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Family Caregivers in Israel: Analysis, Characterization, and Impact on the Labor Market

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Introduction

Families and friends are the most important providers of long-term care (LTC).[1] With the increase in life expectancy, there is a growing likelihood that the elderly will require LTC and that younger individuals will be involved in that care. Furthermore, with the development of abilities to diagnose disorders related to attention deficit, communication, and language, as well as social and emotional disabilities, the number of individuals in need of LTC has grown.[2] The result is that the potential support ratio (the number of people age 15-64 per one older person aged 65 or older), that is, the share of individuals for whom there is a chance of becoming a family caregiver or informal caregiver, is increasing over time.

Due to the informal nature of the care provided by family members, it is difficult to collect comparable data across countries on the number of individuals who care for family members or friends, whether with respect to the frequency of care or the impact on the lives of both the caregivers

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1   *Health at a Glance 2019: OECD Indicators*, OECD website.

2   See Fombonne, 2018, and also the website of Maccabi Healthcare Services, *The Incidence of Autism in the Israeli Population — Research*.

and the patients. Nonetheless, according to the Central Bureau of Statistics' (CBS) Social Survey for 2019 (on which this article is primarily based), about 1.2 million individuals, constituting about 21% of the 20+ age group, report that they are family caregivers. These are individuals who aid family members suffering from an illness or physical, cognitive, or mental disability for more than six months without payment. About 39% of them assist more than one family member. This involves a massive number of individuals who invest large amounts of time in providing LTC, to one extent or another, for their family members.

Family caregivers provide assistance in a variety of day-to-day tasks: personal care, housework, activities outside the home, emotional and social support, and sometimes even financial support. In some instances, assistance is also needed in medical treatment, starting from administering medications and providing injections or inhalation and ending in more complex treatment. Researchers and experts in the field describe family caregivers as persons dealing with the health event experienced by a family member (Brodaty & Donkin, 2009). Alongside the emotional difficulty in dealing with the suffering of a related person, the provision of the care by itself causes caregivers to experience hardships, including physical challenges and even financial stress due to the time they invest in caregiving and the increased costs that are not always covered by health insurance or other sources.

LTC provided by family members and friends rests on cultural and social foundations, as well as behavioral norms. The literature points to a correlation between social characteristics, such as gender and cultural background, and the number of hours invested in informal LTC. The large investment in a family member who needs assistance has a direct effect both on the ability of caregivers to participate in the labor force and also on their need for non-financial support (Sharma et al., 2016). Additional effects on family caregivers include physical and emotional burnout, constant fatigue, excessive morbidity risk, lack of patience, depression due to physical and mental stress, etc. (Bom et al., 2019). These important issues were not examined by the Social Survey and therefore will not be discussed here.

Many OECD countries have adopted a variety of policy tools to support family caregivers, with the goal of reducing the negative effects associated with the provided care (OECD, 2018). These tools include, among others, paid care leave (Belgium and France), greater flexibility in work schedules (Australia and the US), a "leave of absence" — a kind of mutual break during which

the patient temporarily receives care from a different source other than a family member (Austria, Denmark, France, and Germany), and guidance and counselling services financed by the state (Sweden). Some OECD countries, including Israel, even provide monetary benefits to family caregivers, such as transfer allowances to those in need of LTC, which can be used to compensate family caregivers, or paid vacations for family caregivers.

The current study describes family caregivers according to their characteristics and the type of care they provide and examines the impact on them in the labor market and their lives in general. The findings will facilitate an understanding of the cost to the economy due to the loss of work hours on the one hand, and the (unmeasured) economic value of the services provided by family caregivers on the other.

Informal care

Informal care is usually provided by one main caregiver with the support of other family members or formal caregivers, who are referred to as a support or care network (Andersson & Monin, 2018). In general, it is the closest family members, such as a spouse, parents, or adult children, who take responsibility for the care of a family member.

Studies carried out in Israel and other countries indicate that despite the rapid development of the network of formal services, informal care is still a widespread phenomenon and is manifested in various ways, such as assistance in day-to-day activities (washing and dressing), assistance in activities related to household management (meal preparation and shopping), and emotional and social support (Brodsky et al., 2011). Moreover, family members must often assist their loved ones (who are usually elderly) in situations where assistance was previously provided by professionals. Thus, for example, because of the shortening of hospital stays, family members must provide assistance during the recovery period from an acute illness, which sometimes requires the administration of medical treatments (injections, inhalation, etc.). Accordingly, the care provided by family caregivers has become more complex and requires understanding, knowledge, and a variety of skills, in addition to the emotional and mental burden experienced in providing the assistance.[3]

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3   See *Ha'aretz* newspaper, "What are informal caregivers and how do you know whether you are one?"

Informal care worldwide

The scientific literature deals with the theoretical and empirical aspects of informal LTC of family members and with the relationship between the magnitude of the phenomenon and the policy governing the formal support of these patients (for a review, see Cremer et al., 2012). In general, the research views the family as a framework that provides a kind of insurance against potential LTC requirements and attempts to model the family members' motives to provide LTC. The literature points to the substitutability between institutionalized assistance provided by the state and altruistic assistance provided by family members, whereby the state assistance replaces the intergenerational transfer. Comas-Herrera et al. (2003) analyzed the relationship between the expenditure on informal and formal care in four European countries (Germany and United Kingdom as representative of Northern Europe and Spain and Italy as representative of Southern Europe) and looked at the effects of expected demographic changes on formal care expenditure in 2050, in particular in light of the declining ratio of working-age women to the elderly resulting from the declining birth rates. According to the researchers, since women bear most of the burden of informal care, in view of their increased labor force participation rates the aforementioned demographic changes will have a growing impact on expenditure on formal care. The researchers assess that a drop of 0.5% in informal care will require a significant increase in the expenditure on formal care, particularly if provided in an institutional setting (expenditure relative to GDP is expected to rise by 10% to 60%). Barczyk and Kredler (2019) examined informal care within the context of formal care in European countries and the US. Their extensive research provides, among other things, an estimate of the unmeasured contribution of informal care in terms of GDP. In general, the extent of informal care in Northern Europe, in which the state is highly involved in formal care, is significantly lower than in Southern Europe, where the opposite is true. For example, in the Netherlands, formal care amounts to 3.7% of GDP while informal care is estimated at 0.2%; while in Spain, the figures are 0.8% and 1.2%, and in Italy 0.7% and 1.5%, respectively (Barczyk & Kredler, 2019, Table 7). Peña-Longaobardo et al. (2021) also estimated the contribution of informal care in terms of GDP and arrived at somewhat different results. According to their research, the extent of formal care in the Netherlands is 3.5% of GDP while that of informal care is 2.6%; in Spain, the figures are 0.9% and 4.0% respectively; and in Italy, they are 1.7% and 3.2% respectively (Peña-Longaobardo et al., 2021, Table 4).

Rodrigues et al. (2013) examined the cost to the caregivers themselves. They looked at the characteristics of the caregivers (who were primarily women) in European countries and how informal care affected their activity in the labor market and their health. They found that providing care had only a small effect on labor force participation, but a significant and adverse effect on health, as reported by family caregivers relative to others.

Finally, we note the Social Protection Innovative Investment in Long-Term Care (SPRINT) project carried out by the European Commission, which looked at how LTC for the elderly in 12 European countries could be improved. A report that was published as part of the project in 2018 looked at the effects of informal care on the caregivers and on society in general and recommended adopting the social investment approach to cope with the effects (Barbieri & Ghibelli, 2018).

What care is provided by caregivers?

One of the challenges in analyzing caregiving is the lack of a clear division between functions in the formal system and those of family caregivers. Essentially, the most common model is based on complementation, that is, formal care is not a substitute for informal care but rather complements it. Thus, it is often the case that family caregivers aid in dealing with physical functions (such as washing, dressing, eating, going to the bathroom, and other activities of daily living) and mobility. Moreover, even when there is a caregiver, even one that provides 24-hour care, other family members also provide assistance (Brodsky et al., 2011).

Another type of care is assistance in household tasks, such as cleaning, cooking, laundry, etc. When the family caregiver lives with the patient, the household tasks are performed for all the household members; however, it is often the case that the family caregiver must invest special effort in the household tasks due to the situation of the patient, such as preparing special meals according to the patient's nutritional needs, additional laundering and cleaning, etc. Sometimes, the care also includes help in activity outside the home, such as banking, purchasing of medications, accompaniment to medical treatments, and mediation between the patient and other services in the community. Another aspect of care is assistance in medical activities, in which the caregiver is often involved in day-to-day medical treatment such as administering medications, and even more complex medical activities, such as

changing bandages, switching a catheter, and injections. Finally, many family caregivers also provide financial assistance and participate in care-related expenses (Brodsky et al., 2011).

