THE ACTUAL AND EXPECTED AVAIABILITY OF INFORMAL CAREGIVERS: CHILDLESS PEOPLE VERSUS PARENTS IN THE U.S.

DRAFT, PLEASE DO NOT CITE OR QUOTE WITHOUT PERMISSION

Albertini Marco (*University of Bologna*)
Kohli Martin (*European University Institute*)
Popova Daria (*European University Institute*)

Key Words
Childlessness; expected social support; actual social support; ageing; long-term care; informal support; HRS

As people get older, they ultimately face the question of who will provide them with care. Current estimates indicate that approximately 87% of Americans who receive long-term care receive it from informal, or unpaid, caregivers. In 2009 43.5 million Americans provided care to an adult aged 50 and older, about 20 million of them provided care to their frail parents (NAP and AARP 2009). But the supply of family caregivers is unlikely to keep pace with future demand – especially as Baby Boomers move into late old age (Redfoot, Feinberg et al. 2013). Given that, after the spouse, children and children-in-law are the most likely source of informal care for an older person, it may be expected that childless older people are at higher risk than parents of lacking social support when they become frail and dependent. Therefore, increasing childlessness rates might represent an additional challenge to long-term care systems in ageing societies.

Most research so far does not reveal a serious lack of contacts and social inclusion in old age related to childlessness, possibly because childless individuals have adjusted their behavior along the life course to their situation, by developing social alternatives to children (Albertini & Kohli 2009; Hurd 2009; Chang, Wilber & Silverstein 2010). Nonetheless, previous studies have also shown that when strong support is needed, these compensatory arrangements seem to work only partially. When getting frail and acquiring disabilities childless people receive less support than parents overall (Albertini and Mencarini 2014), are more likely to turn to public providers (Deindl and Brandt 2013), and have a higher risk of entering residential care at lower levels of dependency as compared to parents (Aykan 2003, Wenger 2009).

Previous literature, however, paid relatively little attention to two aspects of the relation between the absence of children and social support received in old age. Firstly, it is still unclear the extent to which non parents are able to forecast – at earlier stages of their lives – the lack of informal support they will be facing when getting frail. Do childless individuals differ from parents in their expectations regarding the availability of informal caregivers in the future? In the literature on childlessness and social care, this question has been almost entirely ignored. A second aspect that has been neglected in the study of informal care available to elderly nonparents has to do with the heterogeneity of this group of the population. As a matter of fact, despite previous literature has shown that different pathways to childlessness lead to different consequences of not having children (Dykstra and Hagestad 2007) the childless have generally been treated as an homogeneous group in studies analyzing their social support networks in old age.

The present study, by using data from the first five waves (2002-2010) of the Health and Retirement Study (HRS; http://hrsonline.isr.umich.edu/), addresses the topic by assessing how, in the U.S., childlessness affects the probability that disabled individuals actually receive informal care and the probability that nondisabled individuals anticipate future informal care. It also assesses the difference between childless individuals and parents in the actual and expected availability of informal long-term care from different sources, such as spouses, children/grandchildren and other relatives. Next, another novelty of this study is that we distinguish between different types of childlessness and explore their (potentially) different consequences for the received and expected informal care.

BACKGROUND

Trends in childlessness across birth cohorts

Among other social changes, understanding the cohort differences in childlessness is essential for anticipating the potential demand for long-term care services and availability of family caregivers in the coming years (Rowland 2007, OECD 2010, Kirmeyer and Hamilton 2011). Quite high levels of childlessness were experienced by cohorts born between 1880 and 1920: around 20-30% of women who were in their reproductive years during WWI and the Great Depression remained childless. Then childlessness declined reaching minimum levels of 10% for women born between 1930 and 1945 before rising again. For the cohort born in OECD countries around 1965 the proportion of childlessness among women at the end of the reproductive period was at around 12.5% on average. This U-shaped pattern means that the oldest currently living cohorts have higher levels of childlessness than the ‘young old’ who started their families in the 1950s and 1960s.

For the current elderly population as a whole, childlessness is therefore not (yet) a problem of great numerical importance. This situation is expected to reverse as the Baby Boom cohorts (defined broadly as those born between 1946 and 1964) start moving into older ages. The study of Ryan, Smith et al. (2012) compared the resources of Baby Boomers to previous cohorts of older adults in the US, and found that the cohort born in 1905-1921 is most similar to the Baby Boomers in terms of the availability of informal caregivers (spouses and children) in later life, although for different historical reasons.

The macro-level projections show that the supply of family caregivers is unlikely to keep pace with the demand to assist the growing number of frail Baby Boomers. In the U.S. only 11.6% of the women who were 80-84 years old in 2010 were childless, but this number is projected to increase to 16% for those who will be 80-84 years old in 2030, and to 18.8% in 2050 (Redfoot, Feinberg et al. 2012). Childlessness among the older population with disabilities is projected to increase from 14% in 2010 to 18% by 2030 and 21% by 2040 when all Boomers will have entered late old age. The number of potential caregivers per person aged 80+ is expected to decline from 7.2 in 2010 to 6.1 by 2020, 4.1 by 2030 and to 2.9 by 2050.

The absence of children, needs and sources of support in old age

A very large majority of elderly people needing assistance rely, solely or to a significant extent, on informal support, and this is particularly the case in the US vis-à-vis western European countries (Stone 2000; Sole-Auro & Crimmis 2014). Previous research on ageing has clearly shown that when people get old and frail typically rely on their spouses to receive assistance, and turn to their adult children when their partner are ill or pass away (Spitze & Ward 2000; van Tilberg 1998; Ha, Carr, Utz & Nesse 2006; Choi, 1994; Dykstra & Hagestad, 2007a; Furstenberg, 2005; Shanas & Sussman, 1977, 1981; Messeri, Silverstein, & Litwak, 1993; Hakan 2003). Also, it has been found that social networks tend to be smaller for childless people than for parents (Dykstra 2006). Therefore, not surprisingly, a common assumption in previous literature has been that the nonparents are at higher risk of experiencing social isolation and support gaps in later life (Houser, Berkman and Beckman

1984).

