# Socioeconomic inequalities in grandparenting: new evidence from the English Longitudinal Study of Ageing 

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#### Abstract

Background and Objectives: It is well recognised that grandparents play a vital role in providing childcare to families. However, little is known about the nature and extent of care provided and whether more demanding/intensive involvement is associated with socioeconomic disadvantage. Research Design and Methods: This study is based on grandparents aged 50 and over from wave 8 of the nationally representative English Longitudinal Study of Ageing (2016/2017). We exploit newly collected information on activities grandparents undertake with or for their grandchildren, the extent of (periodicity and frequency) and motivations for such care to describe grandparents' role in family life. First, we estimated socio-economic and health characteristics associated with the provision of (any) grandchild care using a logistic model. Second, using multinomial logistic regressions, we examined the extent to which grandparents' involvement in childcare is socio-economically patterned. We run separate models for grandmothers and grandfathers.

Results: $61 \%$ of grandfathers and $69 \%$ of grandmothers looked after grandchildren in the preceding year, with about one third of grandmothers and a quarter of grandfathers reporting 2 or more days a week of grandchild care. Those providing more intensive care report supporting working parents as the main reason for such care; undertake more arduous caring tasks; and are more likely to be from disadvantaged backgrounds. Discussion and Implications: Grandparents who provide grandchild care more intensively are in worse socio-economic positions. Thus, greater attention needs to be paid to policies (such as provision of high-quality childcare) aiming at reducing inequalities in grandparenting while supporting working families.


Keywords: ELSA; grandmothers; grandfathers; grandchild care; activities

## Introduction

Interest in the role that grandparents play in family life has grown considerably over the last decades. This is in response to trends such as rising life expectancy which means it is now common for a child to grow up with living grandparents and even great grandparents (Murphy, 2011). Also, the rising percentage of mothers in paid work, and higher rates of divorce and relationship breakdown, mean that the role grandparents play in family life as providers of financial, emotional, and practical support has become increasingly important (Herlofson \& Hagestad, 2012). However, data from Europe and the US suggest that grandparents living in households with their grandchildren as well as those who have 'primary responsibility' for raising a grandchild are more likely to be socio-economically disadvantaged compared to other grandparents (Fuller-Thomson \& Minkler, 2001; Glaser et al., 2018; Hayslip, Fruhauf, \& Dolbin-MacNab, 2017). A recent study in Italy shows that it is mothers with the fewest resources who rely mostly on grandparents as their primary source of childcare (Arpino, Pronzato, \& Tavares, 2014). This has raised concerns that more intensive and demanding childcare tasks are falling disproportionately on grandparents with the fewest resources, and that this may exacerbate existing inequalities in later life. Yet, our understanding of the nature and extent of grandparental childcare (that is when grandparents look after grandchildren, how often, why, and what they do with them) and its association with socioeconomic inequalities remains limited.

Our study examines whether, and to what extent, grandparents' involvement in childcare is socio-economically patterned, using novel and recently collected data (first analysed here) from the 2016/17 English Longitudinal Study of Ageing (ELSA). New and robust evidence of inequalities in grandparenting is critical for policy makers to understand how to better support the role of grandparents in children's lives, and to address any potential implications of socio-economic differences in grandparental childcare for later life health and wellbeing.

## Background

A considerable body of work shows that around the globe grandparents are significant providers of grandchild care (Grundy et al., 2012; Knodel \& Nguyen, 2014; Ko \& Hank, 2013; Ku et al., 2013). In Europe, in 2004/05, $58 \%$ of grandmothers and $49 \%$ of the grandfathers looked after at least one of their grandchildren under the age of 16 (Hank \& Buber, 2009), with $12 \%$ providing care almost daily or at least 15 hours a week (Di Gessa, Glaser, \& Tinker, 2016). In China, about 58\% of grandparents cared for their grandchildren in 2008 (Ko \& Hank, 2013). In the US a quarter of pre-school children were regularly cared for by grandparents in 2011 (Laughlin, 2013).

Given widespread involvement of grandparents in grandchild care, research on this topic has thrived in recent decades. A number of recently published reviews have taken stock of the state of knowledge on the causes and consequences of custodial grandparenting (Choi, Sprang, \& Eslinger, 2016; Hayslip et al., 2017) and of grandparental childcare complementary to parental care (Aubel, 2012; Hank, Cavrini, Di Gessa, \& Tomassini, 2018; Pulgaron, Marchante, Agosto, Lebron, \& Delamater, 2016). Grandchild care has been considered an important factor in shaping both grandparents' as well as the middle-generation's (and mothers' in particular) participation in the labour market; in affecting grandchildren's educational attainment and well-being; and in influencing health and well-being of grandparents themselves (Aubel, 2012; Hank et al., 2018; Pulgaron et al., 2016).

Evidence on the association between current socio-economic inequalities and grandparental involvement is mixed and appears to depend on its intensity. In countries like the US, custodial grandparents (providers of primary care with legal responsibility for grandchildren) are more likely to be socio-economically disadvantaged in comparison to other grandparents (Fuller-Thomson \& Minkler, 2001; Minkler \& Fuller-Thomson, 2005; Swartz, 2009). In contrast, recent work from Europe suggests that grandparents who provide occasional as well as regular childcare (but who are not the primary caregivers) are more likely to be
financially better-off (Albertini, Kohli, \& Vogel, 2007; Glaser et al., 2013; Hank \& Buber, 2009). However, most of the latter studies were only able to consider limited and imprecise information about grandparenting which does not allow us to distinguish in finer detail the nature and extent of grandparental childcare. As highlighted by Hank et al. (2018), most surveys ignore what it is that grandparents do for their grandchildren and why. Moreover, most European studies have lumped together 'daily' and 'weekly' grandchild care masking possible socio-economic differences in grandparenting.

A more detailed picture of the activities grandparents undertake with their grandchildren, the intensity of care provided by grandparents to their grandchildren (that is its periodicity as well as frequency), and their motivations for such care could shed light on whether differences in grandparenting are determined by socio-economic disadvantage. For instance, more advantaged grandparents may undertake less arduous caring tasks, for shorter periods, and they may be motivated by personal satisfaction rather than by family necessity.

We still know little about the activities grandparents do with grandchildren, and whether it is those with fewer resources who carry out more demanding tasks. Some studies have recently analysed time-use diary data to examine the amount and activity composition of time children spend with their grandchildren. Dunifon, Near, and Ziol-Guest (2018), for instance, show that preschool-age children not coresiding with their grandparents spent more hours with their grandparents in 'care' (washing, getting dressed, or eating meals) and 'play' activities (such as sports, games, or arts) whereas those aged 6 and older spent more time in social and entertainment activities (including visiting people or going to the movie). However, these studies do not collect -by design -any information on grandparents and it is therefore not possible to investigate gender and socio-economic variations in grandparent roles.

Also, periodicity and frequency of care (that is when the care takes place and how often) have so far been unexplored in quantitative surveys and it remains unknown whether grandchild care is provided during weekdays or weekends, or during particular times of the
year (such as when the schools are closed for holidays). Even though surveys have so far assumed that grandchild care is uniformly distributed across the year, qualitative studies suggest that it reflects parents' working hours and school hours, with many grandparents looking after children particularly in the school holidays (Wheelock \& Jones, 2002). Knowing when, as well as how frequently, grandparents provide childcare could help understand to what extent grandparents' involvement is associated with parents' employment behaviours, as well as with availability of formal childcare, and could also shed light on whether better and worse off grandparents are similarly involved in different types of grandchild care.

Finally, the reasons driving grandparents' involvement in family life remain unknown. On the one hand, knowing this could strengthen some of the findings suggesting that grandchild care helps their offspring (and daughters in particular) work (Arpino et al., 2014; Di Gessa, Glaser, Price, Ribe, \& Tinker, 2016; Posadas \& Vidal-Fernandez, 2013). On the other hand, it could shed some light as to whether and to what extent grandparents' motivations for providing childcare are different according to socio-economic characteristics. For instance, the better off might do it mostly for voluntary reasons as opposed to those in poorer households who may feel obligated to do it due to financial restraints, which could then have implications for their quality of life, health, and well-being.

Taken together, our study -exploiting a new and bespoke battery of questions on grandparenting available from England -aims to better understand inequalities in grandparental provision of grandchild care. First, we aim to describe the periodicity and frequency of grandparental non-custodial childcare; the activities grandmothers and grandfather undertake for and with their grandchildren; and the reasons for their involvement. Then, we investigate variations in the intensity of grandparent-provided childcare by socio-economic characteristics to better understand if, for instance, more intensive and demanding grandchild care tasks fall disproportionately on those with the fewest resources and if this involvement is motivated by family necessity rather than by personal satisfaction.

