

The Demography of Grandparenthood

The Demography of Grandparenthood: An International Profile

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This comparative study addressed three open questions about the demography of grandparenthood in contemporary societies: First, at what age do people become grandparents? Second, how is grandparenthood sequenced with other transitions in later life? Third, how long is the grandparent life stage? To answer these questions, we analyzed retrospective data from the United States (NSFH) and 24 European countries (GGS, ESS, DEAS). Using survival methods, we estimated (1) age at grandparenthood; (2) demographic overlap with parenting, worker, and filial roles; and (3) expected length of the grandparent life stage. Three central findings emerged from the analysis: First, the timing of grandparenthood varies strongly across countries. Cross-national differences in the median age at grandparenthood are larger than in age at parenthood, age at retirement, and life expectancy. Compared to the United States (49 years among women, 52 years among men), grandparenthood in Eastern Europe occurs up to three years earlier in life; in Western Europe, up to eight years later. Second, cross-national variation in the life-course context of grandparenthood is less pronounced. In all countries, grandparenthood overlaps rarely with active parenting but frequently with worker and filial roles. Third, the length of the grandparent life stage is more strongly influenced by the timing of fertility than by the timing of mortality. The longest years of life shared with grandchildren (35 years) are expected among grandmothers in East Germany and the United States; the shortest (21 years) among grandfathers in West Germany and Spain.

Introduction

The demography of grandparenthood is a largely unexplored territory. Although widely recognized as a key transition of older age, basic demographic questions about grandparenthood remain unanswered. At what age do people become grandparents? How is the transition to grandparenthood sequenced with other later-life transitions? How long is the grandparent stage of life?

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Answers to these questions are not only important to the demographic study of contemporary grandparenthood. Assessing the timing of typical entries into the grandparent role, overlap with potentially competing involvements in family and employment spheres, and the lifetime spent as a grandparent adds to several related themes of current research on grandparents and aging families. These include grandparents' capacity of providing childcare (Hank and Buber 2009); the labor-force participation of grandmothers (van Bavel and de Winter 2013) and their daughters (Arpino, Pronzato, and Tavares 2014); role strain, role enhancement, and associated health effects of "on-time" and "off-time" grandparenthood (Chen and Liu 2012); the division of labor in grandparent couples (Leopold and Skopek 2014); grandparental influence on the intergenerational transmission of economic, social, and cultural resources (Mare 2014); and kinship structure, in particular the notion of "longer years of shared lives" (Bengtson 2001).

In recent years, these lines of investigation have expanded not only in the United States but also in several European countries. Yet, despite a surge of studies, the demographic understanding of grandparenthood remains incomplete in all of these national contexts. We designed the present study to fill these gaps of knowledge about timing, life-course context, and duration of contemporary grandparenthood. To assess age at grandparenthood, we use survival methods that improve on previous estimates by taking into account right-censored observations. To characterize the life-course context of grandparenthood, we examine how it is located in the sequence of later-life transitions. This sequence indicates to what extent typical passages into the grandparent role may overlap with roles in other spheres of life. We focus on the employment context (working or inactive), the parenting context (active parenting, coresidence with adult children, or empty nest), and the filial context (both parents alive, one alive, or both deceased) of transitions to grandparenthood. To answer our third guiding question about the duration of grandparenthood, we calculate differences between life expectancy at age 60 and the median age at grandparenthood.

Our analysis draws from data collected in 25 countries. These include Wave 1 of the Generations and Gender Survey (GGS), Round 3 of the European Social Survey (ESS), Wave 3 of the German Aging Survey (DEAS), and Wave 3 of the National Survey of Families and Households (NSFH). Taken together, our data comprise retrospective information about the later life courses of 27,206 individuals, allowing us to present an international profile of contemporary grandparenthood across Europe and the United States.

The Demography of Grandparenthood in Comparative Perspective

Fertility Trends and the Timing of Grandparenthood in Europe and the United States

With rapid increases in life expectancy, grandparenthood became a normative life transition in the second half of the 20th century (Uhlenberg 1993). Among current cohorts of middle-aged and older people, the vast majority will experience grandparenthood, and the transition has become predictable in occurrence and

timing, Grandparenthood is a counter-transition—not self-initiated but brought about by a child’s transition to parenthood. Its occurrence and timing reflect the choices made by the older generation (G1) and the younger generation (G2) on whether and when to have children. Three demographic and behavioral factors influence this process: first, the timing and spacing of fertility in G1; second, the total fertility of G1, as higher-parity families comprise more children (G2) that can bring about the transition to grandparenthood; and third, the timing of fertility in G2.

If the process of fertility is identical in G1 and G2, the expected age at grandparenthood in G1 is approximately double their age at parenthood. Yet, it may be much higher than that if fertility in G2 is lower and later. This expectation is consistent with shifts in nuptiality and fertility across the second demographic transition (SDT; Lesthaeghe 2010), which has involved a pronounced delay of childbearing and lower levels of fertility (Frejka and Sobotka 2008). Sociological explanations for these trends commonly refer to three intertwined factors: educational expansion, the rise of female labor-force participation, and shifts in gender roles. More time spent in education and training is associated with postponements in marriage and family formation. Women of more recent cohorts not only invest more in education than their mothers, but they also benefit from better opportunities to convert their human capital, thus increasing the opportunity costs of childbearing while reducing economic dependency on men (Blossfeld and Huinink 1991). The associated delays and declines in fertility are reinforced by other social shifts, such as increasing uncertainty and instability at the transition to adulthood (Mills and Blossfeld 2013), as well as changes in gender role attitudes and the gendered division of labor in couples (McDonald 2013).

From a comparative perspective, these factors suggest vast cross-national differences in age at grandparenthood, as the social forces shaping the timing of this transition span several decades and differ sharply across socio-historical settings. Considering the birth cohorts included in the present study (late 1920 s to late 1940 s), people from *Western Europe* can expect to experience grandparenthood relatively late in life. This applies particularly to countries in which the SDT started early. These countries are characterized by long-standing patterns of late and low fertility that pertain not only to G2, but extend to G1. Western European fertility regimes are usually characterized by a gradual delay in the timing of parenthood along with a rise in childlessness. Cases in point are West Germany and Spain (Pérez and Livi-Bacci 1992).

Yet, the pattern of “lowest-low” fertility (Kohler, Billari, and Ortega 2002) is not entirely consistent across Western Europe. In France and the Scandinavian countries, levels of fertility have remained relatively high, and the rise in childlessness has been less pronounced. Sociological explanations for these differences within Western Europe have highlighted the role of the welfare state in supporting families via transfers (allowances, tax reductions, parental leaves) and service provision (e.g., availability and affordability of childcare), both of which create specific incentives for childbearing (Esping-Andersen 1999; Leitner 2003). The *familialistic* regime in Southern countries—the Mediterranean model—is characterized by a high level of kinship dependence, traditional gender roles, and little public support for child rearing. These factors have exacerbated difficulties of

reconciling work and family in younger generations of women, resulting in strong delays and declines of fertility (Del Boca and Sauer 2009). In the *de-familialized* regime in Northern countries—the Scandinavian model—kinship dependence is lower, given that public and market support alleviate the work-family nexus for both men and women (Sainsbury 1999). Conservative regimes in the remainder of Western Europe range between those extremes on the familialism scale. Accordingly, level and timing of fertility range between Northern and Southern countries. An exception is France. Because of long-standing pronatalistic policies, France is still characterized by high and early fertility when compared to other Western European countries (Toulemon, Pailhé, and Rossier 2008). Taken together, these considerations suggest that although transitions to grandparenthood can be expected to occur relatively late in the life courses of Western Europeans, the timing of transitions varies considerably across Western European countries.

In *Eastern Europe* (including the former German Democratic Republic), pronatalist policies promoted fertility throughout Soviet times (Pascall and Manning 2000). As declines and delays of fertility have commenced relatively late, post-Soviet countries have approached Western patterns only since the 1990s (Kohler, Billari, and Ortega 2006). Considering the birth cohorts included in the present study, these differences have two important implications. First, compared with Western Europe, there is no sharp divide between fertility in G1 and G2: The older generation (G1) typically experienced parenthood during their early to mid-twenties (Zakharov and Ivanova 1996). Most of their children (G2) were thus born between 1950 and 1970. It follows that the majority of transitions to parenthood in G2 were still completed during Soviet times. As a result, we can expect that today's older people of Eastern Europe have entered grandparenthood at relatively young ages, given that most of these transitions have occurred before 1989. Second, considering this enduring influence of pronatalist policy across countries of Eastern Europe, we can further expect cross-country variation in age at grandparenthood to be less pronounced than within Western Europe.

In the *United States*, age at grandparenthood can be expected to range between Western and Eastern Europe. Compared to Western European countries, fertility in the United States has been constantly higher and considerably earlier over the past decades. These differences have been attributed to a variety of factors, including religiosity, ethnic composition, proportion of immigrants, frequency of unintended births, and societal values that foster maternal employment (McDonald and Moyle 2010). Compared to countries of Eastern Europe, however, trends in the United States toward lower and later fertility have commenced earlier (Rindfuss, Morgan, and Offut 1996). Considering the importance of long-term trends for the timing of grandparenthood, this suggests that age at grandparenthood may still be higher than in Eastern Europe, although current data on fertility show the reverse pattern.

Empirical Evidence on the Timing of Grandparenthood

The lack of knowledge about the timing of transitions to grandparenthood is reflected in popular depictions of grandparents who are often portrayed as far too

old in television and print media (Hagestad and Lang 1986). Earlier grandparent research has claimed that grandparenthood “has been and will continue to be a change which typically occurs in midlife” (Hagestad 1988, 407) and proposed age bounds of, for example, 38 and 60 to define off-time transitions that occurred “too early” or “too late” (Burton and Bengtson 1985). These analysts lacked representative data about age at grandparenthood. Today, such data exist. Yet, there are still no accurate estimates for the timing of transitions into the grandparent role.