Next, it has also been suggested that the absence of children on the support gap in old age can also be channelled through individuals' health status. As a matter of fact, the absence of children is not the sole - nor the most relevant - factor determining the need of social support in old age. The most obvious factor contributing to the need for long-term support by older persons is disability. Two types of disability in old age are typically distinguished: limitations in Activities of Daily Living (ADLs) that include basic tasks such as bathing, dressing, transferring, toileting, and eating; and limitations in Instrumental Activities of Daily Living (IADLs) that are related to managing one's affairs, such as using the telephone, paying bills, cooking, etc. A strand of research on well-being in old age has shown that adult children overall have a positive impact on their older parents' well-being (Umberson 2010). Several studies have shown that the positive effect of children on older adults' well-being is mediated by people's perception of the emotional and social support which is available to them in case of need (Ross and Mirowsky 2002, Taylor and Lynch 2004, Yang 2006, Lin and Wu 2014). As a result, anticipated social support from children in later life reduces functional disability of older adults (Shaw and Janevic 2004). In addition, a direct positive effect on health and life expectancy comes from the social control functions of parenthood, whereby nonparents are more likely than parents to engage in risky health behaviors (Kendig, Dykstra et al. 2007). Thus, *ceteris paribus*, it might be expected that childless people are more in need of care support in old age than are the parents.

Against these common assumptions, previous empirical research on childless people has shown that they are not at higher risks than parents to be socially isolated in later life. Nor, elderly nonparents seem to be less likely to receive informal support than parents (Chang, Wilber and Silverstein 2010; Silverstein and Giarrusso, 2010). Thus, in general, childless people do not appear to face higher support deficits compared to parents, attempting to compensate for the absence of exchange with their own children by more frequently extending their networks to neighbors and friends and by developing stronger ties with other family members – parents, siblings and nephews and nieces (Albertini and Kohli 2009).

On the other hand, the evidence to date also indicates that when strong support is needed, these compensations work only partially. When getting frail and acquiring limitations in their ability to carry out the activities of daily living, childless people receive much less support than parents, are more likely to turn to public providers, and have a higher risk of entering residential care at lower levels of dependency as compared to parents (Albertini & Mencarini 2014; Aykan 2003, Boaz & Hu 1997, Deindl and Brandt 2013; Larsson & Silverstein 2004; Wenger 2009).

The heterogeneity of childless people and the relevance of expectations

Findings from previous research shed light on the relevance of the study of informal support networks of the childless. First, the number of childless elderly people will be significantly increasing with the progressive ageing of the Baby Boomers generation. Second, among older adults with disabilities the nonparents are at a higher risk of experiencing substantial deficits in the amount of informal care support that they receive, and of resorting to formal long-term care provision.

This pattern might be particularly problematic for the US. As a matter of fact – in comparative perspective – in the US the family, non-coresiding relatives and friends are particularly relevant sources of support in old age, while the provision of care paid for by public institutions is weak (Sole-Auro & Crimmis 2014). Furthermore, despite the decreasing availability of informal caregivers and the high cost of long-term care, few elderly Americans are privately insured for long-term care expenses (Brown & Finkelstein 2009; Cohen 2003; Mellor 2001). A recent survey of US Baby Boomers' future planning revealed that although two thirds of respondents expected to need formal long-term care, only few reported saving for this purpose, while a sizeable group (31%) had no plans at all and almost a third reported planning to rely on Medicare, although Medicare does not fund long-term care apart from short-term rehabilitation (Robison, Shugrue et al. 2014).

On the other hand, previous literature has paid relatively little attention to two relevant aspects that might contribute to significantly changing this picture. Firstly, despite previous research has found that different pathways to and types of childlessness have quite different consequences on individuals' well-being and social exclusion (Dykstra & Keizer 2009; Kohli & Albertini 2009; Koropeckyi-Cox 2002; Zhang & Hayward 2001) research on care support in old age has often treated the childless as an homogenous group. Thus, our first aim in the present paper is to shed light on the potentially different consequences that the absence of children might have on the receipt of informal support by distinguish different types of childless individuals – and thus distinguishing those who survived their children from those who never had a natural child or, again, individuals who have natural children and parents who have adopted or step children.

A second shortcoming of previous research is the neglect of the effect of the absence of children on the formation of individuals' expectations about future provision of informal support. Expectations might be a key factor in pushing individuals to insure themselves against the risk of lacking care support in later life (Health Insurance Association 2000). On the one hand, there is evidence that having a partner and adult children does not decrease, to a significant extent, the likelihood of purchasing long-term care insurance or the intention to purchase one (Caro, Porell & Kwan 2011; Mellor 2001). On the other hand, previous literature suggests that the expectation of receiving informal support in old age is higher for elderly who have stronger family networks (Liu & Wu 2014). Then, it is crucial to understand the extent to which different types of childlessness affect individuals' expectations on informal support provision in case of disability. In fact, if the nonparents have lower support expectations than parents, then they might also have higher perceived risks of lacking long-term care service in old age and, in turn, be more prone to purchasing private insurances. Therefore, our second aim is to analyze the existing relation between the absence of children and expected availability of informal support.

DATA & METHODS

Data

Our empirical analysis is based on the Health and Retirement Survey (HRS) data. The objective of the HRS is to provide information about the US population over age 50 through biennial surveys with nationally representative samples of that population. At each wave, the HRS interviewed main respondents and their spouses. New study cohorts have been added every six years since 1992. Currently, the HRS includes representative data for six cohorts: Oldest Old (AHEAD) cohort, born before 1924; Children of Depression (CODA) cohort, born 1924 to 1930; Pre-WWII cohort, born 1931 to 1941; War Baby (WB) cohort, born 1942 to 1947; Early Baby Boomer (EBB) cohort, born 1948 to 1953; Mid Baby Boomer (MBB) cohort, born 1954 to 1959.

