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339 Report by Johannes Geyer, Peter Haan, Hannes Kröger, and Maximilian Schaller

Need for long-term care depends on social standing

- Poorer people become in need of care more frequently and earlier than wealthier people
- The same applies to people with high job strain compared to those with low job strain
- Lower private co-payments and a single-payer health care system could reduce inequality

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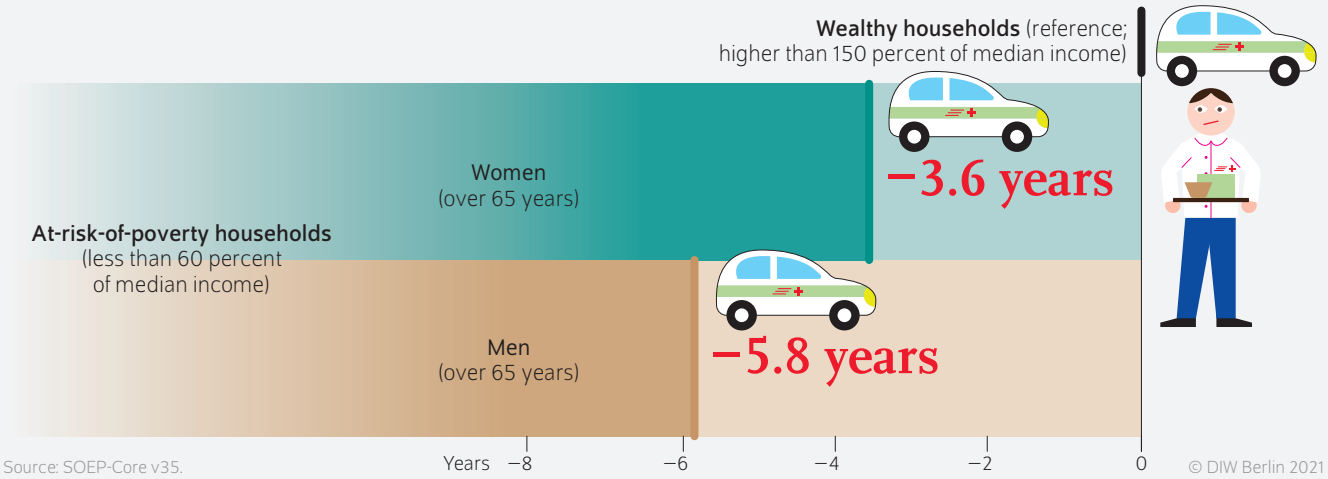
AT A GLANCE

Need for long-term care depends on social standing

By Johannes Geyer, Peter Haan, Hannes Kröger, and Maximilian Schaller

- Low-income earners become in need of care more frequently and earlier than higher-income earners
- The same applies to people with high job strain compared to those with low job strain
- Thus, risk of care dependence does not solely depend on age, but is determined by society, income, and occupation
- Sociopolitical measures should reduce job strain during the employment phase to lower the risk of care dependence preventatively
- In the short term, private co-payments should be decreased and made more dependent on disposable income and a single-payer health care system should be introduced

People at risk of poverty become in need of care much earlier than wealthy people



FROM THE AUTHORS

"Not only is income unequally distributed throughout society in Germany, but life expectancy and risk of care dependence are as well. We need sociopolitical measures, such as a single-payer health care system, to combat this inequality."
— Peter Haan —

MEDIA

Audio Interview with P. Haan (in German)
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Need for long-term care depends on social standing

By Johannes Geyer, Peter Haan, Hannes Kröger, and Maximilian Schaller

ABSTRACT

The poor have a significantly shorter life expectancy than the wealthy. Using data from the Socio-Economic Panel, this Weekly Report shows that poorer people become in need of care earlier in life and more often. In addition, blue-collar workers have a higher risk of requiring care than civil servants, as do people with high job strain compared to those with low job strain. The risk of dependence on care is determined by society, income, and work. Therefore, socio-political reforms are needed to reduce this inequality, as it is only partially compensated for by the existing social security systems. To reduce the risk preventatively, a sustainable policy must begin during the employment phase and reduce strain then. To reduce the inequality in the short term, private co-payments should be decreased and made more dependent on disposable income. Abolishing the private system in favor of a single-payer health care system covering all residents would be effective as well, as those with private care insurance have a considerably lower risk of dependence on care.

