Journals of Gerontology: Social Sciences
cite as: J Gerontol B Psychol Sci Soc Sci, 2021, Vol. XX, No. XX, 1–6
https://doi.org/10.1093/geronb/gbab131
Advance Access publication July 12, 2021



# Research Report

# A Brief Report on Older Working Caregivers: Developing a Typology of Work Environments

Dawn C. Carr, PhD,<sup>1,\*,o</sup> Kendra Jason, PhD,<sup>2</sup> Miles Taylor, PhD,<sup>1</sup> and Tiffany R. Washington, PhD<sup>3</sup>

<sup>1</sup>Department of Sociology, Florida State University, Tallahassee, USA. <sup>2</sup>Department of Sociology, University of North Carolina—Charlotte, USA. <sup>3</sup>School of Social Work, University of Georgia, Athens, USA.

\*Address correspondence to: Dawn C. Carr, PhD, Department of Sociology, Florida State University, 636 Call Street, 203 Pepper Center, Tallahassee, FL 32306, USA. E-mail: dccarr@fsu.edu

Received: February 3, 2021; Editorial Decision Date: July 8, 2021

Decision Editor: Jessica Kelley, PhD, FGSA

#### **Abstract**

**Objectives:** A growing proportion of the U.S. labor force juggles paid work with family caregiving of older adults. However, no research has examined caregivers' work environments. The purpose of this brief report is to develop typologies of the work environments of family caregivers.

**Methods:** This study used data drawn from the 2008–2012 waves of the Health and Retirement Study. Our sample includes employed individuals who also provided regular help with daily activities to a parent or spouse (n = 976). We used latent class analysis to develop caregiver work environment typologies.

Results: Our analyses revealed 4 typologies among caregivers: (a) high-quality work environments (n = 340; 35%); (b) average work environments with high job lock (n = 293; 30%); (c) low-quality work environments (n = 203; 21%); and (d) high personal interference in supportive work environments (n = 140; 14%). Although only 21% of working caregivers were in a low-quality work environment (Type C), descriptive results suggest that these workers were most likely to be minorities who needed to work for financial reasons, reporting the highest number of health problems, and the most work hours

Discussion: Our findings provide insights into the types of environments that caregivers work in, and the characteristics of individuals in those environments. We discuss implications of our findings for future research and work-based policy development.

Keywords: Latent class analysis, Older workers, Productive engagement

Over 17 million individuals provide regular care for an older adult and about half (8.7 million) are employed (Reinhardt et al., 2019). Managing family caregiving and work responsibilities will affect a growing proportion of the U.S. workforce over the next several decades, particularly the growing proportion of older women workers who have traditionally provided the majority of unpaid care in the United States (del-Pino-Casado et al., 2012; Gallicchio et al., 2002; Sharma et al. 2016). Despite the growing

proportion of caregivers in the U.S. workforce, we know little about their work environments.

Caregiving research has focused primarily on caregivers' health (e.g., stress, well-being, caregiving demands) outside of their work environment (Neal & Hammer, 2017; Wagner & Neal, 1994) or management and workplace policies that prioritize costs and productivity (Fuller & Raman, 2019). Lack of attention paid to work environments is problematic because work environments have significant power to

shape whether, and for how long, a caregiver can remain employed. In fact, caregivers who leave the workforce experience a loss of over \$300,000 in lifetime wealth (Arno et al., 2011). Financial pressures may lead some caregivers to feel trapped in jobs that are very difficult to maintain alongside their care work (Parsons & Kumar, 2019). Others may be able to modify their regular work schedule to accommodate caregiving responsibilities due to the work environment being more flexible and supportive (Nobel et al., 2017). If we better understand the characteristics that differentiate caregivers' typical work environments, it will be possible to identify practices that support caregivers, so they can stay employed as long as they prefer.

This brief report introduces work environment typologies among older, employed spousal and parental caregivers in the United States. Although other caregivers, such as those providing care to grandchildren, also balance care work with formal work, we focus here on older adult employed caregivers because they face unique challenges in the work environment due to the nature of the care that is typically involved for this type of care work (e.g., providing personal care, managing long-term care and daily living activities). Based on our findings, we propose potential strategies for future research that can promote development of work-related policies that benefit older working caregivers.