To our knowledge, published estimates of the average age at grandparenthood are provided only for the United States (Szinovacz 1998), Canada (Kemp 2003), and the Netherlands (Dykstra and Komter 2006). Results showed mean ages at grandmotherhood and grandfatherhood of 46 and 49 years in the United States, 54 and 57 in Canada, and 52 and 55 in the Netherlands. All of these estimates are prone to downward bias because they were calculated only for grandparents, hence ignoring older people who were still “at risk” of experiencing the transition (i.e., right-censored observations). Moreover, Kemp’s estimates for timing of grandparenthood are based on the middle generation’s responses (i.e., parent’s age at birth of the respondent’s first child). This induces an upward bias in estimates for age at grandparenthood because birth events of respondents’ siblings (that may take place earlier) are not taken into account. Finally, the estimates for the United States and Canada draw on data that were collected approximately two decades ago. In the absence of empirical assessments that are based on more adequate methods and more recent data, we still lack precise information about the timing of grandparenthood in contemporary societies.

The Life-Course Context of Grandparenthood

A life-course perspective directs attention not only to timing of grandparenthood per se, but particularly to the questions of how the meaning of grandparenthood and experience of the grandparent role are influenced by the presence or absence of other roles. Off-time grandparenthood, for example, is assumed to introduce pressures because it coincides, and potentially interferes, with other demands and responsibilities in work and family spheres (Burton and Bengtson 1985). Among the resulting problems and stresses, Kivett (1998, 134) has noted “role overload, the infraction of life plans, [and] conflict of developmental imperatives between the generations.” It is obvious that this view posits a certain sequence with other role transitions, such as retirement (King, Russell, and Elder 1998). A comparative assessment of how grandparenthood is located in the sequence of role transitions in later life can therefore provide valuable insight into cross-national variation in the ways in which older people experience this transition and, accordingly, in the social and cultural meanings of grandparenthood.

Life-course analysts have emphasized that the transition to grandparenthood is likely to occur when the other role demands are at their peak (Szinovacz 1998). Although this proposition cannot be tested directly in a demographic analysis of transitions in the later life course, it is useful to consider how transitions to grandparenthood are surrounded by social roles in other spheres. For the purposes of the present study, we consider three of these spheres, representing the employment, parenting, and filial context of grandparenthood.

Employment context Overlap between grandparent and worker roles is a recurrent theme in the literature. This research interest typically concerns the availability of grandparents—in particular grandmothers—as providers of child-care assistance, as those who work will be less available to look after their grandchildren. The associated time pressures and role conflicts, along with families' attempts to resolve them, have been observed already by Presser (1989, 588), who reported a “considerable juggling of time demands on the part of grandmothers—not just mothers—to enable their participation in child care.”

From a comparative perspective, demographic differences in transitions to grandparenthood suggest that these issues are most salient among grandmothers in Eastern Europe. The general expectation for these countries is that continuously high levels of female labor-force participation have coincided with early transitions to grandmotherhood occurring long before the demands of working life have ceased. Although this type of overlap should be somewhat less pronounced in Western Europe and the United States, increases in female labor-force participation combined with more recent trends toward the extension of working lives also suggest that the majority of women are employed when becoming a grandmother. In the absence of empirical studies, however, the literature still lacks a demographic assessment of older people's interlocking roles as workers and grandparents.

Parenting context An analogous issue concerns active parenting and parent-child coresidence: How often does grandparenthood coincide with the presence of (young and grown) children in the household? Similar to the worker role, overlap with the parent role may pose a significant burden to grandparents (Crumbley and Little 1997). Fertility trends in developed societies suggest that such overlaps are rare. Instead, the roles of an active parent and a grandparent are commonly expected to be enacted in a distinct and clearly sequenced fashion across contemporary life courses (Hagestad 1988).

Again, empirical evidence in support of such claims is scarce. In fact, it is inconsistent with the few existing findings. In a study of grandparenting, over half of people who provided extensive childcare had coresident children (Fuller-Thomson and Minkler 2001). In a similar vein, Szinovacz (1998) reported that the majority of American grandparents experience some overlap with active parenthood. Both studies focused only on individuals who had already experienced grandparenthood, disregarding those who would become grandparents at more advanced ages. This means that the analyses were based on selective subsets of “earlier” grandparents. Considering cross-national differences in the timing of grandparenthood, these findings might still be explained by the fact that transitions in the United States occur relatively early, whereas overlaps with active parenting might be far less pronounced in countries of Western Europe. In the absence of adequate empirical assessments, however, we still lack conclusive data about the sequencing of the roles of an active parent and a grandparent in all of these national contexts.

Filial context What are the chances of having surviving parents when becoming a grandparent? Conversely, what are the chances of occupying the “omega position” (Hagestad 1984), representing the oldest surviving generation of a family lineage? These questions concern, on the one hand, the generational structure of contemporary families. In this regard, the notion of the modern beanpole

family posits that an increasing number of generations are concurrently alive (Bengtson 2001). Consistent with this view is the expectation that the majority of older people in developed societies have at least one surviving parent upon the birth of their first grandchild.

On the other hand, these questions concern filial responsibilities of caring for infirm parents, as many middle-aged and older adults—in particular women—respond readily to support the needs of their elderly parents (Leopold, Raab, and Engelhardt 2014). Considering the sequence of transitions in older age, the onset of parental need might coincide closely with the initiation of the grandparent role. If both transitions are experienced in a narrowly sequenced fashion, grandparents might have to respond to concurrent needs of younger and older generations, or relinquish responsibilities within one sphere in favor of the other. In this sense, it might be grandparents, rather than parents (Brody 1985), who are “sandwiched” between support demands from below and above.

The Length of the Grandparent Stage of Life

A staple of current grandparent research is the notion of “longer years of shared life”: Because grandparents live longer and in better health, they share ever more (active) years with their grandchildren. As a result, grandparents have unprecedented possibilities to be more of an influence in their grandchildren’s lives. Considering the prominence of this argument, it is surprising how little is known about the actual length of the grandparent stage of life. To the best of our knowledge, there are no published estimates about the number of years that contemporary grandparents spend with their grandchildren. This gap of knowledge is particularly worthy of attention from a comparative perspective, given that cross-national variation in mortality and fertility may result in large gaps in the time spent as a grandparent.

The expectation of longer years of shared lives derives from the mortality side of the phenomenon: Because people live longer, they spend more years as grandparents. Less attention has been devoted to the fertility side, which may offset at least some of these gains: If the transition to grandparenthood is delayed, people spend fewer years as grandparents. Hence, longer years of shared lives require that increases in life expectancy exceed concurrent delays in grandparenthood. In this regard, a comparative perspective on the length of the grandparent phase of life can offer some insight. In countries of Western Europe, life expectancy is higher but grandparenthood can be expected to occur later. In post-Soviet countries of Eastern Europe, life expectancy is lower but grandparenthood can be expected to occur earlier. In the United States, high life expectancy coincides with the expectation of early grandparenthood, suggesting the longest years of shared lives.

Data and Methods

Data Sources

To provide a demographic profile of contemporary grandparenthood in developed societies, we exploited all information about timing and life-course context

of grandparenthood that is currently available in major representative surveys. Our analyses are based on four data sets comprising data about grandparenthood in Europe and the United States: the Generations and Gender Survey (GGS), the European Social Survey (ESS), the German Aging Survey (DEAS), and the National Survey of Families and Households (NSFH). This combination of four data sources yields major analytical benefits for our purposes, as all surveys were compatible with regard to selection of study samples, time of data collection, and information provided about the transition to grandparenthood as well as other transitions of the later life course. Table 1 includes a detailed overview of data sources.

The GGS is a multi-country panel survey coordinated by the Generations and Gender Programme. Wave 1, conducted between 2002 and 2008, comprises representative samples of men and women in 15 countries (Vikat et al. 2007). We included GGS data about the transition to grandparenthood for a total of 10 countries (Belgium, Bulgaria, Estonia, France, Georgia, Hungary, Lithuania, Norway, Romania, Russia). The GGS data collection in these countries covers a field period from 2004 until 2008. These data were particularly suitable for our purposes because they comprise large country samples along with comprehensive retrospective information about life-course context in the domains of employment, parenting, and filial relations.

The ESS is a cross-sectional survey repeated biannually and conducted in more than 30 countries (ESS 2006). We selected data from the third round of data collection, conducted between 2006 and 2007. In this round, the survey instrument included a question about the year in which the first grandchild was born, allowing us to investigate transitions to grandparenthood. The sampling frame of the ESS covers all persons aged 15 and older residing in private households. Compared to the GGS, the ESS samples are smaller and retrospective information about parenting status (i.e., transition to the empty-nest stage) and filial status (i.e., death of parents) is missing. Therefore, we used the ESS as a primary source of data about grandparenthood only for countries in which GGS data are not available. The only exceptions from this rule are Austria and the Netherlands. For these countries, we used ESS data instead of GGS data, because the Austrian GGS does not offer information about grandchildren and the Dutch GGS does not include suitable life-course data on employment and children's departures from the parental home. Furthermore, we excluded Cyprus, Ireland, and Slovakia from the analysis of ESS data. In these country samples, small case numbers precluded reliable estimation of the life-course processes under study. After these exclusions, study samples from 13 ESS countries (Austria, Denmark, Finland, Latvia, the Netherlands, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland, United Kingdom, and Ukraine) entered the analysis.