Family caregivers worldwide

OECD data on family caregivers relates to caregivers aged 50 and older. For OECD countries where data are available, they indicate that an average of 13% of this age group in the OECD countries provide long-term care for a family member at least once a week. The rate is close to 20% in Czechia, Austria, Belgium, the United Kingdom, France, and Germany, while it is less than 10% in Portugal, Sweden, Poland, the US, Ireland, and Greece (Figure 1). Of course, there is variation in the intensity of care provided. The lowest rates of daily care were found in Sweden, Greece, Switzerland, Denmark, and the Netherlands, most of which have a developed framework for formal LTC and generous public financing in this area.

Figure 1. Share of informal caregivers over age 50 in OECD countries, 2017 (or the closest year)
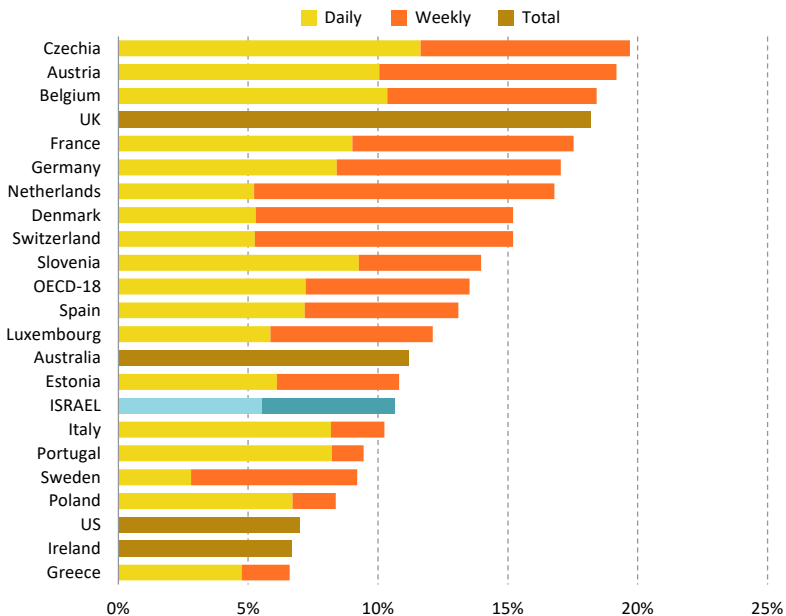
Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center, based on OECD Figure 11.20
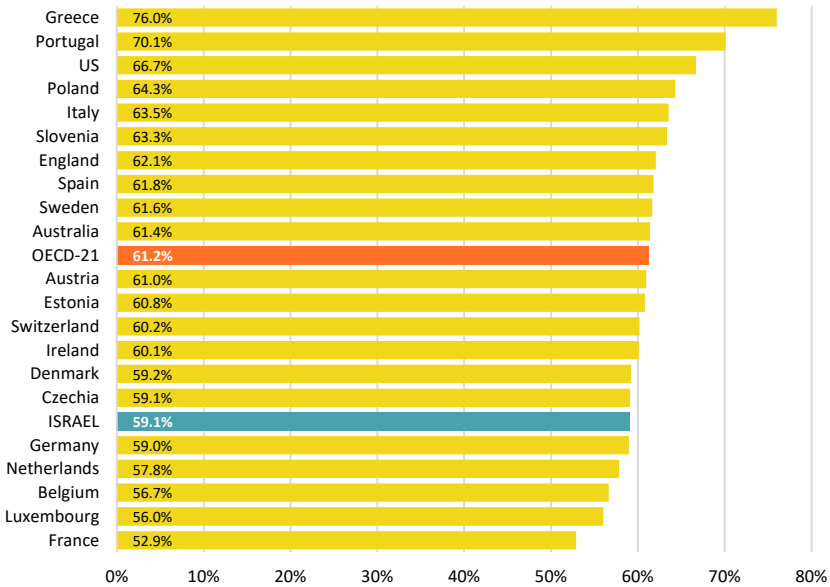
Distribution by gender

According to the OECD data, on average, women account for 61% of caregivers aged 50+ (Figure 2). In contrast, according to the findings of the CBS Social Survey among family caregivers in Israel, the share of individuals who are providing care is similar across the genders: 23% of women and 20% of men aged 20+ assist a family member with an illness or disability to one extent or another.[4] It is worth mentioning that neither the Social Survey data nor the OECD data are consistent with the analysis carried out by the Brookdale Institute about a decade ago, according to which about two-thirds of caregivers of the elderly are women (Brodsky et al., 2011). We will return to this point in the multivariate analysis.

The gender of the patient is likely to affect the structure of the informal support networks. In general, support networks of men tend to be more limited in scope than those of women and therefore they rely more on care by a spouse. Nonetheless, sometimes the reason for widespread reliance of women on their support networks (relatives who are not spouses, such as adult children) or on formal care is the absence of a spouse (primarily due to differences in life expectancy between men and women). Furthermore, since the estimated incidence for most chronic health situations is higher among women than among men, there is an even greater chance they will need LTC, and accordingly will require wider support from family caregivers (Andersson & Monin, 2018).

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4   In contrast to the OECD data, which relate to caregivers aged 50+ who care for family members (and sometimes neighbors) in need of assistance, the Social Survey carried out by the Central Bureau of Statistics (CBS) related to individuals aged 20+ who care for individuals in need of assistance — the elderly, individuals with disabilities, young family members, and others.

Figure 2. Share of women out of all family caregivers over age 50 in OECD countries, 2017 (or the closest year)

Country	Share
Greece	76.0%
Portugal	70.1%
US	66.7%
Poland	64.3%
Italy	63.5%
Slovenia	63.3%
England	62.1%
Spain	61.8%
Sweden	61.6%
Australia	61.4%
OECD-21	61.2%
Austria	61.0%
Estonia	60.8%
Switzerland	60.2%
Ireland	60.1%
Denmark	59.2%
Czechia	59.1%
ISRAEL	59.1%
Germany	59.0%
Netherlands	57.8%
Belgium	56.7%
Luxembourg	56.0%
France	52.9%

Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center, based on OECD, Figure 11.21

Methodology

As noted, the goal of this research is to characterize the community of family caregivers according to their characteristics and the type of care they provide and to examine the extent of adverse effects they experience. Data are from the CBS Social Survey, which was commissioned by the Budget Department in the Ministry of Finance. In 2019, the survey was devoted to, among other things, the assistance provided to a family member with a disability (not including financial assistance) (CBS, 2021). The survey interviewed 7,575 individuals aged 20+ in their homes who were meant to represent about 7.5 million residents of Israel in this age group.[5]

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5   The Social Survey suffered to some extent from sampling problems, primarily in the non-urban Arab sector.

This paper presents our analyses of the Social Survey data, combined with additional data sources. It should be remembered that the data are for the most part based on self-reporting, and therefore, there may be biases resulting from selective perceptions.[6]

Apart from the descriptive presentation of the Social Survey data, statistical analyses using models that allow for a multidimensional control of caregiver characteristics and those of the patients were conducted. The first analysis is based on the entire sample and estimates the probability that an individual with particular characteristics will be a family caregiver, while distinguishing between care of a family member from the generation following that of the caregiver, a family member from the same generation, and a family member from the previous generation. We then distinguished among types of care — physical, cognitive, and mental — according to population groups and the caregiver's education level. The subsequent analyses relate only to caregivers. For this group, we examined the factors that influence the amount of time invested in care, the factors that determine the likelihood of a caregiver reporting an adverse effect on work, and finally what factors lead the caregiver to report a feeling of being overburdened, to one extent or another, as a result of the care they provide.

Family caregivers in Israel

The reasons for care

The Social Survey does not allow us to distinguish among the various types of informal care. Nonetheless, the respondents were asked to report the main disabilities that created the need for assistance. In analyzing the type of assistance provided, we distinguish between assistance provided because of age (the light columns in Figure 3) and assistance provided for reasons unconnected to age, such as an illness or cognitive deficiency (the dark columns). The age-dependent disabilities are divided between those that arise from physical and mobility issues and those related to mental or cognitive functioning. There is a group of disabilities not related to age, such as illness, loneliness, mental deficiencies, etc.

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6   For example, a visit on the weekend to an elderly relative who cannot be left alone may be perceived in some social circles as assistance and in others as routine.