# Method

Our typologies are based on analyses of data drawn from the Health and Retirement Study (HRS) and its supplementary leave behind psychosocial and lifestyle questionnaire (LBQ; HRS, 2016). Detailed work characteristic measures were collected during the 2008-2012 biennial waves, providing rich details about work environment and work and home life dynamics. Our analyses are limited to the most recently available data wave in which a working caregiver responded to the work characteristics questions (i.e., 2012, 2010, or 2008). Although some work-related measures are included in the HRS core survey, we evaluated only measures provided in the LBQ because they provided meaningful characterizations of work environments that are important for caregiving (i.e., work/life interference, discrimination). Our final selection of measures was based on the most parsimonious selection of relevant work variables. Originally, we tested both individual items and summed indices of work variables in best differentiating classes finding that a mix of indices and individual items performed well. A description of all the work characteristics considered and ultimately used in our analyses, item descriptions, and coding (summed index and/or individual indicators) are presented in Supplementary Table A1). Our final measures are summarized in Figure 1. For example, work environment is a measure based on the average response across five questions: (a) "I have too much work to do everything well" (reverse-coded); (b) "I have a lot to say about what happens on my job"; (c) "Promotions are handled fairly"; (d)

"I have the training opportunities I need to perform my job safely and competently"; (e) "The people I work with can be relied on when I need help" (1 = strongly disagree to 4 = strongly agree).

We used core biennial data files to identify older workers aged 50–75 years who served as spousal or parental caregivers and their characteristics for the caregiver sample (n = 976). We excluded working caregivers older than age 75 because <2.5% worked full- or part-time regardless of caregiver status at these ages. Individuals whose spouse reported a disability and identified them as a primary or secondary caregiver were identified as spousal caregivers. Parental caregivers were identified based on self-report. To identify work environment typologies, we used latent class analysis (LCA), a data reduction strategy used to explore how individuals cluster together on observed indicators to describe meaningful heterogeneity or shared characteristics/experiences. Methodologically, this is achieved by estimating a mixture of latent classes (mixture distribution) underlying the overall response distribution. We extracted models with 1-7 latent classes. The best-fitting model was chosen through an examination of overall and component fit statistics including the Bayesian Information Criterion (BIC), classification error, and Entropy  $R^2$ . Generally, models with lower BIC values, low classification error values ( $\leq 0.05$ ), and high Entropy  $R^2$  values ( $\geq 0.90$ ) provide support for a model that is both well-specified and well-separated. We chose a four-class model as having the best fit: Log-likelihood = -11484.9746, BIC = 23734.8545, Akaike information criterion = 23189.9492, classification error = 0.05, Entropy  $R^2$  = 0.90. A more detailed description of LCA model choice can be found in Supplementary Appendix 1. All LCAs were performed using Latent Gold (Vermut & Magidson, 2013). Missing data on indicators were handled with a full information maximum likelihood estimator that calculates the likelihood for each individual given their available information.

To more fully examine our typologies, we examined differences across a range of common individual characteristics (see Supplementary Table A2 for a description of the measures and coding), including caregiver, socioeconomic, demographic, and health measures. We used multinomial logistic regression to evaluate the characteristics of individuals across classes, holding Class 1 as the reference group.

#### Results

# Caregiver Work Environment Typologies

Figure 1 shows the predicted probabilities and means of each factor included in the models as they relate to each associated class, colored so that blue represents the best scores and yellow the worst scores across items. We report probabilities for binary variables and means for both continuous and ordinal indicator variables. Multinomial logistic regression models show characteristics of individuals in each class (Table 1).

Figure 1. Item Means and Proportions Across Work Typologies Based on Latent Class Analysis Classes.