## Design and Methods

## Study Population

We based our study on ELSA, an ongoing multidisciplinary longitudinal biennial survey of individuals aged 50 and over (Zaninotto \& Steptoe, 2019). In the first wave collected in $2002 / 03$, around 12,000 respondents were recruited to provide a representative sample of the population aged 50 and over living in private households in England (household response rate was 70\%). More details of the survey's sampling frame, methodology, and questionnaires have been reported elsewhere (www.elsa-project.ac.uk). Data was drawn from the eighth wave of the study, collected in 2016/17, based on 8,445 individual interviews. Analyses were restricted to respondents who had at least one grandchild under the age of 16 , resulting in an initial sample of 1,855 grandfathers and 2,373 grandmothers.

## Measures of grandchild care

All grandparents were asked whether they looked after any grandchildren without their parents being present during the 12 months prior to the interview. Those who reported to have looked after grandchildren were then asked a battery of questions on the periodicity of care (with categories including weekdays, weekends, school holidays, throughout the year, or difficult to say). For each of the categories selected, grandparents were asked to report the frequency. For instance, those who reported looking after grandchildren at weekends were asked if that was mostly 'every weekend', 'every other weekend', or 'less often'. Similarly, if a grandparent looked after grandchildren throughout the year or said that it was 'difficult to say', they were then asked if this had mostly been ' 4 to 7 days a week', ' 2 to 3 days a week', ' 1 day a week', 'up to a few days a month but not each week' or 'less often than once a month'. About $83 \%$ of grandparents selected only 1 category, with the remaining combining between two (9\%) and four options (4\%). For multivariate analyses, given that most grandparents reported looking after grandchildren throughout the year, we focused on frequency and selected the highest periodicity and frequency for those who selected more than one category. This
resulted in six types of grandparental childcare: (i) between 4 and 7 days a week; (ii) 2 to 3 days a week; (iii) 1 day a week; (iv) a few days a month; (v) at least one day a week on holidays; and (vi) less often than once a month. However, given the small number of cases in some categories, we combined respondents with similar levels of involvement. We grouped those who provided care only on holidays together with those who provided care less often than once a month and, for grandfathers only, we merged care provided ' 2 to 3 ' and ' 4 to 7 ' days a week.

Grandparents were also asked to provide information on the caring tasks undertaken when looking after grandchildren. The following activities were listed: having grandchildren stay overnight; caring for them when sick; playing with them and/or taking part in leisure activities; preparing meals for them; helping them with homework; taking them to (or collecting them from) the nursery or school; or just being around in case the grandchildren need them for anything. For each of the activities selected, grandparents were asked if they were involved frequently, occasionally, or rarely. In our final models, we distinguished between tasks performed frequently (or at least occasionally) versus those done less often or not selected at all. Finally, grandparents were asked to report the main reasons for looking after grandchildren, with options including financial (e.g. so that parents can go out to work or to help financially), voluntary (e.g. it keeps them young and engaged with young people), or involuntary motives (such as because it is difficult for them to refuse).

## Other covariates

In line with extensive previous studies investigating individual characteristics associated with grandparental childcare, we considered several grandparents' characteristics in our study (Di Gessa, Glaser, Price, et al., 2016; Fuller-Thomson \& Minkler, 2001; Hank \& Buber, 2009; Herlofson \& Hagestad, 2012). Continuous age was recoded into four categories ( 50 to 59,60 to $64 ; 65$ to 74 , and 75 and older). As indicators of socio-economic circumstances, we included education (no qualification; intermediate; higher); wealth; income; housing tenure (outright owners vs those who pay mortgage or rent); and employment status (in paid work vs
not in paid work). We also controlled for grandparents' marital status (married/cohabiting vs not married/cohabiting) and social participation (volunteered at least monthly vs less often). As indicators of health we included self-rated health ('fair or poor' versus better health); difficulties with basic activities of daily living (ADLs, none vs 1 or more) and mobility issues such as kneeling or walking (none vs 1 or more); depression using the 8 -item CES-D scale (with those who reported three or more symptoms classified as being 'depressed' (Steffick, 2000)); and cognition (tertiles of the scores on verbal fluency and on word recall). Lastly, we controlled for health behaviours such as smoking (whether or not a current smoker) and physical activity (vigorous once a week or more compared to less often).

We also included several children's and grandchild's characteristics (Aassve, Meroni, \& Pronzato, 2012; Di Gessa, Glaser, Price, et al., 2016; Herlofson \& Hagestad, 2012; Igel \& Szyklik, 2011). We included the total number and gender of children grandparents had (only sons, only daughters, or a mix of both); the average frequency of contacts with children and quality of the relationship with them (collected by a self-completion questionnaire completed by $85 \%$ of the sample); time to travel to their nearest grandchild (living in the same household; less than 15 minutes, between 15 and 30 minutes away; between 30 minutes and 1 hour away, and more than 1 hour away); the age of the youngest grandchild ( 0,1 to 2,3 to 5,6 to 10 , and 11 to 15 years); and the total number of grandchildren (1 only, 2 to 3,4 to 5 , or more than 6 ).

## Statistical Analyses

Our analyses of grandparental childcare consisted of two steps. In the first step, we used a logistic model to estimate the baseline demographic, socio-economic and health characteristics associated with the likelihood of providing (any) grandchild care. In the second step, we restricted the analyses to the grandparents providing childcare. Using multinomial logistic regression, we examined the characteristics, activities, and reasons associated with various levels of grandchild care provided (between 4 and 7 days a week; 2 to 3 days a week; 1 day a week; a few days a month; less often than once a month). We ran separate models for
grandmothers and grandfathers, acknowledging that grandparenting is a gendered experience carrying different gendered expectations of behaviours and responsibilities (Stelle, Fruhauf, Orel, \& Landry-Meyer, 2010; Waldrop et al., 1999). Due to small numbers in some categories, we grouped together some of the grandchildren's characteristics (i.e. we created fewer categories for indicators of proximity to children, number of grandchildren, and age of the youngest grandchild). We also included fewer health and socio-economic variables, and we combined some measures (such as the scores for verbal and memory cognition scores). All analyses were performed using Stata 15.

## Results

## Descriptive findings

Table 1 shows the descriptive characteristics of the sample. Approximately two thirds of grandparents provided some type of care for a grandchild aged 15 or younger, with a lower percentage of grandfathers (61\%) compared to grandmothers (69\%). If we focus on the periodicity and frequency of grandchild care and consider only those grandparents who provided any childcare (see Table 2), we can see that grandparent commitments are substantial. More than half ( $56 \%$ ) look after their grandchildren throughout the year; one in six also reported grandchild care on weekdays and at weekends during school term (which, in England, covers about 38 weeks of the year). About a quarter of grandparents reported grandchild care during school holidays, and only one in ten grandparents found it difficult to specify a period of the year in which they looked after a grandchild. When exploring the intensity of grandchild care within these periods, we notice that generally -for all periods considered -occasional care is more frequent than regular care. Overall, combining frequency and intensity (see bottom of Table 2), about one quarter of grandfathers and almost one third of grandmothers reported 2 or more days a week of grandchild care, with $9 \%$ of grandmothers looking after grandchildren almost daily. About one in six grandparents provided care to their grandchildren one day a
week, whereas about one in 20 did so regularly during the school holidays. About $29 \%$ of grandfathers and a quarter of grandmothers looked after grandchildren less often than a few days a month.

Our final descriptive analysis pertains to grandparents' activities and motivations for looking after young grandchildren (see Table 3). Whereas a clear gender difference emerges when activities are considered, motivations for care are quite similar for both genders. For all activities listed in the questionnaire, grandmothers reported doing them all frequently more often than grandfathers: for instance, almost half grandmother reported preparing meals for their grandchildren frequently compared to about $27 \%$ of grandfathers. As for motivations, the two most common reasons mentioned by both grandmothers and grandfathers were 'to help parents go to work' (65\%) and 'to give parents a break' (63\%). 'Preference for family care' and 'It is difficult to refuse' (two options which capture a feeling of obligation towards grandchild care) were mentioned as reasons for looking after grandchildren by about $20 \%$ of grandparents, though grandmothers were significantly more likely to report preference for family care than grandfathers.

## Multivariate findings

Table 4 shows results from the from logistic regression models which investigated cross-sectional associations between grandparents' and grandchildren's characteristics, and the likelihood of provision of (any) grandchild care. Older grandparents and those in low socioeconomic positions (i.e. in lowest income tertile and not homeowners) are less likely to provide any grandchild care. Although partnership status bears no significant association with grandmothers' likelihood to look after grandchildren, grandfathers who live without a partner are significantly less likely to provide grandchild care than those living with a partner, which suggests that some of the grandfather involvement is mediated through grandmothers' engagement in child care. Poor health is negatively associated with grandchild care provision, particularly among grandmothers for whom all health indicators considered were significantly
associated with their odds of providing care to their grandchildren. Grandparents with many children, those with only one grandchild, those whose youngest grandchild was aged 11 or older, and those whose grandchildren lived further away were less likely to provide any grandchild care. Grandmothers who only have daughters were more likely to care for their grandchildren compared to those who only have sons. Finally, analyses suggest that the higher the frequency of contacts with children, the more likely grandparents were to look after grandchildren.