The average life expectancy of the German population has been increasing continuously.[1] However, studies show that life expectancy as well as its increase strongly correlate with social standing. Low-income earners, workers with significant physical and psychological job strain, and workers with a low occupational status have a significantly shorter life expectancy, and this difference is growing over time.[2] However, this information does not provide any insight into health status. This Weekly Report[3] investigates health status using the risk of dependence on care, the probability that a person will require caregiving assistance. In addition, the time until long-term care is needed—the number of years from age 65 that a person can live without long-term care assistance—is examined. Requiring long-term care means that a person is permanently and significantly restricted in their ability to perform daily activities and is dependent on informal and/or formal support. The empirical analyses are conducted separately for men and women using data from the Socio-Economic Panel (SOEP) at DIW Berlin,[4] which were collected in cooperation with Kantar Public. The dataset only includes persons who are in outpatient care. Accordingly, the population living in nursing homes is not a part of the analysis.[5]

1 On average over many years, the life expectancy of newborns increased annually by about 0.2 years for women and by 0.3 years for men. Over the past years, this trend has slowed (compare with Federal Statistical Office, "Lebenserwartung steigt nur noch langsam," press release, November 5, 2019 (in German; available online. Accessed on October 19, 2021. This applies to all other online sources in this report unless stated otherwise)).

2 From a sociopolitical point of view, these differences are problematic not only because of the difference in life expectancy, but also because pensions are paid for a shorter period, resulting in a redistribution in favor of people with a longer life expectancy. See Martin Kroh, "Menschen mit hohem Einkommen leben länger," *DIW Wochenbericht* no. 38 (2012): 3–15 (in German; available online); Peter Haan and Maximilian Schaller, "Heterogene Lebenserwartung: Forschungsprojekt im Auftrag des Sozialverbands VdK Deutschland," *DIW Berlin Politikberatung kompakt* 171 (2021) (in German; available online).

3 Peter Haan and Johannes Geyer would like to thank the Joint Programming Initiative More Years Better Lives, a part of the PENSINEQ project (Unequal ageing: life-expectancy, care needs and reforms to the welfare state), for its financial support.

4 The SOEP is an annual representative survey of private households. It began in West Germany in 1984 and expanded its scope to include the new federal states in 1990; cf. Jan Goebel et al., "The German Socio-Economic Panel (SOEP)," *Journal of Economics and Statistics* 239, no. 2 (2019): 345–360 (available online).

5 Studies show that income and the transition into a nursing home are negatively correlated (cf. Johannes Geyer, Thorben Korfhage, and Erika Schulz, *Versorgungsformen in Deutschland: Untersuchung zu Einflussfaktoren auf die Nachfrage spezifischer Versorgungsleistungen bei Pflege- und Hilfebedarf* (ZQP-Abschlussbericht: 2014) (in German; available online). Therefore, it is possible that the present analysis underestimates the social differences in the risk of dependence on care over-

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High-income earners have a low risk of dependence on care

In Germany, statutory long-term care insurance only partially covers caregiving expenses. Thus, private individuals must pay a relevant part of the costs themselves and/or organize care themselves. For example, the average co-payment for a nursing home resident in Germany is around 2,100 euros per month.[6] At the end of 2020, around 4.3 million people were receiving long-term care insurance benefits, just under 3.5 million (80 percent) of whom were receiving outpatient care.[7] Of the 3.5 million, 2.6 million were older than 65, meaning around 14 percent of the 65 and older age group is receiving outpatient care.[8] Using the SOEP data, it can be investigated how this risk is distributed among individuals in the population (Box 1).[9] According to estimates based on the SOEP data (Box 2), the risk of dependence on care (the probability of needing care within one year) differs significantly among individuals according to socioeconomic characteristics (Table). As expected, the risk increases considerably with age, increasing by about 0.5 percentage points every year. There are also significant differences by household disposable income: Men with a low income (less than 60 percent of the median income) have a risk around 2.2 percentage points higher than men with a high income (greater than 150 percent of the median income). While similar differences can be observed for women, they are smaller and not always statistically detectable. Occupational status and strain (see Box 1 for definitions) also relate to the risk of requiring care. Both male and female blue-collar workers experience the highest relative risk of dependence on care across genders. In contrast, the risk for civil servants is the lowest. Employed and self-employed men have a higher risk of dependence on care than civil servants. Again, there are no significant differences for women. Controlling for other characteristics, there is also no difference in the risk of dependence on care according to job strain for either men or women.