Figure 3. Reasons for care
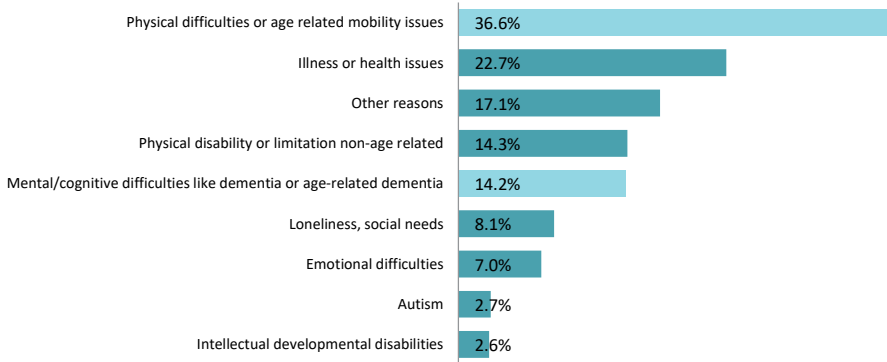
Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

In general, the Social Survey data point to differences in the type of assistance provided by men and that provided by women. For example, 30% of the women provide personal care assistance (washing, dressing, and feeding) as opposed to 16% of the men.

In order to focus the analysis, we grouped the reasons for care into three categories: physical, cognitive, and mental. The first includes reasons related to mobility, limitations due to age, and physical disabilities not connected to age and illness; the second includes reasons related to cognitive problems associated with age and mental problems; and the third includes autism, mental disabilities, and loneliness.[7]

The reasons for care by population group

About 22% of the respondents in the survey reported that they aid a relative. This was also the rate among non-Haredi Jews. Among Haredim, the rate was 34% and among Arabs it was 17%. It may be that the high rate for the Haredi population reflects the larger number of children in the nuclear family in that sector. A larger number of children increases the likelihood that the burden in providing assistance will be divided among more adult family members.

7   See CBS, 2021, question 10.380 in the Social Survey.

Figure 4 illustrates the frequency of the reported causes triggering care by population group. As can be seen, in the Arab sector (14% of the sample) the majority of assistance (76%) addresses needs arising from physical functioning. The figure also shows that among Haredim (10% of the sample) mental care is much more frequent than among non-Haredi Jews (76% of the sample) and Arabs: 27% vs 15% and 12%, respectively. It may be that these differences are a result of the traditional structure of the Haredi and Arab societies in Israel, where those in need of assistance often live with their families, and in the differences in the incidence of dementia in the various populations. In addition, since the mental cause is not age-dependent, it may be that in the Haredi society, which has a younger age profile, its frequency rises relative to that of other causes.

Figure 4. Causes for care by population group

	Mental	Cognitive	Physical
Non-Haredi Jew	15%	26%	59%
Haredi	27%	21%	52%
Arab	12%	13%	76%
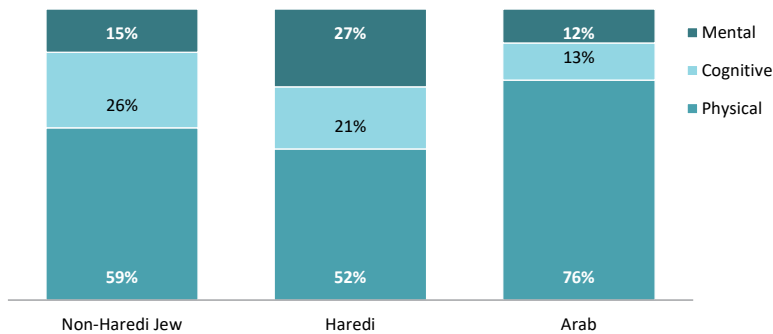
Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

The causes for care by education level

As can be seen in Figure 5, the frequency of care related to cognitive problems is relatively high among those with an academic education (35% of the sample). Those with a high school education or a post-secondary non-academic certificate (53% of the sample) are somewhat more involved in physical assistance, and individuals without a high school education and no *bagrut* (matriculation) certificate (12% of the sample) are somewhat more involved in assistance with mental disabilities.

Figure 5. Causes for care by caregiver's level of education
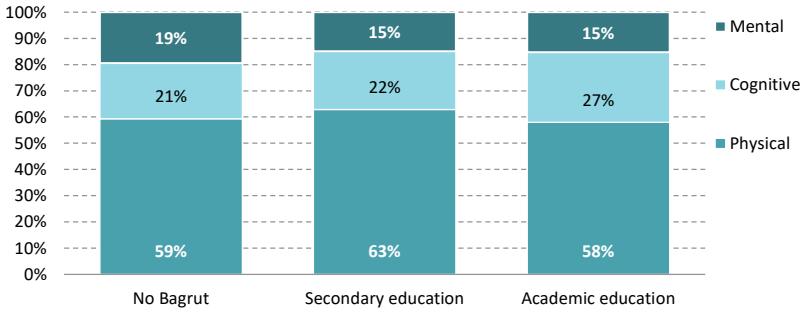
Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Time spent caring

The vast majority of caregivers in Israel (79%) do not live in the same household as the patient. In answering the survey's questions, the caregivers included the travel time to the patient within the time spend caring and therefore the data cannot be used to determine the additional burden due to travel time.

Among the respondents who reported that they provide LTC to a family member, about 28% spend up to two hours per week, and about 18% spend 3–5 hours. About 18% reported that they devote 6–9 hours per week to caregiving, and 28% spend more than 10 hours. In other words, close to one-half of family caregivers, which constitute about 10% of the working-age population in Israel, are investing the equivalent of one work day per week over a period of more than six months in caring for a family member who requires assistance.

Caregiver characteristics

Caregivers by occupation

The distribution of caregivers by occupation is quite similar to that of the sample population (Figure 6).[8] An exception is the group of caregivers who are not employed (whether they are unemployed or not participating in the labor force). This group accounts for 32% of the respondents but only about 28% of all family caregivers. In contrast, higher white-collar workers account for 34% of caregivers while their share of the respondents is only 31%.

Figure 6. Distribution of occupations among caregivers and the general population
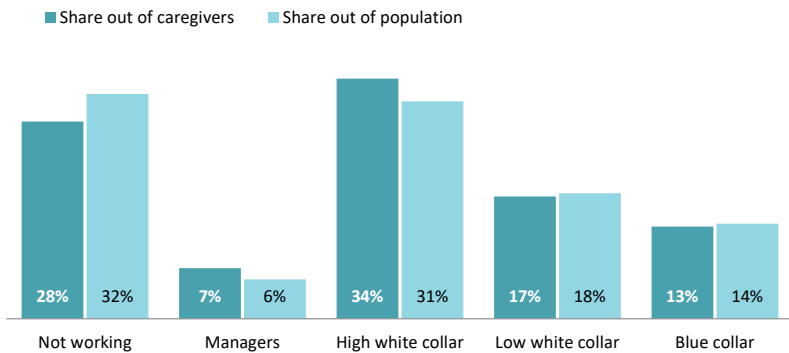
Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Caregivers by income per capita

Figure 7a and 7b show the proportion of caregivers by net income per capita and by cause of care.[9] The income groups are the lowest decile, 15% above it, 25% to the median, 25% above the median, 15% above that up to the 90th percentile and the highest decile. Figure 7a shows that the rates are quite similar among the various income groups, apart from the lower decile and

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8   Higher white-collar workers are those in academic occupations, associate professionals, and technicians, and associated occupations. Lower white-collar workers include clerks and office workers and salesmen and service people. Blue-collar workers are employed in agriculture, construction, manufacturing and other occupations, and include also unskilled workers.

9   Income per capita is standardized to the square root of the number of individuals in the household as an approximation of "income per standardized person."

the group above it, in which the proportion of family caregivers is 18.6% and 19.0%, respectively. This is significantly lower than the average in the sample, i.e., 21.3%. An examination of the distribution of caregivers within the income groups according to cause of care (Figure 7b) shows that as income per capita rises the proportion of caregivers providing physical assistance drops and the share of caregivers providing mental assistance rises.