The DEAS (Engstler and Motel-Klingebiel 2010) is a survey representative of older adults (aged 40 to 85) living in private households in Germany. We used these data instead of the German sample of the GGS because the DEAS offers a larger sample of the relevant age groups and more suitable variables to distinguish between East and West Germany.¹ This distinction is important, given that vast demographic differences dating from the pre-reunification period still shape the timing and life-course context of contemporary transitions to grandparenthood

Table 1. Samples, Data Sources, and Descriptive Statistics

Country	Data source	Field time	Original sample	Sample selections			Mean age	Cohort range	Female (%)	Children (N)	Grandparents (%)	Mean age at GPH		Median year of year of GPH	
				(1) Parent	(2) Age 60–75	(3) Valid data						Women	Men		
				Events ^a	Events ^a	Events ^a						Women	Men		
Slovenia	ESS	2006–07	1,476	816	267	254	221	67.0	1930–46	57.1	2.2	87.0	48.3	52.5	1988
Poland	ESS	2006–07	1,721	844	260	254	229	67.0	1930–46	57.4	2.9	91.2	47.1	51.7	1987
Spain	ESS	2006–07	1,876	796	279	271	209	67.2	1930–47	53.3	2.8	77.1	53.7	56.2	1994
Denmark	ESS	2006–07	1,505	762	310	302	266	65.8	1930–47	53.0	2.5	88.1	51.5	54.3	1993
Austria	ESS	2006–07	2,405	1,038	314	306	245	66.1	1931–47	53.2	2.5	80.1	48.5	52.7	1989
Latvia	ESS	2006–07	1,960	843	333	315	267	67.4	1931–47	69.2	1.8	84.8	48.3	50.1	1987
Switzerland	ESS	2006–07	1,804	797	326	317	245	66.2	1931–47	54.2	2.5	76.5	53.0	56.4	1994
Netherlands	ESS	2006–07	1,889	822	341	334	278	66.1	1930–46	46.7	2.7	82.0	53.4	55.3	1995
Sweden	ESS	2006–07	1,927	925	339	337	267	66.3	1930–47	54.6	2.3	79.2	51.3	53.2	1991
Finland	ESS	2006–07	1,896	939	392	389	316	66.5	1930–46	53.5	2.3	81.2	52.2	53.2	1992
Ukraine	ESS	2006–07	2,002	1,183	449	423	403	67.1	1931–46	51.5	2.2	97.6	47.3	50.2	1987
Great Britain	ESS	2006–07	2,394	1,156	457	438	361	66.6	1930–46	53.1	2.6	81.6	50.9	53.9	1991
Portugal	ESS	2006–07	2,222	1,230	508	447	382	66.8	1931–47	59.8	2.5	83.6	50.2	53.7	1990
Belgium	GGs	2008–10	7,163	3,157	1,035	1,027	820	66.6	1932–50	51.9	2.3	80.2	51.7	53.9	1995
Estonia	GGs	2004–05	7,855	4,663	1,670	1,365	1,213	67.2	1929–45	62.8	2.0	88.7	49.7	51.8	1987
Georgia	GGs	2006	10,000	5,211	1,698	1,676	1,468	67.6	1930–46	55.9	2.6	87.6	49.3	52.0	1988
France	GGs	2005	10,079	4,829	1,863	1,826	1,590	66.8	1930–45	51.5	2.7	85.2	50.4	53.2	1990
Lithuania	GGs	2006	10,036	5,013	1,955	1,880	1,686	67.2	1930–46	60.6	2.0	89.6	49.3	51.7	1988

(Continued)

Table 1. continued

Country	Data source	Field time	Original sample	Sample selections			Mean age	Cohort range	Female (%)	Children (N)	Grandparents (%)	Mean age at GPH		Median year of year of GPH
				(1) Parent	(2) Age 60-75	(3) Valid data						Women	Men	
Bulgaria	GGs	2004	12,858	5,987	2,022	1,938	1,717	1929-44	58.0	1.9	89.0	46.9	49.2	1984
Russia	GGs	2004	11,261	6,356	2,060	2,022	1,874	1929-44	66.2	2.0	92.1	48.4	49.9	1985
Romania	GGs	2005	11,986	6,759	2,513	2,511	2,172	1930-45	57.1	2.3	86.2	48.0	51.2	1986
Hungary	GGs	2004-05	13,540	7,490	2,817	2,782	2,433	1929-45	59.2	2.0	87.5	47.2	51.1	1985
Norway	GGs	2007-08	14,881	7,353	2,808	2,807	2,347	1931-48	51.7	2.6	84.5	51.0	53.5	1993
East Germany	DEAS	2008	2,083	1,827	787	767	647	1933-48	55.4	2.2	83.5	47.8	50.0	1988
West Germany	DEAS	2008	3,828	3,145	1,356	1,348	1,004	1933-48	52.1	2.2	73.7	53.0	55.0	1994
USA	NSFH	2001-03	3,554	2,804	876	870	750	1926-43	52.8	3.2	86.0	48.0	50.7	1984
Total ^b			144,201	76,745	28,035	27,206	23,410	66.9	55.8	2.4	84.8	49.9	52.6	1989.4

Note: Data are from Round 3 of the European Social Survey, Wave 1 of the Generations and Gender Survey, Wave 3 of the German Ageing Survey, and Wave 3 of the National Survey of Families and Households. All data are weighted by country-specific design weights, except for Latvia (weights not available).

^aNumber of transitions to grandparenthood.

^bTotals and means over country means.

as well as the length of the grandparent life stage. Most notably, as East Germans' demographic behavior resembled broader Eastern European patterns (Pascall and Manning 2000), the transition can be expected to occur considerably earlier among people from the former GDR. The DEAS offers large samples of East and West Germans to account for such differences. Respondents provided highly detailed information about their grandchildren as well as comprehensive retrospective information about their life courses. In the third wave of data collection (2008), the DEAS comprised a basic sample of 6,205 first-time respondents stratified by age, gender, and East and West Germany.

The NSFH (Sweet, Bumpass, and Call 1988) comprises a probability sample of 13,017 individuals living in US households. The NSFH includes three waves of data collected 1987–88 (Wave 1), 1992–94 (Wave 2), and 2001–02 (Wave 3). Our analysis was based on data from main respondents (randomly selected from sample households) interviewed in Wave 3. In this most recent wave of the NSFH, the survey included questions about the transition to grandparenthood. Similar to the GGS, the NSFH offers comprehensive life-history data on employment, parenting, and filial spheres. We restricted the analysis to the main sample ($N = 3,554$), excluding cases from the NSFH oversample of minorities and specific forms of households (for details, see Sweet, Bumpass, and Call [1988]). Due to funding constraints, the Wave 3 sample of the NSFH excluded certain groups of respondents under the age of 45 (as of January 2000; see Wright [2003]). Our analysis was unaffected by this restriction because we limited our analytic sample to individuals aged 60 to 75 at the time of interview (see below).

Given the descriptive aims of our study, we based all analyses on normalized design weights that account for country-specific sampling procedures.² Because inclusion in our analytic sample of the NSFH was contingent on participation in Wave 3, we accounted for selective panel dropouts in these data. To accomplish this, we calculated weights adjusted for nonresponse by multiplying the NSFH design weights with the inverse probabilities of participation in Wave 3. We estimated these probabilities using a logistic regression model that predicted inclusion in the Wave 3 sample by birth year, sex, marital status, earnings, metropolitan status, and region (all measured at Wave 1).

Assessing the Timing of Grandparenthood

The transition to grandparenthood is defined by the birth of the first grandchild. The GGS, ESS, DEAS, and NSFH provide comparable data on this focal transition, as all respondents who reported having any grandchildren were asked about their oldest grandchild's year of birth. A seemingly straightforward way of measuring the timing of grandparenthood would be to focus only on grandparents and to calculate their mean or median age at this transition (see table 1). This approach would yield unbiased estimates if it could draw on complete information about whether and when grandparenthood occurred. However, this can be known with certainty only for a population of people who are either dead, childless, or have only children who are past their reproductive age.

In representative survey data, these conditions do not apply: Many individuals who are not a grandparent at the time of interview will experience this transition

in the future. In the presence of these right-censored observations, age at grandparenthood is observed only for a selective subset of respondents having experienced the transition before the interview. Consequently, naïve mean or median ages underestimate age at grandparenthood, as earlier transitions are overrepresented in the data. This bias grows with the share of right-censored observations.

Examining the timing of grandparenthood in the presence of right-censored observations requires adequate sample restrictions and survival methods. There are two important considerations: (1) selecting a set of individuals “at risk” of becoming a grandparent; and (2) accounting for right-censoring in the fertility processes of G1 (grandparents) and G2 (their children).

To describe the *process of grandparenthood*, we defined age as the time axis. The clock started at an individual’s date of birth and ended at the age at which a respondent’s first grandchild was born. If no grandchild was born, we censored the observation at the interview date. Based on this approach, we assessed the timing of grandparenthood in two ways: first, by estimating the quartile ages at which 25, 50, and 75 percent of those at risk are expected to be grandparents; second, by estimating probabilities of being a grandparent at different ages (45, 50, 55, 60, 65, and 70). In our analyses of grandparenthood within the context of the later life course, we focused on the median age (i.e., the 50 percent quartile) as a measure for the typical age at grandparenthood. All results are based on a Kaplan-Meier estimator that estimates survivor functions for the transition to grandparenthood in a nonparametric way (Blossfeld, Rohwer, and Golsch 2007). This estimator is defined as

$$\hat{S}(t) = \prod_{l: \tau_l < t} \left(1 - \frac{E_l}{R_l}\right),$$

where $\hat{S}(t)$ is the probability of not being a grandparent at age t (i.e., “surviving” up to age t); E_l is the number of transitions to grandparenthood observed at age τ_l ; R_l is the population still at risk at age τ_l (including durations that are right-censored at this age); and $(1 - E_l/R_l)$ is the conditional probability of not having experienced the transition to grandparenthood at age τ_l . The median age, for instance, is defined as that lowest age t satisfying the condition $\hat{S}(t) \leq 0.5$. The probability of being a grandparent at age 50 is defined as $1 - \hat{S}(50)$.

To define a risk set (i.e., individuals who are effectively exposed to the “risk” of experiencing the event) for the process of grandparenthood in G1, it is important to consider, first, whether children (G2) are present, and second, whether at least one of them has reached reproductive age. Therefore, we restricted all country samples to parents having at least one biological child aged 16 and over at the time of interview.³

Yet, this restriction is not sufficient. A distinctive feature about the analysis of grandparenthood is that this life transition is contingent on a first-order process, namely parenthood: The timing of first-time parenthood determines when individuals enter the risk set of the second-order process, grandparenthood. In this regard, a potential source of bias would arise if the risk set included all respondents who had a child of reproductive age at the time of the interview.