Table 5 shows results from the multinomial models for both grandfathers and grandmothers. Results are presented for both genders simultaneously, highlighting differences where applicable. Compared to those who looked after grandchildren a few days a month, both grandfathers and grandmothers who from lower socio-economic groups were more likely to provide grandchild care for at least 2 days a week. Grandmothers not to be in paid work were also more likely to provide care almost daily (4 to 7 days a week), whereas those in paid work were more likely to look after grandchildren less often than a few days a month. As for grandparents' health, there were few variations with the intensity of care considered except for grandmothers reporting poor health who are more likely to provide daily care. When we considered grandchildren's characteristics, both grandmothers and grandfathers reported higher odds of providing grandchild care less often than monthly when their grandchildren were older than 6 , when it took longer to reach them, and when they had 4 or more grandchildren (among grandmothers only). Among grandmothers, there was an indication that higher intensity of care (that is, at least once a week) was associated with having daughters and daily care (4 to 7 days a week) was higher among respondents with only 1 grandchild and 1 child. Activities varied considerably across the various extent of grandchild care considered. Compared to those who provided care for a few days a month, grandparents who cared for their grandchildren more frequently were more likely to have prepared meals for them, to have taken them to/collected them from school, to have looked after them when sick (grandmothers only),
and to have had them stay overnight or just been around (grandfathers only). Finally, when motivations were considered, both grandmothers and grandfathers who report financial help and support to working parents were more likely to provide care more intensively, whereas those who report care so that parents could go out at night or have a break are less likely to care daily. Similar motivations were also voiced by those who provided care at least once a week compared to those who cared for their grandchildren a few days a month. Those who cared for their grandchildren less often were significantly less likely to mention that they provided care so that parents could go to work, because they could not say no (grandmothers) or so that parents could go out at night (grandfathers).

## Discussion and Implications

Grandparents play a significant role in family life, particularly those looking after grandchildren: it is therefore important to understand whether and to what extent inequalities in the provision of grandparental childcare exist. Using a suite of new questions on grandparenting that have been included in the most recent wave of the nationally representative English Longitudinal Study of Ageing, and analysed here for the first time, our aim was to understand the role of grandparents in family life and the contribution of grandparenting to socio-economic inequalities in ageing.

Our results show a high level of support in terms of both the prevalence and the intensity of childcare provided by grandparents, with almost two thirds of grandparents who looked after grandchildren under age 16 in the past year without their parents being present, similar to levels observed in other European countries such as Denmark and The Netherlands (Glaser et al., 2013; Hank \& Buber, 2009). More than half of grandparents who looked after grandchildren did so throughout the year; about one in five on weekdays and at weekends during school term, and about one in four during school holidays. When we considered the intensity of care, that is the number of days grandparents looked after grandchildren, grandmothers were generally more likely to provide intensive care in comparison to grandfathers, as is the case in other

European countries (Glaser et al., 2013; Hank \& Buber, 2009). About one third of grandmothers reported 2 or more days a week of grandchild care (with $9 \%$ providing care 4 to 7 days a week), compared to a third (and $6 \%$ ) of grandfathers respectively. We also found gender differences in the activities grandparents undertake for and with their grandchildren: grandmothers were more likely to undertake all the activities listed more frequently than grandfathers, with no indication that grandfathers engaged more frequently in 'play' activities while grandmothers were more involved in 'caring' activities as hypothesised by other studies (Dunifon et al., 2018; Gauthier, 2002). Finally, we found few gender differences in the motivations reported for providing grandchild care: two third of both grandmothers and grandfathers who looked after grandchildren did so to help parents go to work and to give them a break; one third to help financially; and about one in five felt they could not refuse.

When we further examined the socioeconomic and health characteristics as well as activities and reasons for care associated with different intensities of care, we found significant inequalities in grandparental childcare. Grandparents who are financially worse off are more likely to provide care intensively (that is more than 2 days a week for grandfathers and between 4 and 7 days for grandmothers). Grandmothers not in paid work and who reported poor health are also more likely to care for their grandchildren almost daily. Moreover, grandparents who frequently took (or collected) their grandchildren to (from) school, who cooked for them, cared for them when ill (grandmothers only) or had them stay overnight (grandfathers only) were more likely to look after them intensively. Grandparents who look after grandchildren to support parents financially or to help them go to work were also significantly more likely to care almost daily for their grandchildren.

Overall, in line with earlier studies, our findings show strong involvement of grandparents in family life as providers of grandchild care (Glaser et al., 2013; Hank \& Buber, 2009). Our results also demonstrate that grandparenting is patterned according to socioeconomic characteristic, with those providing more intensive grandchild care being socio-
economically disadvantaged compared to those who provide less frequent care. Our findings also show that most grandparents who help with grandchild care do so to support working parents. These findings mirror those reported by Arpino et al. (2014) who - investigating mothers rather than grandparents - found that it is mostly socio-economically disadvantaged mothers who rely on grandparents as primary sources of childcare. This is also supported by studies which found that it is working mothers who largely rely on grandparental support on an almost daily basis work, particularly where there is little formal childcare (Bordone, Arpino, \& Aassve, 2016; Di Gessa, Glaser, Price, et al., 2016). Thus, our findings suggest that intensive grandparenting is likely to be related to both the availability and affordability of formal childcare. In the UK, there is a substantial gap between the end of paid maternity leave and the availability of public childcare for children under three (Price, Ribe, Glaser, \& Di Gessa, 2018; Saraceno \& Keck, 2010). Moreover, only about one third of children under two years of age are in formal childcare, and most are there on a (very short) part-time basis, with $50 \%$ attending less than 14 hours a week and only $20 \%$ in full-time care (that is more than 30 hours per week) (Saraceno, 2011). It is also the case that childcare provision for children under school age in Britain is market rather than public based, with the recent growth in childcare places taking place largely in the private sector where costs vary considerably (Rutter, 2015). Furthermore, our results suggest that those grandmothers who provide intensive grandchild care to support working parents are themselves less likely to be in paid work, in line with Di Gessa, Glaser, Price, et al. (2016). Policies developed to address the issue of work/family balance (in the form of childcare services, parental leaves, and flexible working patterns) seem key to encourage both mothers to be in the labour market and older people to extend their working lives in the face of population aging.

## Strengths and limitations

We investigated associations between grandparenting and socio-economic characteristics using a large scale nationally representative survey of older people in England.

Our study also describes the activities grandparents undertake for and with their grandchildren as well as the motivations for grandchild care, using a new module on grandparenting that, to our knowledge, has not yet been analysed and which helps to describe more accurately the role grandparents play in family life.

Our analyses, however, also have some limitations. First, we acknowledge that the quality of the intergenerational relationship between parents and grandparents is also important to consider; however, ELSA only collects general information not specific to the (set of) parent(s) whose children are being looked after. Additionally, ELSA does not collect detailed information about the childcare provided to each grandchild, but rather asks a more generic question related to all grandchildren and 'all the time' spent looking after them. Although in our analyses we considered several grandchildren's characteristics (such as the age of the youngest grandchild and where the nearest grandchild lives), we do not know if that is the grandchild grandparents have in mind when they answered questions about provision of grandchild care. Moreover, although characteristics of parents and their employment status are important determinants of the need for grandparents as providers of childcare (e.g. (Di Gessa, Glaser, Price, et al., 2016; Hank \& Buber, 2009), information on parents' employment and employment patterns (such as full-/part-time work or night/weekend shifts) is not available in ELSA. Finally, ELSA does not collect information on the availability and use of formal childcare (particularly for those aged 6 and younger).

Our study, nonetheless, shows that grandparents play an important role in family life, with most grandparents looking after their grandchildren. However, grandparents who provide intensive grandchild care are more likely to be socio-economically disadvantaged and to undertake this activity to help parents financially and so that parents can work. If policy makers want to reduce social and financial inequalities in later life, more attention should be given to policies which better support the role of grandparents in children's lives, particularly for families in need.