The five panel waves of HRS (2000-2010) which employed the same survey instruments for measuring health limitations and availability of helpers were selected for this analysis. The previous waves of HRS used different instruments to account for the availability of informal care, which prevented us from including them into the panel analysis. Across the waves used in the present study, the overall response rate was about 88% (HRS 2011). Where possible we retrieved the data from the RAND HRS files (RAND HRS Data File, version M; RAND Enhanced Fat Files; RAND Family Data Files, version B), which are cleaned and processed by the RAND Center for the Study of Aging. For 2010 the processed data on social support were not available at the moment of writing and we used the original HRS files to construct all the measures required for our analysis.

Dependent variables

The HRS questionnaire first examines whether the respondent has any ADLs (bathing, dressing, using the toilet, getting in and out of bed, walking across a room, and eating) and IADLs (using a map, making phone calls, shopping, preparing meals, taking medications, doing work around the house, and managing money) difficulties. Persons who report an ADL or IADL difficulty indicate whether anyone helps them with any of their disabilities. Information on help received is explicitly provided by respondents immediately following each question on an ADL or an IADL difficulty. Respondents are then asked who most often helps them with ADLs and IADLs. Up to six sources of help can be named, including informal sources of help (spouse, children/grandchildren, other relatives or other individuals) and formal sources (organizations, or employees of institutions). For the purpose of this study we constructed four dichotomous dependent variables indicating receiving informal help with at least one of ADLs or IADLs. The first one equaled 1 if the respondent received any informal help with disabilities and 0 otherwise. The second equaled 1 if the respondent received help with disabilities from his/her spouse/partner and 0 otherwise. The third equaled 1 if the respondent received help with disabilities from children/grandchildren and 0 otherwise. The fourth equaled 1 if the respondent received help from other relatives/individuals and 0 otherwise.

The HRS questionnaire allows deriving the number of hours of help received by the respondent with disabilities. For each helper listed the respondent reports for how many days during the last month help was received, and on the days help was received about how many hours per day that was. By multiplying the number of days by number of hours per day we computed the total number of hours spent by the helper on helping the respondent. Four numeric dependent variables were then constructed, the first one indicating the total number of hours of informal help received by the respondent during the last month; the second indicating the number of hours of help received from the spouse/partner; the third indicating the number of hours of help received from children/grandchildren; the fourth indicating the number of hours of help received from other relatives/individuals.

Individuals who do not report any ADLs or IADLs at the time of the survey were asked about potential future informal care:

Suppose in the future, you needed help with basic personal care activities like eating or dressing. Do you have relatives or friends (besides your [husband/wife/partner]) who would be willing and able to help you over a long period of time?

In the case of positive response the respondent was asked to identify the source of care. The response categories included: ‘child/child-in-law’, ‘grandchild’, ‘other relative’, ‘someone else’. Respondents could report more than one source of potential support. We assume that respondents interpret this question so that they list future caregivers who will provide informal personal care they might need, those who will provide care in addition to any care from the spouse. We constructed three dichotomous dependent variables for respondents’ perceptions of support. The first equaled 1 if anyone would be sought for help and 0 otherwise. The second variable equaled 1 if children/grandchildren would be sought for help and 0 otherwise. The third equaled 1 if other relative/someone else would be sought for help and 0 otherwise.

Childlessness

In aging research childlessness is typically defined as the state of never having had a biological child. This study proposes a more nuanced approach to the definition of childlessness, especially because the previous literature has shown that different pathways to childlessness lead to different consequences of not having children (Dykstra and Hagestad 2007). We distinguish between three specific groups of childless people: (a) those who have neither natural nor adopted, fostered or step-children – the main category of the childless; (b) those who had natural children but survived them – what we call the 'socially childless'; and (c) those who have no natural children, but have adopted, foster or step-children – the 'social parents'. We expect that different types of childlessness will have different consequences on availability of informal caregivers in old age, parents being the reference group, namely that social parents will be closer to parents, while the socially childless will be closer to the childless.

Control variables

The following social and demographic characteristics were included in the models as control variables. Sex was coded 1 if respondents were men and 0 if they were women. Age is measured in years. Cohort variable included five categories: born before 1924; born 1924 to 1930; born 1931 to 1941; born 1942 to 1947; born 1948 to 1959 (Baby Boomers). Marital status was coded as currently being married/partnered, separated/divorced, widowed or never married. Disability is coded as 1 for those who report an ADL or IADL difficulty, 0 if no difficulties are reported. Ethnicity variable is coded as White/non-Hispanic, Black/non-Hispanic, Hispanic and other. Educational attainment has four categories based on ISCED classification: no qualification; low qualification (ISCED groups 1-2); medium qualification (ISCED groups 3-4); high qualification (ISCED groups 5-6). Employment status equals 1 if the respondent is currently employed and 0 otherwise. Three variables were used to capture the financial situation of the respondent: one for total value of primary residence; one for financial wealth and one for household income. Those values were reported at the level of the couple, so for respondents who had spouses/partners the reported values were divided by 2. All income variables were used in the models in the logarithmic form.

Analytic strategy

The analysis focuses on care received by those living in the community because the sampling designs do not include institutionalized individuals. Our baseline sample consisted of a panel of respondents who participated at least once across five consecutive waves of HRS in the study period between 2002 and 2010 (the total number of observations over the five waves is 96,014). Participants aged less than 51 (younger spouses of the respondents) were excluded from the analysis, which left us with the sample of 92,362 observations. Among those 24% of respondents were disabled, i.e. reported having any ADLs or IADLs, and 76% were not disabled. Random effect models are utilized for multivariate analyses.

Firstly, we focus on the receipt of informal care by incapacitated elderly people. The sample for each model consists of the disabled individuals who had non-missing data on the outcome and predictor variables. We examine (a) whether there are differences between childless people and parents in the likelihood of receiving informal care (the sample includes 19,819 observations); and (b) whether there are differences between the childless and parents in the source of informal care, including care received from the spouse/partner (11988 observations because widowed and never married individuals are excluded), care from children/grandchildren (9499 observations because fully childless individuals are excluded) and care from other relatives/individuals (19,819 observations). Given that the outcomes for the longitudinal analysis are dichotomous we employed random effect logistic regression models.