		Class 1: High Quality Work Environment	Class 2: Average Work Environment with Job Lock	Class 3: Low Quality Work Environment	Class 4: High Personal Interference in Supportive Work Environment
Indicators	Output Numeric Type				
-Chronic Work Discrimination	mean, continuous	1.255	1.826	2.702	1.499
+Personal life Enhancement of Work	mean, continuous	3.646	2.922	2.561	2.851
+Work Enhancement of Personal Life	mean, continuous	3.389	2.454	2.045	2.652
-Personal Life Interference with Work	mean, continuous	1.00	1.226	1.42	<u>1.483</u>
-Work Interference with Personal Life	mean, continuous	1.23	1.656	<u>2.109</u>	1.735
+Supervisor Support	mean, continuous	3.378	2.915	2.396	<u>3.633</u>
+Coworker Support	mean, continuous	3.507	3.00	2.672	<u>3.868</u>
+Work Environment Score	mean, continuous	<u>3.383</u>	2.881	2.493	3.372
-Job Lock - Money	probability reporting	0.668	0.853	0.897	0.853
-Job Lock - Health Insurance	probability reporting	0.445	0.736	0.784	0.635
+Job Satisfaction	mean, ordinal	<u>3.721</u>	3.252	2.738	3.686
+Job Support	mean, ordinal	3.464	2.972	2.375	<u>3.465</u>
+Job Control	mean, ordinal	<u>3.443</u>	3.054	2.526	3.415
-Heavy Workload	mean, ordinal	1.889	2.351	<u>2.829</u>	2.407
-Demanding Work Environment	mean, ordinal	1.586	2.202	<u>2.652</u>	2.215

Note: Indicates show "-" for factors indicative of poor-quality jobs and "+" for factors indicative of high-quality jobs. Items that are **bolded** indicate the lowest relative score across the four classes, and items that are <u>underlined</u> indicate the highest relative score across the four groups. To help facilitate interpretation of these numbers, we have highlighted those items that have the "best" score (i.e., lowest for negative measures and highest for positive measures) and the "worst" score (i.e., highest for negative measures and lowest for positive measures).

# Class 1: high-quality work environment

The largest class included just over 35% of the sample. As evident in Figure 1, this class was characterized by generally favorable scores on all indicators, suggesting a high-quality, life-enhancing work environment. On all but three measures, individuals in this class report the most favorable work characteristic scores, and none of the least favorable scores. Table 1 shows that relative to Class 1, results suggest that all other groups had more difficulty paying the bills, were more likely to be female, had more depressive symptoms, had lower satisfaction with leisure and family life, and worked more hours on average.

#### Class 2: average work environment with job lock

The second largest work environment class included 30% of the sample. This class was characterized by average

scores across work indicators (Figure 1 shows they did not have the highest or lowest score on any work-related measures), while relatively high on job lock indicators. Like the work environment characteristics, the characteristics of caregivers in these environments were also average across most characteristics. The results shown in Table 1 suggest that relative to Class 1, individuals in this class were younger, had higher loneliness scores, and reported lower ability to meet interpersonal demands of their job.

# Class 3: low-quality work environment

The third largest work environment included 21% of the sample. Figure 1 shows this class was characterized by the most unfavorable scores on nearly all work environment indicators. Not only did individuals in this group report the highest levels of job-related demands and stressors and

Downloaded from https://academic.oup.com/psychsocgerontology/advance-article/doi/10.1093/geronb/gbab131/6319613 by Florida State University Law Library, dccarr@fsu.edu on 27 October 2021