Figure 7a. Share of family caregivers by net income per capita

Average 21.3%

0–2,600	2,601–4,100	4,101–6,700	6,701–10,500	10,501–14,500	14,501+
18.6%	19.0%	22.0%	22.3%	22.6%	21.9%

Monthly income (NIS)
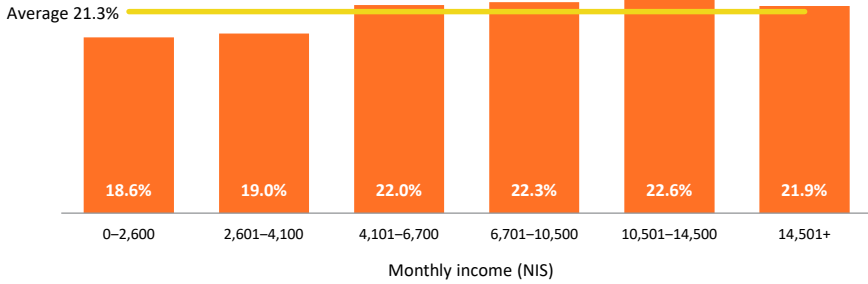
Figure 7b. Distribution of caregivers among income groups by reasons for caregiving

	0–2,600	2,601–4,100	4,101–6,700	6,701–10,500	10,501–14,500	14,501+
Mental	16.1%	15.4%	16.0%	11.3%	18.3%	14.4%
Cognitive	20.4%	21.8%	22.1%	26.8%	24.9%	30.8%
Physical	63.4%	62.8%	61.9%	61.9%	56.9%	54.8%

Monthly income (NIS)
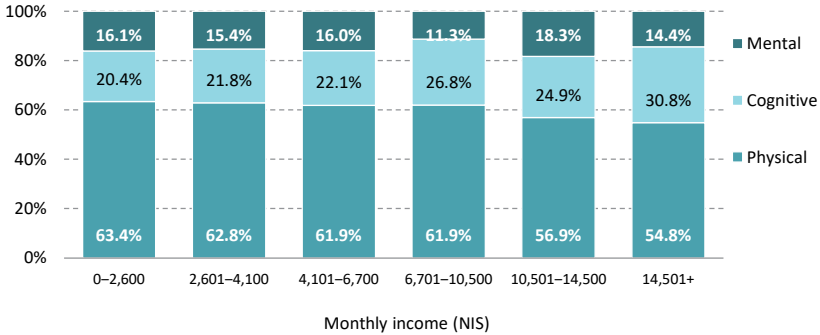
Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Multivariate analysis

The multivariate analysis is intended to control for the characteristics of the respondents. This allows us to isolate those characteristics related to the likelihood of being a family caregiver from other characteristics and to examine the level of statistical significance of the differences.[10]

The probability of being a caregiver by the generational distribution of the patients

Age of the caregivers

In this section, we examine the factors that determine the probability that an individual within the sample is providing care to a relative of the previous generation (such as a mother or grandfather), from the same generation (such as a spouse), or from the next generation (a son or daughter). The variables that we chose to characterize the caregivers were age, education, family status, gender, population group, occupation, net household income per capita (standardized using the root of the number of individuals in the household), and household density. A discussion of the methodology and findings can be found in the Appendix.

As can be seen in Figure 8, in every category of kinship the probability that individuals in the 40–49 and 50–59 age groups are caregivers is significantly higher in the statistical sense than that for individuals in the 20–29 group (see Appendix Table 1 for the regression results). This result is consistent with the literature which refers to the 40–60 age group as the "sandwich generation" in view of its duty to care for elderly parents or their own children on the one hand, or who themselves require assistance as parents, on the other hand. In contrast, and unsurprisingly, there is no statistically significant differences in the probability of caring for a relative from the previous generation between those aged 60+ and those in the 20–29 age group.

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10   There is a debate among researchers regarding the presentation of the statistical significance of the coefficients, as even a high level of significance does not preclude that the data are consistent with other values. One of the ways to cope with this problem is to use the term "data compatibility" rather than statistical significance. In order to keep the analysis simple, we generally used statistical significance, but that term should be understood as a measure of data compatibility with the test null hypothesis. See Wasserstein and Lazar, 2016.
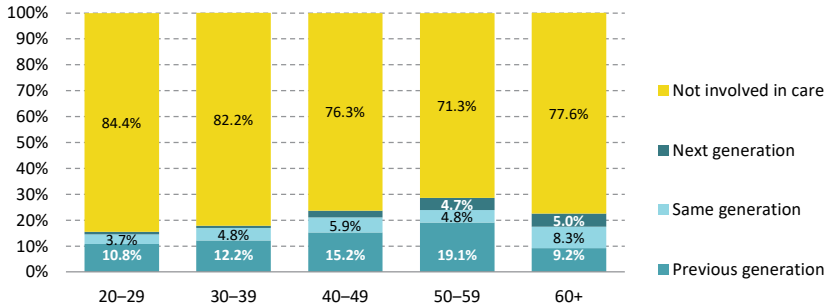
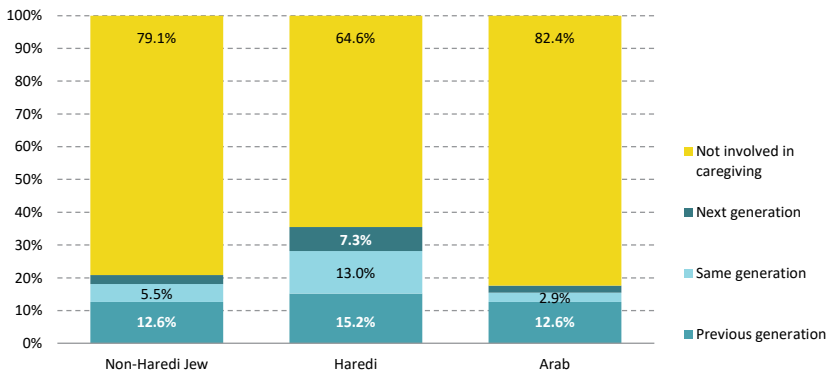**Figure 8. Probability of being a caregiver by age groups**

Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Population groups

The study found that in general, the likelihood of someone in the Haredi sector caring for a relative of any generation is the highest among the various groups, at about one-third (Figure 9). A comparison between the Arab population and the non-Haredi Jewish population shows no statistically significant differences between the likelihood of individuals providing informal care to the previous generation or the next generation. Nonetheless, in the case of informal care for the same generation, there is a statistically significant difference. Controlling for the rest of the variables, the probability of an individual in the Arab sector caring for a spouse is about two times smaller than that of an individual in the non-Haredi Jewish group (2.9% vs 5.5%). Moreover, their chances of not being involved in any informal care are higher: 82.4% of the Arabs do not provide any assistance as compared to 79.1% of non-Haredi Jews. In a comparison between the three groups, statistically significant differences were found between Haredim and the other two groups on all three variables: the probability of Haredim providing care to a relative of the previous generation is 2.6 percentage points higher than that of non-Haredi Jews and Arabs (15.2% vs 12.6% in the other two groups); their probability of caring for a relative of the same generation is twice as high as among non-Haredi Jews and more than four times higher than among Arabs: 13% vs 5.5% and 2.9%, respectively;

and their probability of caring for a relative from the next generation is around three times higher than among non-Haredi Jews and Arabs: 7.3% vs 2.8% and 2.1%, respectively.[11]

Figure 9. Probability of being a caregiver by population group

Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Personal status and gender

The multivariate analysis indicates that in comparison to the probability of being a caregiver for a relative of the previous generation, the probability of finding spouses among those caring for relatives in their own generation or in the next generation is higher than the probability of finding non-married individuals. In contrast, from the perspective of gender and when controlling for the other variables, it was found that there is no difference between men and women in the probability of caring for a relative in the various generational categories. When examining the probability of not being involved in caregiving at all, Appendix Table 2 shows a small but statistically significant difference between men and women: among women, this probability is 77%, while among men it is 80%.

11   An alternative specification included indicators of the individual's religiosity for both Jews and non-Jews. The ranking ranges from Haredi to secular among Jews and very religious to non-religious among non-Jews. In the survey sample, which breaks down into 82% Jews and 18% non-Jews, the Haredi/very religious group is composed of 91% Jews and 9% non-Jews. The religious group is composed of 48% Jews and 52% non-Jews. In the traditional group, there are 84% Jews and 16% non-Jews and the secular/non-religious are made up of 92% Jews and 8% non-Jews. Unsurprisingly, the indicator "Haredi/very religious" has a similar statistical effect as that of "Haredi" in a regression similar to that shown in Appendix Table 1, while the coefficient of the indicator "religious" is not statistically significant.

Time spent caring

Appendix Table 3 shows the results of an ordinal logistic regression for the probability of being a caregiver according to time spent caring (number of weekly hours). The categories are ordered from "up to two hours" (the lowest) up to "10 hours or more" (the highest). For each time category, the coefficients of the variables reflect the effect of the corresponding variable on the probability of finding an individual in a category with more time spent caring (if the coefficient is positive) or less (otherwise).[12]

With respect to the younger group (20–29), the likelihood that individuals in the 30–39 and 40–49 age groups will belong to a higher category (more hours of care) does not depend on the time spent caring category that they belong to and is not different from the base category, i.e., the 20–29 age group. For the two older groups (50–59 and 60+) there is a greater likelihood of belonging to a category with more hours of care. Relative to individuals lacking a high school education (the base category in the regression), high school graduates have a greater likelihood of belonging to a category with more hours of care, regardless of the category they are in, while university graduates are no different from individuals without a high school education. The regression results also show that the probability that men will belong to a category with more hours of care is lower than that for women. Belonging to the Arab sector or to the Haredi sector increases the likelihood of belonging to a category with more hours of care relative to the non-Haredi Jewish sector. Someone living in a high-density household will have a lower probability of devoting more hours to care. Finally, a seemingly surprising result is that the likelihood that married individuals will belong to a category with more hours of care is lower than that for unmarried individuals.

