Impact of Life Events, Challenges, Changes and Transitions on the Working Population

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Executive Summary

This report represents an introduction to and analysis of the economic and personal effects of significant Life Events and Caregiving on the working population. We introduce the Apiary Life ("**Apiary**") Economic Model of Life Events and Caregiving, which has been developed from two sources: (1) The responses of 517 employees that responded to an Apiary Life survey of the economic and emotional effects of life events and caregiving, and (2) a survey of the extensive literature on the same topic.

An analysis of the relevant research and the literature investigating the immense impact on employees and the workplace of significant life events is summarized by topic, specifically, a) the scope of the caregiving issue; b) divorce and relationship breakdown; c) bereavement; and d) the effect of living with, or caring for those suffering from, serious diseases and medical conditions.

This report documents the Apiary Economic Model and the research that, together with the results of the employee survey, provides the data and assumptions that populate the Apiary Economic Model.

1. The Apiary Economic Model

The Apiary Economic Model is an interactive resource that allows a user to simulate the economic impact of life events and caregiving scenarios on their in-scope population. The model may be used by employers, insurers, Medicare Advantage and other insurance plans, medical provider organizations and others that wish to understand the personal and economic effect of certain life events such as caregiving for a family member, loss of a family member, divorce, and serious illness. The model measures the effect of these situations in terms of lost productivity, absence from work, and attrition of the workforce. It is interactive, allowing the user to customize inputs specific to the user's own situation.

The model requires two sets of inputs. The first of these, prior to presentation to the client (Figure 1.1) consists of background features from initial discussion with client, such as the nature of the client, and whether the program will be offered to all employees regardless of the timing of the start of their event. The client should decide whether it wants to limit financial outcomes to absence only or include the effect of the event on employee productivity. Additionally, Apiary and the client together will decide the number of packages to offer and the appropriate pricing contingent on client, employee seniority, and life event(s) that they choose to support. Once the initial data are gathered Apiary and the client together will complete the data input in Figure 1.2.

1.1 Using the Model: Model Inputs Stage 1

CARE COMPANY INPUTS SHEET	
Company Name	Apiary Life
Intervention Type	Life Event Management Program
Name of Device, Test, or Process (leave blank if none)	GET STARTED
Targeted Condition	Life Events and Transitions
Primary Targeted Market	◉ Employers ○ Insurers ○ Medicare Advantage Plans ○ Provider Organizations ○ Other Organizations
Targeted Members	○ Prevalent Cases ◉ Incident Cases In One Year ○ Both Prevalent and Incident Cases
Source of Savings	○ Time Away From Work ◉ Include Productivity Loss at Work
Illustration Type	○ Time and Productivity Savings Only ◉ Savings Net of Fees, with ROI
	○ Show Results with Revenue Generation ○ Show Results with Salary plus Benefits

Program Fees	Standard	Override	For Model
Annual Base Fee	$x	$x	$x
plus			
Annual Fee Per Employee	$x	$x	$x
equals			
Total Annual Program Fee	$x		$x

			HOURS SAVED			PACKAGE PRICING		
		% of Enrolled	Default	Override	For Model	Default	Override	For Model
Platform Use Only		50%	5		5	$x		$x
	Package Hours	% of Engaged						
Package A	5	20%	35		35	$x		$x
Package B	10	20%	70		70	$x		$x
Package C	15	20%	105		105	$x		$x
Package D	25	20%	175		175	$x		$x
Package E	40	20%	280		280	$x		$x
Total of "% Engaged" must be 100%		100%						

Figure 1.1: Initial Data Inputs

The user begins by specifying certain assumptions (green fields) and choosing from the menu of options.

1.2 Using the Model: Model Inputs Stage 2

In order to generate an economic case for a client a second round of data must be collected in conjunction with the client and inputted into the model.

In Figure 1.2 the tan cells must be entered by Apiary with the agreement of the client. The percentage values shown here are for illustration but are based on Apiary data and assumptions.

CLIENT COMPANY INPUTS SHEET	
Client Name	Acme Industries
Total Number of Employees	5,000
Incidence Rate of Life Events	35.0%
Account Creation Rate (percent of Employees with Life Events) Total % of Employees Creating Accounts	25.0% 8.75%
Engagement Rate (percent of Employees with Accounts) Total % of Employees Engaging with Apiary	25.0% 2.19%
Default Annual Revenue Generation per Employee	$400,000
Override Company Total Annual Revenue -or- Override Revenue Generation Per Employee	
Revenue Generation per Employee	$400,000

Figure 1.2: Client Company Inputs

1.3 Model Outputs

Once the data and assumptions are set the model will calculate certain values for the user. Figure 1.3 shows how inputs together with underlying data inform summary (demographic) data.

Apiary Life		
Presents Our Life Event Management Program known as GET STARTED		
For the Identification and Care of Employees Experiencing Life Events and Transitions		
Economic Model Presented To:		
Acme Industries		
Total Acme Industries Employees		5,000
Employees Experiencing a New Life Event in the Year	35%	1,750
Employees with Life Events Creating Apiary Accounts Online	25%	438
Online Employees Utilizing an Apiary Consulting Package	25%	110
Annual Revenue Generation per Employee		$400,000

Figure 1.3: Client Company Outputs

ANNUAL SAVINGS MEASURES	SAVINGS	FEES	NET
Savings Per Participating Employee	$17,236	$xx,xxx	$xx,xxx
Savings Per Participating Employee Per Month (PPPM)	$1,436	$xx,xxx	$xx,xxx
Savings Per Employee with Life Event	$3,240	$xx,xxx	$xx,xxx
Savings Per Employee	$1,134	$xx,xxx	$xx,xxx
Savings Per Employee Per Month (PEPM)	$95	$xx,xxx	$xx,xxx
RETURN ON INVESTMENT			6.30

Figure 1.4: Client Company Savings and ROI

2. Apiary Survey Results

The Apiary Economic Model is built on two sets of inputs: the Apiary Survey results and the literature (see Section 3). The Apiary Survey was designed to identify the impact of life events and caregiving on the typical working age population. We found that 60% of respondents had experienced such an event and that for many respondents this had affected their work productivity (including in some sample cases resigning or taking a leave of absence). Life events and caregiving also impacted respondents' personal lives, consuming many hours of time to address administrative and other details. An overwhelming number of respondents would have appreciated support for these issues from their employer.