Table 1. Multinomial Logistic Regression Results

Caragiver characteristics         RRR (SE)         RRR (SE)         RRR (SE)           Spousal caragiver characteristics         1,055 (0.389)         1,072 (0.538)         0.951 (0.666)           Spousal caragiver with other helpers         0.856 (0.380)         1,072 (0.538)         2,971 (1.525)           Parental caragiver with other helpers         0.760 (0.445)         0.299 (0.227)         0.951 (0.269)           Demographic characteristics         1,002 (0.002)         1,005 (0.029)         1,131 (0.343)           Demographic characteristics         1,002 (0.002)         1,005 (0.029)         1,131 (0.343)           Demographic characteristics         1,005 (0.002)         1,005 (0.021)         1,030 (0.021)           Difficulty paying bills         1,005 (0.043)         1,005 (0.022)         1,000 (0.025)           Age         1,005 (0.043)         1,051 (0.049)         1,470 (0.013)           Age         1,005 (0.043)         0,258 (0.024)         1,470 (0.023)           Other race         0,664 (0.026)         0,258 (0.027)         0,258 (0.027)           Other race         1,660 (0.692)         0,718 (0.029)         0,191 (0.02)           Other race         0,664 (0.026)         0,258 (0.026)         0,191 (0.029)           South         0,664 (0.026)         0,258 (0.026)		Average work environment with job lock	Low-quality work environment	High personal interference in supportive work environment
er helpers 0.856 (0.595) 1.055 (0.595) 2 1.055 (0.586) 2.0002 1.0072 (0.538) 2 2 0.760 (0.445) 0.999 (0.227) 0.966 (0.266) 2.0002 1.307*** (0.130) 1.307*** (0.130) 1.307*** (0.130) 1.307*** (0.130) 1.307*** (0.130) 1.500**** (0.174) 1.44 1.466 (0.692) 1.346 (0.491) 1.660 (0.692) 1.346 (0.491) 1.660 (0.692) 1.346 (0.491) 1.660 (0.692) 1.346 (0.491) 1.640 (0.692) 1.346 (0.192) 0.724 (0.249) 0.728 (0.1029) 0.1 1.660 (0.192) 0.728 (0.141) 1.053 (0.192) 0.728 (0.141) 1.053 (0.192) 0.728 (0.103) 1.161*** (0.088) 1.262**** (0.103) 1.156**** (0.095) 0.569**** (0.103) 1.156**** (0.095) 0.569**** (0.103) 1.156**** (0.095) 0.569***** (0.107) 0.683***** (0.064) 0.557***** (0.105) 1.028**** (0.064) 1.025***** (0.064) 1.025***** (0.064) 1.025***** (0.066) 1.026***** (0.066) 1.026***** (0.066) 1.026***** (0.066) 1.026***** (0.066) 1.026***** (0.066) 1.026***** (0.066) 1.026***** (0.066) 1.026****** (0.066) 1.026****** (0.066) 1.026****** (0.066) 1.026********* (0.066) 1.026************************************		RRR (SE)	RRR (SE)	RRR (SE)
er helpers 0.856 (0.389) 1.259 (0.785) 2 0.856 (0.380) 1.072 (0.538) 2 0.760 (0.445) 0.992 (0.227) 0.992 (0.227) 0.992 (0.227) 0.992 (0.227) 0.992 (0.227) 0.966 (0.266) 1.307** (0.130) 1.500*** (0.174) 1.44 1.40 1.063 (0.043) 0.963 ** (0.017) 0.963 ** (0.017) 0.963 ** (0.017) 0.963 ** (0.017) 0.963 ** (0.017) 0.9787 (0.023) 0.7787 (0.021) 0.787 (0.023) 0.7787 (0.021) 0.787 (0.023) 0.7784 (0.049) 0.655 (0.228) 0.778 (0.044) 0.655 (0.228) 0.655 (0.227) 0.609 (0.192) 0.818 (0.228) 0.659 (0.141) 0.659 (0.192) 0.609 (0.192) 0.988 (0.141) 0.659 ** (0.095) 0.669 (0.192) 0.669 (0.192) 0.988 (0.141) 0.669 (0.192) 0.669	Caregiver characteristics			