Secondly, we examine (a) the effect of being childless on the hours of informal care received in the past month by those individuals who had disabilities and reported receiving care (4,073 observations with the data on both predictor and outcome variables); and (b) whether there are differences between the childless and parents in the amount of care received from different sources, such as the spouse/partner (2,008 observations), children/grandchildren (2,077 observations) and other relatives/individuals (843 observations). For that purpose we used random effects linear regression models.

Thirdly, we estimate the effects of childlessness on expectations regarding the availability of informal care for those individuals who are currently not disabled. In particular, we examine (a) the effect of being childless on the expected availability of care in addition to any care from the spouse (60,119 observations with non-missing data on predictor and outcome variables); and (b) the effect of being childless expected availability of care from children/grandchildren (50,200 observations) and other relatives/individuals (53,053 observations).

Across all the models listed above we used the same set of predictor variables, including the variable on childlessness and other social and demographic controls. In logistic regressions the logit estimates were also transformed into odds ratios to ease the interpretation. Those results are available in Annex, Tables 2-4. Below we will use predicted probabilities to compare the results across different categories of childless individuals and parents.

RESULTS

Descriptive results

A descriptive overview of social and demographic characteristics of respondents included in the HRS sample at each wave is provided in Annex, Table 1. The results given are weighted using cross-sectional individual-level weights provided by HRS. On average over the period of study (2002-2010) 12% of the HRS respondents reported having no living natural children. Among those, 7% of respondents are ‘fully childless’, i.e. had neither natural nor adopted, fostered or step-children; 4.3% can be attributed to the category of ‘social parents’, i.e. they have no natural children but have adopted, fostered or step-children; and barely 1% belong to the category of ‘socially childless’, i.e. those who had natural children but survived them.

Figure 1 shows that the shares of childless people vary substantially across the cohorts of the US population, confirming the presence of a historical U-shaped trend in the prevalence of childlessness: the highest shares of childless people are observed for the Oldest Old respondents, born before 1924 (14.6%), and for the Baby Boomers (16.1%), while in the pre-War cohort the share of childless adults fell below 10%. These data also shows the growth in the proportion of social parents due to increasing rates of divorce and remarriage. In the Oldest Old group those amounted to about 25% of all childless people, while among the Baby Boomers they make up more than 40% of all the childless. It is clear then, that this is an extremely relevant category of ‘childlessness’ to be considered in our analyses.

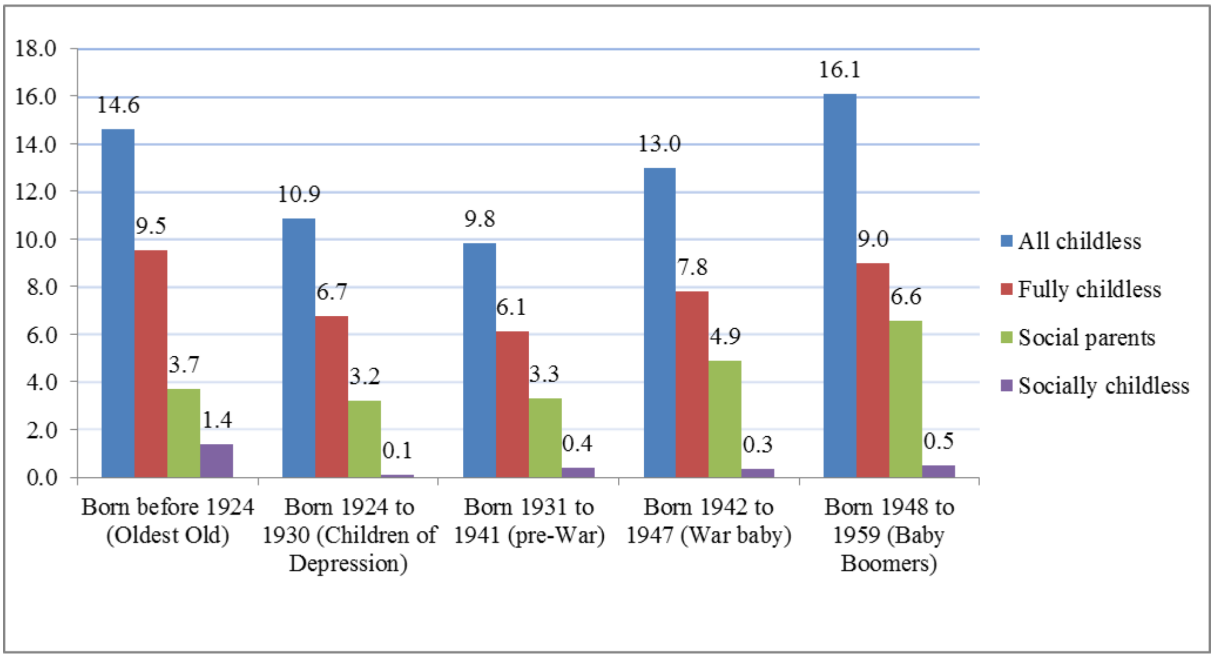

Figure 1 – Childlessness across cohorts of the U.S. population, 2010
Note: Own calculations based on RAND HRS data, the weighted cross-sectional sample for 2010, N = 14,528

Availability of informal caregivers

Figure 2 shows the predicted probabilities of having received informal care by disabled individuals aged 51 and more. The results of the underlying multivariate analysis are given in Annex, Table 2. This analysis indicates that overall childless adults are less likely than parents to receive informal care when they acquire disabilities, however, there is quite a large variation between various categories of the childless. Other conditions being equal, the probability of getting help with ADLs or IADLs for parents is 76%. Being fully childless reduces the probability of receiving support to 72%, while surviving ones' children reduces the probability to 58%. Social parents do not appear to be different from parents in terms of overall availability of informal caregivers – their predicted probability is 77%.