The Apiary Survey was delivered on 21 June 2023 and completed by 517 respondents.

2.1 Survey Results

There was an approximately equal distribution of male and female respondents. The respondents followed a typical age distribution for most employers (Figure 2.1).

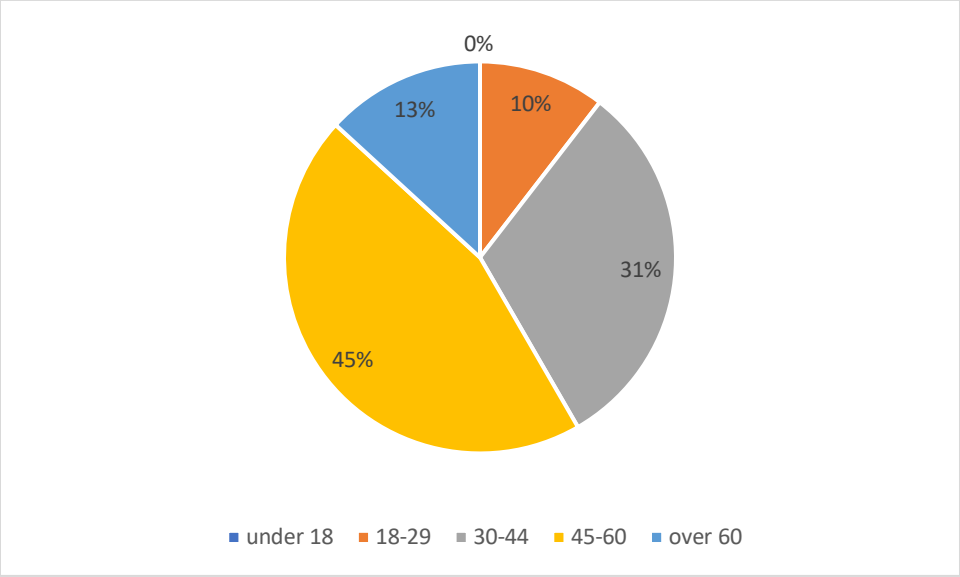


Figure 2.1 Respondent Age Distribution

All respondents were employed at the time of the life or caregiving event. Two-thirds of the surveyed employees had experienced one or more life or caregiving events that had impacted their ability to work within the two years preceding the survey.

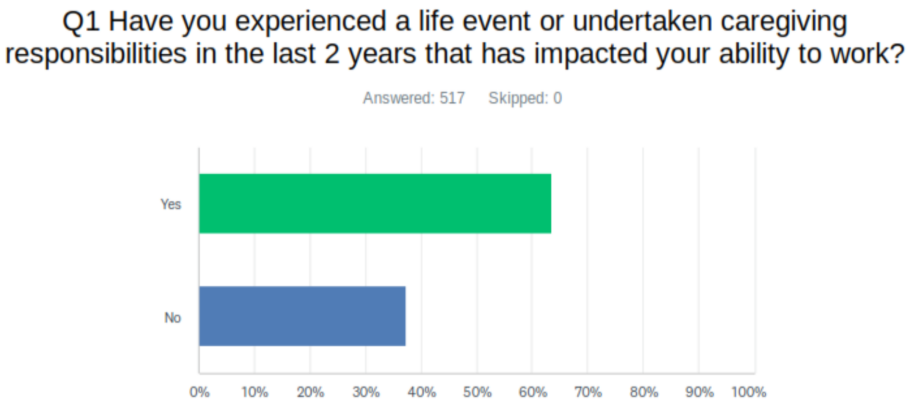


Figure 2.2 Experience of Life or Caregiving Event in Last 2 Years

One-third of those employees who experienced a life or caring event were responsible for caring for a loved one, while one-quarter experienced relationship changes, separation or divorce. Two-thirds of respondents believed that the event impacted their work ability. The amount of impact varied among those who were affected, with one-quarter of respondents reporting that it impacted their work productivity by more than 50% and over half by more than 25%.

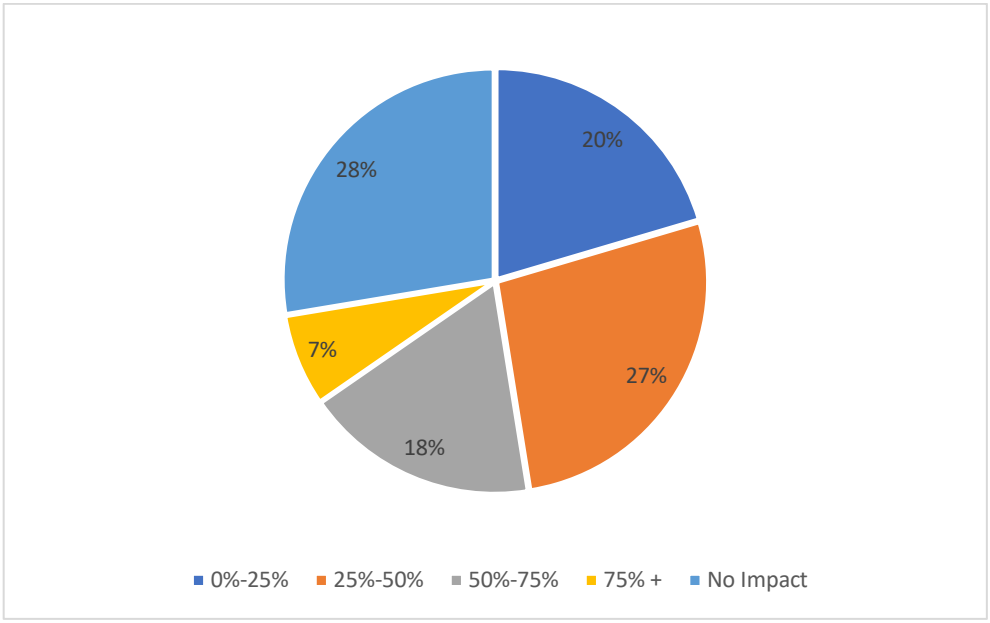


Figure 2.3 Impact of Events on Respondents' Work Productivity

Of the respondents who experienced an impact on their work, approximately half took further action. Employees who took action either resigned (28% of those impacted by the event) or took a leave of absence (24%).