The effect of the cause for care and employment situation (working/not working) on the probability of belonging to a category with more hours of care varies across the categories. Appendix Table 3 shows that the likelihood that a working individual will be in the highest category (10 hours or more) is lower than that for a non-working individual, but only for the probability of moving from the 6–9 hours category to the highest category. The probability of moving

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12   As shown in the Appendix, an ordinal regression makes it possible to reject the parallel regression assumption, according to which the effect of a variable on the probability of being in a higher category (namely, devoting more time to care)is not dependent on any specific category. Applying the Brant test (Brant, 1990), we found that the parallel regression assumption can be rejected only for the variables "cause of care" and "employment situation".

from the two lowest categories — and in particular from the category of "up to two hours" — to those above them is statistically not significantly dependent on employment status. The causes of care have, as mentioned, been grouped into three categories: physical, cognitive, and mental. The regression results show that in comparison to caregivers who provide physical assistance to a family member, there is a lower probability for caregivers who provide cognitive or mental assistance moving from a lower care category to one of the higher categories. In the other time spent caring categories, there is no difference between the various cause of care with respect to the probability of moving to a category with more hours of care.

These findings are illustrated in Appendix Table 4, which describes the probabilities of moving between the various caregiving categories, including the highest, as predicted by the model.

On average, 25% of the caregivers devote up to two hours to care, 29% devote 3–5 hours, 16% devote 6–9 hours, and 31% devote 10 or more hours. As can be seen in Figure 10, when controlling for the rest of the characteristics, the effect of gender on this distribution is very significant. The likelihood of a man providing up to two hours of care for a family member is 8 percentage points higher than for a woman (29% versus 21%). In contrast, in the category of 10+ hours of care, the picture is reversed: according to the model, a female caregiver has a 34% probability of belonging to the highest category, which is 8 percentage points higher than for a male caregiver.
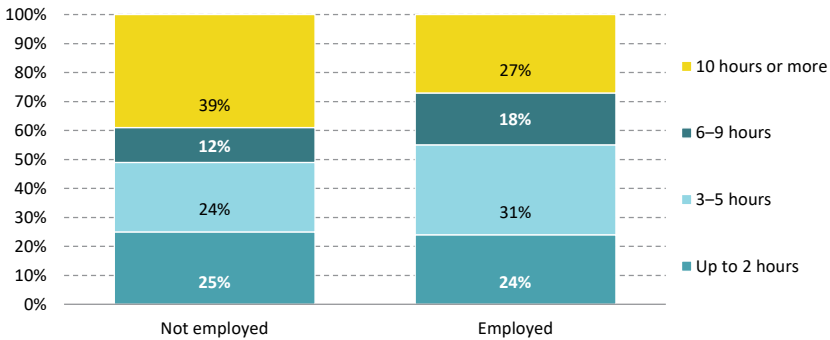
Figure 10. Probabilities of time spent caring categories by gender
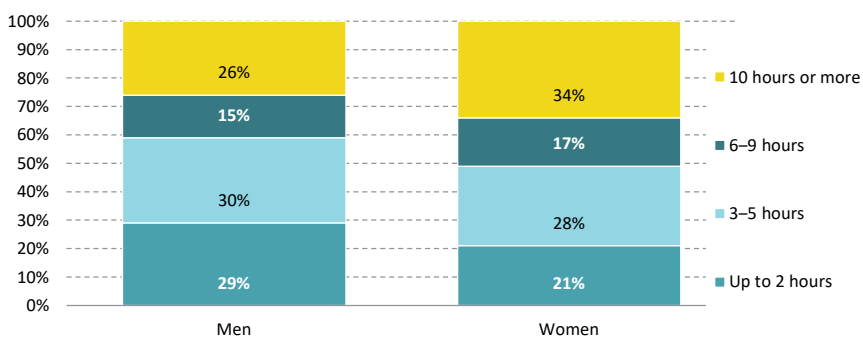
Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Figure 11 shows that employment status also has a significant effect on the distribution of the caregiver population among the time spent caring categories. While the likelihood of an employed caregiver devoting up to two hours to caring for a family member is similar to that of an unemployed caregiver, the likelihood of employed caregivers being in the two middle categories is higher by 6 and 7 percentage points respectively than that of unemployed caregivers. In the highest category, the situation is reversed: 39% of the unemployed caregivers devote 10 hours or more to care as opposed to 27% of employed caregivers.

Figure 11. Probabilities for time spent caring categories by employment status

Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Figure 12 demonstrates the similarity between Haredim and Arabs in all time spent caring categories. In these two groups, the likelihood of an individual caring for a family member for up to two hours per week is 9 percentage points lower than for a caregiver in the non-Haredi Jewish group (18% vs 27%). In contrast, in the case of 10 hours or more of care, the likelihood of a caregiver from the Arab sector belonging to this category is 39% while for a caregiver in the Haredi sector it is 40%, as opposed to only 28% in the case of the non-Haredi Jewish population.

Figure 12. Probabilities of time spent caring categories re by population group

Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

An examination of the likelihood of married and non-married caregivers belonging to the various time spent caring categories (Figure 13) shows that the likelihood of the former belonging to the two lowest categories (up to two hours and 3–5 hours) is higher than for the latter: 57% versus 44%, while in the case of the highest category, the situation is reversed: 39% of the non-married caregivers devote 10 hours or more in contrast to 28% of married caregivers. It is possible that this situation arises because married caregivers find it more difficult to divide their time between caring for their nuclear family and caring for a relative.
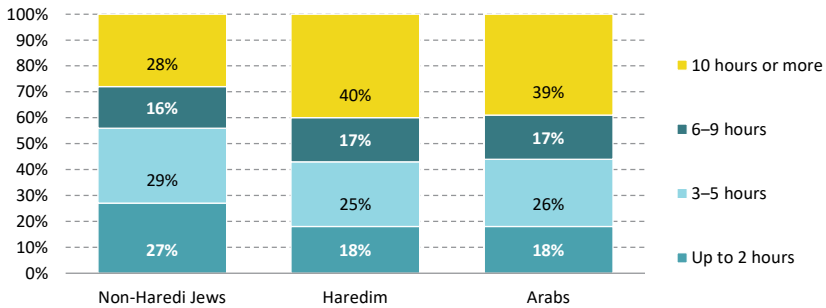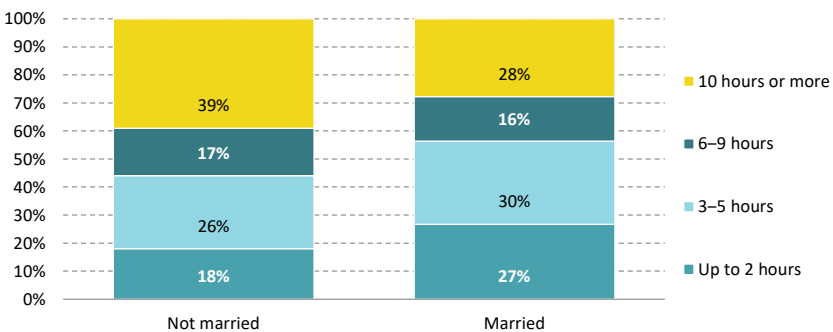
Figure 13. Probabilities of time spent caring categories by family status
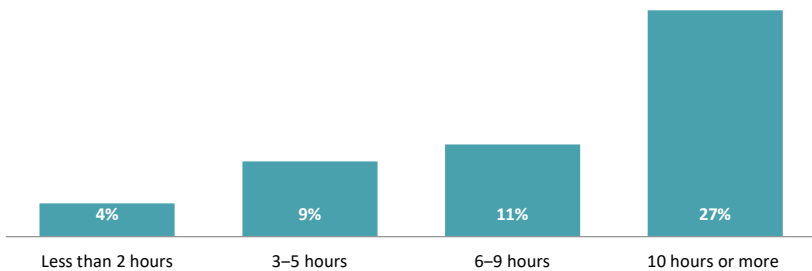

Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

The effect on work

About 88% of the employed caregivers reported that caring for a family member does not affect their work. Among the remaining 12%, 5% reported lost work days, 4% reported lost work hours, 2% reduced their total work hours, and 1% were forced to leave their jobs. Using a logistic regression, we examined the factors that affect the reporting of an adverse effect on work.[13] The results, which only include variables that remained statistically significant (apart from gender which we chose to leave in to demonstrate that there is no difference between men and women in reporting an adverse effect on work), appear in Appendix Table 5.