In terms of probability of support provided by partners/spouses, childless people do not appear to be significantly different from parents (32-33%). For the social parents the probability of receiving help from the spouse is slightly higher (39%); however, the regression coefficient is not statistically significant. At the same time, compared to parents, social parents have markedly lower chances of receiving help from children or grandchildren (11% versus 26% for parents). Eventually, our findings are consistent with the idea that childless people are looking for substitutes to children among other relatives and friends. The predicted probability of getting help from other individuals for fully childless people is 24%, for socially childless it is 14% and for social parents 8%, as compared to 4% for parents. Then, it is clear that the fact that the social parents are not different from parents - as for what regards the likelihood of receiving informal support - is mainly due to the greater support they get from their friends and other relatives, not to what they receive from their step or adopted children. Concerning the fully childless, it is worth noting that they have a (slightly) lower likelihood of receiving informal support than parents, but their condition would be far worse was is not for the help they get from social networks alternative to the nuclear family, i.e. friends, neighbors and other relatives.

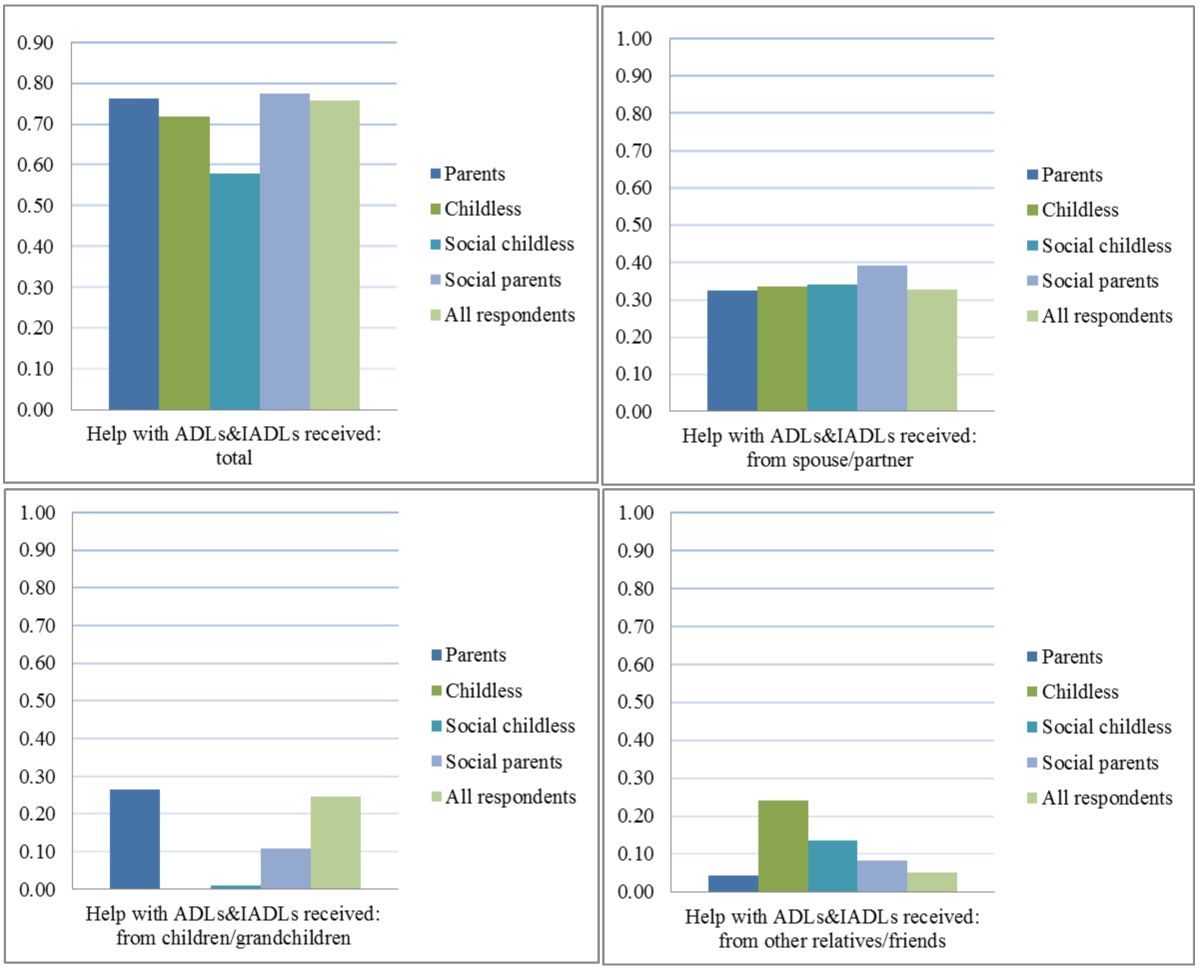

Figure 2 – Predicted probabilities of availability of informal caregivers
Note: Own calculations based on RAND HRS data, unweighted panel for 2002-2010

Figure 3 shows the predicted outcomes based on the random effect linear regression models of hours of care received over the past month. The underlying models are given in Annex, Table 3. At the conventional level of statistical significance, childless adults do not differ from parents in terms of hours of care they have received over the past month. Other conditions being equal, fully childless people appear to receive less hours of care in total than parents (109 hours versus 141 hours), but the coefficient is not statistically significant. Differently the other two categories of childless people seem to benefit from a higher intensity of care support received; the coefficients are equal to about 39 and 76 hours respectively for socially childless and social parents. In particular, for social parents the extra hours of support seem to come mainly from other relatives, friends, step-children and grandchildren. Being socially childless appears to increase care time received by other relatives/individuals by 75 extra hours. However, despite being relatively large, these coefficients do not reach the standard 5% significance level.

These data shed light on at least two interesting phenomena. Firstly, differently from what has been found in Europe – where the childless are as much likely as parents to receive informal support, but they get a lower amount of hours of care (Albertini & Kohli 2009; Deindl and Brandt 2013) – in the US the main difference between the parents and nonparents is to be found in the likelihood of receiving support but not necessarily in its intensity. Secondly, while the adopted and step children are less likely to support their parents than natural children, when they do that they tend to provide more hours of care.