Employee respondents found that their life event or caregiving required the devotion of many hours of personal time to address administration and other details. Of these, one-third spent more than 10 hours per week on these tasks.

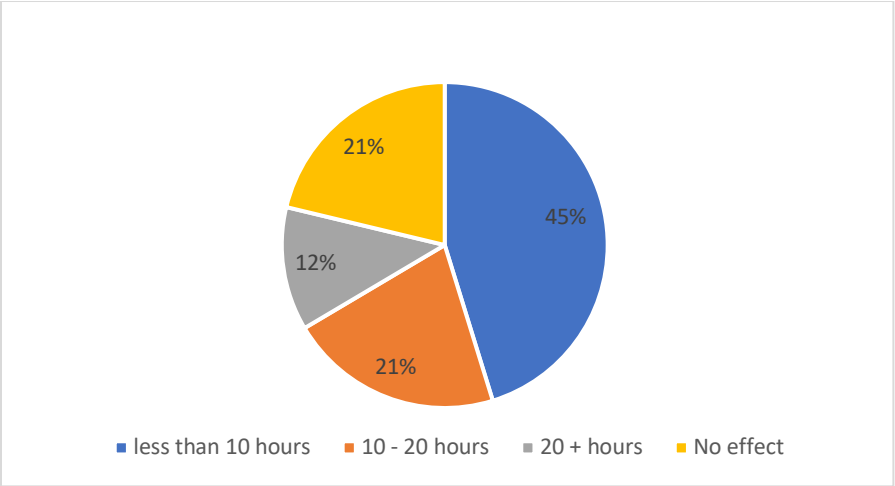


Figure 2.4 Hours Per Week Spent as a result of Life Event or Caregiving

Respondents overwhelmingly (80%) expressed the need for employer support for their life and caregiving events.

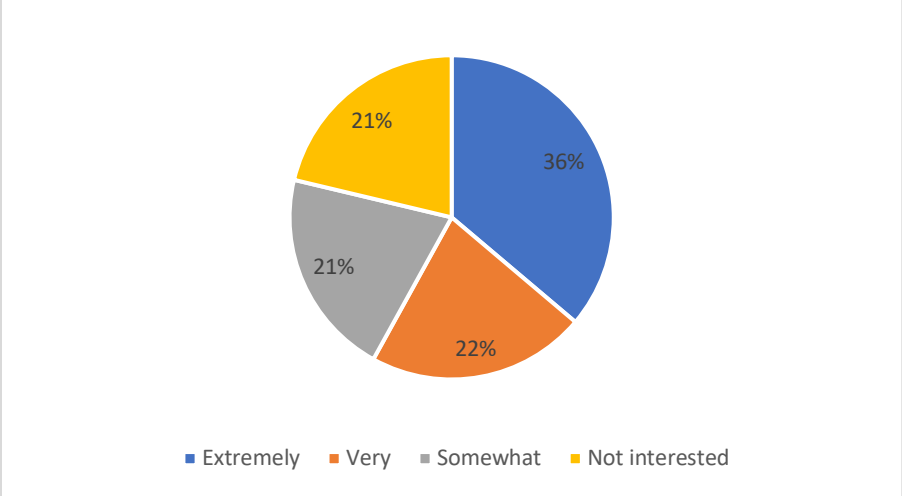


Figure 2.5 Level of Interest in Employer Support

3. Overview: Scope of the Caregiver Issue

The economic cost to U.S. businesses for lost productivity due to caregiving responsibilities is substantial. It has been estimated to be between $17.1 and $33.6 billion annually [1]. The estimated overall economic impact of caregiving in the U.S. (direct and indirect) is $264 billion, as follows:

- **Indirect:** deteriorating caregiver health negatively affects economic outcomes by nearly $221 billion [2].

- **Direct**: economic effect from the need for family caregiving is estimated at nearly $44 billion through the loss of more than 650,000 jobs and absenteeism from work of nearly 800,000 caregivers.

Caregivers and Work

Caregiver absenteeism costs the U.S. economy approximately $25.2 billion in lost productivity (based on the average number of workdays missed per working caregiver, assuming $200 in lost productivity/day. [3]

- 58% of working caregivers are offered paid sick days by their employer, 56% have flexible work hours, 25% can telecommute, 53% have unpaid family leave and 39% have paid family leave, 26% have access to employee assistance programs.

- The mean percentage of work productivity loss due to caregiving was 22.9%.