Figure A2 illustrates this issue, showing the timing of parenthood and grandparenthood for hypothetical individuals from four different birth cohorts (1925, 1930, 1945, and 1965). For ease of interpretation, all cohort groups are identical in life expectancy, transitions to parenthood, and transitions to grandparenthood. The true median age of grandparenthood is 51 in all cohorts. In the cohort of 1930, there are no censored observations in generation G1 and G2; consequently, both the naïve estimator and the Kaplan Meier (KM) estimator succeed in identifying the true median age at grandparenthood. In the cohort of 1945, the second-order process (G2) is censored; as a result, only KM identifies the true age at grandparenthood. In the cohort of 1965, the first-order process is also censored. This leads to a selective risk set of relatively early parents (i.e., only the first two individuals); as a result, KM underestimates the true median age if it is based on this selective risk set. In other words, downward bias occurs if the first-order process of parenthood is right-censored. To address this problem, we set a lower age bound of 60 to ensure that the first-order process was completed by all individuals in the risk set. The rationale behind this age bound was as follows: If the process of parenthood in G1 was completed at age 44,⁴ the oldest child (G2) had reached reproductive age (age $44 + 16 = 60$) even among the latest parents.

Even after these sample restrictions, our design represents only an approximation to the ideal scenario of complete data. There are at least two remaining sources of bias. First, selective mortality (or selective nonparticipation due to poor health) might induce a “survivor bias” in the risk set. This type of bias is negligible if mortality and health are only weakly related to the timing of grandparenthood. The stronger the relationship, however, the stronger the potential upward bias of Kaplan-Meier estimates (see figure A2, cohort 1925, for an illustration). To limit this source of bias, we defined an upper age bound of 75. That way, we also limited cross-cohort heterogeneity in our country samples, setting the number of birth cohorts included in each sample to an average of 16 (due to varying length of field times, the cohort range varies from 15 to 18 years). Table 1 shows for each country to which range of birth cohorts our results can be generalized. After these restrictions, the analytical samples comprised 27,206 mothers and fathers aged 60 to 75 (see table 1 for further details on sample selection).

Second, it remains unknown whether all parents who are at risk of experiencing the transition to grandparenthood will eventually become grandparents. As parents who will never become grandparents cannot be identified in the risk set, age at grandparenthood might be overestimated compared with a “dead cohort” for which complete data are available. The only available methods to address this problem are based on assumptions such as postulating or projecting a share of eventual non-grandparents. We did not apply these methods, as research suggests that the potential bias introduced by possible non-grandparenthood among parents can be considered minor in the cohorts under study.⁵

Assessing the Life-Course Context of Grandparenthood

To characterize the life-course conditions typically surrounding passages to grandparenthood, we examined how grandparenthood is located in the sequence

of other life transitions in employment, parenting, and filial spheres. We considered six transitions within these three domains: (1) birth of first child; (2) non-active parenthood, defined by the youngest child reaching the age of 16; (3) empty-nest stage, defined by the end of coresidence with any child; (4) death of the first parent; (5) death of the second parent, marking the end of the filial role; and (6) retirement or exit from an active worker role (for those ever in paid employment). We estimated survivor functions (Kaplan-Meier) for each of these processes. Table 2 provides details about the definition of each transition.

As anchor measures for the typical sequence of these life transitions and grandparenthood, we focused on the *median age* for every process under study. At this age, 50 percent of the population at risk is expected to have experienced the transition. Taken together, these measures provided an aggregate-level portrayal

Table 2. Transitions in Parenting, Employment, and Filial Sphere

Transition	Description	Estimated duration (in years)	Data availability
Parenting sphere			
Birth of first child	Initial transition to motherhood or fatherhood	Age at birth of first child	GGS, ESS, DEAS, NSFH
End of active parenthood	All children have reached adolescence or adulthood	Age at which youngest child turned 16	GGS, ESS, DEAS, NSFH
Empty nest	End of coresidence with any child; typically date of last child's move-out Also applies to respondents leaving their children's household (e.g., father moves out after divorce)	Age at the end of parent-child coresidence	GGS, DEAS
Employment sphere			
Retirement/ Inactivity	Transition from employment to retirement or other forms of economic inactivity (i.e., no longer in paid employment) Inactivity includes getting permanently sick or disabled, becoming a homemaker, and becoming unemployed without looking for a new job; inactivity does not include becoming unemployed but looking for a new job	Age at retirement/ inactivity Risk set: Persons ever in paid employment	GGS, ESS, DEAS, NSFH
Filial sphere			
1st parent dead	First parent deceased	Age at death of first parent	GGS, DEAS, NSFH
2nd parent dead	Second parent deceased	Age at death of second parent	GGS, DEAS, NSFH

of the typical timing and sequence of transitions experienced throughout the later life course. We estimated these values by Kaplan-Meier survivor functions for each risk set of women and men. The median ages at transitions within employment and parenting spheres were calculated separately for women and men. For median ages at death of the first and second parent, there was no reason to expect gender differences. We calculated these values based on the combined samples of women and men to improve the accuracy of the estimates.

Assessing the Length of the Grandparent Life Stage

To assess the length of the grandparent life stage, we used external data on life expectancy collected by the World Health Organization in the year 2000. Combined with the median age at grandparenthood, these data provide estimates for the expected length of the grandparent life stage among men and women. To ensure a close fit with our sample restrictions, we used data on further life expectancy at age 60 separately for men and women in every country under study.

Results

The Timing of Grandparenthood

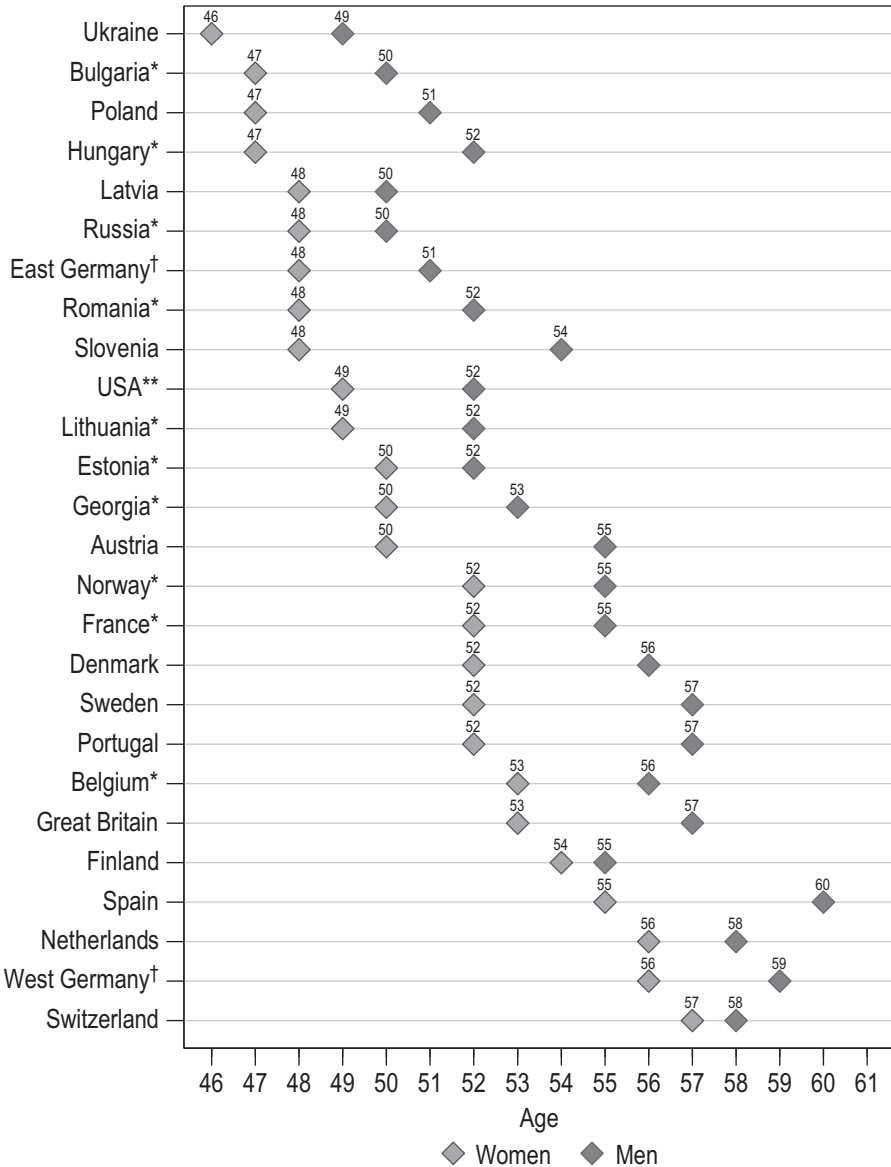
Figure 1 shows, in ascending order, median ages at grandmotherhood and grandfatherhood for each country. A comparison with the mean ages presented in table 1 shows clear differences. In most countries, right-censored observations result in considerable downward bias of mean age estimates. Results are similar only in countries in which grandparenthood is experienced relatively early in life, and thus, few observations are censored.

Survival estimates show that among women, the median age at grandparenthood ranges from 46 in Ukraine to 57 in Switzerland, averaging at an unweighted grand mean age of 51 years. In the United States, half of transitions to grandmotherhood occurred until the age of 49. In Eastern European countries and East Germany (the former GDR), most women became grandmothers before the age of 50. Women in Western Europe entered the grandmother role considerably later, mostly in their early to mid-fifties.

Transitions to grandfatherhood occurred, on average, three years later. In Eastern European countries, most men became grandfathers in their early fifties. In Western Europe, men typically experienced the transition to grandfatherhood five to 10 years later in life. Men from the United States ranged in between, averaging at a median age of 52.