er helpers 0.856 (0.380) 1.072 (0.538) 2 0.766 (0.445) 0.966 (0.266) 2.0760 (0.445) 0.999 (0.227) 0.966 (0.266) 2.099 (0.227) 0.999 (0.227) 0.999 (0.227) 0.966 (0.266) 2.099 (0.227) 0.999 (0.227) 1.002 (0.002) 1.002 (0.002) 1.307** (0.130) 1.063 (0.043) 0.963 * (0.017) 0.963 * (0.017) 0.928*** (0.021) 1.346 (0.491) 0.963 * (0.017) 0.928*** (0.021) 1.346 (0.491) 1.346 (0.491) 1.346 (0.491) 1.346 (0.491) 1.346 (0.491) 1.346 (0.491) 1.346 (0.491) 1.346 (0.491) 0.052 (0.186) 0.0724 (0.249) 0.01 1.346 (0.192) 0.0818 (0.228) 0.0598 (0.141) 1.053 (0.192) 0.0988 (0.141) 1.053 (0.192) 0.0988 (0.141) 1.161 * (0.088) 1.161 * (0.088) 1.262** (0.103) 1.161 * (0.088) 1.161 * (0.088) 1.262** (0.107) 0.648** (0.095) 0.648** (0.107) 0.648** (0.1095) 0.648** (0.107) 0.648** (0.1095) 0.648** (0.107) 0.648** (0.1095) 0.649** (0.1095) 0.649** (0.1095) 0.649** (0.1095) 0.649** (0.1095) 0.648** (0.1095) 0.649** (0.10	Spousal caregiver	1.055 (0.595)	1.259 (0.785)	0.951 (0.606)
0.920 (0.259) 0.999 (0.227) 0.996 (0.266) 0.999 (0.227) 0.999 (0.227) 0.999 (0.227) 0.999 (0.227) 0.999 (0.227) 0.999 (0.227) 1.002 (0.002) 1.003 (0.002) 1.003 (0.012) 0.963* (0.017) 0.963* (0.017) 0.963* (0.017) 0.963* (0.017) 0.963* (0.018) 0.719 (0.218) 0.719 (0.218) 0.719 (0.218) 0.719 (0.218) 0.719 (0.218) 0.719 (0.218) 0.719 (0.218) 0.719 (0.218) 0.719 (0.218) 0.719 (0.218) 0.719 (0.218) 0.719 (0.218) 0.724 (0.249) 0.737* (0.144) 0.609 (0.192) 0.737* (0.144) 0.609 (0.192) 0.737* (0.103) 0.648** (0.095) 0.648** (0.095) 0.648** (0.095) 0.648** (0.005) 0.648** (0.005) 0.648** (0.107) 0.658*** (0.064) 0.658*** (0.064) 0.658*** (0.064) 0.658*** (0.064) 0.658*** (0.064) 0.610*** (0.008) 0.629*** (0.006) 0.610*** (0.008) 0.6277*** (0.006) 0.6277*** (0.008) 0.629*** (0.006) 0.6210*** (0.006) 0.6210*** (0.006) 0.6210*** (0.006) 0.6210*** (0.006) 0.6210*** (0.006) 0.6210*** (0.006) 0.6220*** (0.006)	Spousal caregiver with other helpers	0.856 (0.380)	1.072 (0.538)	2.971* (1.525)
1.002 (0.027)	Parental caregiver	0.760 (0.445)	0.921 (0.599)	1.305 (0.870)
1.002 (0.002) 1.307** (0.130) 1.307** (0.130) 1.063 (0.043) 0.963 (0.0174) 1.063 (0.043) 0.963 (0.017) 0.787 (0.203) 1.346 (0.491) 0.625 (0.692) 1.346 (0.491) 0.625 (0.186) 0.818 (0.228) 0.818 (0.228) 0.695 (0.277) 0.609 (0.192) 0.818 (0.228) 0.698 (0.141) 1.053 (0.128) 0.698 (0.141) 1.053 (0.128) 0.648** (0.095) 0.540*** (0.095) 0.540*** (0.095) 0.540*** (0.095) 0.540*** (0.095) 0.540*** (0.095) 0.540*** (0.095) 0.540*** (0.095) 0.550*** (0.095) 0.577*** (0.107) 1.058 (0.0901) 0.577*** (0.061) 1.059*** (0.064)	Parent has memory disease	0.999 (0.227)	0.966 (0.266)	1.312 (0.343)
1,002 (0.002)   1,005* (0.002)   1,005* (0.002)   1,307** (0.130)   1,500*** (0.174)   1,063 (0.043)   1,500*** (0.174)   1,063 (0.043)   1,500*** (0.174)   1,063 (0.043)   1,500*** (0.021)   1,560 (0.692)   1,346 (0.491)   1,649** (0.319)   1,649** (0.319)   1,649** (0.319)   1,649** (0.319)   1,649** (0.319)   1,649** (0.319)   1,649** (0.192)   1,649** (0.192)   1,053 (0.192)   1,190* (0.120)   1,105* (0.192)   1,190* (0.120)   1,190* (0.120)   1,190* (0.120)   1,190* (0.120)   1,190* (0.103)   1,190* (0.100*)   1,	Demographic characteristics			