Absenteeism and Presenteeism

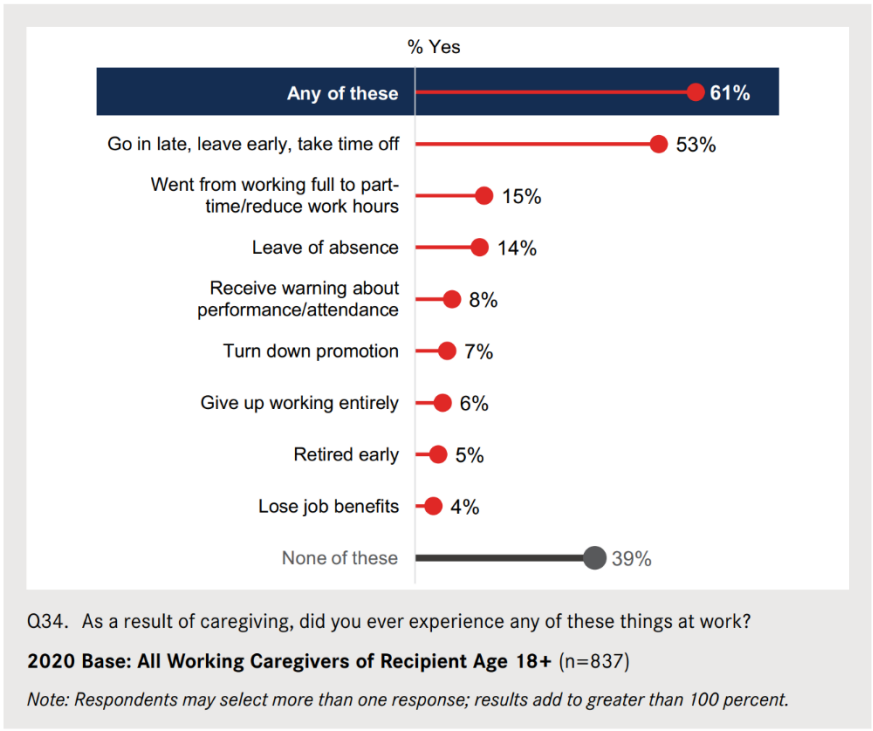
In a one month period, 23% or an estimated 8.8 million employees who are also caregivers reported absenteeism or presenteeism due to caregiving [3].

- Caregiving reduced productivity at work by one-third on average, or an estimated $5,600 per employee when annualized across all employed caregivers—primarily because of reduced performance while present at work.

- Productivity loss was higher among caregivers of older adults with significant care needs and varied according to sociodemographic characteristics and caregiver supports.

Figure 3.1 shows the work impact resulting from caregiving.

Figure 3.1: Effect of Caregiving on Employment [3]



Working Caregivers

The need for caregiving has a significant impact on employment. The majority of caregivers report a change in employment, including reduction in hours, leave of absence or leaving employment. Research shows that employed caregivers work on average 34.7 hours per week, with 56% working full-time, 16% working 30-39 hours per week and 25% working less than 30 hours per week [4]. Of this, the following results were also noted:

- 36% of all caregivers consider the role stressful.
- 70% of working caregivers suffer work-related difficulties. They rearrange their work schedule, decrease their hours, or take an unpaid leave for caregiving responsibilities.
- 49% of caregivers feel they must take on caregiving responsibilities [4].
- 61% of caregivers experience at least one change in their employment (cutting back work hours, taking a leave of absence) or receiving a warning about performance/attendance (7%).
- 49% of caregivers arrive at their place of work late, leave early or take time off. 15% take a leave of absence and 14% reduce hours and/or take a demotion, and
- 36 -39% give up work entirely.
- Caregivers for a person with emotional or mental health issues are 10% more likely to make work accommodations (77% vs. 67%) than those caring for someone without emotional or mental health issues [5]. 17% of caregivers of people diagnosed with

dementia quit their jobs before or after assuming caregiving responsibilities. 54% arrive to their place of work late or leave early, 15% take a leave of absence, and 9% quit their jobs in order to continue providing care [4]

Table 3.1 Opportunity Costs Associated with Caregiving

ACTIVITY[1]	Time	Cost	Frequency	Hours/Month
Meal Preparation and clean up [A]	37min/day	Na	Daily	18.8
Cleaning [B]	6hr	Na	Weekly	26.0
Medical Visit [C,D,E]	121 /visit	$43 (2015)/visit	1/month or 2/month	2.0
Transport to Medical Visit [D]	68 minutes/trip	Na	1/month or 2/month	1.0
Grocery Shopping [F]	41 min shopping + driving 8 mi/trip	Na	Weekly	4.3
Laundry [G]	12 hr 40 min	$306/yr	Monthly	12.7
				64.8

"Opportunity costs," or time devoted to caregiving activity that is not available for work, leisure and other activities, are associated with several caregiving activities. The Table below represents the estimated value of work productivity that was forfeited by a caregiver because she/he spent time and resources caregiving. For a caregiver that provides all of the services in Table 3.1 the estimated work effort amounts to an average of 64.8 hours per month.

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1 Americans spend an average of 37 minutes a day preparing and serving food and cleaning up. Amber Waves, USDA, https://www.ers.usda.gov/amber-waves/2016/november/americans-spend-an-average-of-37-minutes-a-day-preparing-and-serving-food-and-cleaning-up/

[B] 2018 ACI National Cleaning Survey Results: Time Spent ... American Cleaning Institute. https://www.cleaninginstitute.org › newsroom › surveys.

[C] Tuttle B. It Costs You $43 to Sit Around the Doctor's Waiting Room. Oct 06, 2015. Money. https://money.com/time-money-doctor-visit-healthcare/

[D] How Much Time Does A Doctor Visit Really Take? July 4, 2022 First Stop Health. https://www.fshealth.com/blog/how-much-time-does-doctor-visit-really- https://www.fshealth.com/blog/how-much-time-does-doctor-visit-really-take

[E] Harvard Research Says the Average Medical Visit Takes 121 Minutes.That lost time costs patients an average of $43 per appointment. https://www.bostonmagazine.com/health/2015/10/12/doctors-appointment-length/

[F] The Average American Spends this much driving to the Grocery Store. Time Use Institute, the average person spends 41 minutes in the grocery store per shopping trip. Thankfully, there is an alternative to brick-and-mortar shopping that can save buyers time and money .Jan 3, 2023https://www.nasdaq.com/articles/the-average-american-spends-this-much-driving-to-the-grocery-store#

[G] How Much Time Do You Spend Doing Laundry? https://hangersar.com/how-much-time-do-you-spend-doing-laundry/