These results are in line with our theoretical considerations about cross-national similarities and differences in the timing of grandparenthood. Two patterns are notable. First, the timing of grandparenthood varies strongly across countries. Table 3 puts this variation in context, showing measures of age dispersion for various life transitions. Across the countries included in this analysis, differences in the median age at grandparenthood are larger than in age at parenthood, age at retirement, and life expectancy. Second, cross-national variation within and across the larger areas covered in this analysis—Western Europe, Eastern Europe, and the United States—partly reflects current patterns of fertility

Figure 1. Women’s and men’s median ages at the transition to grandparenthood



Note: Data are from Round 3 of the European Social Survey, Wave 1 of the Generations and Gender Survey (marked with *), Wave 3 of the German Ageing Survey (marked with †), and Wave 3 of the National Survey of Families and Households (marked with **). All data are weighted by country-specific design weights, except for Latvia (weights not available). NSFH weights are adjusted for panel attrition from Wave 1 to Wave 3. Samples comprise parents aged 60 to 75 who had at least one child in reproductive age (16 and older) at the time of interview. Order of countries is ascending by women’s and men’s median age at grandparenthood (Kaplan-Meier estimates).

Table 3. Measures of Dispersion for Median Ages at Different Life Transitions

	Women				Men			
	M	SD	Gini	RMD	M	SD	Gini	RMD
Parenthood	23.6	1.0	0.02	0.05	26.2	0.9	0.02	0.04
Non-active parenthood	44.9	1.3	0.01	0.03	47.6	1.3	0.01	0.03
Grandparenthood	50.7	3.2	0.04	0.07	54.1	3.1	0.03	0.06
Retirement	58.6	3.4	0.03	0.06	61.5	2.4	0.02	0.04
Life expectancy	82.5	2.0	0.01	0.03	78.2	2.3	0.02	0.03

Note: $N = 26$ countries (East and West Germany analyzed separately). Descriptive statistics are shown for median ages at each transition. Data are from Round 3 of the European Social Survey, Wave 1 of the Generations and Gender Survey, Wave 3 of the German Ageing Survey, and Wave 3 of the National Survey of Families and Households. All data are weighted by country-specific design weights, except for Latvia (weights not available). NSFH weights are adjusted for panel attrition from Wave 1 to Wave 3. Samples comprise parents aged 60 to 75 who had at least one child in reproductive age (16 and older) at the time of interview. RMD = Relative Mean Difference ($\text{Gini} \times 2$).

but is more strongly shaped by historical differences. Most notably, today's older people from post-Soviet countries have entered grandparenthood at similar, and relatively young, ages. As most of these transitions occurred before 1989 (table 1), these findings reveal an enduring legacy of pronatalist policy in Eastern Europe. In Western Europe, grandparenthood is experienced up to 11 years later in life. Among Western European countries, the median age at grandparenthood varies more strongly and is consistent with variation along the familialism scale.

Table 4 describes the process of grandparenthood in more detail, showing the probability of being a grandparent at different ages and the quartile ages of grandparenthood (the survivor functions are shown in figure A1). Estimated probabilities provide a further illustration of the pronounced East-West gradient in the transition. In Bulgaria, Ukraine, and Russia, more than 60 percent of mothers and 50 percent of fathers had become grandparents by the age of 50. In West Germany, Spain, the Netherlands, and Switzerland, this applied to less than 30 percent of mothers and less than 20 percent of fathers.

The quartiles indicate early (1st quartile), on-time (median), and late (3rd quartile) grandparenthood. Small interquartile differences (i.e., gaps between early and late grandparenthood) of 10 years or less, as found in many Eastern European countries, show a faster process of grandparenthood, characterized by higher transition rates (i.e., steeply falling survivor functions) within a relatively short period across the life course. Larger interquartile differences, as found in Western Europe and the United States, reflect a slower process, characterized by lower transition rates across an extended period over the life course.

The Life-Course Context of Grandparenthood

Figures 2 and 3 situate the transition to grandparenthood within the context of the later life course of women (figure 2) and men (figure 3). The figures illustrate how grandparenthood is embedded in the later life course and how it intersects with

Table 4. Quartile Ages at the Transition to Grandparenthood and Probabilities of Being a Grandparent at Different Ages

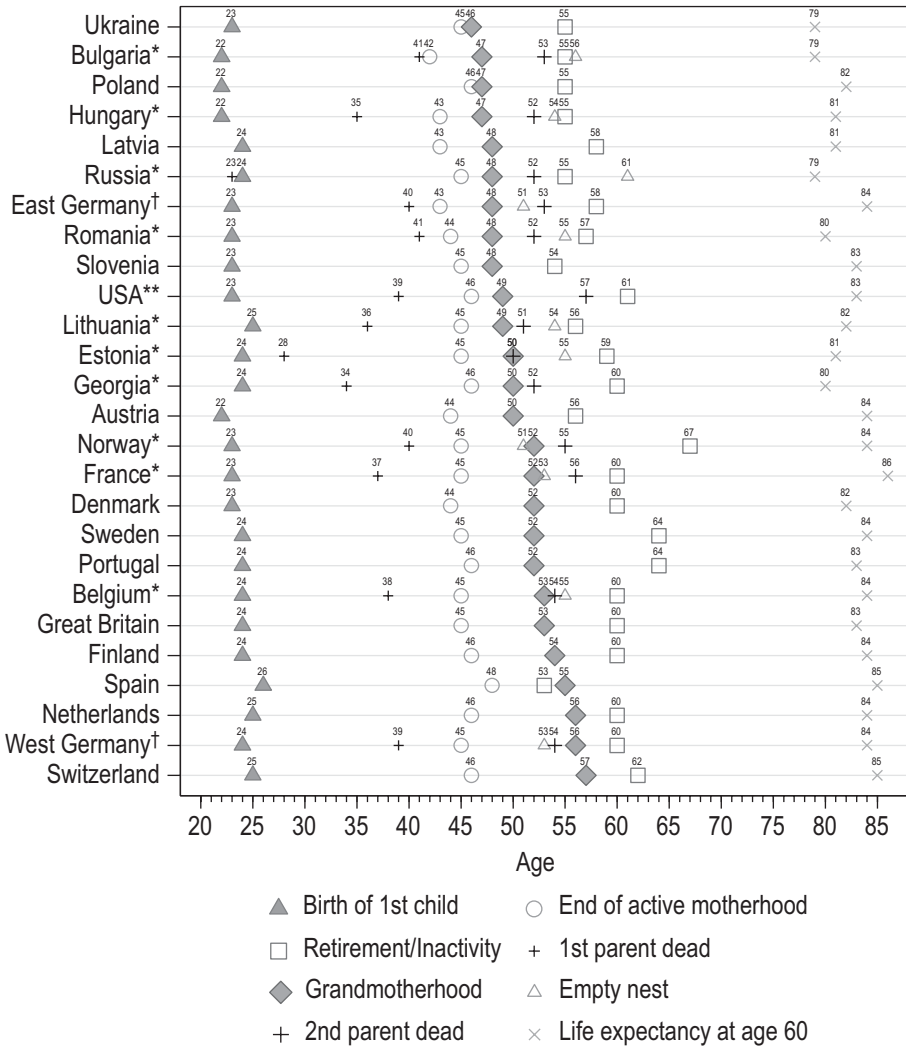
	Women				Men				All			aTest: S _w = S _M p-value			Probability of being a grandmother at age			Probability of being a grandfather at age					
	25%	50%	75%	75%	25%	50%	75%	75%	25%	50%	75%	45	50	55	60	65	70	45	50	55	60	65	70
Ukraine	44	46	51	54	46	49	54	53	48	45	48	43	71	93	96	99	99	21	56	83	91	95	97
Bulgaria*	43	47	53	56	46	50	56	54	48	44	48	42	68	82	87	91	92	24	56	74	84	87	90
Poland	43	47	51	57	49	51	57	55	49	45	49	46	72	87	92	94	95	12	43	65	79	86	91
Hungary*	43	47	53	58	48	52	58	55	49	45	49	38	66	81	87	90	91	13	42	67	80	86	88
Latvia	44	48	56	56	48	50	(57)	56	49	46	49	31	62	75	80	85	89	11	51	69	80	83	83
Russia*	44	48	53	54	47	50	54	54	49	45	49	32	62	80	89	92	93	18	56	80	88	92	94
East Germany†	44	48	56	59	46	51	59	58	49	45	49	34	59	74	81	85	85	23	48	66	77	82	85
Romania*	44	48	54	59	48	52	59	56	50	46	50	32	61	79	86	88	90	14	41	65	78	84	87
Slovenia	45	48	53	54	49	54	(61)	58	50	46	50	28	61	81	86	88	91	10	36	58	73	84	89
USA**	43	49	56	59	47	52	59	58	51	45	51	35	56	73	82	88	91	16	42	67	79	84	90
Lithuania*	45	49	54	59	48	52	59	56	50	47	50	25	57	80	87	91	93	11	40	66	80	88	91
Estonia*	46	50	56	58	48	52	58	57	51	47	51	22	53	74	84	88	91	10	40	69	80	88	91
Georgia*	45	50	56	59	48	53	59	58	51	46	51	28	54	73	83	89	91	12	36	63	78	85	88
Austria	45	50	59	64	48	55	(64)	62	52	46	52	28	54	71	78	83	85	13	32	52	67	78	91
Norway*	47	52	59	63	50	55	63	60	54	48	54	20	44	65	81	89	91	9	27	51	70	82	87
France*	46	52	58	61	50	55	61	59	53	48	53	20	45	67	81	88	90	9	28	52	74	86	90
Denmark	49	52	57	61	51	56	61	60	54	49	54	17	42	64	82	90	90	8	23	48	75	89	93
Sweden	47	52	62	66	50	57	(66)	64	54	49	54	17	41	61	71	83	90	11	25	43	63	74	86
Portugal	45	52	58	65	50	57	(65)	60	54	47	54	26	44	64	82	89	90	10	27	44	66	76	84