Furthermore, people with a claim to benefits for a reduction in earning capacity have a considerably higher risk of dependence on care. This increases by around two and three percentage points for women and men, respectively. In the case of a reduction in earning capacity, a health-related reduction in earning capacity is also assumed. Thus, it is not surprising

Box 1

SOEP

The Socio-Economic Panel (SOEP) is a representative annual survey of private households that has been conducted since 1984, beginning only in former West Germany. Since 1990, it includes former East Germany as well.[1] The major advantage of this data is the detailed socioeconomic information on individuals and households, which enables a differentiated analysis of the relationship between social characteristics and the risk of care dependence (heterogeneous care needs in old age overall). Of particular relevance for this Weekly Report is the availability of a broad definition of household income at age 65 and of biographical information on individual employment status, occupational status, and long-term care dependency. A person is considered to be in need of care if they report needing assistance in at least one of the following categories: running errands and doing chores outside the home, daily housekeeping and providing themselves with meals and beverages, simpler care activities such as help with dressing/undressing and washing, or more difficult care activities such as help with getting in and out of bed or defecation.

In this report, only outpatient care provided by persons living in the same household is considered.

For the analysis of the risk of care dependence, data from the observation period 1984 to 2018 were used and all individuals who had completed their 65th year of life were considered, making a study of the 1919 to 1952 birth cohorts possible.[2]

The first differentiating factor is the relative position in the disposable income distribution in the year the person turned 65. This is determined using the net equivalized income, the sum of income and transfers received by a household, taking taxes and social security contributions into account in relation to the household's size and structure.[3] Households are thus divided into five groups: 1) Households with disposable income of over 150 percent the median are *wealthy*; 2) incomes between 100 and 150 percent and 80 to 100 percent are *middle* income households, 3) 60 to 80 percent are *low* income households, and 4) below 60 percent are households *at risk of poverty*.

Occupational status is divided into four groups: blue-collar workers, self-employed, white-collar workers, and civil servants. Individuals are assigned to an occupational group using their most recent occupation as determined by their available interview or biographical data.

all (nursing home and home care) if higher-status people requiring care more rarely move into nursing homes and therefore are no longer included in the SOEP dataset.

6 In addition to the co-payment for care expenses, this includes room and boarding and upfront costs. Costs vary considerably depending on the federal state and nursing home. Data for 2021 is from the *Verband der Ersatzkassen* (vdek) (in German; available online).

7 The figures on long-term care insurance are from the statistics published online by the Federal Ministry of Health (in German; available online).

8 Because long-term care insurance benefits are based on a significant need for care, there are also people who are dependent on assistance but do not meet the eligibility requirements of long-term care insurance. In addition, benefits must be applied for and the share of those who do not take advantage of the benefits is unknown.

9 However, it is a prerequisite that the persons can and want to participate in the survey. Therefore, people with health limitations are underrepresented in surveys like the SOEP. The share of those requiring care in private households is thus lower than in the long-term care statistics.

1 Jan Goebel et al., "The German Socio-Economic Panel (SOEP)."

2 However, the sample is not limited to those observed at age 65. If the first available observation is at the age of 66 or 67, it is included as well. This delayed entry is controlled for in the empirical analysis.

3 Using equivalent scales, the the income situations of households of different sizes and compositions are made comparable. The new OECD scale is used for weighting. For more information, see the entry in the DIW Glossary (in German; available online).

To cover every aspect, an additional group for the non-working is defined. Persons who were recorded exclusively as non-working during the entire observation period and for whom there is no information on any entry-level occupation are assigned to this group. However, they are given no further consideration in the evaluation of the empirical analysis.

The study of job-typical strain is based on an overall index divided into deciles, which combines the physical and psychosocial demand components into job-specific strain profiles.[4] The occupations in the lower fifth of the scale (index score 1 and 2) are considered to be characterized by *low* job strain. The middle three fifths (score of 3 to 8) include jobs with *medium-level* strain, and the upper fifth (score of 9 and 10) jobs with *significant* strain. An individual is assigned to a strain category using the specific occupational classification (ISCO88) of their most recent occupation.

Individuals receiving benefits for a reduction in earning capacity are identified using their biographical occupational status.[5] The determining factor in whether an individual was eligible is being recorded as "retired" before age 60.