## Tables

Table 1. Descriptive Sample Statistics

|  | Grandfathers | Grandmothers | Grandparents |
| :---: | :---: | :---: | :---: |
| Provision of grandchild care | 61.0 | 69.0 | 65.5 |
| Sociodemographic characteristics |  |  |  |
| 50-59 | 7.7 | 12.8 | 10.6 |
| 60-64 | 18.5 | 22.0 | 20.5 |
| 65-74 | 49.4 | 44.5 | 46.6 |
| 75 and older | 24.4 | 20.7 | 22.3 |
| In paid work | 24.7 | 22.2 | 23.3 |
| Living without partner | 20.8 | 35.3 | 28.9 |
| Education: high | 37.4 | 25.5 | 30.7 |
| Education: medium | 44.3 | 50.4 | 47.7 |
| Education: low | 18.3 | 24.1 | 21.6 |
| Outright home owners | 73.8 | 71.4 | 72.5 |
| Volunteered | 23.9 | 24.1 | 24.0 |
| Health characteristics |  |  |  |
| Smoker | 10.4 | 10.0 | 10.1 |
| Vigorous physical exercise | 43.7 | 32.4 | 37.3 |
| Self-rated health >= good | 73.3 | 73.9 | 73.6 |
| No ADL limitations | 83.8 | 82.8 | 83.2 |
| CES-D depressive symptoms < 4 | 91.2 | 85.1 | 87.8 |
| Mobility limitations < 3 | 77.4 | 66.3 | 71.1 |
| Children's \& Grandchildren's characteristics |  |  |  |
| Mean number of children | 2.62 | 2.63 | 2.63 |
| Only daughters | 24.0 | 21.5 | 22.6 |
| Only sons | 21.1 | 21.6 | 21.4 |
| Frequency of contact with children* (mean) | 12.42 | 14.06 | 13.34 |
| Quality of relationship with children* (mean) | 13.67 | 14.09 | 13.91 |
| Age youngest grandchild: 0 | 12.6 | 13.1 | 12.9 |
| 1-2 | 23.0 | 22.2 | 22.5 |
| 3-5 | 24.4 | 22.3 | 23.2 |
| 6-10 | 23.8 | 23.9 | 23.9 |
| 11-15 | 16.2 | 18.5 | 17.5 |
| Distance: Coresiding | 3.3 | 5.3 | 4.4 |
| Less than 15 minutes away | 41.2 | 41.4 | 41.3 |
| Between 15 and 30 minutes away | 20.0 | 21.8 | 21.0 |
| Between 30 minutes and 1hour | 11.6 | 10.0 | 10.7 |
| More than 1h away | 23.9 | 21.5 | 22.6 |
| Number of grandchildren: 1 only | 15.3 | 13.1 | 14.1 |
| 2/3 grandchildren | 36.1 | 33.6 | 34.7 |
| $4 / 5$ grandchildren | 24.0 | 24.6 | 24.3 |
| 6 or more grandchildren | 24.6 | 28.7 | 26.9 |
| Total number of respondents (N) | 1,855 | 2,373 | 4,228 |

Source: ELSA, Wave 8. Note: the questions denoted with an asterisk $\left(^{*}\right)$ are only asked in the selfcompletion questionnaire (with a response rate of $\sim 85 \%$ ). Authors' calculations

Table 2. Periodicity and Frequency of care, by gender

|  | Grandfathers | Grandmothers | All grandparents | P value |
| :---: | :---: | :---: | :---: | :---: |
|  | \% (n) | \% (n) | \% |  |
| During school terms on weekdays | 16.5 (186) | 19.3 (316) | 18.1 | 0.06 |
| 4 to 5 days a week | 7.0 (13) | 11.4 (36) | 9.8 |  |
| 2 to 3 days a week | 28.0 (52) | 34.6 (109) | 32.1 |  |
| 1 day a week | 31.2 (58) | 29.9 (94) | 30.3 |  |
| Less often than one day a week | 33.9 (63) | 24.1 (76) | 27.7 |  |
| During school term on weekends | 16.9 (191) | 17.3 (283) | 17.1 | 0.79 |
| Every weekend | 8.9 (17) | 11.7 (33) | 10.6 |  |
| Every other weekend | 12.0 (23) | 14.8 (42) | 13.7 |  |
| Less often | 79.1 (151) | 73.5 (208) | 75.7 |  |
| During school holidays | 26.9 (304) | 28.6 (468) | 27.9 | 0.34 |
| 4 to 7 days a week | 13.2 (40) | 14.8 (69) | 14.2 |  |
| 2 to 3 days a week | 21.4 (65) | 27.0 (126) | 24.8 |  |
| 1 day a week | 19.7 (60) | 17.0 (79) | 18.1 |  |
| Up to a few days a month | 21.4 (65) | 20.0 (93) | 20.5 |  |
| Less often than one day a month | 24.3 (74) | 21.2 (99) | 22.5 |  |
| Throughout the whole year | 54.9 (620) | 57.5 (941) | 56.4 | 0.18 |
| 4 to 7 days a week | 8.6 (53) | 12.1 (114) | 10.7 |  |
| 2 to 3 days a week | 24.2 (149) | 28.0 (263) | 26.5 |  |
| 1 day a week | 23.4 (144) | 20.2 (190) | 21.5 |  |
| Up to a few days a month | 28.7 (177) | 25.7 (241) | 26.9 |  |
| Less often than one day a month | 15.1 (93) | 14.0 (131) | 12.4 |  |
| Difficult to say | 11.2 (127) | 9.6 (157) | 10.3 | 0.16 |
| 4 to 7 days a week | 3.2 (4) | 3.2 (5) | 3.2 |  |
| 2 to 3 days a week | 6.3 (8) | 5.1 (8) | 5.6 |  |
| 1 day a week | 7.9 (10) | 12.1 (19) | 10.2 |  |
| Up to a few days a month | 22.8 (29) | 28.0 (44) | 25.7 |  |
| Less often than one day a month | 59.8 (76) | 51.6 (81) | 55.3 |  |
|  |  |  |  |  |
| 4 to 7 days a week | 6.0 (68) | 9.0 (147) | 7.8 | <0.01 |
| 2 to 3 days a week | 18.3 (206) | 22.1 (361) | 20.5 |  |
| 1 day a week | 17.6 (198) | 16.7 (272) | 17.0 |  |
| A few days a month | 23.8 (268) | 22.1 (361) | 22.8 |  |
| Regularly on holidays | 5.5 (62) | 5.4 (88) | 26.4 |  |
| Less often | 28.8 (325) | 24.8 (405) | 5.4 |  |
|  | 1,127 | 1,634 | 2,761 |  |

Source: ELSA, Wave 8. Authors' calculations

Table 3 Frequent activities and motivations for grandchild care, by gender

| FREQUENT ACTIVITIES | Grandfathers | Grandmothers | Total | P Value |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Leisure activities/ played with GC | $36.8(416)$ | $43.5(713)$ | 40.8 | $<0.001$ |  |
| Prepared meal for grandchild(ren) | $27.4(310)$ | $48.2(789)$ | 39.7 | $<0.001$ |  |
| Just around in case they need me | $28.6(324)$ | $38.6(632)$ | 34.5 | $<0.001$ |  |
| Taken to/ collected from nursery/ <br> playgroup/ school | $21.3(241)$ | $28.4(464)$ | 25.5 | $<0.001$ |  |
| Stay overnight without their parents | $12.7(144)$ | $17.6(288)$ | 15.6 | $<0.001$ |  |
| Helped with their homework | $10.0(113)$ | $14.5(237)$ | 12.6 | $<0.001$ |  |
| Looked after them when ill | $3.7(42)$ | $4.8(78)$ | 4.3 | $<0.001$ |  |
|  |  |  |  |  |  |
| MOTIVATIONS | Grandfathers | Grandmothers | Total | P Value |  |
| To help their parents to go to work | $63.7(720)$ | $65.6(1,076)$ | 64.9 | 0.272 |  |
| To give their parents a break | $63.8(721)$ | $62.5(1,023)$ | 63.0 | 0.488 |  |
| So their parents can go out at night | $53.5(605)$ | $54.3(889)$ | 53.9 | 0.685 |  |
| It keeps me young and active | $39.9(451)$ | $48.5(795)$ | 45.0 | $<0.001$ |  |
| To help them develop as people | $44.3(501)$ | $41.8(685)$ | 42.8 | 0.195 |  |
| I feel engaged with young people | $31.5(356)$ | $34.9(572)$ | 33.5 | 0.059 |  |
| To help out financially | $30.3(343)$ | $33.1(542)$ | 32.0 | 0.126 |  |
| To give my grandchild(ren) a break | $28.2(319)$ | $29.8(488)$ | 29.1 | 0.366 |  |
| Our family prefers family care | $18.7(212)$ | $25.4(416)$ | 22.7 | $<0.001$ |  |
| It is difficult for me to refuse | $17.0(192)$ | $17.5(286)$ | 17.3 | 0.740 |  |
|  | 1,131 | 1,638 |  |  |  |

Source: ELSA, Wave 8. Note: both activities and motivations are sorted in ascending order. Authors' calculations