Belgium*	48	53	60	51	56	65	50	55	62	0.000	13	35	61	76	84	87	5	22	46	68	77	82
Great Britain	46	53	60	50	57	65	48	55	62	0.000	21	42	60	76	84	89	12	26	44	61	78	88
Finland	49	54	60	50	55	61	49	55	61	0.071	14	33	59	75	84	86	9	26	50	72	81	81
Spain	50	55	(64)	54	60	(67)	52	58	65	0.000	11	29	51	66	83	88	3	12	33	50	75	79
Netherlands	50	56	60	53	58	63	52	56	63	0.013	10	25	50	76	84	85	6	18	41	62	80	93
West Germany†	49	56	64	53	59	69	51	58	67	0.000	12	29	48	65	76	82	5	18	37	56	68	76
Switzerland	50	57	(65)	53	58	(65)	52	58	65	0.032	11	28	49	64	75	83	3	12	30	64	75	90

Note: Data are from Round 3 of the European Social Survey, Wave 1 of the Generations and Gender Survey (marked with *), Wave 3 of the German Ageing Survey (marked with †), and Wave 3 of the National Survey of Families and Households (marked with **). All data are weighted by country-specific design weights, except for Latvia (weights not available). NSFH weights are adjusted for panel attrition from Wave 1 to Wave 3. Samples comprise parents aged 60 to 75 who had at least one child in reproductive age (16 and older) at the time of interview. Kaplan-Meier estimates of survival times to grandparenthood are shown. Italic values in brackets are estimates based on risk sets of ≤ 30 remaining individuals. Order of countries is ascending by women's and men's median age at grandparenthood.

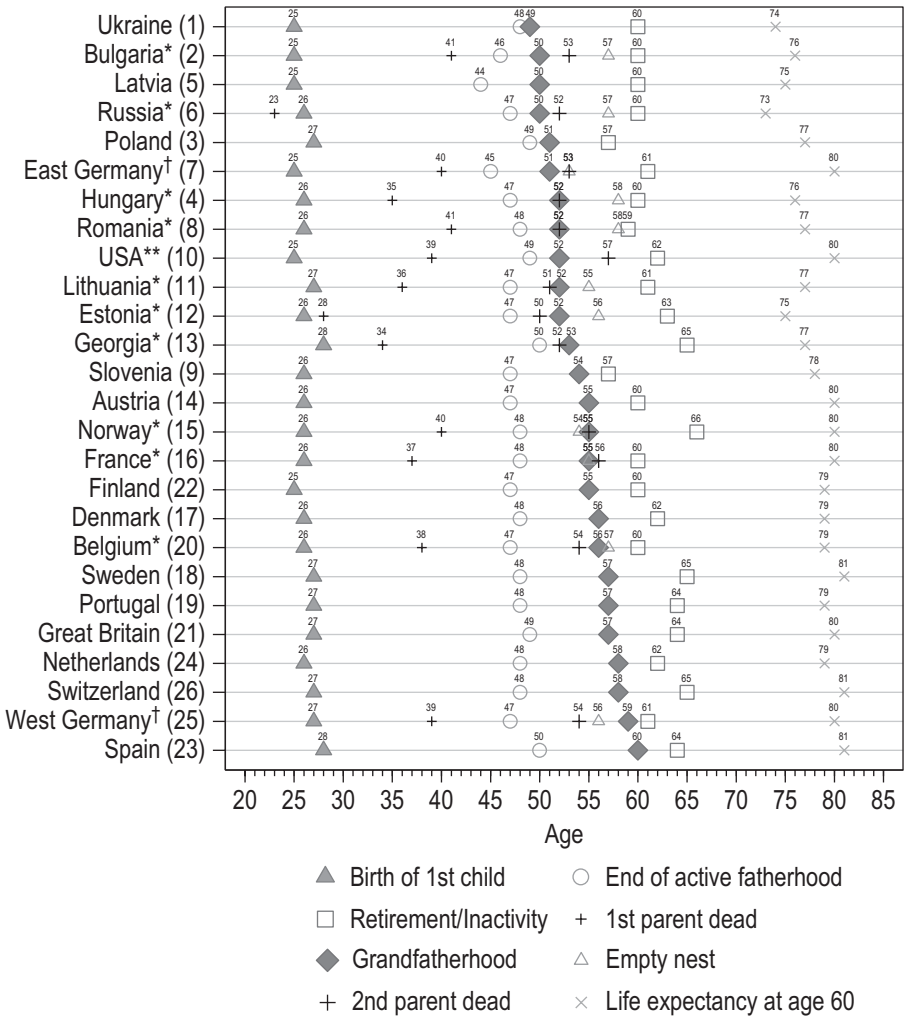
^aWilcoxon-Breslow-Gehan test of the null hypothesis that the survivor functions of women and men are equal. Probabilities of grandparenthood derived from Kaplan-Meier estimation of survivor function at different ages.

Figure 2. The life-course context of grandmotherhood



Note: Data are from Round 3 of the European Social Survey, Wave 1 of the Generations and Gender Survey (marked with *), Wave 3 of the German Ageing Survey (marked with †), and Wave 3 of the National Survey of Families and Households (marked with **). All data are weighted by country-specific design weights, except for Latvia (weights not available). NSFH weights are adjusted for panel attrition from Wave 1 to Wave 3. Samples comprise women aged 60 to 75 who had at least one child in reproductive age (16 and older) at the time of interview. Median ages are shown for all transitions (Kaplan-Meier estimates). See table 2 for details on the definition of processes. Transitions to death of the 1st and 2nd parent are estimated jointly for men and women, all other transitions separately by gender. Order of countries is ascending by median age at grandmotherhood. Data on empty nest are available only in GGS and DEAS samples; data on parents' death are not available in ESS samples. Survivor function for transition to empty nest in Georgia remained above 50 percent. Life expectancy at age 60 based on health data from the WHO (year 2000).

Figure 3. The life-course context of grandfatherhood



Note: Data are from Round 3 of the European Social Survey, Wave 1 of the Generations and Gender Survey (marked with *), Wave 3 of the German Ageing Survey (marked with †), and Wave 3 of the National Survey of Families and Households (marked with **). All data are weighted by country-specific design weights, except for Latvia (weights not available). NSFH weights are adjusted for panel attrition from Wave 1 to Wave 3. Samples comprise men aged 60 to 75 who had at least one child in reproductive age (16 and older) at the time of interview. Median ages are shown for all transitions (Kaplan-Meier estimates). See table 2 for details on the definition of processes. Transitions to death of the 1st and 2nd parent are estimated jointly for men and women, all other transitions separately by gender. Order of countries is ascending by median age at grandfatherhood (women's order in parentheses). Data on empty nest are available only in GGS and DEAS samples; data on parents' death are not available in ESS samples. Survivor function for transition to empty nest in Georgia remained above 50 percent. Life expectancy at age 60 based on health data from the WHO (year 2000).

other roles in employment, parenting, and filial spheres. Median ages, estimated separately by gender, are shown for the following processes: parenthood, end of active parenthood, empty nest, grandparenthood, death of the first parent, death of the second parent, and retirement. Estimates of median ages are shown wherever data were available (see table 2), and countries are ordered according to the median age at grandmotherhood (figure 2) and grandfatherhood (figure 3), respectively.

In view of the vast cross-country differences in the timing of grandparenthood, its sequencing with other later-life transitions was surprisingly consistent across countries for both women and men. Years of *active parenting* ended before grandparenthood in all countries. In the United States and some Eastern European countries, such as Poland and Ukraine, the gap between the respective median ages was small, ranging between one and three years. This relatively close spacing suggests some overlap between the roles of an active parent and a grandparent in these countries.

In many countries of Western Europe, overlap between the roles of an active parent and a grandparent has been less pronounced. Among women, age gaps between relinquishing the role of an active mother and entering the grandmother role range between 10 and 11 years in West Germany, the Netherlands, and Switzerland. Among men, the roles of an active parent and a grandparent are even more strongly sequenced.

Compared to the end of active parenting, the sequencing of grandparenthood and the *empty-nest stage* is almost equally consistent across countries. Typically, grandparenthood was experienced before the empty-nest stage, with West Germany and Norway being the only exceptions. Looking at the overall pattern across countries, our results suggest that grandparenthood in a context of intergenerational coresidence has been most common in families of Eastern Europe. In these countries, children of the birth cohorts under study experienced parenthood relatively early and left home relatively late (Billari et al. 2001). As a result, most people became grandparents many years before entering the empty-nest stage. In Western Europe, both transitions are spaced more narrowly and are thus sequenced less clearly, suggesting that the empty-nest stage typically commenced shortly after grandparenthood. Among French women and Belgian men, for example, the median age at grandparenthood is estimated only one year below the age at which 50 percent had entered the empty-nest stage.

A similar pattern of closely sequenced transitions emerged with regard to *filial roles*. Figures 2 and 3 show estimated median ages at which respondents had lost one parent and both parents. Considering the birth cohorts studied here, cross-country differences in these measures did not reflect only long-term trends in mortality but also period effects, in particular casualties of World War II. An example is Russia, where half of the respondents had already lost one parent—most likely the father—by the age of 23. Data about parents' death are available for only the United States, the GGS countries, and East and West Germany, precluding a comprehensive cross-national assessment of filial roles at the transition to grandparenthood. The existing data support two general conclusions. First, in the typical sequence of later life-course transitions, grandparenthood coincides closely with the death of the second parent. Second, gender differences emerged with regard to the sequencing with grandparenthood. In women's life courses, grandparenthood precedes the death of the second parent in most countries;

among men, no dominant sequence emerged across countries, as both transitions frequently coincide within an age interval of two years or less. This finding suggests considerable overlap between caregiving responsibilities toward the younger and older generations. This potential for conflicting role involvements primarily concerns older women, who might often face the challenge of reconciling support demands of young grandchildren and elderly parents.