An individual's insurance status is also directly recorded in the SOEP. For the empirical analysis, this information is used to create an indicator that shows if a person aged 65 is statutorily or exclusively privately insured. This part of the present study is limited to the observation period of 1999 to 2018.

Participation in the SOEP is voluntary. Thus, the sample could potentially be distorted, as poor health or significant additional stressors due to a care requirement could influence the likelihood of participation.[6] This affects both the selection of the initial survey of individuals and may play an important role in the likelihood of longitudinal participation behavior. SOEP has matched vital statuses of former respondents using the population register on several occasions and thus can determine the year of death of SOEP respondents regardless of participation.[7] Population register data does not provide any information on an individual's dependence on care.

Lower socioeconomic characteristics as well as health status and (potential) care requirements increase the likelihood an individual will not continue to participate in the SOEP. Furthermore, individuals with a high socioeconomic background are more often cared for at home, while persons with a lower socioeconomic background more frequently move to nursing homes and are thus no longer included in the SOEP data. In the present analysis, the interplay of these factors can result in an underestimation of social differences in the risk of care dependence and the remaining years without need for care after age 65.[8]

4 Lars Eric Kroll, "Konstruktion und Validierung eines allgemeinen Index für die Arbeitsbelastung in beruflichen Tätigkeiten auf Basis von ISCO-88 und KldB-92," *Methoden, Daten, Analysen* 5, no. 1: 63–90 (in German).

5 Paul Schmelzer, Maik Hamjediers, and SOEP Group, "SOEP-Core v35 – Activity Biography in the Files PBIOSPE and ARTKALEN," *SOEP Survey Papers Series B.*, no. 877 (2020).

6 Rainer Schnell and Mark Trappmann, "Konsequenzen der Panelmortalität im SOEP für Schätzungen der Lebenserwartung." Zentrum für Quantitative Methoden und Surveyforschung working paper, Universität Konstanz, 2006: 2 (in German).

7 Hannes Kröger and Martin Kroh, "SOEP-Core v35 – LIFESPELL: Information on the Pre- and PostSurvey History of SOEP-Respondents," *SOEP Survey Papers Series D*, no. 887 (2020).

8 Rainer Siegers, Veronika Belcheva, and Tobias Silbermann, "DIW Berlin: SOEP-Core v34 – Documentation of Sample Sizes and Panel Attrition in the German Socio-Economic Panel (SOEP) (1984 until 2017)," *SOEP Survey Papers Series C.*, no. 606 (2019).

that the risks of a reduction in earning capacity and of requiring long-term care are correlated.

There are no differences between western and eastern Germany. The risk of dependence on care for men with a migration background is around two percentage points lower than that for men without a migration background. There is no such difference for women.

High-income earners require long-term care later in life

Previous findings have documented that there are systematic socioeconomic differences in the risk of dependence on care. This results in group-specific differences in the age at which people become in need of care. Just as life expectancy differs by income, job strain, and occupational status, the expected years remaining without care needs are unevenly distributed. These effects are investigated using event analysis models (Box 2).[10]

Years lived without requiring care after age 65 differ among income groups measured at age 65 (Figure 2). Wealthy people earning over 150 percent of the median income do not become in need of care until very old age. Thus, they were selected as the reference group. For the other income groups, it is calculated how many years earlier they will need care compared to the wealthy group.

10 The results are a descriptive analysis of the heterogeneity in the different patterns of risk of dependence on care profiles between various socioeconomic groups. No causal relationships can be statistically identified here.

Table

Differences in risk of care dependence
Deviation from reference group in percentage points

	Men	Women
65 years old	0.34 ***	0.52 ***
Direct migration background[1]	−1.95 ***	−0.42
No direct migration background	reference	reference
Residence: eastern Germany	−0.22	−0.51
Residence: western Germany	reference	reference
Relative income position		
Less than 60 percent of median income	2.23 *	1.79
60 to 80 percent	1.14	1.74 *
80 to 100 percent	−0.12	1.61 *
100 to 150 percent	0.10	1.20
Over 150 percent	reference	reference
Most recent occupation		
Blue-collar worker	2.48 ***	0.84
Self-employed	2.14 **	0.11
White-collar worker	1.07 *	0.29
Civil servant	reference	reference
Job strain		
Low	reference	reference
Medium	0.44	−0.06
High	0.93	1.81
Reduction in earning capacity	2.99 ***	1.97 **
Constants	−23.98 ***	−35.90 ***
Observations	36,571	40,756
Individuals	4,201	4,333

1 People who immigrated to Germany (first generation of immigrants).

Notes: Solely outpatient care is analyzed. The asterisks following the values denote the significance level, which indicates the statistical precision of the estimate. The more asterisks, the more accurate: ***, **, and * indicate significance at the one-, five-, and ten-percent levels, respectively.