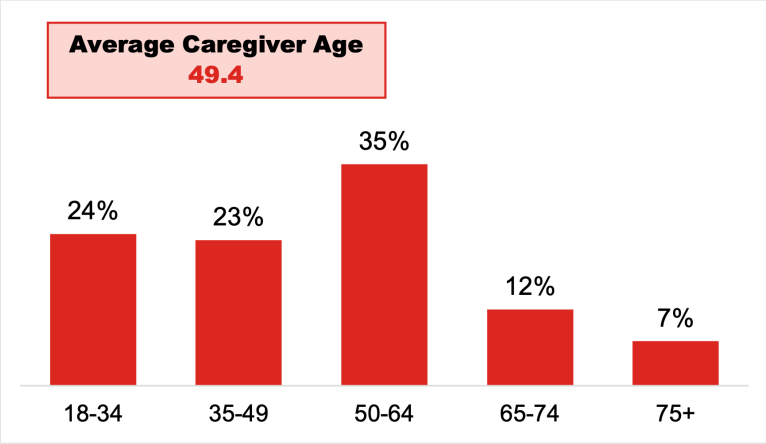
Caregiver Profile

From 2015 to 2020, the number of unpaid family caregivers in the United States increased by nearly 10 million people, increasing from 43.5 million to 53 million. That number represents more than one in five Americans (21 percent of the adult population) who are acting as a caregiver to a loved one [3, 6]. Of these:

- 19% care for an adult;
- 6% care for a child with special needs under the age of 18;
- 17% have cared for an adult aged 50 or older in the prior 12 months;
- 34% of caregivers provide 1-8 hours of care a week; 22% provide 9-20 hours and 32% provide more than 20 hours a week.
- Female caregivers provide 22 hours of care a week, male caregivers provide 17 hours of care a week.
- Caregivers are of all ages.

61% of caregivers are women; 39% are men. It is significant that the mean age of caregivers is 49.4 years. Slightly more than one-third of caregivers are in their peak career years, 50-64, an age when the caregiver is often also responsible for college age children. This is also the peak earning years for most employees, years in which they would expect to accumulate assets to care for their own retirement. It is also noted that caregiving lasts 4.5 years on average.

Figure 3.2 Distribution of Caregivers by Age [3]

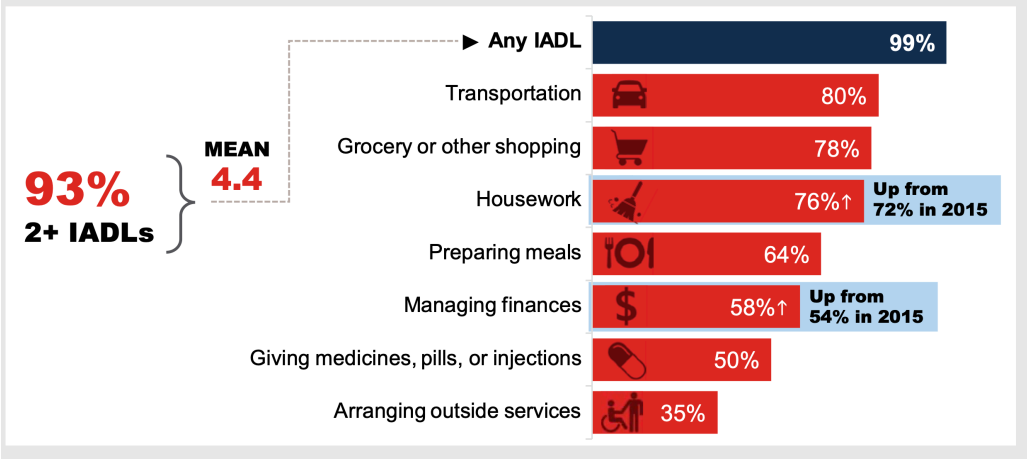


2020 Base: Caregivers of Recipient Age 18+ (n=1,392)

Note: Results are rounded; results may not add to 100 percent.

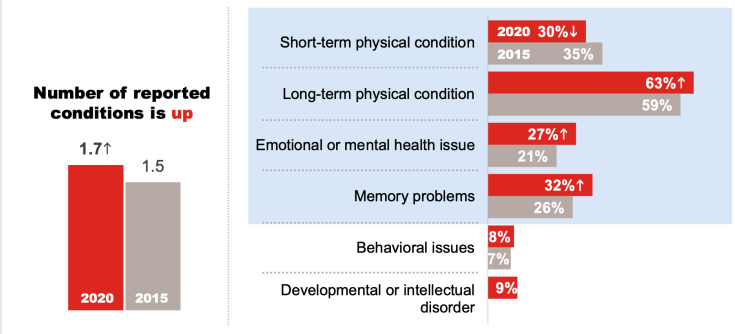
Support for Activities of Daily Living account for nearly all caregiving duties. See figure 3.3 for types of care provided by caregivers.

Figure 3.3 Types of Care provided by Caregivers [3]



Caregiving is provided for a variety of diseases and conditions. The number of conditions reported has increased since 2015, except for short-term physical conditions.

Figure 3.4 Conditions of Caregiving Recipients [3]



Q17. Does/Did your [relation] need care because of a …?

2020 Base: Caregivers of Recipient Age 18+ (n=1,392)
2015 Base: Caregivers of Recipient Age 18+ (n=1,248)

Note: Respondents may select more than one response; results add to greater than 100 percent.

Table 3.2 Conditions of Caregiving Recipients by Age [3]

	Recipient Age 18–49 (n = 188) A	Recipient Age 50–64 (n = 256) B	Recipient Age 65+ (n = 944) C
Alzheimer's, dementia	2%	2%	15%*AB
Back problems	8%C	10%C	3%
Cancer	6%	7%	6%
Developmental or intellectual disorder or disability	13%*BC	1%	0%
Diabetes	2%	8%AC	3%
Heart disease or attack	1%	4%A	4%A
Mental/Emotional illness	15%BC	7%C	2%
Mobility issues	7%	10%	13%A
"Old age," frailty	–	4%A	23%AB
Stroke	1%	6%A	5%A
Substance abuse	5%C	3%C	0%
Surgery, wounds	4%	12%AC	5%

** Significantly higher than in 2015.*

Note: Letters in superscript indicate a figure is significantly higher than the figure in the column indicated.