Table 4. Logistic Models for the Provision of "Any Grandchild Care"

| Characteristics | Grandfathers | Grandmothers |
| :---: | :---: | :---: |
| 60-64 ${ }^{\text {a }}$ | 0.81 (0.53; 1.40) | 1.10 (0.73; 1.65) |
| 65-74 ${ }^{\text {a }}$ | 1.12 (0.69; 1.79) | 0.87 (0.57; 1.31) |
| 75 and older ${ }^{\text {a }}$ | 0.64 (0.37; 1.01) | 0.29 *** (0.18; 0.46) |
| Not in paid work ${ }^{\text {b }}$ | 1.26 (0.91; 1.74) | 1.02 (0.73; 1.42) |
| Living without partner ${ }^{\text {c }}$ | 0.39 *** (0.30; 0.51) | 1.05 (0.83; 1.34) |
| Education: low ${ }^{\text {d }}$ | 0.79 (0.59; 1.07) | 0.91 (0.71; 1.18) |
| Income: middle tertile ${ }^{\text {e }}$ | 0.75 (0.56; 1.01) | 0.82 (0.61; 1.10) |
| Income: lowest tertile ${ }^{\text {e }}$ | 0.57 *** (0.42; 0.78) | 0.66 ** (0.48; 0.91 ) |
| Wealth: middle tertile ${ }^{\text {f }}$ | 0.87 (0.65; 1.16) | 0.92 (0.66; 1.28) |
| Wealth: lowest tertile ${ }^{f}$ | 0.85 (0.61; 1.18) | 0.83 (0.62; 1.10) |
| Not outright home owner ${ }^{\text {g }}$ | 0.65 *** (0.49; 0.87) | 0.72 ** (0.55; 0.95) |
| Volunteered ${ }^{\text {h }}$ | 0.80 (0.61; 1.05) | 0.65 *** (0.48; 0.83) |
| Smoker ${ }^{\text {i }}$ | 1.07 (0.59; 0.97) | 0.76 (0.53; 1.08) |
| No vigorous physical exercise ${ }^{\text {j }}$ | 0.76 ** (0.59; 0.97) | 0.95 (0.73; 1.22) |
| Poor SRH ${ }^{\text {k }}$ | 0.78 (0.58; 1.05) | 0.63 *** (0.48; 0.82) |
| 1+ ADL limitations ${ }^{1}$ | 1.01 (0.68; 1.60) | 0.73 ** (0.54; 0.99) |
| Depressed ${ }^{\text {m }}$ | 1.05 (0.68; 1.61) | 0.64 *** (0.47; 0.86) |
| Lowest memory tertile ${ }^{\mathrm{n}}$ | 0.57 *** (0.44; 0.75) | 0.61 *** (0.47; 0.77) |
| Lowest fluency tertile ${ }^{\circ}$ | 0.85 (0.67; 1.08) | 0.64 *** (0.51; 0.80) |
| $3+$ mobility limitations ${ }^{p}$ | 0.73 (0.52; 1.03) | 0.72 ** (0.55; 0.94) |
| Number of children: $2^{\text {q }}$ | 0.96 (0.65; 1.39) | 0.80 (0.55; 1.15) |
| 3 or more ${ }^{\text {q }}$ | 0.57 *** (0.37; 0.86) | 0.70 (0.46; 1.06) |
| Sons and daughters ${ }^{\text {r }}$ | 1.03 (0.75; 1.41) | 1.16 (0.86; 1.57) |
| Only daughters ${ }^{\text {r }}$ | 1.15 (0.82; 1.61) | 1.47 ** (1.05; 2.05) |
| Age youngest grandchild (0) ${ }^{\text {s }}$ | 0.71 (0.49; 1.04) | 0.74 (0.50; 1.08) |
| 3-5 ${ }^{\text {s }}$ | 1.24 (0.89; 1.73) | 0.93 (0.67; 1.30) |
| 6-10 ${ }^{\text {s }}$ | 0.94 (0.67; 1.31) | 0.98 (0.71; 1.37) |
| $11-15{ }^{\text {s }}$ | 0.38 *** (0.26; 0.55) | 0.29 *** (0.20; 0.41) |
| Distance: Coresiding ${ }^{\text {t }}$ | 1.10 (0.59; 2.05) | 1.08 (0.64; 1.81) |
| Between 15 and 30 minutes ${ }^{\text {t }}$ | 0.75 (0.55; 1.02) | 0.73 ** (0.54; 0.97) |
| Between 30 minutes and 1 hour ${ }^{\text {t }}$ | 0.37 *** (0.26; 0.53) | 0.42 *** (0.29; 0.61) |
| More than 1 hour away ${ }^{\text {t }}$ | 0.20 *** (0.15; 0.27) | $0.16^{* * *}(0.12 ; 0.21)$ |
| N of grandchildren: 1 only ${ }^{\text {u }}$ | 0.61 *** (0.43; 0.85) | 0.65 ** (0.46; 0.92) |
| $4 / 5$ grandchildren ${ }^{\text {a }}$ | 0.97 (0.71; 1.31) | 0.86 (0.64; 1.16) |
| 6 or more grandchildren ${ }^{\text {u }}$ | 0.77 (0.55; 1.06) | 0.74 (0.53; 1.01) |
| Quality of relationships with children | 1.01 (0.97; 1.06) | 1.04 ** (1.00; 1.08) |
| Frequency of contact with children | 1.10 *** (1.07; 1.13) | 1.10 *** (1.07; 1.13) |
| N of respondents | 1,855 | 2,373 |

Source: ELSA, Wave 8. Reference categories: a) 50-59; b) In paid work; c) Living with a partner; d) Intermediate/Higher Education; e) In the highest income; f) In the highest wealth tertile; g) Owns home outright;
h) Did not volunteer at least monthly; i) Smoker; j) vigorous exercise once a week; k) Self-Rated Health (SRH) $>=$ good; 1) No ADL limitations; m) Not Depressed; n) Not in the lowest memory tertile; o) Not in the lowest fluency tertile; p) Less than 3 mobility limitations; q) 1 child; r) Only sons; s) 1-2; t) Less than 15 minutes away; u) $2 / 3$ grandchildren. NOTE: the last two rows refer to the restricted sample of those who respondents to the selfcompletion questionnaire. $* * \mathrm{p}<0.05$. $* * * \mathrm{p}<0.01$. Authors' calculations.

TABLE 5. Multinomial logistic regression models for various levels of grandparental childcare