A look at the overall pattern of transitions shown in figures 2 and 3 reveals a demographically dense life-course period, comprising not only the typical age at grandparenthood but also, in close sequence, other important transitions within parenting and filial spheres. This period ranges from the mid-forties to the mid-fifties in women's life courses and from the late forties to the late fifties in men's life courses. Notable examples are Belgium, France, West Germany, and Norway, where median ages of three transitions—grandparenthood, empty nest, and death of the second parent—are estimated within an age interval of five years or less for both women and men.

Transitions to *retirement* (or other forms of economic inactivity) typically followed a number of years after this period. With the exception of Spanish women, transitions to retirement occurred considerably later than grandparenthood. In most countries, grandparenthood preceded retirement by at least five years, often many more. These findings suggest that among those who entered the labor force, the vast majority still worked when entering the grandparent role.

The Length of the Grandparent Stage of Life

Finally, we turn to the estimated length of the grandparent life stage, as indicated by the difference between further life expectancy at age 60 and median age at grandparenthood. The cross-country comparison shows a strong positive correlation between both measures, especially among men (.79) but also among women (.72).⁶ At the aggregate level of countries, later grandparenthood is associated with higher life expectancy. Variation in these measures is not fully proportional, however, suggesting that the grandparent life stage is shorter in countries characterized by later grandparenthood.

For example, although 60-year-old men in Ukraine can expect to live seven years less than their Spanish counterparts, their expected 24 years spent as grandfathers exceed the 21 years of Spanish men. We find the longest years of life shared with grandchildren in East Germany and in the United States. In these countries, early grandparenthood coincides with high life expectancy. Under current conditions, women in East Germany and the United States can expect to spend 35 years of life as a grandmother. The shortest duration of the grandparent life stage—21 years—is estimated among West German and Spanish men.

Discussion

This study presents an international profile of grandparenthood in Western Europe, Eastern Europe, and the United States. It fills substantial gaps in knowledge about a transition that has become normative in older age and initiates one of the most salient social roles of later life. Our analysis addressed three open questions about

the demography of grandparenthood in contemporary societies: At what age do people experience the transition to grandparenthood? How is grandparenthood sequenced with other transitions in later life? How long is the grandparent stage of life? In answering these questions, our study paints the most comprehensive demographic picture of the later life course that is currently available in the literature.

Theoretical considerations about the *timing of grandparenthood* suggested strong variation across countries. Consistent with this expectation, results showed that cross-national differences in the median age at grandparenthood are larger than in age at parenthood, age at retirement, and life expectancy. Compared to the United States (49 years among women, 52 years among men), grandparenthood in Eastern Europe occurred up to three years earlier in life; in Western Europe, up to eight years later. Results about the timing of grandparenthood further revealed homogeneity within Eastern Europe—an enduring legacy of Soviet pronatalist policy—and heterogeneity within Western Europe—a reflection of welfare regime differences along the scale of familialism.

Put into the *life-course context*, cross-national differences in the transition to grandparenthood are less pronounced. One consistent sequence emerged in all countries: The end of active parenthood preceded grandparenthood, and grandparenthood preceded retirement. In most countries, age gaps between these transitions are sizable. These findings suggest that the grandparent role is generally characterized by strong overlap with the worker role and little overlap with active parenting. Yet, the empty-nest stage commenced after grandparenthood in the large majority of countries. Most transitions were thus experienced in the presence of coresiding adult children. The data did not allow us to determine whether coresiding children were also those who brought about the transition to grandparenthood (i.e., whether grandchildren were born into multigenerational households). Research has shown that this is not uncommon, particularly in disadvantaged families (Uhlenberg and Kilby 1998).

Beyond these similarities, we also found notable cross-country differences in the life-course context surrounding typical passages into the grandparent role. Importantly, these differences can be expected to influence meaning, experience, performance, and consequences of the grandparent role. As suggested by numerous authors (Burton and Bengtson 1985; Hagestad and Burton 1986; Troll 1985; Szinovacz 1998), the grandparent role is “tenuous” (Rosow 1976) and therefore strongly susceptible to contextual factors. Because it lacks a clear set of behavioral expectations, role enactment becomes “a matter of individual circumstance” (Burton and Bengtson 1985, 66). Considering our findings on some of these circumstances, the stereotype of “happy, carefree grandparenting” might fit more closely with grandparents of Western Europe, who enter the role long after the end of active parenting and shortly before approaching retirement age. These grandparents might more often reap the benefits of an enriching, affirming, and rewarding role, promoting an active lifestyle yet not overburdening them or interfering with other activities. A more demanding life-course context is associated with earlier grandparenthood, as found in Eastern Europe but also in the United States. Studies have suggested that younger grandparents are more likely to start and continue caregiving (Luo et al. 2012), perform more demanding supportive roles (Burton 1996; Goodman and Silverstein 2006), and report more intrafamily strain and less reward (Musil et al. 2011).

These considerations about grandparents' provision of childcare point to a limitation of the present study: Our findings reflect only the potential for involvement in, and possible competition between, different roles of later life. Future research should draw the missing link to supportive behavior in order to shed more light on the relationship between the demography of grandparenthood and performance of the grandparent role. Moreover, a comparative perspective on grandparental childcare needs to address not only demographic differences in timing and life-course context of grandparenthood but also the social-policy context surrounding these transitions, in particular the availability and affordability of public childcare (Hank and Buber 2009). Given the scope of our investigation, we were unable to consider these factors. Additional research should complement this study's large-scale assessment with a more detailed comparative account of grandparenthood and grandparenting in demographic and social context.

Our findings about the *length of the grandparent stage of life* have implications for a common theme of current grandparent research, namely the notion of "longer years of shared life." This notion usually refers to shifts in mortality: Because grandparents live longer and in better health, they share ever more (active) years with their grandchildren. Bengtson (2001) has cited this trend to substantiate his claim that the importance of multigenerational relations is increasing. The idea that family generations share ever more years of life undoubtedly fits with changes in family demography across the 20th century (Uhlenberg and Kilby 1998). The present analysis, however, directs attention to a counterbalancing force: The length of shared lifetime is influenced not only by shifts in mortality but also by shifts in fertility. Shared lifetime between grandparents and grandchildren will increase only if gains in life expectancy exceed concurrent delays in grandparenthood. Our results show that the grandparent phase of life is *longer* in countries in which life expectancy is lower. Although grandparents in Western Europe live the longest, they enter the role much later. Delays in grandparenthood offset a substantial number of years added through higher life expectancy. Exceptions to this are grandparents in the United States and East Germany, the current record holders in lifetime shared with grandchildren.

We note that comparisons between median age at grandparenthood and further life expectancy at age 60 may be less accurate than other methods, such as estimates obtained from Sullivan's index. Our comparative findings constitute a starting point for future research into the length of the grandparent stage of life. Furthermore, we caution that cross-sectional comparisons between countries cannot provide definitive answers to questions about change over time in the years of life shared by grandparents and grandchildren. More adequate assessments are offered by two recent investigations of trends in age at grandparenthood in Germany (Leopold and Skopek 2015) and in the United States (Margolis 2013). In Germany, age at grandparenthood increases at a rate of three months per cohort. This suggests a reversal of trends in shared lifetime, as delays in grandparenthood prevail over concurrent increases in life expectancy. In the United States, grandparenthood is also delayed, albeit at a much lower rate. Because this delay does not offset parallel increases in life expectancy, years of shared life are still on the rise. For all other countries included in the present study, questions about current developments in the length of the grandparent phase of life await further investigation.

Our findings relate to another major theme in current grandparent research, the influence of grandparents on the life chances of their grandchildren. A recent study has addressed the relationship between generational gaps and grandchildren's early cognitive achievement (Fomby, Krueger, and Wagner 2014). Findings showed that after accounting for parent attributes and parents' age at birth, grandparent's age at parent's birth was independently and positively associated with grandchildren's verbal achievement. Although the underlying mechanism remained unexplored, the authors suggested that life-course factors such as fewer competing roles and more time to accumulate resources might explain the benefits of having older grandparents for grandchildren's language development. In light of our comparative findings, these considerations suggest that grandparent effects on grandchild outcomes vary cross-nationally, and that some of this variation is explained by the timing of grandparenthood and the related life-course conditions. A conceptual model to take these factors into account would link developmental stages of the grandchild to grandparents' concurrent life-course context and the associated ways of performing the grandparent role. Given the large amount of financial, social, and cultural capital that today's grandparents can draw on, this model could delineate when, and under what conditions, they (are able to) mobilize these resources to be more of an influence in their grandchildren's life.

Depending on the data source, the present study represents parents from the birth cohorts of 1929 to 1950 (GGS), 1930 to 1947 (ESS), 1933 to 1948 (DEAS), and 1926 to 1943 (NSFH). Our portrayal of these cohorts' passages into grandparenthood is intended as a benchmark against which to evaluate future changes. An important objective for further comparative research is to capture these changes in timing, life-course context, and duration of grandparenthood, considering past and present shifts in fertility, labor-force participation, retirement age, and life expectancy.

Notes

1. The German GGS questionnaire asks only for current residence. The DEAS allowed us to assign respondents to East and West Germany based on the question in which part of Germany they lived before reunification.
2. The only exception is Latvia, where no design weights were available.
3. The start of reproductive age is often defined as age 14. However, the ESS questions on grandchildren were administered only to those who reported on at least one child born in 1990 or earlier. To ensure comparability over the different data sets used in this analysis, we used the threshold of age 16.
4. At 44, the process of first parenthood is completed for the vast majority of people, even among men.
5. The probability of G1 parents remaining childless decreases exponentially with their number of children. For instance, if the probability of remaining childless is 11 percent for each child in G2 (Bachrach 1980), the probability of non-grandparenthood in G1 is 1.2 percent ($= 100 \times 0.112$) if G1 have two children, 0.1 percent ($= 100 \times 0.113$) if G1 have three children, and so on.
6. This correlation is much stronger than the respective correlation between age at parenthood and life expectancy (.31 for both men and women).