Issues of aging (frailty, mobility and stroke) constitute the most-frequently reported caregiving condition (affecting one-third of respondents). Chronic conditions account for about one-quarter of issues reported by respondents and mental and behavioral health account for about 20% of conditions requiring care.

4. Life Changes: Divorce

Overview

Divorce is the second most significant life stressor, following death of a spouse. In 2021 the US divorce rate (divorces each year) was 5.1[2] per 1,000 married Americans [7].[3] An alternative calculation (the "refined rate") that excludes from the denominator single people and children finds a higher rate (9.7%) [8]. The percentage of first marriages ending in in divorce within 5 years for women aged 15-44 is about 20% [9]. The divorce rate for individuals aged 25-39 is significantly higher than the divorce rate for individuals aged 40-54. Additionally, the divorce rate for individuals with a high school education or less is higher than the divorce rate for individuals with a college education or more. The overall trend in divorces among the total population is down from 4.0 per 1,000 in 2000 to 2.5 per 1,000 in 2021 (though this may be due to an increase in cohabitation) while that for the senior population is rising. According to the AARP, 28% of individuals over 40 report having depression during and following a divorce [10].

The Economic Impact

A recent study from the University of Minnesota found that divorcing individuals reported lower health, poorer job performance and a more negative mood at work [11]. Nearly 44% of those going through a divorce agreed or strongly agreed that being in the process of a divorce had a negative impact on their work. The researchers suggest that understanding the varying impacts of divorce will help managers and human resource professionals better support staff experiencing a divorce. This will help avoid productivity loss as well as recognize often misunderstood grief responses such as a shorter temper or loss of concentration.

Estimates of the economic loss due to serious emotional stress resulting from divorce vary from $75 billion dollars in work pay/productivity to $150 billion (Forbes) to approximately $300 billion per year [12].[4] It is said that divorce is a multi-year event, with potential years of lost productivity both prior to and after the actual event [13]. A divorcing employee earning $60,000/year can incur an estimated $86,000 in lost productivity, including time-off for legal, financial, and psychological issues and estimated loss of supervisor productivity dealing with divorcing employees. [13, 14].

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[2] Authors' estimate based on CDC divorce estimate [7] and married population estimate (Statista Research Dept. accessed September 2023) https://www.statista.com/statistics/242030/marital-status-of-the-us-population-by-sex/#:~:text=In%202022%2C%20there%20were%2067.85,and%2011.48%20million%20widowed%20women.

[3] Note that the divorce estimate excludes data for California, Hawaii, Indiana, Minnesota, and New Mexico.

[4] This estimate is for the loss due to employee stress; it is unclear from the report whether this estimate is solely for divorce related stress.

Divorce and Productivity: Absenteeism

The average employee loses about 168 hours (equivalent to four weeks) of time off in the year after the divorce [15]. Productivity loss due to absenteeism is associated with court appearances, additional childcare responsibilities, and the stress of dealing with legal requests, responding to subpoenas, etc. Lost productivity due to presenteeism is 7.5 times greater than that lost to absenteeism. [16].

Lost Productivity[5]

Work productivity falls during divorce [11]. Divorce is likely to result in job turnover: turnover probability for a divorcee ranging from 12% to as high as 20% [17]. 9% of divorcing employees either had to leave their jobs as a result of a divorce or separation from a cohabiting relationship or knew a co-worker that did.[21] Divorcing workers must respond to subpoenas and other legal requests for information. More than 70% of employees may have reduced productivity due to their own divorce or a co-worker's. 1 year post-divorce, productivity is down an additional 20 percent, with co-workers losing 2 % and managers losing 1% [13, 14]. There was a 6% drop in the annualized fund performance of hedge fund managers during their divorcing time periods [18] and while reduced productivity improves over time, it is negatively impacted for 7 years.

[5] Productivity declines due to stress and lack of concentration meaning that tasks take longer to complete, or they may have to be completed by co-workers, managers, and/or higher-paid personnel. Forgetfulness results absent-minded mistakes that take a toll on professional relationships and a company's reputation. Source: Sheffield J. Financial impact of divorce in the workplace.

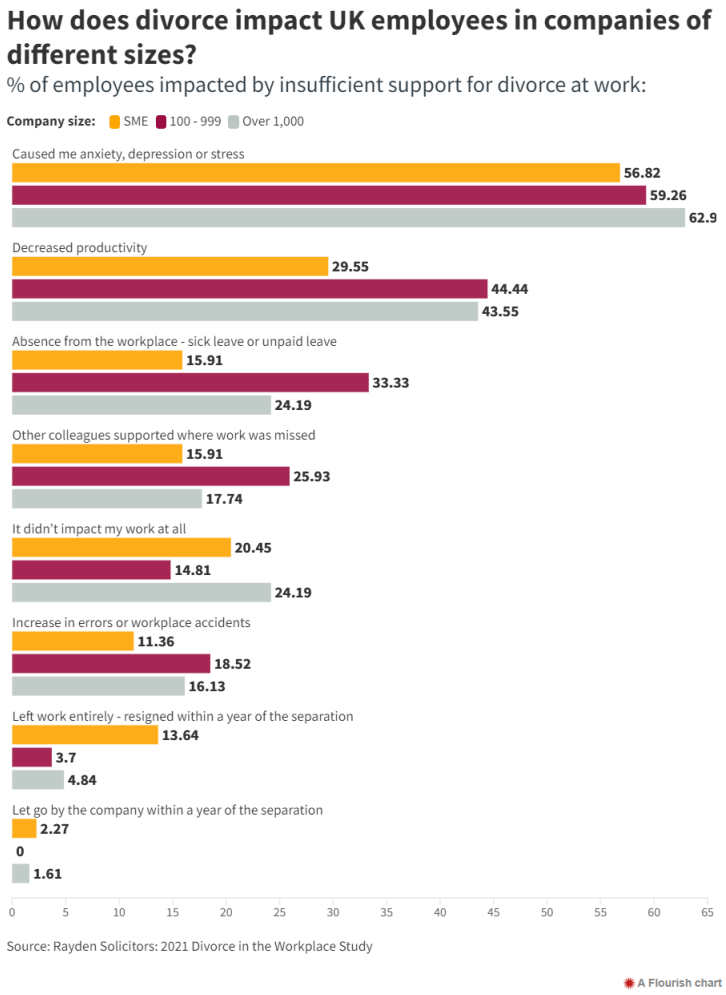


Figure 4.1: Effect of Divorce on Employees in the Workplace [19]

This survey confirms the findings of the Apiary survey: that employees desire a supportive work environment during divorce (Figure 4.1).