|  | Grandfathers |  |  | Grandmothers |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { 2+ days/ } \\ \text { week } \end{gathered}$ | 1 day/ week | Less often | $\begin{array}{\|c} \hline 4 \text { to } 7 \\ \text { days/ week } \\ \hline \end{array}$ | $\begin{gathered} 2 \text { to } 3 \\ \text { days/ week } \end{gathered}$ | 1 day/ week | Less often |
|  | RRR | RRR | RRR | RRR | RRR | RRR | RRR |
| 65-74 ${ }^{\text {a }}$ | $\begin{gathered} 2.05 * * \\ (1.18 ; 3.56) \end{gathered}$ | $\begin{gathered} 1.50 \\ (0.87 ; 2.60) \end{gathered}$ | $\begin{gathered} 1.06 \\ (0.68 ; 1.68) \end{gathered}$ | $\begin{gathered} 1.08 \\ (0.62 ; 1.90) \end{gathered}$ | $\begin{gathered} 1.47 \\ (0.96 ; 2.25) \\ \hline \end{gathered}$ | $\begin{gathered} 0.93 \\ (0.60 ; 1.43) \end{gathered}$ | $\begin{gathered} 1.29 \\ (0.87 ; 1.92) \end{gathered}$ |
| $75+{ }^{\text {a }}$ | $\begin{gathered} 1.27 \\ (0.60 ; 2.71) \end{gathered}$ | $\begin{gathered} 1.06 \\ (0.50 ; 2.24) \\ \hline \end{gathered}$ | $\begin{gathered} 1.01 \\ (0.53 ; 1.83) \\ \hline \end{gathered}$ | $\begin{gathered} 0.51 \\ (0.20,1.27) \end{gathered}$ | $\begin{gathered} 0.87 \\ (0.45 ; 1.71) \\ \hline \end{gathered}$ | $\begin{gathered} 0.65 \\ (0.33 ; 1.28) \\ \hline \end{gathered}$ | $\begin{gathered} 0.96 \\ (0.56 ; 1.67) \\ \hline \end{gathered}$ |
| Not in paid work ${ }^{\text {b }}$ | $\begin{gathered} 1.48 \\ (0.85 ; 2.56) \\ \hline \end{gathered}$ | $\begin{gathered} 1.37 \\ (0.79 ; 2.36) \\ \hline \end{gathered}$ | $\begin{gathered} 1.22 \\ (0.78 ; 1.92) \\ \hline \end{gathered}$ | $\begin{gathered} 1.78 * * \\ (1.02 ; 3.29) \end{gathered}$ | $\begin{gathered} 1.08 \\ (0.69 ; 1.70) \\ \hline \end{gathered}$ | $\begin{gathered} 1.16 \\ (0.73 ; 1.84) \\ \hline \end{gathered}$ | $\begin{gathered} 0.54 * * * \\ (0.35 ; 0.82) \\ \hline \end{gathered}$ |
| Living without partner ${ }^{\text {c }}$ | $\begin{gathered} 1.13 \\ (0.63 ; 2.01) \\ \hline \end{gathered}$ | $\begin{gathered} 0.83 \\ (0.45 ; 1.54) \\ \hline \end{gathered}$ | $\begin{gathered} 0.80 \\ (0.48 ; 1.32) \\ \hline \end{gathered}$ | $\begin{gathered} 1.45 \\ (0.89 ; 2.34) \\ \hline \end{gathered}$ | $\begin{gathered} 0.85 \\ (0.57 ; 1.25) \\ \hline \end{gathered}$ | $\begin{gathered} 1.17 \\ (0.78 ; 1.74) \\ \hline \end{gathered}$ | $\begin{gathered} 0.82 \\ (0.58 ; 1.16) \\ \hline \end{gathered}$ |
| Education Low ${ }^{\text {d }}$ | $\begin{gathered} 1.12 \\ (0.62 ; 2.03) \\ \hline \end{gathered}$ | $\begin{gathered} 0.77 \\ (0.40 ; 1.45) \\ \hline \end{gathered}$ | $\begin{gathered} 0.94 \\ (0.55 ; 1.59) \\ \hline \end{gathered}$ | $\begin{gathered} 1.07 \\ (0.61 ; 1.90) \\ \hline \end{gathered}$ | $\begin{gathered} 1.03 \\ (0.66 ; 1.63) \\ \hline \end{gathered}$ | $\begin{gathered} 0.73 \\ (0.45 ; 1.20) \\ \hline \end{gathered}$ | $\begin{gathered} 1.10 \\ (0.73 ; 1.64) \\ \hline \end{gathered}$ |
| Not in highest income tertile ${ }^{\text {e }}$ | $\begin{gathered} 1.57 * * \\ (1.03 ; 2.52) \end{gathered}$ | $\begin{gathered} 1.40 \\ (0.88 ; 2.22) \end{gathered}$ | $\begin{gathered} 0.93 \\ (0.62 ; 1.38) \end{gathered}$ | $\begin{gathered} 1.29 \\ (0.75 ; 2.22) \end{gathered}$ | $\begin{gathered} 1.59 * * \\ (1.07 ; 2.34) \end{gathered}$ | $\begin{gathered} 1.31 \\ (0.88 ; 1.95) \end{gathered}$ | $\begin{gathered} 1.31 \\ (0.93 ; 1.86) \end{gathered}$ |
| Wealth: middle tertile ${ }^{\text {f }}$ | $\begin{gathered} 0.97 \\ (0.55 ; 1.70) \end{gathered}$ | $\begin{gathered} 0.99 \\ (0.60 ; 1.61) \end{gathered}$ | $\begin{gathered} 0.91 \\ (0.59 ; 1.39) \end{gathered}$ | $\begin{gathered} 1.72 \\ (0.95 ; 3.17) \end{gathered}$ | $\begin{gathered} 1.50 \\ (0.91 ; 2.48) \end{gathered}$ | $\begin{gathered} 1.11 \\ (0.66 ; 1.88) \end{gathered}$ | $\begin{gathered} 1.13 \\ (0.78 ; 1.64) \end{gathered}$ |
| Wealth: lowest tertile ${ }^{\text {f }}$ | $\begin{gathered} 1.35 \\ (0.82 ; 2.22) \\ \hline \end{gathered}$ | $\begin{gathered} 0.78 \\ (0.60 ; 1.62) \\ \hline \end{gathered}$ | $\begin{gathered} 0.71 \\ (0.43 ; 1.17) \\ \hline \end{gathered}$ | $\begin{gathered} 3.17 \text { *** } \\ (1.58 ; 6.31) \\ \hline \end{gathered}$ | $\begin{gathered} 1.51 * * \\ (1.01 ; 2.29) \\ \hline \end{gathered}$ | $\begin{gathered} 1.29 \\ (0.84 ; 1.98) \\ \hline \end{gathered}$ | $\begin{gathered} 1.07 \\ (0.69 ; 1.66) \\ \hline \end{gathered}$ |
| Did not volunteer ${ }^{\text {g }}$ | $\begin{gathered} 1.37 \\ (0.83 ; 2.25) \\ \hline \end{gathered}$ | $\begin{gathered} 0.77 \\ (0.47 ; 1.21) \\ \hline \end{gathered}$ | $\begin{gathered} 1.10 \\ (0.74 ; 1.65) \end{gathered}$ | $\begin{gathered} 1.10 \\ (0.63 ; 1.92) \end{gathered}$ | $\begin{gathered} 1.29 \\ (0.86 ; 1.93) \\ \hline \end{gathered}$ | $\begin{gathered} 0.86 \\ (0.58 ; 1.28) \\ \hline \end{gathered}$ | $\begin{gathered} 0.91 \\ (0.65 ; 1.28) \end{gathered}$ |
| Poor SRH ${ }^{\text {h }}$ | $\begin{gathered} 1.31 \\ (0.77 ; 2.24) \\ \hline \end{gathered}$ | $\begin{gathered} 1.57 \\ (0.90 ; 2.71) \\ \hline \end{gathered}$ | $\begin{gathered} 1.56^{*} \\ (0.97 ; 2.50) \\ \hline \end{gathered}$ | $\begin{gathered} 2.14 * * * \\ (1.22 ; 3.73) \end{gathered}$ | $\begin{gathered} 1.37 \\ (0.86 ; 2.18) \\ \hline \end{gathered}$ | $\begin{gathered} 1.46 \\ (0.90 ; 2.34) \\ \hline \end{gathered}$ | $\begin{gathered} 1.02 \\ (0.67 ; 1.54) \\ \hline \end{gathered}$ |
| Lowest cognition quartile ${ }^{\text {i }}$ | $\begin{gathered} 1.45 \\ (0.90 ; 1.32) \\ \hline \end{gathered}$ | $\begin{gathered} 1.27 \\ (0.78 ; 2.04) \\ \hline \end{gathered}$ | $\begin{gathered} 1.20 \\ (0.79 ; 1.81) \\ \hline \end{gathered}$ | $\begin{gathered} 1.41 \\ (0.84 ; 2.37) \\ \hline \end{gathered}$ | $\begin{gathered} 1.02 \\ (0.67 ; 1.55) \\ \hline \end{gathered}$ | $\begin{gathered} 1.04 \\ (0.66 ; 1.61) \\ \hline \end{gathered}$ | $\begin{gathered} 1.31 \\ (0.90 ; 1.90) \\ \hline \end{gathered}$ |
| Age youngest grandchild 3-5 ${ }^{1}$ | $\begin{gathered} 0.86 \\ (0.51 ; 1.44) \\ \hline \end{gathered}$ | $\begin{gathered} 1.05 \\ (0.81 ; 1.53) \\ \hline \end{gathered}$ | $\begin{gathered} 1.38 \\ (0.89 ; 2.13) \\ \hline \end{gathered}$ | $\begin{gathered} 1.47 \\ (0.80 ; 2.68) \\ \hline \end{gathered}$ | $\begin{gathered} 0.81 \\ (0.52 ; 1.26) \\ \hline \end{gathered}$ | $\begin{gathered} 1.35 \\ (0.86 ; 2.11) \\ \hline \end{gathered}$ | $\begin{gathered} 1.41 \\ (0.93 ; 2.11) \\ \hline \end{gathered}$ |