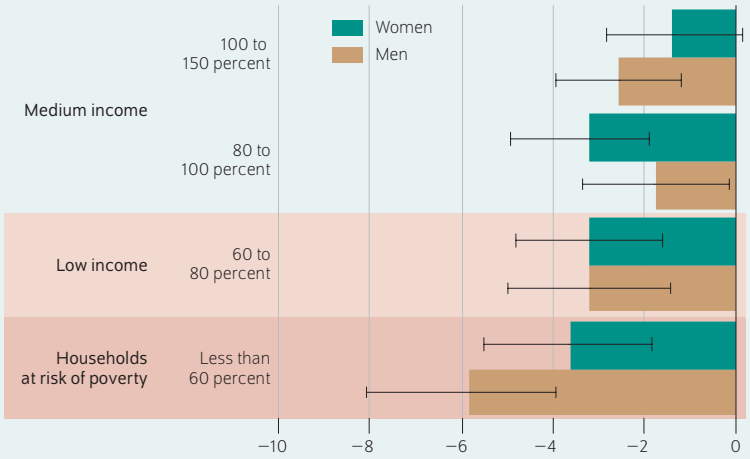
Legend: The risk of care dependence for male blue-collar workers is about 2.5 percentage points higher than for men in civil service. For women in the respective occupational groups, no such difference can be statistically identified.

Sources: SOEP v35, 1984–2018; persons 65 years or older in private households.

The individual risk of care dependence is higher the lower one's position is in the income distribution. On average, men at risk of poverty (less than 60 percent of the median income) become in need of care almost six years earlier than wealthy men (150 percent of the median income). Men earning a low income (60 to 80 percent of the median income) still become in need of care a good three years earlier. Similarly, there are significant differences of about 1.7 and 2.5 years, respectively, among the middle-income groups. For women, the differences are smaller overall, although similar. The need for long-term care arises on average more than three years earlier for the lower three income group than for the wealthy households.[11]

Figure 1

Remaining years of life without care needs from age 65 by income groups
Differences compared to the highest income group in years



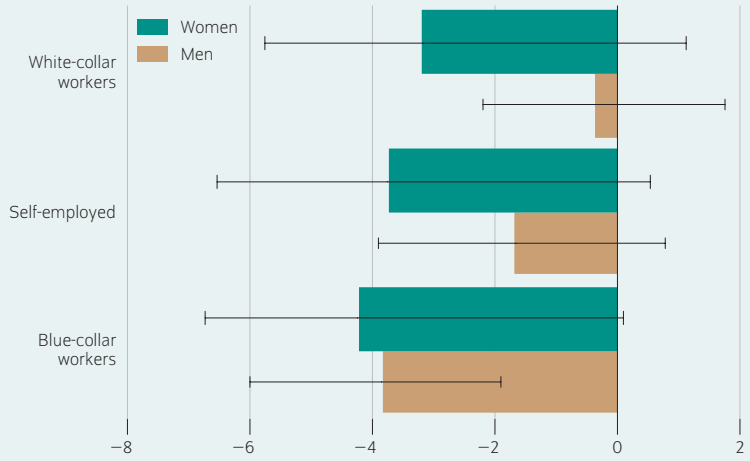
Note: Event analysis models for the need for long-term care from age 65, controlling for migration background, residence (eastern/western Germany), cohort effects, and age at the time of observation. The horizontal lines represent a 95 percent confidence interval, which illustrates the extent of uncertainty in the estimates.

Sources: SOEP Core v35, 1984–2018; persons 65 years or older in private households.

On average, men earning less than 60 percent of the median income become in need of care about six years earlier than higher-income earners.

Figure 2

Remaining years of life without care needs from age 65 by occupational status
Differences compared to civil servants in years



Note: Event analysis models for the need for long-term care from age 65, controlling for migration background, residence (eastern/western Germany), cohort effects, and age at the time of observation. The horizontal lines represent a 95 percent confidence interval, which illustrates the extent of uncertainty in the estimates.