As can be seen from the regression results, the tendency of Arabs to report an adverse effect on work is lower than that of their non-Haredi Jewish counterparts: the likelihood that an Arab caregiver will report an adverse effect on his work is 6%, which is less than half of the probability among non-Haredi Jews (14%). Among Haredim, the probability of reporting an adverse effect on work is 10%. Unsurprisingly, the most influential variable is time spent caring. Figure 14 clearly shows the large difference in the likelihood of reporting an adverse effect on work between caregivers who invest 10 or more weekly hours and the other time spent caring categories.

Figure 14. Probability of caregivers reporting their work was adversely affected by time spent caring

| Less than 2 hours | 3–5 hours | 6–9 hours | 10 hours or more |
| 4% | 9% | 11% | 27% |

Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

13 Since the data do not make it possible to examine causality, the results should be treated as only descriptive. For example, there is a possibility that individuals prepared themselves ahead of time in order to care for a family member and adjusted their behavior in the labor market to this end. It is reasonable to assume that these individuals did not report any adverse effect on their work during the "past year," as put in the survey question.

The care burden

The respondents were asked to what extent their caregiving is a burden on them. The possible responses were "to a great extent," "to a certain extent," "not very much," and "not at all." Appendix Table 6 shows the results of an ordinal regression in which the categories are ordered from "not at all" to "to a great extent," which, as the highest category, served as the baseline category. In this regression, it is not possible to reject the hypothesis that all of the coefficients are equal across the burden categories. A positive coefficient indicates that if the associated variable receives a value of 1, then there is a greater chance that the individual will belong to a higher category, or in other words will report a heavier burden. Nonetheless, it is worth noting that most of the characteristics do not help in predicting the likelihood of individuals reporting a heavy burden as a result of the care they are providing.

The results of the statistical test show that the likelihood of the 50–59 age group reporting the heaviest burden is higher than for the youngest age group (20–29). The rest of the age groups do not differ from the youngest age group. Those with an academic education have a greater tendency to report a heavy burden relative to individuals without a high school education, although the statistical significance of the difference is marginal. With respect to household density, no real difference was found in the tendency to report the heaviest burden between individuals living in a high-density household and those living in middle and low-density households. Similarly, there was no difference found between caregivers whose cause of care is cognitive and mental and those whose cause of care is physical.

Appendix Table 7 describes the change in the probability of a caregiver moving between the various burden categories. The table shows that, in general, 49% of caregivers in the sample report that they do not experience any burden, 18% report a light burden, 22% report somewhat of a burden, and the remaining 11% report a heavy burden. An examination of the distribution by family status does not indicate any difference between married and unmarried individuals. In contrast, an examination by gender (Figure 15) shows that the proportion of men who report no burden is significantly higher than for women: 53% versus 46%. The difference is exactly reversed for the two highest-burden categories.

Figure 15. Probabilities of reporting burden of care by gender
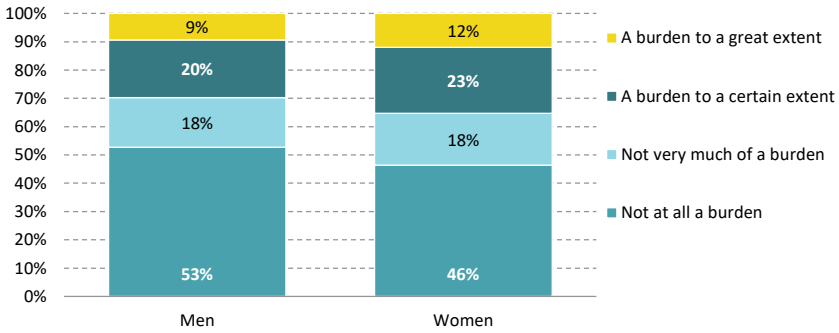
Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

With respect to employment situation, the result is less intuitive: it is in fact the working caregivers who tend to report no burden — 52% vs 43% (Figure 16). Here again, almost the entire difference is exactly reversed for the two highest-burden categories.

Figure 16. Probabilities for burden of care by employment status
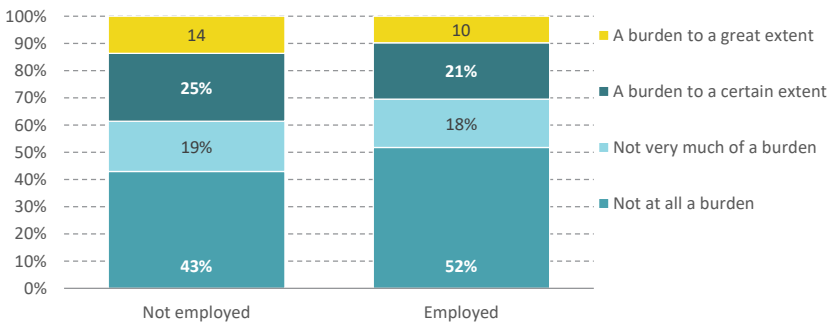
Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Finally, Figure 17 shows the relationship between time spent caring and the probability of reporting a burden. As in the case of reporting an adverse effect on work, the more time an individual spends in caregiving, the greater is the likelihood that they will report the heaviest burden: about two-thirds of caregivers who provide up to two weekly hours do not feel any burden

while among caregivers who provide 10 hours or more, the proportion is less than one-third. About one-fifth of the caregivers in the first category feel that providing care is a burden to some extent or to a great extent, while in the category of 10 hours or more, the share is about one-half.
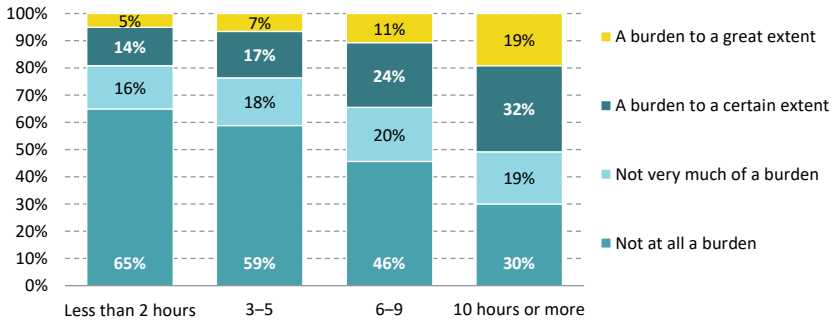
Figure 17. Probabilities for burden of care by length of care

Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Conclusion

This paper is based primarily on data from the CBS Social Survey for 2019. The survey involved personal interviews of the sample respondents (by telephone or face-to-face). In a gathering data model, there are numerous limitations; however, they are beyond the scope of this article to describe. Nonetheless, it is important to emphasize that cultural differences are likely to be highly significant in determining the responses and, therefore, also the results derived from them.

An analysis of the data shows that 22% of the 20+ age group in Israel report that they serve as a family caregiver and that about half of them do so on the basis of more than six weekly hours. Thus, one in every ten individuals aged 20+ invests the equivalent of a day's work in the long-term care of a family member.

In Israel, as in other countries, the age group that bears the heaviest care burden is the 50–59 age group, which is often referred to as the sandwich generation as a result of its double duties — to parents and to children. In this group, care is provided primarily to the previous generation, i.e., to parents; but they also care for those in the same generation (a spouse or sibling) with a probability that is similar to that of the younger age group caring for members of the same generation. Finally, they are still caring for members of the next generation (their children), this time with a probability that is similar to the age group below them.

A comparison of the various population groups (Arabs, Haredim, and non-Haredi Jews) shows differences in the proportion of caregivers, in the character of the care, and in the effect on caregivers. Nonetheless, an examination by socioeconomic status, such as level of education or income per capita, does not show dramatic differences between the groups.

A multivariate analysis makes it possible to examine the issue in more detail. The most prominent finding is a high proportion of caregivers in the Haredi population: about one-third of Haredim provide long-term care to a family member in any generation caused by illness or a disability. The analysis also shows that compared to an individual in the non-Haredi Jewish population, the likelihood of an individual in the Arab population providing any level of care is somewhat higher. It may be that these findings, which show the Arab population to be an outlier, reflect the traditional intergenerational division of roles, such that care in this society is provided primarily to members of the previous generation.

Among the Haredim, as compared to non-Haredi Jews, the pattern of caregiving is different. In their case, the likelihood of an individual caring for a family member of the same generation is almost double that of the reference group and the likelihood of caring for a family member of the next generation is three times higher.