Effect of Differences by Covariates

Difference by Sex

35% of divorcing female employees had decreased productivity compared to 24% of males [19]. Divorced or separated men were 3.3 times more likely to experience depression than men who remained with their spouse; the odds were even greater (2.4 times higher) for women. Depression remains a problem for as long as 4 years after the divorce.[6]

Difference by Company Size

Large company employees reported relatively more (63%) mental health issues. Compared to large companies, employees of small and midsize company are 4 times more likely to leave within a year of divorce [19]. Separately, the UK Survey reported that 85% of those from large companies reported that work ability was affected and decreased productivity.

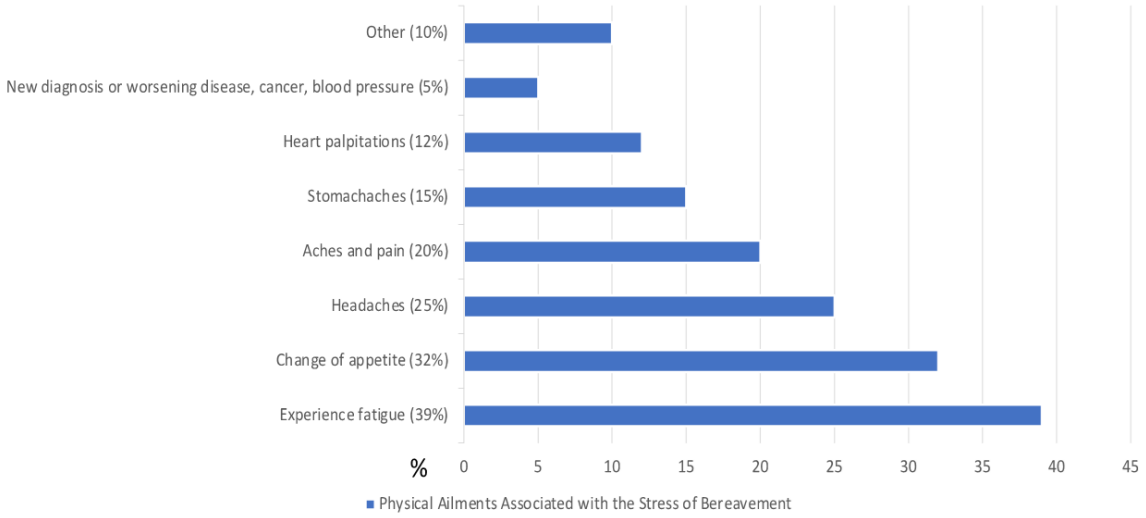
[6] Statistics Canada, quoted in the Daily Mail (UK) May 22, 2007.

5. Life Changes: Bereavement

Bereavement

A 2019 survey by WebMD [20] reported that 57% of Americans were grieving the loss of someone close to them over the last three years. Respondents reported a physical reaction to grief, ranging from fatigue (39%), change of appetite (32%) and headaches (25%).

Figure 5.1 Physical Ailments Associated with Bereavement[7]



Grief in the workplace costs companies as much as $225.8 billion dollars per year.[8] The Grief Recovery Institute found that grief affected 85% of workers' productivity, decision-making abilities, lost productivity, and absenteeism [21].

There is life after grief, and organizations have an important role to play in this mostly personal turnaround [22]. Dealing with the deceased's estate is a major source of stress to the bereaved; a survey found that 95% of the bereaved found this stressful, 23% extremely so [23]. Another recent survey of 2,000 families [24] found that high income families spent $10,200 on real estate professionals and $7,530 on legal fees; lower income families spent $5,600 and $3,800, respectively. Handling the average estate took 13 months.

[7] https://www.eterneva.com/resources/coping-with-loss

[8] Press Release by Benzinga Financial News Site: "Grief Costs Companies Hundreds of Billions Each Year in Lost Productivity." June 7, 2023. https://www.benzinga.com/pressreleases/23/06/n32764142/grief-costs-companies-hundreds-of-billions-each-year-in-lost-productivity

Impact at Work

Absenteeism and presenteeism cost US employers $2,945 per employee per year [25]. The costs of presenteeism are much higher than the costs posed by absenteeism. The cost of presenteeism can be ten times greater than the cost of absenteeism [26]. Productivity is also reduced: 70% or workers reported concern for their job and/or lower performance; 47% of workers reported that their job performance was negatively affected; 31% found it difficult to focus and 25% were constantly distracted; 14%-15% missed work and/or considered quitting; 17% noticed a decline in their reputation, and 9% felt that job security was impacted.

Typically, the bereaved employee takes three to five days of bereavement leave to deal with necessary duties such as death announcement and funeral arrangements. Duties that continue to require attention once the employee returns to work include estate administration, dealing with real estate, probate and closing accounts.

Grief from Loss of Child

Losing a child is shown to have adverse effects on income, employment status, marital status and hospitalization [27]. Productivity losses associated with child death comprise most of the costs and the economic effects are substantial. It has also been shown that the costs associated with on-the-job productivity losses ("presenteeism") outweigh the costs associated with absenteeism [28].