Sources: SOEP Core v35, 1984–2018; persons 65 years or older in private households.

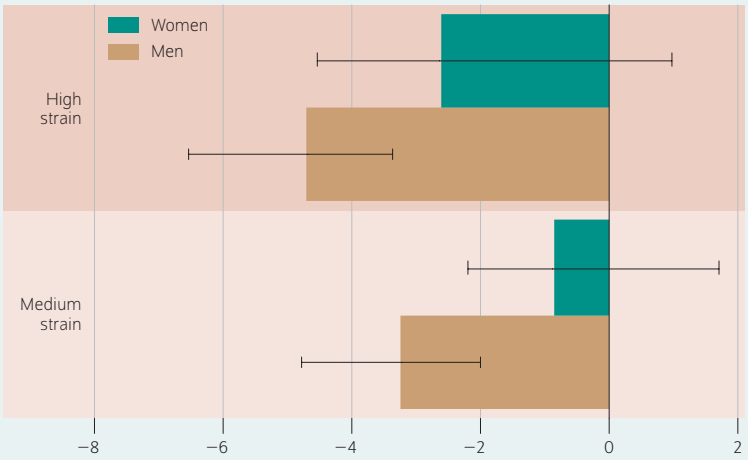
On average, blue-collar workers become in need of care around four years earlier than civil servants.

11 When interpreting the results, the 95 percent confidence intervals also shown must be taken into account. These are generated using the standard errors calculated by the bootstrapping procedure and, if they do not include the value zero, indicate that statistical differences in the life expectancies considered can be assumed with a high probability. In the current observation, this is the case for men in all income groups; for women, this does not apply to those earning a medium income between 100 and 150 percent of the median.

Figure 3

Remaining years of life without care needs from age 65 by job strain

Differences compared to the low job strain group in years



Note: Event analysis models for the need for long-term care from age 65, controlling for migration background, residence (eastern/western Germany), cohort effects, and age at the time of observation. The horizontal lines represent a 95 percent confidence interval, which illustrates the extent of uncertainty in the estimates.

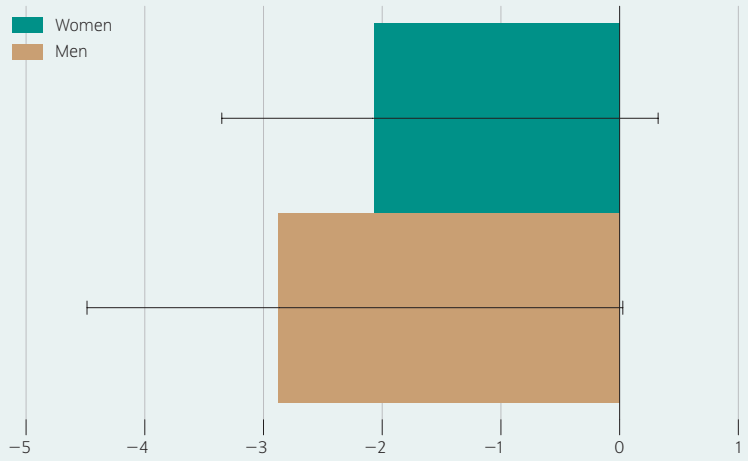
Sources: SOEP Core v35, 1984–2018; persons 65 years or older in private households.

Men and women with high job strain become in need of care 4.7 and 2.7 years earlier on average, respectively, than people with low job strain.

Figure 4

Remaining years of life without care needs from age 65 by reduced earning capacity pension

Differences compared to the group without reduced earning capacity pension in years



Note: Event analysis models for the need for long-term care from age 65, controlling for migration background, residence (eastern/western Germany), cohort effects, and age at the time of observation. The horizontal lines represent a 95 percent confidence interval, which illustrates the extent of uncertainty in the estimates.

Sources: SOEP Core v35, 1984–2018; persons 65 years or older in private households.

On average, men and women with a reduction in earning capacity become in need of care 2.8 and two years earlier, respectively, than people without such a pension.

