänstepensioner och utträde från arbetslivet. Pensionsåldersutredningen (S 2011:05) [Occupational pensions and withdrawal from working life. Report from the governments official investigations]*.
- Statistics Sweden. (2001). *Mammor och pappor. Om kvinnors och mäns föräldraskap 2001. [Mothers and fathers. Women's and men's parenthood 2001]*. [Demografiska rapporter 2002:7. , Stockholm]. Statistics Sweden.

- Sundén, A. (2006). The Swedish experience with pension reform. *Oxford Review of Economic Policy*, 1, 133–148.
- Szinovacz, M. E., DeViney, S., & Davey, A. (2001). Influences of Family Obligations and Relationships on Retirement Variations by Gender, Race, and Marital Status. *The Journals of Gerontology: Series B*, 56(1), S20–S27. <https://doi.org/10.1093/geronb/56.1.S20>
- Tanskanen, A. O., Danielsbacka, M., Coall, D. A., & Jokela, M. (2019). Transition to Grandparenthood and Subjective Well-Being in Older Europeans: A Within-Person Investigation Using Longitudinal Data. *Evolutionary Psychology*, 17(3), 1474704919875948. <https://doi.org/10.1177/1474704919875948>
- Turner, J. H. (1982). *The structure of sociological theory (3rd ed)*. (Vol. 1982). Dorsey.
- Turner, R. H. (1990). Role Change. *Annual Review of Sociology*, 16, 87–110.
- Uhlenberg, P. (2009). Children in an Aging Society. *The Journals of Gerontology: Series B*, 64B(4), 489–496. <https://doi.org/10.1093/geronb/gbp001>
- Van Bavel, J., & De Winter, T. (2013). Becoming a Grandparent and Early Retirement in Europe. *European Sociological Review*, 29(6), 1295–1308. <https://doi.org/10.1093/esr/jct005>
- Vaupel, J. W. (2010). Biodemography of human ageing. *Nature*, 464(7288), Article 7288. <https://doi.org/10.1038/nature08984>
- Vikat, A., Thomson, E., & Hoem, J. (1999). Stepfamily fertility in contemporary Sweden: The impact of childbearing before the current union. *Population Studies*, 53(2), 211–225. <https://doi.org/10.1080/003247203080802>
- Waldrop, D. P., Weber, J. A., Herald, S. L., Pruett, J., Cooper, K., & Juozapavicius, K. (1999). Wisdom and Life Experience: How Grandfathers Mentor Their Grandchildren. *Journal of Aging and Identity*, 4(1), 33–46. <https://doi.org/10.1023/A:1022834825849>

Appendix

Figure A1. Proportion of men who have young children and young grandchildren at age 61 (calculated % of cohort; N=654399). Continuation of Figure 2.



Stockholm Research Reports in Demography
Stockholm University,
106 91 Stockholm,
Sweden
www.su.se | info@su.se | ISSN 2002-617X



Stockholm
University

Demography Unit