Grief from Miscarriage

Research shows that 10% - 15% of known pregnancies end in miscarriage [29]. The cost of workplace absence due to grief in the UK equates to £2,476 for every stillbirth (losing a baby after 24 weeks of pregnancy) [30]. Consequences of miscarriage include increased risk of anxiety, depression, post-traumatic stress disorder, and suicide. In the U.K., miscarriages cost nearly £500 million per year in direct health costs and lost productivity of the woman. The impact on men would increase costs yet further. [31].

Grief from Loss of Pet

The annual estimated cost to US businesses due to grief over the loss of a pet in 2002 was $2.4 billion [32]. Prior to the pet's death, time may be needed for vet visits. About one-third of pet owners feel grief for at least six months after the death of a beloved pet, while 20% of pet owners exhibit the same numbness, shock, disbelief, guilt or anger as people grieving another person's death [33].

6. Management of Specific Diseases/Conditions

Overview

Common, chronic illnesses impact employers in multiple ways: employee absenteeism and lost productivity; caregiver absenteeism and lost productivity, and cost of health or medical insurance. We look here at the effect of select chronic and acute conditions.

Alzheimer's Disease and Other Dementias

An estimated 11.3 million family and unpaid caregivers provide 16 billion hours of informal (unpaid) assistance valued at approximately $271.6 billion [34]. The majority of caregivers work and have reduced productivity. With an aging population and the cost-of-living crisis, meaning people remain in the workforce for longer, the number of working caregivers seems only set to increase.

Cancer

Approximately 45% of people diagnosed with cancer in the United States are ages 20 to 64 years, the traditional working age. Employed individuals who are diagnosed with cancer can have a variety of postdiagnosis employment trajectories. Just 54% of working-age cancer survivors report that they are working full time. Cancer survivors may work fewer hours, take off from work for prolonged periods (often at the cost of lost wages), and suffer long-term cancer-associated job loss. While some choose to retire early or change career paths after a reassessment of priorities, for many, the negative impact of cancer on work is unwanted and problematic and has profound consequences for the financial and psychological well-being of survivors and their families. [35] At any time, five percent of employees will have a history of cancer; 27.1 percent of employees will be in treatment for cancer while employed. Cancer treatment alone accounts for 12 percent of employers' total medical costs in the US ($125 billion spent on direct medical costs). Another $139 billion is associated with diminished productivity and lost work time, either for cancer treatment or for caring for someone with cancer.

Employees who are also caregivers account for nearly 75 percent of early departures and late arrivals at the workplace, often engaged in long telephone calls at work to handle caregiving issues. Caregivers often suffer stress-related illnesses, further reducing their productivity.

The incidence of cancer is increasing. As of 2017, 1 in 2 men and 1 in 3 women will be diagnosed with a life-threatening form of cancer in their lifetime. And although cancer deaths have risen to

more than 600,000 annually, by 2024, it is expected there will be more than 20 million cancer survivors.[9]

63% of survivors continued working or returned to work after treatment. However, estimates range from 24% to 94% depending on the sample demographics, cancer type and stage, time since diagnosis, and other factors. Between 26% and 53% of cancer survivors lose their job or quit working during or after treatment [36]. Following a cancer diagnosis, approximately 25-30% of previously employed survivors do not return to work. In a meta-analysis of survivors with varying cancer types, approximately one-third reported being unemployed [37, 38].

Opportunity costs of informal care time and caregiver time lost from paid employment = $2,877/month. Opportunity costs are highest for palliative phase of the disease [37]. 41% of working cancer survivors make employment changes [39], extended time off, schedule changes, or switching to a less demanding job. 63.5% of cancer survivors return to work, depending on the elapsed time after diagnosis [40]. Rates of return to work after cancer vary widely, depending **on Impact of cancer type, stage, and treatment, job demands** and access to workplace accommodations. Employment disruptions can lead to lost or decreased earnings and lost productivity due to absenteeism and presenteeism.

The impact of having a child with advanced pediatric cancer is devastating [41]: 94% of parents report work disruptions, in 42% of families at least 1 parent quit their job, and 27% report great financial hardship.

Cardiovascular disease

Cardiovascular diseases cost employers an extra $1,100/year in lost productivity [42]. For example, one cardiovascular condition (hypertension) affects 116 million Americans and costs **employers $518/employee/year, and** $1,100/year in excess lost productivity. Annual absenteeism costs more than $11 billion, nationally and additional costs/person/year equal $63 for short-term disability, $72–$330 for absenteeism, and $53–$156 for presenteeism (the cost of absenteeism and presenteeism combined may be as high as $2,362). Additional time lost per person per year = 1.3 days for absenteeism, including stroke and diabetes, and 15.6 days for work and home productivity loss combined. The loss from absenteeism alone might be more than 20% of the total medical expenditure of hypertension [43].

[9] https://www.johnshopkinssolutions.com/paying-attention-cancer-pays-off-employees/

Diabetes

An estimated 6.4% of employed U.S. adults have diabetes [44]. Total indirect costs of the disease are $90 Billion [45]. Reduced productivity at work is estimated at $26.9 billion [46]. Inability to work because of disease-related disability costs an additional $2.3 billion.

Absenteeism among workers with diabetes accounts for 5.4 - 18.1 lost days/year compared to 3.4 - 8.7 days for individuals without diabetes. Compared to employees without diabetes, productivity costs were 13.3% ($680) higher and medical costs were double (total $11,354 vs. $5,101). Women had more absences than men [47]. In addition diabetes imposes am enhanced need for self-care and a need for caregiving: Total time needed daily for recommended diabetes self-care = ~4 hours [48]. Working family members provide daily diabetes care and instrumental activities of daily living - shopping, cleaning, and cooking.

7. Conclusion

This report has shown the significant disruption and cost that life events and changes impose on employees and employers, as well as the impact on those that take care of affected individuals. We also demonstrate in our economic modeling that employer-provided support for affected employees and their caregivers can have positive benefits for both individuals and their employers. In surveys, employees are asking employers for this type of support; our economic models show that provision of this type of support can have a positive financial return for the employer.

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