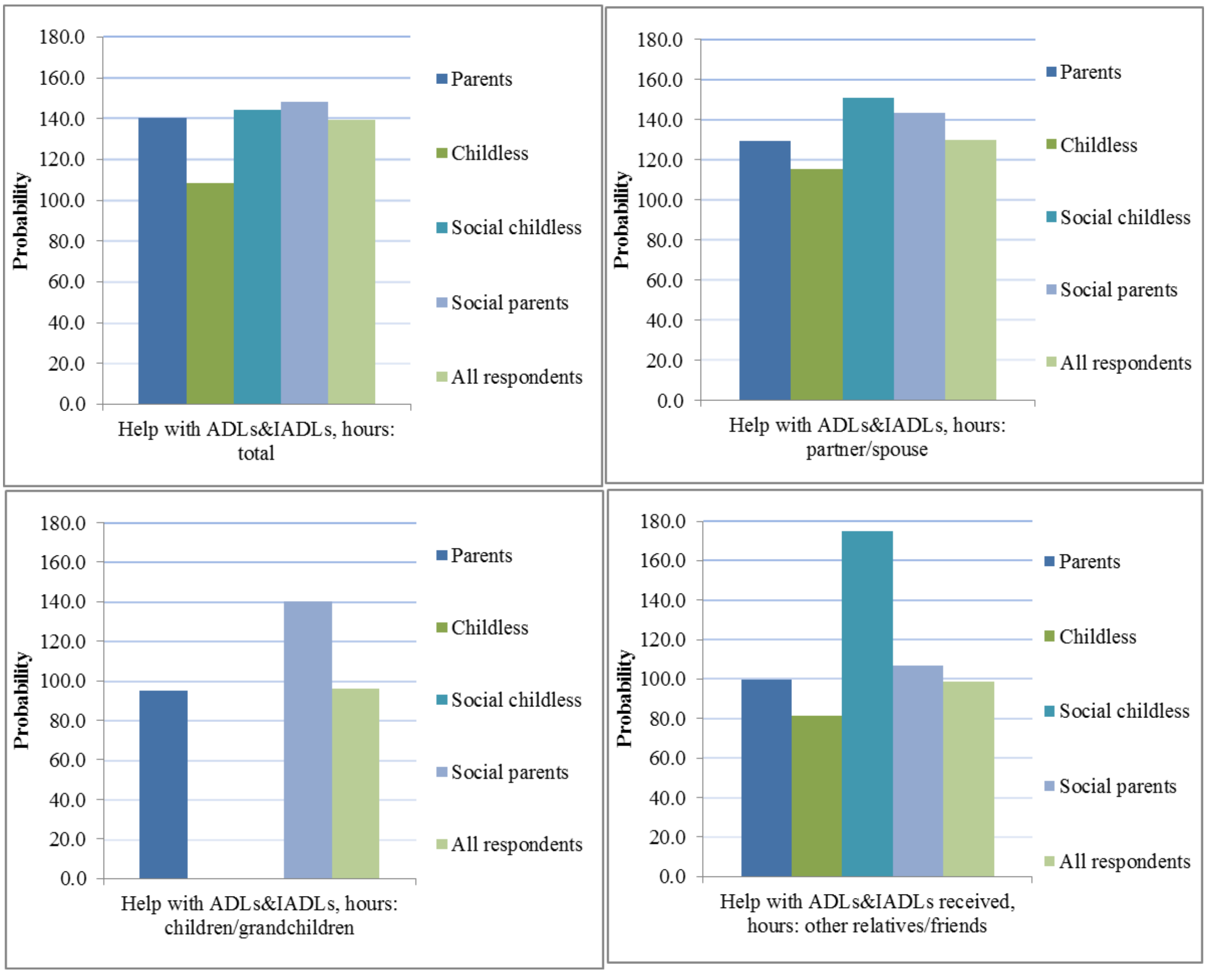

Figure 3 – Predicted hours of informal care received over the past month

Note: Own calculations based on RAND HRS data, unweighted panel for 2002-2010

Finally, we estimated the random effects logistic regression models of the expected long-term care among those individuals who are not disabled, using the same set of predictors as for the actually received care. The results of these models are given in Annex, Table 4. Due to the wording of the question on expectations, the total expected availability of caregivers is calculated as availability of care excluding the care received from spouses/partners. For comparability reasons we re-estimated the model for the total care received, excluding care received from partners/spouses. The predicted probabilities of actual and expected care are presented in Figure 4. Overall, as far as expectations are concerned, we observe that all HRS respondents seem to overestimate the likelihood of receiving informal support in case of need. Next, the childless seem to correctly predict the negative gap in the availability of care support they will be facing vis-à-vis same-age individuals who are parents of natural children. However, it is worth noting that the socially childless might be underestimating their disadvantage in comparison to the situation of the fully childless. In general, as far as expectations are concerned, we observe much more homogeneity between various groups of childless individuals, their expectations of care being much lower than those of parents.

For the fully childless and socially childless people the probability of receiving care in the future amounts to 51-52%, for social parents it is 58%, while for parents it is 80%. The probability of expecting to receive care from children and grandchildren is 15% for social parents, as opposed to 64% for parents. As far as expected support from others is concerned, the predicted probability for parents is 15%, while for fully childless people it raises up to 64%, and for socially childless and social parents – up to 41%. As shown by previous literature the non–parents invest early in their life in building up social networks that are an alternative to the nuclear family. Coherently, it seems that ageing childless individuals in the US have higher expectations of receiving care support from these alternative social networks.