s 1.307** (0.130) 1.500*** (0.174) 1.063 (0.043) 0.963* (0.017) 0.963* (0.017) 0.963* (0.017) 0.963* (0.017) 0.963* (0.017) 0.787 (0.203) 0.787 (0.203) 0.787 (0.203) 0.787 (0.203) 0.787 (0.0491) 1.660 (0.692) 1.660 (0.709) 1.649** (0.319) 0.625 (0.186) 0.625 (0.186) 0.625 (0.186) 0.609 (0.192) 0.818 (0.227) 0.609 (0.192) 0.609 (0.192) 0.988 (0.141) 0.609 (0.192) 0.988 (0.141) 0.609 (0.192) 0.988 (0.141) 0.609 (0.192) 0.988 (0.141) 0.609 (0.192) 0.648** (0.107) 0.648** (0.095) 0.648** (0.107) 0.648** (0.1095) 0.648** (0.107) 0.633*** (0.064) 0.633*** (0.064) 0.633*** (0.064) 0.633*** (0.061) 0.637*** (0.068) 0.633*** (0.060) 0.641*** (0.008) 0.641*** (0.008)	Income (in thousands)	1.002 (0.002)	1.005* (0.002)	1.003 + (0.001)
1.063 (0.043) 1.051 (0.049) (0.963* (0.017) (0.963* (0.017) (0.963* (0.017) (0.963* (0.017) (0.963* (0.021) (0.963* (0.021) (0.787 (0.203) (0.692) (0.719 (0.218) (0.719 (0.218) (0.692) (0.491) (0.692) (0.719 (0.709) (0.625 (0.186) (0.625 (0.186) (0.625 (0.186) (0.625 (0.186) (0.625 (0.186) (0.693 (0.192) (0.693 (0.192) (0.693 (0.192) (0.693 (0.192) (0.693 (0.192) (0.693 (0.192) (0.693 (0.192) (0.693 (0.193) (0.693 (0.193) (0.193) (0.693 (0.193) (0.193) (0.693 (0.193) (0.193) (0.693 (0.193) (0.193) (0.693 (0.193) (0.193) (0.693 (0.193) (0.193) (0.693 (0.193) (0.193) (0.193) (0.693 (0.193) (0.	Difficulty paying bills	1.307** (0.130)	1.500*** (0.174)	1.470** (0.173)
0.963* (0.017)	Years of education	1.063 (0.043)	1.051 (0.049)	1.060 (0.055)
0.787 (0.203) 0.779 (0.218) 1.660 (0.692) 1.346 (0.491) 1.649** (0.319) 1.649** (0.319) 1.649** (0.319) 1.649** (0.319) 0.625 (0.186) 0.818 (0.228) 0.818 (0.228) 0.818 (0.228) 0.609 (0.192) 0.609 (0.192) 0.609 (0.192) 0.609 (0.192) 0.609 (0.192) 0.609 (0.192) 0.609 (0.193) 1.053 (0.128) 1.161* (0.088) 1.262** (0.103) 1.956* (0.534) 0.569*** (0.107) 0.648** (0.095) 0.648** (0.107) 0.648** (0.095) 0.648** (0.125) 0.693*** (0.064) 0.577*** (0.061) 0.833*** (0.064) 0.833*** (0.064) 0.833*** (0.064) 0.833*** (0.064) 0.833*** (0.064) 0.841*** (0.008)	Age	0.963* (0.017)	0.928 *** (0.021)	0.998 (0.022)
0.787 (0.203) 0.719 (0.218) 1.660 (0.692) 1.660 (0.709) 1.346 (0.491) 1.346 (0.491) 1.649** (0.319) 1.660 (0.709) 1.649** (0.319) 2.138*** (0.546)  ence is Northeast) 0.625 (0.186) 0.724 (0.229) 0.818 (0.228) 0.695 (0.227) 0.609 (0.192) 0.695 (0.227) 0.609 (0.192) 0.698 (0.141) 1.053 (0.128) 1.96** (0.120) 1.161* (0.08) 1.162** (0.103) 1.956* (0.534) 0.569*** (0.095) 0.648** (0.095) 0.648** (0.095) 0.747* (0.109) 0.653*** (0.064)  personal demands of job 0.683*** (0.064) 0.577*** (0.061) 1.029*** (0.006) 1.029*** (0.006) 1.041*** (0.008)	Race			
1.660 (0.692)	Black	0.787 (0.203)	0.719 (0.218)	0.595 (0.191)
nce is Northeast)  1.346 (0.491)  1.649** (0.319)  1.649** (0.319)  1.649** (0.319)  2.338*** (0.546)  0.625 (0.186)  0.625 (0.186)  0.609 (0.192)  0.609 (0.192)  0.609 (0.192)  1.053 (0.128)  1.053 (0.128)  1.053 (0.095)  1.161* (0.088)  1.161* (0.088)  1.161* (0.088)  1.1956* (0.534)  0.569*** (0.103)  1.248** (0.107)  ork  1.058 (0.0901)  1.248** (0.125)  personal demands of job  0.648*** (0.064)  1.029*** (0.064)  1.029*** (0.006)  1.041*** (0.008)	Other race	1.660 (0.692)	2.128 (1.029)	3.112* (1.620)