Figure A1. Survivor functions for the transition to grandparenthood (part I)

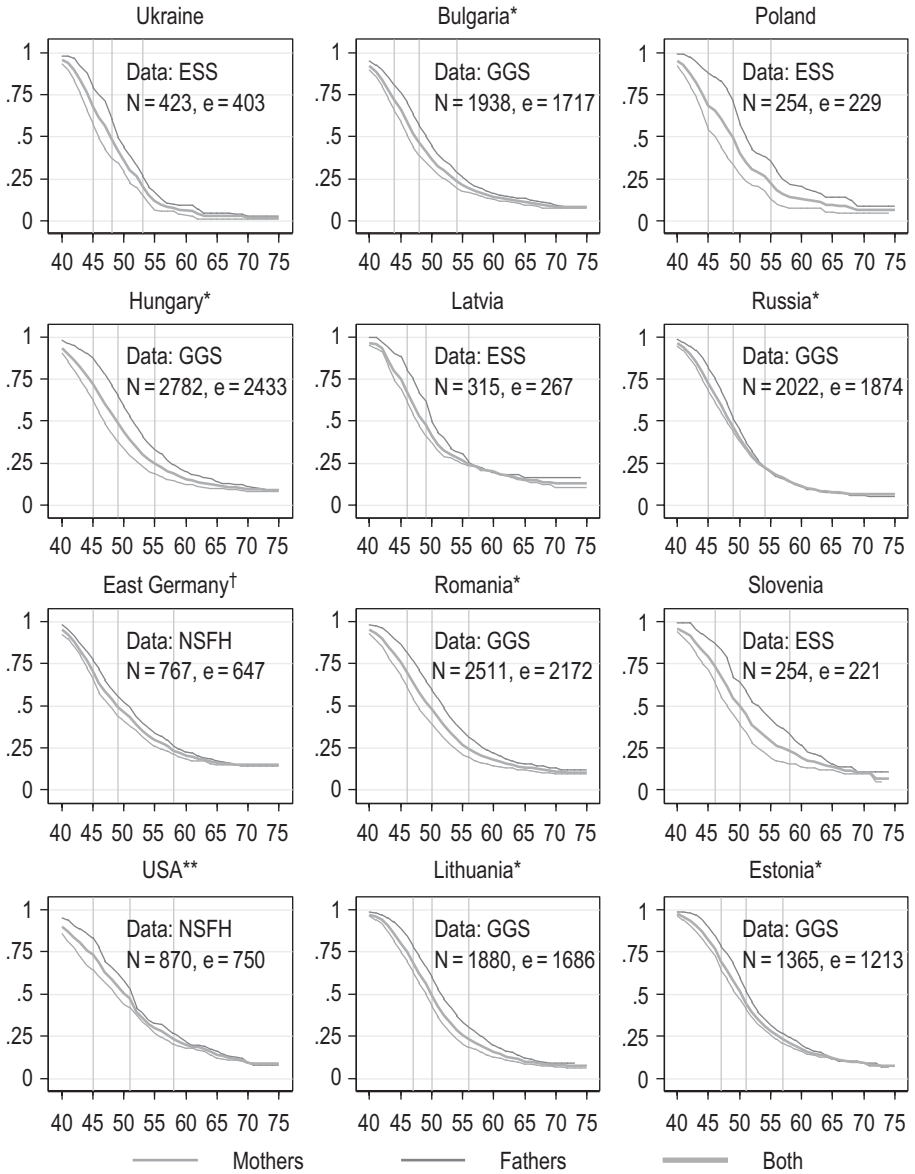
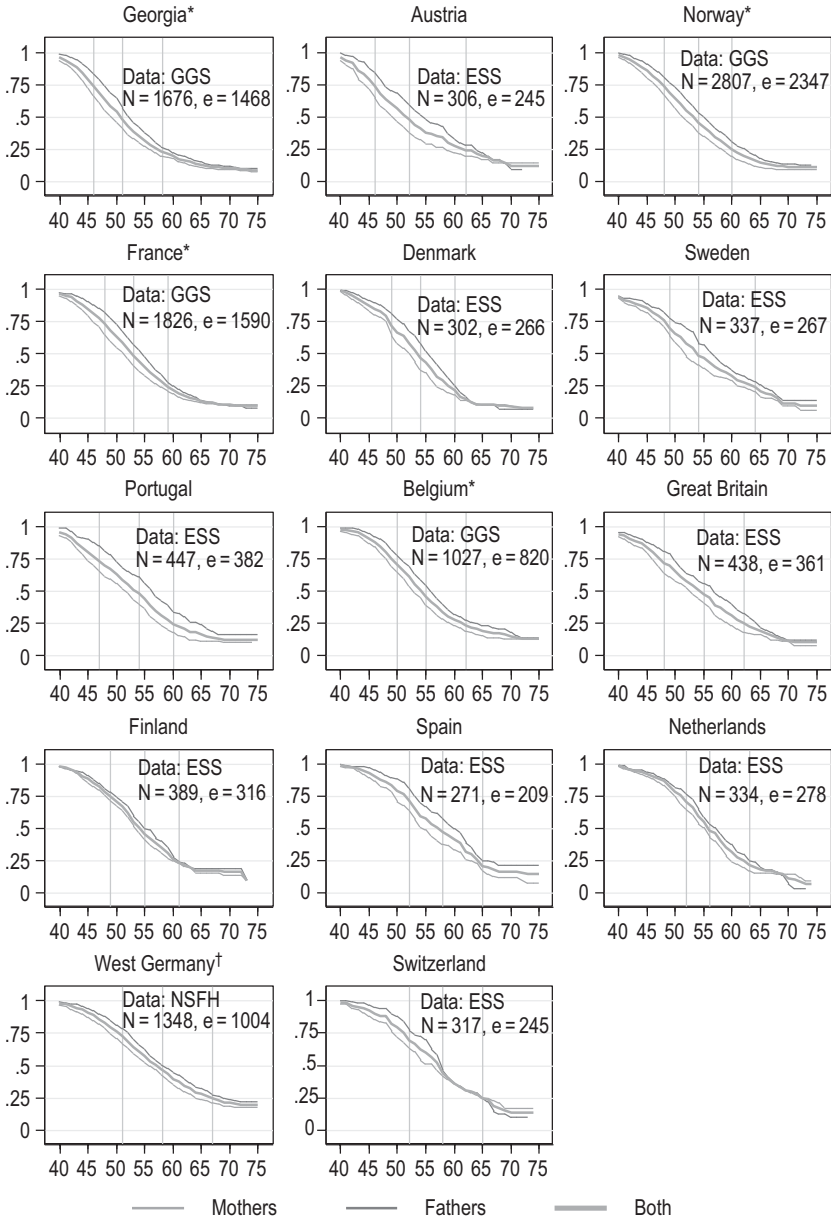
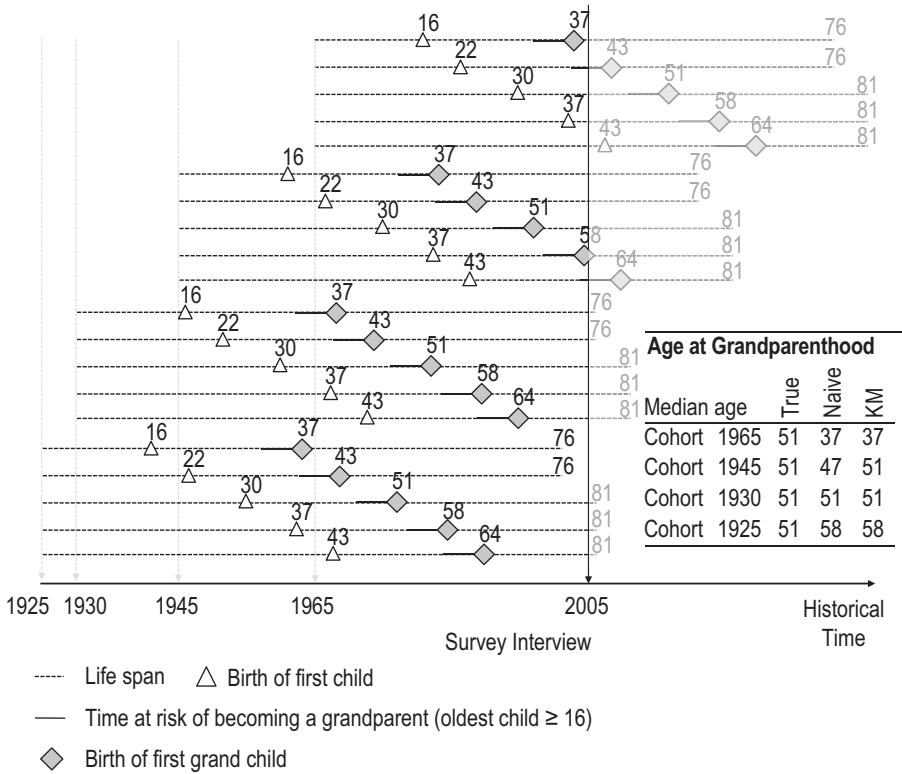


Figure A1. Survivor functions for the transition to grandparenthood (part II)



Note: N = Number of cases, e = number of events. Data are from Round 3 of the European Social Survey, Wave 1 of the Generations and Gender Survey (marked with *), Wave 3 of the German Ageing Survey (marked with †), and Wave 3 of the National Survey of Families and Households (marked with **). All data are weighted by country-specific design weights, except for Latvia (weights not available). NSFH weights are adjusted for panel attrition from Wave 1 to Wave 3. Samples comprise men aged 60 to 75 who had at least one child in reproductive age (16 and older) at the time of interview. Survivor functions plotted for mothers, fathers, and both (smoothed Kaplan-Meier estimates). Vertical lines indicate quartile ages (25%, 50%, 75%). Order of countries is ascending by median, first quartile, and third quartile age at grandparenthood.

Figure A2. Methodological rationale of sample construction



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