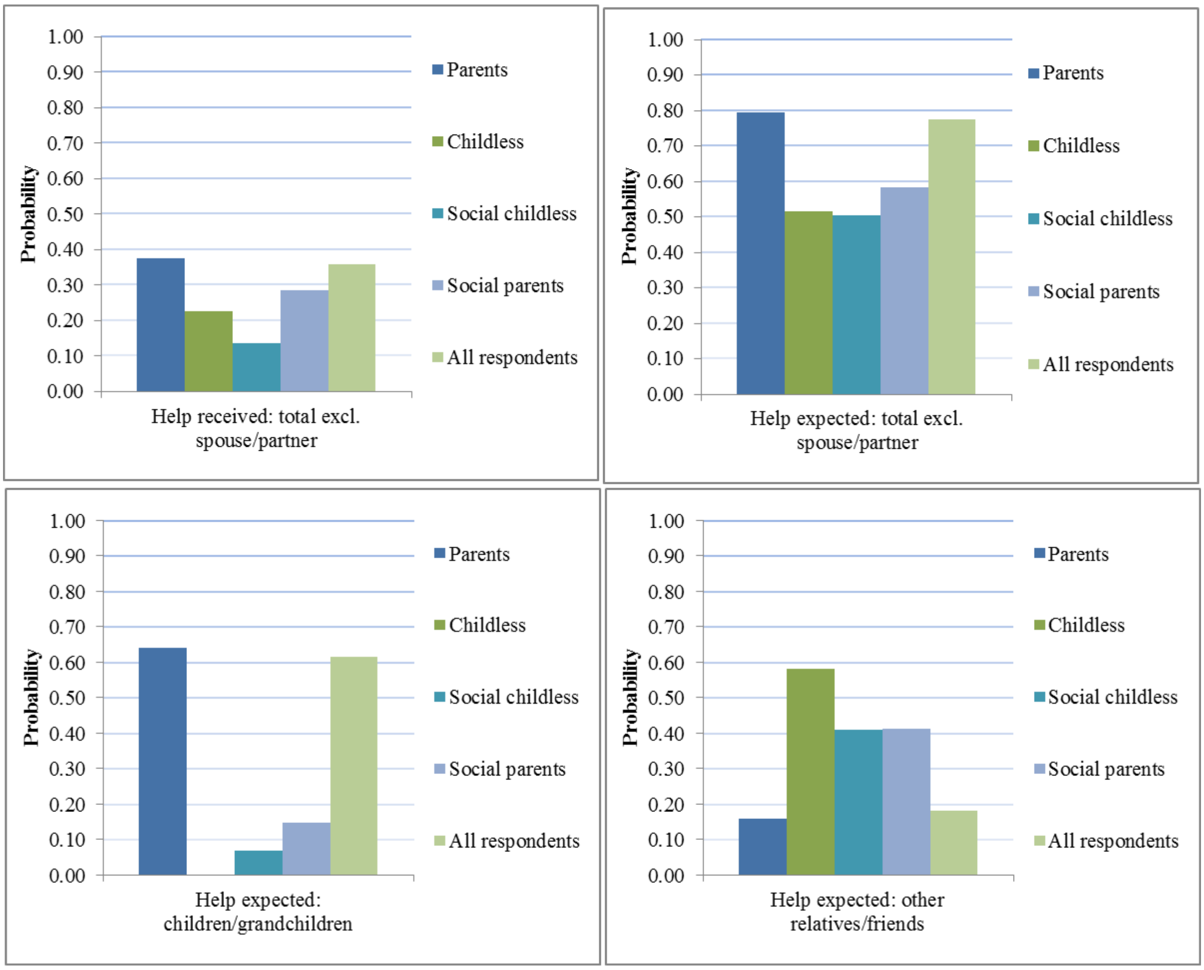

Figure 4 – Predicted probabilities of expected availability of informal caregivers
Note: Own calculations based on RAND HRS data, unweighted panel for 2002-2010

DISCUSSION

A large majority of elderly individuals rely substantially (or solely) on the informal support provided by their partner and children to cope with the decreasing ability to perform daily living activities. This is particularly the case – from an international comparative perspective - for people living in the US. With this in mid, it is not surprising that in a large part of the literature, the increasing rate of childlessness has been seen as one of the major challenges for the future sustainability of health and long-term care systems. In fact, despite for the current elderly population childlessness is not yet of great numerical importance, the situation is expected to change dramatically as the Baby Boom cohorts start moving into old ages.

Results from previous research, mainly based on European data, indicate that while nonparents are not at higher risks of social isolation in later life, they might actually experience relevant support deficits and access public care much more frequently than parents. Little is known, however, on the extent to which the risk of facing support deficits varies across different categories of childless people. Next, we do not know much on the extent to which nonparents are able to predict the fact that they might lack informal support when getting frail and old. The latter point is particularly relevant in light of the fact that individuals' risk perception can increase their propensity to buy long-term care insurances, thus easing the pressure on the future sustainability of public health and long-term care systems.

The results of our analyses do not provide strong support to the claim that in the US the nonparents face significant informal support deficits in old age. Firstly, it has been shown that as compared to parents, the overall probability of receiving informal care is substantially lower for only one group of childless people – those who survived their children. Whereas, the weak negative effect observed for the fully childless is only marginally significant. Next, the analysis of the intensity of support indicates that the negative difference observed between parents and the fully childless – despite being quite substantial – fails to reach standard statistical significance levels.

Interesting differences emerge between the three categories of nonparents. When looking at the overall probability of receiving informal care to cope with ADL or IADL limitations, the socially childless clearly stand out as a disadvantaged group. Apparently, their greater access to alternate sources of support works only to a limited extent. However, the picture changes quite dramatically as we focus on hours of support received. As a matter of fact both their partners and friends/other relatives are extremely generous, in comparative perspective, and provide a much more intensive support than the average care provider. The fully childless, on the other hand, despite being quite similar to parents in terms of the probability of receiving support, get a considerably lower amount of hours of care. Finally, the social parents – as expected – are very similar to parents as for what regards both the likelihood and intensity of care received. It is worth noting, however, that this is the result of the fact that they receive more support from their partner – and to some extent also from friends and other relatives - than parents. Whereas, adopted or step children seem to be significantly less supportive than natural children. This is a particularly relevant finding also in light of the rapidly growing quota of social parents among the elderly US population.