With respect to gender, no major difference was found between men and women with respect to the likelihood of being a caregiver (though among women the likelihood was slightly higher). In contrast, with respect to time spent caring, it appears that male caregivers are more likely to provide up to two hours of care per week while female caregivers tend to provide six or more hours. Accordingly, a larger proportion of women reported that caregiving is a burden on them while more than one-half of the men reported that they do not feel any burden.

The analysis also found that the time spent caring adversely affects the caregiver's employment situation or in general makes working more inconvenient. Employed caregivers tend to invest relatively less time in care while among the unemployed about 40% invest 10 weekly hours or more. When the respondents in the sample were asked to what extent caregiving is a burden on them, about two-thirds of the caregivers who devote up to two hours per week reported that they do not feel any burden at all while more than half of the caregivers who devote 10 hours or more per week feel it is a significant burden.

Despite these findings, about 88% of the employed caregivers, both men and women, reported that their work is unaffected. Within the remaining 12%, 4% reported a loss of work hours, 5% reported a loss of work days, 2% had reduced their total work hours, and only 1% had stopped working because of the care they provided. Nonetheless, there were differences found between the various population groups: the probability that an Arab caregiver will report an adverse effect on work is the lowest and is less than one-half that of non-Haredi Jews. Unsurprisingly, the variable with the largest effect on the probability of reporting an adverse effect on work is the time spent caring. The caregivers who invest 10 hours or more to caregiving report that their work has been adversely affected at a significantly higher rate than any other length of care category.

At this point, it is worth mentioning the large difference between the findings of the Social Survey and other studies, in both Israel and other countries, with respect to the effect of LTC. The Social Survey did not examine the effect of

caring for a family member on the caregiver's career path, the challenges it creates within the family, or its effect on social ties, and therefore these issues were not examined here. This emphasizes the need for more comprehensive and widened research.

With respect to the effect on the economy as a whole, it appears that the care provided by a family member comes primarily at the expense of leisure hours and, therefore, seemingly does not involve a significant loss to the economy. This, however, is a misleading way to consider the issue. According to the Social Survey data, about 10% of Israelis of working age devote about one work day per week caring for a family member or about 20% of their weekly work hours (based on the assumption of a five-day work week). Accordingly, roughly speaking, the equivalent of 2% of total work days in the economy are devoted to the long-term care of a family member. Given that labor accounts for about 60% of GDP, the value of the time spent caring is equivalent to a welfare loss of about 1.2% of GDP.[14] In order to obtain a more precise estimate of the loss caused to households by an event that requires the long-term care of a family member, cross-sectional data like that provided by the Social Survey is insufficient and there is a need for additional research based on time series data.

Nonetheless, it is worth recalling that the economic impact reflects only one aspect of caring for a family member. On the personal level, caring for a family member exacts an emotional price from both the patient and the caregiver. From a societal perspective, there are implications that go beyond the domain of caregiving, such as the strengthening of social solidarity, the value of volunteering, and the feeling of personal satisfaction and meaning for those providing care.

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14   As mentioned, studies in other countries estimate that long-term care of family members is equivalent to about 1%–4% of GDP.

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Appendix

Appendix Table 1. Results of the multinomial regression: Probability of being a caregiver according a generational division

	Caregiver to younger generation	Caregiver to same generation	Caregiver to older generation
Age *(base category: ages 20–29)*			
30–39	-0.058	0.125	0.109
	(0.898)	(0.562)	(0.442)
40–49	1.148**	0.361	0.397**
	(0.004)	(0.094)	(0.005)
50–59	1.825***	0.221	0.691***
	(0.000)	(0.355)	(0.000)
60+	1.818***	0.615**	-0.146
	(0.000)	(0.004)	(0.348)
Education *(base category: less than high school education)*			
High school	0.371	-0.026	0.490***
	(0.152)	(0.881)	(0.001)
Academic	0.345	-0.180	0.466**
	(0.235)	(0.380)	(0.005)
Family status *(base category: single/divorced/separated/widowed)*			
Married	0.451*	0.422**	0.127
	(0.028)	(0.004)	(0.195)
Gender *(base category: female)*			
Male	-0.289	-0.177	-0.0967
	(0.089)	(0.149)	(0.256)
Population group *(base category: non-Haredi Jews/other)*			
Arabs	-0.325	-0.671**	-0.0433
	(0.268)	(0.002)	(0.731)
Haredim	1.248***	1.007***	0.380*
	(0.000)	(0.000)	(0.018)
Occupation *(base category: not employed)*			
Managers	0.302	0.016	0.425*
	(0.398)	(0.957)	(0.024)
High white collar	-0.119	0.023	0.256*
	(0.613)	(0.895)	(0.046)
Low white collar	-0.208	0.042	0.173
	(0.444)	(0.823)	(0.207)
Blue collar	-0.019	0.075	0.347*
	(0.948)	(0.724)	(0.018)

Appendix Table 1 (continued). Results of the multinomial regression: Probability of being a caregiver according a generational division

	Caregiver to younger generation	Caregiver to same generation	Caregiver to older generation
Income			
Net household income divided by root of the number of household members	0.0000123 (0.531)	-0.00000330 (0.828)	0.000000398 (0.970)
Housing density *(base category: low density)*			
Moderate	0.0807 (0.689)	-0.120 (0.413)	-0.142 (0.137)
High	0.0120 (0.976)	-0.182 (0.494)	-0.423* (0.032)
Constant	-5.207*** (0.000)	-3.066*** (0.000)	-2.603*** (0.000)

Note: N = 5,869. p scores are in parentheses.
Significance levels: *p < 0.05; **p < 0.01; ***p < 0.00.
Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Appendix Table 2. Change in probability of being a caregiver relative to various base categories

	Not involved in caregiving	Caregiver to younger generation	Caregiver to same generation	Caregiver to older generation
Age				
Aged 30–39 vs 20–29 difference	-0.022	-0.001	0.010	0.014
From 20–29	0.844	0.010	0.037	0.108
To 30–39	0.822	0.009	0.048	0.122
p value	0.187	0.735	0.239	0.353
Aged 40–49 vs 20–29 difference	-0.081	0.016	0.021	0.044
From 20–29	0.844	0.01	0.037	0.108
To 40–49	0.763	0.026	0.059	0.152
p-value	0.000	0.008	0.030	0.006
Aged 50–59 vs 20–29 difference	-0.131	0.037	0.011	0.083
From 20–29	0.844	0.010	0.037	0.108
To 50–59	0.713	0.047	0.048	0.191
p value	0.000	0.000	0.276	0.000
Aged 60+ vs 20–29 difference	-0.069	0.040	0.045	-0.016
From 20–29	0.844	0.010	0.037	0.108
To 60+	0.776	0.050	0.083	0.092
p value	0.001	0.000	0.000	0.282
Gender				
Male vs female difference	0.027	-0.007	-0.011	-0.009
From female	0.772	0.033	0.062	0.133
To male	0.799	0.026	0.052	0.124
p value	0.019	0.144	0.103	0.323
Population group				
Arabs vs non-Haredi Jews difference	0.033	-0.006	-0.026	0.000
From non-Haredi Jews	0.791	0.027	0.055	0.126
To Arabs	0.824	0.021	0.029	0.126
p value	0.035	0.293	0.000	0.974
Haredi vs non-Haredi Jews difference	-0.145	0.046	0.074	0.025
From non-Haredi Jews	0.791	0.027	0.055	0.126
To Haredi Jews	0.646	0.073	0.129	0.152
p value	0.000	0.003	0.000	0.196
Pr(y|base)	0.786	0.029	0.057	0.128

Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Time spent caring

Since the time spent caring categories have a hierarchical structure, the appropriate statistical model is an ordinal logistic regression that takes this structure into account (Appendix Table 3). The model examines the effect of variables on the probability that an individual will belong to a higher category in the hierarchy. Of the two accepted models in this context — which differ in their assumption regarding the structure of the statistical error component — the model based on the logistic assumption was chosen.[1] This choice made it possible to conduct a parallel lines or proportional odds test which usually underlies such analyses. Under this assumption, the effect of the variables on belonging to a higher category is uniform across categories. Brant (1990) proposed a test to determine which of the variables are not compatible with this assumption. Accordingly, a STATA module was written to facilitate running the model relaxing the parallel lines assumption with regard to the variables that do not pass the test and leaving it in place for the others (Williams, 2006). Specifically, when relinquishing the assumption of parallel lines, the effect of a variable on the likelihood of belonging to a higher category is not uniform across categories. In our study, the test showed no statistically significant differences between the coefficients related to the likelihood of belonging to a higher category (i.e., increasing the number of hours of care) for most of the variables, except for the reason triggering the care and employment situation variables.