ence is Northeast)  0.625 (0.186)  0.625 (0.186)  0.818 (0.228)  0.818 (0.228)  0.609 (0.192)  0.609 (0.192)  0.609 (0.192)  0.609 (0.192)  1.053 (0.128)  1.053 (0.128)  1.054 (0.044)  1.055 (0.054)  1.161* (0.088)  1.161* (0.088)  1.164** (0.095)  1.165** (0.095)  1.1058 (0.0901)  1.248** (0.107)  1.248** (0.125)  1.258** (0.107)  1.248** (0.125)  1.258** (0.064)  1.29*** (0.064)  1.029*** (0.066)  1.029*** (0.006)	Hispanic	1.346 (0.491)	1.660 (0.709)	0.191** (0.123)
ence is Northeast)  0.625 (0.186)  0.818 (0.228)  0.818 (0.228)  0.609 (0.192)  0.609 (0.192)  1.053 (0.128)  1.053 (0.128)  0.988 (0.141)  1.053 (0.095)  1.161* (0.088)  1.195** (0.095)  1.195** (0.109)  ork  1.058 (0.0901)  ork  1.058 (0.0901)  1.248** (0.125)  ork  1.058 (0.0901)  ork  1.058 (0.006)  1.041*** (0.008)  1.029*** (0.006)  1.029*** (0.006)	Female	1.649** (0.319)	2.338*** (0.546)	2.836*** (0.704)
0.625 (0.186)     0.724 (0.249)       0.818 (0.228)     0.695 (0.227)       0.609 (0.192)     0.377* (0.144)       uronic health conditions     1.053 (0.128)     0.988 (0.141)       1.083 (0.095)     1.190* (0.120)       1.956* (0.534)     3.453*** (1.072)       1y leisure     0.648** (0.095)     0.569*** (0.095)       ork     1.058 (0.0901)     0.648** (0.107)       ork     1.058 (0.0901)     0.577*** (0.061)       swork     1.029*** (0.006)     1.041*** (0.008)	Census region (reference is Northeast)			
0.818 (0.228) 0.695 (0.227) 0.609 (0.192) 0.377* (0.144) 1.053 (0.128) 0.957* (0.144) 1.083 (0.095) 1.190* (0.120) 1.190* (0.120) 1.190* (0.120) 1.190* (0.120) 1.190* (0.120) 1.262** (0.103) 1.956* (0.534) 0.569*** (0.103) 1.956* (0.095) 0.648** (0.107) 1.058 (0.0901) 1.248* (0.125) 1.058 (0.0901) 0.641*** (0.061) 1.029*** (0.064) 1.029*** (0.008)	Midwest	0.625 (0.186)	0.724 (0.249)	1.042 (0.379)
uronic health conditions     1.053 (0.128)     0.988 (0.141)       re symptoms     1.063 (0.095)     1.190* (0.120)       ly leisure     0.648** (0.095)     3.453*** (1.072)       orith life     0.747* (0.109)     0.569*** (0.095)       ork     0.747* (0.109)     0.648** (0.107)       ork     1.058 (0.0901)     1.248* (0.125)       personal demands of job     0.683*** (0.064)     0.577*** (0.061)       rs work     1.029*** (0.006)     1.041*** (0.008)	South	0.818 (0.228)	0.695 (0.227)	1.015 (0.357)
ronic health conditions     1.053 (0.128)     0.988 (0.141)       re symptoms     1.161* (0.088)     1.262** (0.120)       1.956* (0.534)     3.453*** (1.072)       1y leisure     0.648** (0.095)     0.569*** (0.095)       ory     0.747* (0.109)     0.648** (0.107)       ork     1.058 (0.0901)     1.248* (0.125)       personal demands of job     0.683*** (0.064)     0.677*** (0.061)       rs     vork     1.029*** (0.006)     1.041*** (0.008)	West/other	0.609 (0.192)	0.377* (0.144)	0.881 (0.344)
chronic health conditions 1.083 (0.128) 0.988 (0.141)  1.083 (0.095) 1.190* (0.120)  1.161* (0.088) 1.262** (0.103)  1.956* (0.534) 3.453*** (1.072)  anily life 0.648** (0.095) 0.569*** (0.095)  work 1.058 (0.0901) 1.248* (0.125)  erpersonal demands of job 0.683*** (0.064) 0.577*** (0.061)  urs work 1.029*** (0.006) 1.041*** (0.008)	Health and well-being			