| 6-15 ${ }^{1}$ | $\begin{gathered} 0.75 \\ (0.45 ; 1.26) \\ \hline \end{gathered}$ | $\begin{gathered} 0.88 \\ (0.52 ; 1.47) \\ \hline \end{gathered}$ | $\begin{gathered} 1.62 * * \\ (1.03 ; 2.54) \\ \hline \end{gathered}$ | $\begin{gathered} 1.52 \\ (0.84 ; 2.72) \\ \hline \end{gathered}$ | $\begin{gathered} 0.51 * * * \\ (0.33 ; 0.78) \\ \hline \end{gathered}$ | $\begin{gathered} 0.78 \\ (0.50 ; 1.23) \\ \hline \end{gathered}$ | $\begin{gathered} 1.89 \text { *** } \\ (1.30 ; 2.77) \\ \hline \end{gathered}$ |
| Distance between 15 and $30 \mathrm{~m}^{\mathrm{m}}$ | $\begin{gathered} 0.63 * * \\ (0.38 ; 1.00) \end{gathered}$ | $\begin{gathered} 0.54 * * \\ (0.33 ; 0.91) \end{gathered}$ | $\begin{gathered} 1.29 \\ (0.83 ; 2.02) \end{gathered}$ | $\begin{gathered} 0.37 * * * \\ (0.20 ; 0.67) \end{gathered}$ | $\begin{gathered} 0.69 \\ (0.46 ; 1.05) \\ \hline \end{gathered}$ | $\begin{gathered} 0.74 \\ (0.48 ; 1.13) \\ \hline \end{gathered}$ | $\begin{gathered} 1.16 \\ (0.79 ; 1.70) \\ \hline \end{gathered}$ |
| More than 30m away ${ }^{\text {m }}$ | $\begin{gathered} 0.20 \text { *** } \\ (0.11 ; 0.36) \end{gathered}$ | $\begin{gathered} 0.25 \text { *** } \\ (0.14 ; 0.44) \end{gathered}$ | $\begin{gathered} 1.94 * * * \\ (1.27 ; 2.99) \end{gathered}$ | $\begin{gathered} 0.32 * * * \\ (0.15 ; 0.68) \end{gathered}$ | $\begin{gathered} 0.41 * * * \\ (0.25 ; 0.66) \end{gathered}$ | $\begin{gathered} 0.48 \text { *** } \\ (0.29 ; 0.78) \end{gathered}$ | $\begin{gathered} 2.47 * * * \\ (1.71 ; 3.58) \end{gathered}$ |
| N of grandchildren: 1 only ${ }^{\text {n }}$ | $\begin{gathered} 1.33 \\ (0.70 ; 2.54) \end{gathered}$ | $\begin{gathered} 0.77 \\ (0.40 ; 1.49) \end{gathered}$ | $\begin{gathered} 0.71 \\ (0.41 ; 1.22) \end{gathered}$ | $\begin{gathered} 2.80 \text { *** } \\ (1.38 ; 5.67) \end{gathered}$ | $\begin{gathered} 1.38 \\ (0.79 ; 2.40) \end{gathered}$ | $\begin{gathered} 0.87 \\ (0.49 ; 1.56) \end{gathered}$ | $\begin{gathered} 1.10 \\ (0.67 ; 1.79) \end{gathered}$ |
| 4 or more grandchildren ${ }^{\text {n }}$ | $\begin{gathered} 0.79 \\ (0.49 ; 1.27) \\ \hline \end{gathered}$ | $\begin{gathered} 0.58 * * \\ (0.36 ; 0.92) \\ \hline \end{gathered}$ | $\begin{gathered} 1.02 \\ (0.67 ; 1.53) \\ \hline \end{gathered}$ | $\begin{gathered} 1.03 \\ (0.59 ; 1.77) \\ \hline \end{gathered}$ | $\begin{gathered} 0.74 \\ (0.49 ; 1.10) \\ \hline \end{gathered}$ | $\begin{gathered} 0.72 \\ (0.48 ; 1.09) \\ \hline \end{gathered}$ | $\begin{gathered} 1.47 * * \\ (1.02 ; 2.10) \end{gathered}$ |
| Has at least 1 daughter ${ }^{\circ}$ | $\begin{gathered} 1.19 \\ (0.71 ; 1.98) \\ \hline \end{gathered}$ | $\begin{gathered} 0.99 \\ (0.60 ; 1.62) \\ \hline \end{gathered}$ | $\begin{gathered} 0.96 \\ (0.63 ; 1.46) \\ \hline \end{gathered}$ | $\begin{gathered} 1.37 \\ (0.65 ; 2.49) \\ \hline \end{gathered}$ | $\begin{gathered} 1.63^{* *} \\ (1.02 ; 2.64) \end{gathered}$ | $\begin{gathered} 1.74 * * \\ (1.04 ; 2.92) \end{gathered}$ | $\begin{gathered} 1.30 \\ (0.90 ; 1.88) \\ \hline \end{gathered}$ |
| Number of children | $\begin{gathered} 0.88 \\ (0.74 ; 1.06) \\ \hline \end{gathered}$ | $\begin{gathered} 0.94 \\ (0.78 ; 1.13) \\ \hline \end{gathered}$ | $\begin{gathered} 0.98 \\ (0.85 ; 1.14) \\ \hline \end{gathered}$ | $\begin{gathered} 0.81 * * \\ (0.62 ; 0.98) \\ \hline \end{gathered}$ | $\begin{gathered} 0.88 \\ (0.75 ; 1.03) \\ \hline \end{gathered}$ | $\begin{gathered} 0.82 * * \\ (0.69 ; 0.96) \\ \hline \end{gathered}$ | $\begin{gathered} 0.92 \\ (0.81 ; 1.06) \\ \hline \end{gathered}$ |
| Stay overnight ${ }^{[+]}$ | $\begin{gathered} 1.75 * * \\ (1.11 ; 2.74) \end{gathered}$ | $\begin{gathered} 1.27 \\ (0.81 ; 1.97) \end{gathered}$ | $\begin{gathered} 0.98 \\ (0.67 ; 1.45) \end{gathered}$ | $\begin{gathered} 1.33 \\ (0.79 ; 2.24) \end{gathered}$ | $\begin{gathered} 1.21 \\ (0.83 ; 1.77) \end{gathered}$ | $\begin{gathered} 0.96 \\ (0.65 ; 1.41) \end{gathered}$ | $\begin{gathered} 0.85 \\ (0.60 ; 1.18) \end{gathered}$ |
| Looked after them when $\operatorname{ill}^{[+]}$ | $\begin{gathered} 1.44 \\ (0.85 ; 2.43) \\ \hline \end{gathered}$ | $\begin{gathered} 0.83 \\ (0.48 ; 1.52) \\ \hline \end{gathered}$ | $\begin{gathered} 0.73 \\ (0.41 ; 1.27) \\ \hline \end{gathered}$ | $\begin{gathered} 1.86 * * \\ (1.17 ; 3.10) \end{gathered}$ | $\begin{gathered} 1.18 \\ (0.78 ; 1.76) \\ \hline \end{gathered}$ | $\begin{gathered} 0.96 \\ (0.63 ; 1.47) \\ \hline \end{gathered}$ | $\begin{gathered} 0.55 * * * \\ (0.36 ; 0.85) \end{gathered}$ |
| Leisure activities | $\begin{gathered} 1.46 \\ (0.90 ; 2.37) \\ \hline \end{gathered}$ | $\begin{gathered} 1.60 \\ (0.99 ; 2.60) \\ \hline \end{gathered}$ | $\begin{gathered} 0.57 * * \\ (0.36 ; 0.91) \\ \hline \end{gathered}$ | $\begin{gathered} 0.73 \\ (0.42 ; 1.27) \\ \hline \end{gathered}$ | $\begin{gathered} 0.97 \\ (0.63 ; 1.48) \\ \hline \end{gathered}$ | $\begin{gathered} 1.14 \\ (0.73 ; 1.78) \\ \hline \end{gathered}$ | $\begin{gathered} 0.95 \\ (0.62 ; 1.44) \\ \hline \end{gathered}$ |
| Prepared meal | $\begin{gathered} 2.84 * * * \\ (1.73 ; 4.70) \\ \hline \end{gathered}$ | $\begin{gathered} 1.48 \\ (0.88 ; 2.49) \\ \hline \end{gathered}$ | $\begin{gathered} 0.89 \\ (0.51 ; 1.54) \\ \hline \end{gathered}$ | $\begin{gathered} 3.06 * * * \\ (1.68 ; 5.57) \end{gathered}$ | $\begin{gathered} 2.22 * * * \\ (1.42 ; 3.47) \end{gathered}$ | $\begin{gathered} 2.30 \text { *** } \\ (1.44 ; 3.65) \end{gathered}$ | $\begin{gathered} 0.82 \\ (0.53 ; 1.27) \\ \hline \end{gathered}$ |
| Helped with homework ${ }^{[+]}$ | $\begin{gathered} 1.09 \\ (0.68 ; 1.76) \end{gathered}$ | $\begin{gathered} 0.98 \\ (0.60 ; 1.60) \end{gathered}$ | $\begin{gathered} 0.79 \\ (0.51 ; 1.23) \end{gathered}$ | $\begin{gathered} 1.13 \\ (0.68 ; 1.88) \end{gathered}$ | $\begin{gathered} 1.03 \\ (0.70 ; 1.52) \end{gathered}$ | $\begin{gathered} 10.87 \\ (0.58 ; 1.29) \end{gathered}$ | $\begin{gathered} 0.86 \\ (0.60 ; 1.23) \end{gathered}$ |
| Taken to/ collected from nursery/ playgroup/ school | $\begin{gathered} 3.77 \text { *** } \\ (2.17 ; 6.53) \end{gathered}$ | $\begin{gathered} 2.02 * * \\ (1.14 ; 3.57) \end{gathered}$ | $\begin{gathered} 0.44 \text { *** } \\ (0.20 ; 0.93) \end{gathered}$ | $\begin{array}{\|c\|} \hline 4.74 * * * \\ (2.75 ; 8.18) \\ \hline \end{array}$ | $\begin{gathered} 3.95 * * * \\ (2.57 ; 6.07) \end{gathered}$ | $\begin{gathered} 2.94 * * * \\ (1.87 ; 4.59) \end{gathered}$ | $\begin{gathered} 0.50 \text { ** } \\ (0.28 ; 0.90) \end{gathered}$ |