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1   The alternative is based on the probit model, which assumes that the statistical error has a normal distribution.

Appendix Table 3. Ordinal logistic regression: Probability of being a caregiver by time spent caring

	Up to 2 hours	3–5 hours	6–9 hours
Age *(base category: ages 20–29)*			
30–39	0.018	0.018	0.018
	(0.936)	(0.936)	(0.936)
40–49	0.380	0.380	0.380
	(0.009)	(0.009)	(0.009)
50–59	0.613**	0.613**	0.613**
	(0.007)	(0.007)	(0.007)
60+	0.685**	0.685**	0.685**
	(0.002)	(0.002)	(0.002)
Education *(base category: less than high school education)*			
High school	0.465*	0.465*	0.465*
	(0.020)	(0.020)	(0.020)
Academic	0.272	0.272	0.272
	(0.204)	(0.204)	(0.204)
Family status *(base category: single/divorced/separated/widowed)*			
Married	-0.576***	-0.576***	-0.576***
	(0.000)	(0.000)	(0.000)
Gender *(base category: female)*			
Male	-0.414***	-0.414***	-0.414***
	(0.000)	(0.000)	(0.000)
Population group *(base category: non-Haredi Jews/other)*			
Arabs	0.526**	0.526**	0.526**
	(0.003)	(0.003)	(0.003)
Haredim	0.554**	0.554**	0.554**
	(0.008)	(0.008)	(0.008)
Employment status *(base category: not employed)*			
Employed	0.052	-0.257	-0.554***
	(0.771)	(0.096)	(0.000)
Housing density *(base category: low density)*			
Moderate	-0.205	-0.205	-0.205
	(0.132)	(0.132)	(0.132)
High	-0.609*	-0.609*	-0.609*
	(0.042)	(0.042)	(0.042)

Appendix Table 3 (continued). Ordinal logistic regression: Probability of being a caregiver by time spent caring

	Up to 2 hours	3–5 hours	6–9 hours
Reason for care *(base category: physical disability)*			
Cognitive	-0.402*	0.078	0.201
	(0.022)	(0.612)	(0.222)
Mental	-0.484*	0.573	0.103
	(0.015)	(0.754)	(0.599)
Constant	1.179***	-0.124	-0.689*
	(0.000)	(0.673)	(0.020)

Note: N = 1,062. p values are in parentheses.
Significance levels: *p < 0.05; **p < 0.01; ***p < 0.00.
Categories are organized from "up to 2 hours" (the lowest) to "10 hours or more" (the highest). The cut points the constants with a minus sign (Williams, 2006).
Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Appendix Table 4. Change in probability of time spent caring relative to various base categories

	Up to 2 hours	3–5 hours	6–9 hours	10 hours or more
Gender				
Male vs female difference	0.07	0.02	-0.02	-0.08
From female	0.21	0.28	0.17	0.34
To male	0.29	0.30	0.15	0.26
p value	0.00	0.00	0.00	0.00
Employment status				
Employed vs not employed difference	-0.01	0.07	0.06	-0.12
From not employed	0.25	0.24	0.12	0.39
To employed	0.24	0.31	0.18	0.27
p value	0.77	0.02	0.02	0.00
Population group				
Arabs vs non-Haredi Jews difference	-0.09	-0.04	0.02	0.11
From non-Haredi Jews	0.27	0.29	0.16	0.28
To Arabs	0.18	0.26	0.17	0.39
p value	0.00	0.02	0.00	0.01

Appendix Table 4 (continued). Change in probability of time spent caring relative to various base categories

	Up to 2 hours	3–5 hours	6–9 hours	10 hours or more
Haredim vs non-Haredi Jews difference	-0.09	-0.04	0.02	0.11
From non-Haredi Jews	0.27	0.29	0.16	0.28
To Haredim	0.18	0.25	0.17	0.40
p value	0.00	0.03	0.00	0.01
Family status				
Married vs not married difference	0.10	0.04	-0.02	-0.12
From not married	0.18	0.26	0.17	0.39
To married	0.27	0.30	0.16	0.28
p value	0.00	0.00	0.00	0.00
Pr(y|base)	0.25	0.29	0.16	0.31

Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Appendix Table 5. Logistic regression: Probability that caregiver's work will suffer adverse effects

	Coefficient	Standard deviation	P > z
Gender			
Male	0.333	0.210	0.113
Population group			
Arabs	-0.953	0.415	0.022
Haredim	-0.367	0.325	0.259
Time spent caring			
3–5 weekly hours	0.945	0.368	0.01
6–9 weekly hours	1.078	0.395	0.006
10 hours or more	2.147	0.348	0
Constant	-3.212	0.340	0

Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Appendix Table 6. Ordinal logistic regression: Probability of burden of care

	Coefficient	Standard deviation	P > z
Age *(base category: ages 20–29)*			
30–39	0.402	0.238	0.091
40–49	0.223	0.236	0.343
50–59	0.484*	0.238	0.042
60+	0.197	0.239	0.408
Education *(base category: less than high school education)*			
High school education	0.043	0.214	0.841
Academic	0.408	0.227	0.073
Family status *(base category: single/divorced/separated/widowed)*			
Married	0.032	0.148	0.831
Gender *(base category: female)*			
Male	-0.281*	0.125	0.024
Population group *(base category: non-Haredi Jews/other)*			
Arabs	-0.349	0.192	0.069
Haredim	-0.091	0.220	0.679
Family status *(base category: not employed)*			
Employed	-0.399**	0.151	0.008
Housing density *(base category: low density)*			
Moderate	0.071	0.146	0.627
High	-0.042	0.301	0.888
Reason for care *(base category: physical disability)*			
Cognitive	0.195	0.144	0.174
Mental	-0.059	0.173	0.731
Time spent caring *(base category: up to 2 weekly hours)*			
3–5 hours	0.266	0.173	0.125
6–9 hours	0.813***	0.196	0
10 hours or more	1.506***	0.172	0
Cut points			
Cut 1	0.690	0.331	
Cut 2	1.529	0.334	
Cut 3	3.033	0.344	

Note: N = 1,060.
Significance levels: *p < 0.05; **p < 0.01; ***p < 0.00.
Categories are arranged from "not at all" (the lowest) to "to a great extent" (the highest). It is not possible to reject the hypothesis that all fo the coefficients are equal across the burden categories..
Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS

Appendix Table 7. Change in probability in burden of care relative to various base categories

	To a great extent	To a certain extent	Not very much	Not at all
Gender				
Male vs female difference	0.026	-0.030	-0.007	0.063
From female	0.120	0.233	0.184	0.464
To male	0.094	0.203	0.176	0.527
p value	0.023	0.027	0.041	0.025
Employment				
Employed vs not employed difference	0.039	-0.042	-0.008	0.089
From not employed	0.137	0.249	0.185	0.429
To employed	0.098	0.207	0.177	0.518
p value	0.014	0.009	0.003	0.008
Family status				
Married vs not married difference	0.003	0.003	0.001	-0.007
From not married	0.107	0.216	0.178	0.499
To married	0.110	0.219	0.179	0.492
p value	0.830	0.831	0.834	0.831
Population group				
Non-Haredi Jews vs Arabs difference	0.030	-0.037	-0.011	0.077
From non-Haredi Jew	0.115	0.225	0.180	0.480
To Arab	0.085	0.188	0.17	0.558
p value	0.050	0.069	0.13	0.066
Non-Haredi Jews vs Haredim difference	0.008	-0.010	-0.002	0.020
From Haredim	0.115	0.225	0.180	0.480
To non-Haredi Jews	0.106	0.215	0.178	0.501
p value	0.672	0.680	0.701	0.679
Time spent caring				
3–5 hours vs up to 2 hours difference	0.014	0.029	0.017	-0.061
From up to 2 hours	0.051	0.141	0.159	0.649
To 3–5 hours	0.066	0.171	0.176	0.588
p value	0.126	0.123	0.130	0.123
6–9 hours vs up to 2 hours difference	0.057	0.096	0.040	-0.193
From up to 2 hours	0.051	0.141	0.159	0.649
To 6–9 hours	0.108	0.238	0.198	0.457
p value	0	0	0	0

Appendix Table 7 (continued). Change in probability in burden of care relative to various base categories

	To a great extent	To a certain extent	Not very much	Not at all
10 hours or more vs up to 2 hours difference	0.142	0.174	0.033	-0.349
From up to 2 hours	0.051	0.141	0.159	0.649
To 10 hours or more	0.193	0.316	0.192	0.300
p value	0	0	0.001	0

Source: Rachel Arazi, Benjamin Bental, and Nadav Davidovitch, Taub Center | Data: CBS