Box 2

Methods of analysis and interpretation of findings

In the first step, the general risk of care dependence is estimated separately for men and women using a linear probability model. The dependent variable is an indicator that describes the individual need for care (yes/no), regardless of the amount of help required. The model specification can be taken from the Table. In addition to social structural characteristics, income, occupation, and job strain, as well as an indicator for receiving benefits for a reduction in earning capacity, it is controlled for direct migration background and place of residence in Germany. The analysis uses all available observations on long-term care requirements between 1984 and 2018.

In the second part, the group-specific differences in the remaining years without the need for long-term care are analyzed. For the empirical analysis, a (non-parametric) discrete event analysis model[1] is used, with which it is estimated how high the risk of requiring outpatient care is at a certain age, in this case after 65. The results are the age-specific baseline risks of needing care (baseline hazard) and, depending on the structural characteristic analyzed, the relative differences in these risks between subgroups (hazard ratios).[2] In this way, it is possible to determine the average probability of a group reaching a certain age without requiring care. For a more detailed analysis of group-related differences, the average expected remaining years without need for long-term care at age 65 are determined using a calculation methodology from the field of life expectancy analysis (life table methodology).[3,4]

To adequately reflect statistical uncertainties, the standard errors or confidence intervals of the differences in the risk of care dependence between different socioeconomic groups are estimated using a resampling procedure (bootstrapping) with 1,000 replications.

1 Judith Singer and John Willett, "It's about time: Using discrete-time survival analysis to study duration and the timing of events," *Journal of Educational Statistics* 18, no. 2 (1993): 155–195; Hannes Kröger et al., "Einkommensunterschiede in der Mortalität in Deutschland – ein empirischer Erklärungsversuch," *Zeitschrift für Soziologie* 46, no. 2 (2017): 124-46 (in German).

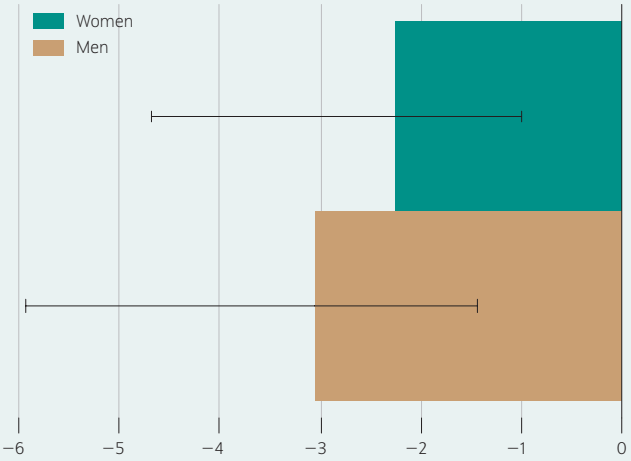
2 This study explicitly examines the first occurrence of a need for long-term care after the age of 65, regardless of whether the person was already in need of long-term care before the reference age.

3 Samuel Preston, Patrick Heuveline, and Michel Guillot, "Demography, measuring and modeling population processes," *Population and Development Review* 27, no. 2 (2009): 365–367.

4 For the calculation of age-specific risks of care dependence, see Haan and Schaller, "Heterogene Lebenserwartung," footnote 8.

Figure 5

Remaining years of life without care needs from age 65 by insurance status
Differences compared to the privately insured group



Note: Event analysis models for the need for long-term care from age 65, controlling for migration background, residence (eastern/western Germany), cohort effects, and age at the time of observation. The horizontal lines represent a 95 percent confidence interval, which illustrates the extent of uncertainty in the estimates.

Sources: SOEP Core v35, 1984–2018; persons 65 years or older in private households.

Statutorily insured men and women become in need of care three and two years earlier, respectively, than privately insured people.

People with higher job strain require care earlier

Previous studies have shown that civil servants have the greatest remaining life expectancy as well as number of years without care needs at age 65.[12] Accordingly, this group is chosen as the reference group and the differences to the other occupational groups are presented (Figure 2). The most significant differences here are among blue-collar workers, who require care about four years earlier on average. The differences to the other occupational groups are smaller for both men and women and are no longer statistically measurable.

Within an occupational group, strain may vary depending on specific job duties and thus the risk of care dependence may also differ within a group. Therefore, the long-term health effects of physical and psychosocial job strain on the need for care are analyzed (Figure 3). The risk of care dependence is the lowest for the group with lower job strain and was selected as the reference accordingly. Compared to this group, men with medium and high job strain require care around 3.2 and 4.7 years earlier, respectively. The differences are smaller for women and only statistically reliable for the group with high job strain, who require care 2.7 years earlier.[13]

People with a reduction in earning capacity have a considerably higher risk of care dependence, which leads to them having fewer years of independence once they reach the age of 65 (Figure 4). On average, men with a previous reduction in earning capacity require care about 2.9 years earlier than men without such a socio-legal status. For women, the difference is about two years.