| Just around | $\begin{gathered} 1.94^{* * *} \\ (1.23 ; 3.08) \end{gathered}$ | $\begin{gathered} 0.29 \\ (0.80 ; 2.08) \end{gathered}$ | $\begin{gathered} 0.76 \\ (0.47 ; 1.23) \end{gathered}$ | $\begin{array}{\|c\|} \hline 1.34 \\ (0.81 ; 2.23) \\ \hline \end{array}$ | $\begin{gathered} 0.74 \\ (0.50 ; 1.08) \end{gathered}$ | $\begin{gathered} 0.84 \\ (0.57 ; 1.26) \end{gathered}$ | $\begin{gathered} 0.46 * * * \\ (0.31 ; 0.68) \end{gathered}$ |
| Active | $\begin{gathered} 0.91 \\ (0.55 ; 1.51) \end{gathered}$ | $\begin{gathered} 1.22 \\ (0.75 ; 2.05) \end{gathered}$ | $\begin{gathered} 1.05 \\ (0.68 ; 1.62) \end{gathered}$ | $\begin{array}{\|c} \hline 0.85 \\ (0.49 ; 1.47) \\ \hline \end{array}$ | $\begin{gathered} 1.51^{* *} \\ (1.01 ; 2.26) \end{gathered}$ | $\begin{gathered} 1.42 \\ (0.93 ; 2.15) \end{gathered}$ | $\begin{gathered} 1.13 \\ (0.78 ; 1.62) \end{gathered}$ |
| Difficult to say no | $\begin{gathered} 1.48 \\ (0.88 ; 2.50) \\ \hline \end{gathered}$ | $\begin{gathered} 1.04 \\ (0.59 ; 1.78) \\ \hline \end{gathered}$ | $\begin{gathered} 0.96 \\ (0.57 ; 1.59) \\ \hline \end{gathered}$ | $\begin{gathered} 1.13 \\ (0.65 ; 1.97) \\ \hline \end{gathered}$ | $\begin{gathered} 0.96 \\ (0.62 ; 1.47) \\ \hline \end{gathered}$ | $\begin{gathered} 0.62 * * \\ (0.38 ; 0.99) \end{gathered}$ | $\begin{gathered} 0.53 * * * \\ (0.33 ; 0.85) \\ \hline \end{gathered}$ |
| Help develop | $\begin{gathered} 1.10 \\ (0.67 ; 1.79) \end{gathered}$ | $\begin{gathered} 1.04 \\ (0.62 ; 1.64) \end{gathered}$ | $\begin{gathered} 1.13 \\ (0.75 ; 1.71) \end{gathered}$ | $\begin{gathered} 0.91 \\ (0.52 ; 1.57) \end{gathered}$ | $\begin{gathered} 0.86 \\ (0.57 ; 1.29) \end{gathered}$ | $\begin{gathered} 0.95 \\ (0.62 ; 1.45) \end{gathered}$ | $\begin{gathered} 0.95 \\ (0.65 ; 1.37) \end{gathered}$ |
| Engaged with young people | $\begin{gathered} 1.13 \\ (0.66 ; 1.93) \\ \hline \end{gathered}$ | $\begin{gathered} 1.19 \\ (0.70 ; 2.01) \\ \hline \end{gathered}$ | $\begin{gathered} 1.34 \\ (0.85 ; 2.13) \\ \hline \end{gathered}$ | $\begin{gathered} 0.91 \\ (0.50 ; 1.65) \\ \hline \end{gathered}$ | $\begin{gathered} 0.91 \\ (0.59 ; 1.41) \\ \hline \end{gathered}$ | $\begin{gathered} 0.87 \\ (0.55 ; 1.37) \\ \hline \end{gathered}$ | $\begin{gathered} 0.94 \\ (0.64 ; 1.39) \\ \hline \end{gathered}$ |
| Preference for family care | $\begin{gathered} 1.06 \\ (0.63 ; 1.80) \end{gathered}$ | $\begin{gathered} 0.89 \\ (0.52 ; 1.52) \end{gathered}$ | $\begin{gathered} 0.68 \\ (0.40 ; 1.14) \end{gathered}$ | $\begin{gathered} 1.40 \\ (0.82 ; 2.38) \end{gathered}$ | $\begin{gathered} 1.17 \\ (0.78 ; 1.76) \\ \hline \end{gathered}$ | $\begin{gathered} 0.61 * * \\ (0.39 ; 0.96) \\ \hline \end{gathered}$ | $\begin{gathered} 1.01 \\ (0.74 ; 1.67) \\ \hline \end{gathered}$ |
| Help financially | $\begin{gathered} 2.26 * * * \\ (1.42 ; 3.59) \end{gathered}$ | $\begin{gathered} 1.63 * * \\ (1.04 ; 2.61) \\ \hline \end{gathered}$ | $\begin{gathered} 0.88 \\ (0.56 ; 1.37) \\ \hline \end{gathered}$ | $\begin{gathered} 2.45 \text { *** } \\ (1.46 ; 4.12) \end{gathered}$ | $\begin{gathered} 2.16 * * * \\ (1.45 ; 3.20) \\ \hline \end{gathered}$ | $\begin{gathered} 1.84 * * * \\ (1.22 ; 2.78) \\ \hline \end{gathered}$ | $\begin{gathered} 1.47 \\ (0.98 ; 2.20) \end{gathered}$ |
| Give grandchild a break | $\begin{gathered} 0.69 \\ (0.42 ; 1.13) \\ \hline \end{gathered}$ | $\begin{gathered} 0.69 \\ (0.42 ; 1.13) \\ \hline \end{gathered}$ | $\begin{gathered} 1.03 \\ (0.67 ; 1.57) \\ \hline \end{gathered}$ | $\begin{gathered} 0.92 \\ (0.50 ; 1.65) \\ \hline \end{gathered}$ | $\begin{gathered} 0.98 \\ (0.65 ; 1.49) \\ \hline \end{gathered}$ | $\begin{gathered} 1.28 \\ (0.84 ; 1.95) \\ \hline \end{gathered}$ | $\begin{gathered} 0.94 \\ (0.64 ; 1.36) \\ \hline \end{gathered}$ |
| Give parents a break | $\begin{gathered} 0.55 * * \\ (0.34 ; 0.88) \end{gathered}$ | $\begin{gathered} 0.85 \\ (0.54 ; 1.38) \end{gathered}$ | $\begin{gathered} 0.83 \\ (0.56 ; 1.23) \end{gathered}$ | $\begin{gathered} 0.57 * * \\ (0.34 ; 0.97) \end{gathered}$ | $\begin{gathered} 0.77 \\ (0.52 ; 1.14) \end{gathered}$ | $\begin{gathered} 0.94 \\ (0.62 ; 1.42) \end{gathered}$ | $\begin{gathered} 0.98 \\ (0.70 ; 1.37) \end{gathered}$ |
| Parents can go out at night | $\begin{gathered} 0.42 \text { *** } \\ (0.26 ; 0.67) \end{gathered}$ | $\begin{gathered} 0.59 * * \\ (0.37 ; 0.94) \end{gathered}$ | $\begin{gathered} 0.67 * * \\ (0.46 ; 0.97) \end{gathered}$ | $\begin{gathered} 0.59 * * \\ (0.36 ; 0.98) \end{gathered}$ | $\begin{gathered} 0.68 * * \\ (0.46 ; 0.99) \end{gathered}$ | $\begin{gathered} 0.80 \\ (0.54 ; 1.19) \end{gathered}$ | $\begin{gathered} 0.85 \\ (0.61 ; 1.17) \end{gathered}$ |
| Parents can go to work | $\begin{gathered} 1.72 * * \\ (1.07 ; 2.85) \\ \hline \end{gathered}$ | $\begin{gathered} 1.39 \\ (0.87 ; 2.22) \\ \hline \end{gathered}$ | $\begin{gathered} 0.64 * * \\ (0.44 ; 0.92) \\ \hline \end{gathered}$ | $\begin{gathered} 1.36 \\ (0.78 ; 2.37) \\ \hline \end{gathered}$ | $\begin{gathered} 2.22 * * * \\ (1.48 ; 3.39) \\ \hline \end{gathered}$ | $\begin{gathered} 1.78 * * * \\ (1.19 ; 2.69) \\ \hline \end{gathered}$ | $\begin{gathered} 0.65 \text { *** } \\ (0.48 ; 0.89) \\ \hline \end{gathered}$ |
| Pseudo R squared | 0.21 |  |  | 0.22 |  |  |  |
| N of respondents | 1,119 |  |  | 1,618 |  |  |  |

Source: ELSA, Wave 8. Reference categories: a) 50-64; b) In paid work; c) Living with a partner; d) Intermediate/Higher Education; e) Not in the highest income tertile; f) In the highest wealth tertile; g) Volunteered at least monthly; h) Self-Rated Health (SRH) >= good; i) Not in the lowest cognitive tertile; 1) 0-2; m) Less than 15 minutes away or cohabiting; n) $2 / 3$ grandchildren; r) No daughters. Note. These analyses are restricted to grandparents who reporting grandparental childcare. Also, activities denoted with [+] combine 'frequently' and 'occasionally'. ${ }^{* *} \mathrm{p}<0.05 . * * * \mathrm{p}<0.01$. Authors' calculations

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