The analysis of support expectations reveals that childless people, similarly to parents, tend to overestimate the availability of informal care in case of need. Next, coherently with the pattern observed for actual support provision, they are less likely than parents to expect informal care to be available in the future. The results suggest only one potential relevant mismatch between expected and actual support received: the socially childless might be a bit too optimistic – as compared with other nonparents - about their probability of receiving support from sources other than their partners. In general, however, these results suggest that, given their expectations, the childless might be more prone than parents to insure themselves against the risk of needing long-term care in later life. Together with what has been documented above about actual availability of care, these latter results are quite reassuring as for what concerns the situation of the future elderly nonparents. In turn, this suggests that increasing childlessness rates might be a tougher challenge for European societies than for the US.

REFERENCES

Albertini, M. and M. Kohli (2009). "What childless older people give: is the generational link broken? ." Ageing & Society**29**(8): 11261-11274.

Albertini, M. and L. Mencarini (2014). "Childlessness and support networks in later life: New pressures on familistic welfare states?" Journal of Family Issues February **35** (3): 331-357.

Aykan, H. (2003). "Effect of childlessness on nursing home and home health care use." Journal of Aging & Social Policy**15**(1): 33-53.

Chang, E., K. H. Wilber and M. Silverstein (2010). "The effects of childlessness on the care and psychological well-being of older adults with disabilities." Aging & Mental Health**14**(6): 712-719.

Choi, N. G. (1994). "Patterns and determinants of service utilization: comparisons of the childless elderly and elderly parents living with or apart from their children." The Gerontologist**34**(3): 353-362.

Deindl, C. and M. Brandt (2013). Support networks of childless elders: Informal and formal support in Europe.

Dykstra, P. A. (2006). "Off the beaten track: Childlessness and social integration in late life " Research on Aging**28**(6): 749-767.

Dykstra, P. A. and G. O. Hagestad (2007). "Roads less taken: developing a nuanced view of older adults without children." Journal of Family Issues**28**(10): 1275-1310.

Dykstra, P. A. and R. Keizer (2009). "The wellbeing of childless men and fathers in mid-life." Ageing & Society**29**(8): 1227-1242.

Dysktra, P. A. and M. Wagner (2007). "Pathways to childlessness and late-life outcomes." Journal of Family Issues**29**: 1487-1517.

HRS (2011). Sample sizes and response rates.

Hurd, M. (2009). "Intervivos giving by older people in the United States: who received financial gifts from the childless?" Ageing and Society**29**(8): 1207-1225.

Kendig, H., P. A. Dykstra, R. I. van Gaalen and T. Melkas (2007). "Health of aging parents and childless individuals." Journal of Family Issues**28**: 1457-1486.

Kirmeyer, S. E. and B. E. Hamilton (2011). Childbearing differences among three generations of U.S. women. NHCS Brief No. 68. Washington, DC, National Center for Health Statistics.

Lin, I.-F. and H.-S. Wu (2014). "Intergenerational exchange and expected support among the young-old." Journal of Marriage and Family**76** 261-271.

Mellor, J. M. (2001). "Long-term care and nursing home coverage: are adult children substitutes for insurance policies?" Journal of Health Economics **20** 527-547.

NAP and AARP (2009). Caregiving in the U.S. 2009, National Alliance for Caregiving, American Association of Retired Persons.

OECD (2010). OECD Family database Paris, OECD - Social Policy Division - Directorate of Employment, Labour and Social Affairs. **SF2.5: Childlessness**.

Offer, S. and B. Schneider (2007). "Children's role in generating social capital." Social Forces**85**(3): 1125-1142.

Redfoot, D., L. Feinberg and A. Houser (2012). The aging of the Baby Boom and the growing care gap: A look at future declines in the availability of family caregivers. Insight on the issues, AARP Public Policy Institute.

Redfoot, D., L. Feinberg and A. Houser (2013). The aging of the Baby Boom and the growing care gap: A look at future declines in the availability of family caregivers, AARP Public Policy Institute.

Redfoot, D. L. and S. M. Pandya (2002). Before the Boom: trends in long-term supportive services for older Americans with disabilities AARP Public Policy Institute Report No. 2002-15. Washington, DC, AARP, 2002).

Robison, J., N. Shugrue, R. H. Fortinsky and C. Gruman (2014). "Long-term supports and services planning for the future: Implications from a statewide survey of Baby Boomers and older adults " The Gerontologist**54**(2): 297-313.

Ross, C. E. and J. Mirowsky (2002). "Family relationships, social support and subjective life expectancy." Journal of Health and Social Behavior**43**: 469-489.

Rowland, D. T. (2007). "Historical trends in childlessness." Journal of Family Issues **28**(10): 1311-1337.

Ryan, L. H., J. Smith, T. C. Antonucci and J. S. Jackson (2012). "Cohort differences in the availability of informal caregivers: Are the Boomers at risk?" Gerontologist**52**(Special Issue: Baby Boomers): 177-188.

Shaw, B. A. and M. Janevic (2004). "Associations between anticipated support, physical functioning, and education level among a nationally representative sample of older adults." Journal of Aging and Health**16**: 539-561.

Silverstein, M. and R. Giarusso (2010). "Aging and family life: a decade review." Journal of Marriage and Family**72**: 1039-1058.

Stone, R. I. (2000). "Long term care for the elderly with disabilities: Current policy, emerging trends and implications for the twenty-first century". New York, NY: Milbank Memorial Fund.

Taylor, M. G. and S. M. Lynch (2004). "Trajectories of impairment, social support, and depressive symptoms in later life." Journals of Gerontology Series B: Psychological Sciences and Social Sciences**59B**(238-246).

Umberson, D., Pudrovska, T., & Reczek, C. (2010). "Parenthood, childlessness, and well-being: A life course perspective." Journal of Marriage and Family**72**(3): 612-629.

Wenger, G. C. (2009). "Childlessness at the end of life : evidence from rural Wales." Ageing & Society **29**(8): 1241-1257.

Yang, Y. (2006). "How does functional disability affect depressive symptoms in late life? The role of perceived social support and psychological resources." Journal of Health and Social Behavior**47**: 355-372.