There are also differences by insurance status (Figure 5). People with statutory long-term care insurance have significantly fewer years until requiring care than people who have private long-term care insurance. For men, the difference is over three years while for women, it is a good two years.

Single-payer health care system could reduce uncertainty

Numerous studies have documented that poorer people in Germany have a markedly lower life expectancy than wealthier people. This Weekly Report shows that they also have a greater risk of care dependence and become in need of care earlier in life. Thus, poorer people do not only live shorter lives, but they also mostly have fewer years of independent life remaining than high-income earners. The same applies to blue-collar workers compared to civil servants as well as for people with high job strain compared to those with lower strain. The need for care does not depend on age exclusively and does not occur randomly. On the contrary, it is influenced by society, income, and occupation.

Statutory long-term care insurance in Germany only partially covers caregiving expenses. Therefore, significant costs are incurred for inpatient, partial inpatient, and outpatient care. Informal care work often results in temporal, physical, and psychological burdens for the caregiver. Since people with low household incomes or high job strain are at higher risk for requiring care, expenses for this group occur more frequently and reduce already lower disposable incomes.[14]

The existing social security systems only partially compensate for these unequal burdens. Statutory long-term care insurance supports those in need of care, primarily with the income-independent care allowance and benefits in kind. However, these benefits only cover a small part of the overall expenses. Moreover, welfare covers caregiving expenses in the form of "caregiving assistance" when a household cannot afford the private costs.[15]

12 The remaining life expectancy describes how many years of life a, for example, 65-year-old person has left on average. See Ralf K. Himmelreicher, "Die fernere Lebenserwartung von Rentnern und Pensionären im Vergleich," *WSI-Mitteilungen* no. 5: 274–280 (2008) (in German; available online); Gabriele Doblhammer, Elena Muth, and Anne Kruse, *Abschlussbericht Lebenserwartung in Deutschland. Trends, Prognose, Risikofaktoren und der Einfluss ausgewählter Medizininnovationen. Studie des Rostocker Zentrums zur Erforschung des demografischen Wandels im Auftrag des VFA* (Rostock: 2008) (in German; available online).

13 Men are more frequently employed in jobs explicitly characterized by high job strain, predominately due to the physical components. See Haan and Schaller, "Heterogene Lebenserwartung."

14 Additionally, these households also have fewer assets than other households: Johannes Geyer, "Einkommen und Vermögen der Pflegehaushalte in Deutschland," *DIW Wochenbericht* no. 14/15 (2015): 323–328 (in German; available online).

15 In nursing homes especially, the share of people receiving long-term care benefits is high at just under 40 percent (Figures refer to 2019. Sources: Federal Statistical Office (Destatis), Genesis Online, Datenlizenz by-2-0; authors' own calculations).

Sociopolitical reforms are necessary to reduce the inequality caused by the differing risks of care dependence. A long-term and sustainable policy must begin during the gainful employment phase. The results show that the risk of care dependence varies greatly by the level of occupational strain. Moreover, the role of occupational strain is reflected by the fact that people who must leave the labor force earlier due to severe health limitations and receive benefits for a reduction in earning capacity also have an increased risk of care dependence. It is thus important to develop concepts that reduce strain during the employment phase so as to preemptively reduce the risk of care dependence. These starting points are becoming increasingly important, especially in an aging society, and reflect the desire of the people concerned to continue living independently for as long as possible.

However, these measures only take effect in the long term. To reduce the inequality that results from the differing risks of care dependence in the short term, the benefits of the statutory long-term care insurance must be expanded and the quality and offer of care increased. However, such reforms cost money. Therefore, instead of increasing benefits across the board, they could be redistributed within the system. For example, private co-payments could be made more dependent on disposable income. The suggestion of a single-payer health care system, wherein one system covers all residents and private systems are abolished, goes in a similar direction, as the risk of care dependence of those with private long-term care insurance is markedly lower than that of those with statutory insurance. However, any financial reforms must also ensure that low-income earners who are at high risk of requiring care receive the same quality of care as high-income earners.

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