chronic health conditions 1.083 (0.095) 1.190* (0.120) 1.161* (0.088) 1.262** (0.103) 1.262** (0.103) 1.956* (0.534) 3.453*** (1.072) 0.548** (0.095) 0.747* (0.109) 0.548** (0.107) 0.548** (0.107) 0.747* (0.109) 0.548** (0.107) 0.548** (0.107) 0.747* (0.109) 0.577*** (0.061) 0.0008 0.0006) 0.0006) 0.0006) 0.0006) 0.0006) 0.0006) 0.0006) 0.0006) 0.0006) 0.0006) 0.0006)	Self-rated health	1.053 (0.128)	0.988 (0.141)	1.198 (0.179)
sive symptoms 1.161* (0.088) 1.262** (0.103) 1.956* (0.534) 3.453*** (1.072) 3.453*** (1.072) 0.648** (0.095) 0.747* (0.109) 0.569*** (0.107) 0.648** (0.107) 0.747** (0.109) 0.569*** (0.107) 0.747** (0.091) 0.747** (0.091) 0.747** (0.091) 0.577*** (0.061) 0.001 0.	Number of major chronic health conditions	1.083 (0.095)	$1.190^{+}(0.120)$	1.007 (0.109)
laily leisure       1.956* (0.534)       3.453*** (1.072)         amily life       0.648** (0.095)       0.569*** (0.095)         work       1.058 (0.0901)       1.248* (0.125)         erpersonal demands of job       0.683*** (0.064)       0.577*** (0.061)         urrs work       1.029*** (0.006)       1.041*** (0.008)	Number of depressive symptoms	1.161*(0.088)	1.262** (0.103)	1.222*(0.107)
latily leisure 0.648** (0.095) 0.569*** (0.095) amily life 0.747* (0.109) 0.548** (0.107) 0.648** (0.107) 0.648** (0.107) 0.648** (0.107) 0.648** (0.105) 0.683*** (0.0901) 0.683*** (0.064) 0.683*** (0.064) 0.577*** (0.061) 0.015 work 1.029*** (0.006) 1.029*** (0.006)	Loneliness score	1.956* (0.534)	3.453 *** (1.072)	1.330 (0.447)
amily life 0.747* (0.109) 0.648** (0.107)  work 1.058 (0.0901) 1.248* (0.125)  erpersonal demands of job 0.683*** (0.064) 0.577*** (0.061)  urs work 1.029*** (0.006) 1.041*** (0.008)	Satisfaction with daily leisure	0.648** (0.095)	0.569*** (0.095)	0.684* (0.122)
work       1.058 (0.0901)       1.248* (0.125)         erpersonal demands of job       0.683*** (0.064)       0.577*** (0.061)         ours work       1.029*** (0.006)       1.041*** (0.008)	Satisfaction with family life	0.747* (0.109)	0.648** (0.107)	0.634** (0.111)
1.058 (0.0901)       1.248* (0.125)         0.683*** (0.064)       0.577*** (0.061)         1.029*** (0.006)       1.041*** (0.008)	Work characteristics			
0.683*** (0.064) $0.577*** (0.061)$ $1.029*** (0.006)$ $1.041*** (0.008)$	Overall ability to work	1.058 (0.0901)	1.248* (0.125)	1.045 (0.108)
1.029***(0.006) $1.041***(0.008)$	Ability to meet interpersonal demands of job	0.683*** (0.064)	0.577*** (0.061)	0.845 (0.097)
	Average weekly hours work	1.029*** (0.006)	1.041*** (0.008)	1.028***(0.008)
Constant $58.54*(106.000)$ $119.1*(255.900)$ $0.281(0.621)$	Constant	58.54* (106.000)	119.1* (255.900)	0.281 (0.621)

Notes: N = 985. Class 1, "High-Quality Work Environment" is the reference group. Results show the "RRR" (relative risk ratio) and the "SE" (standard error) predicting association between characteristic of individuals in each class relative to the reference group. \*\*\*p < .001. \*\*p < .01. \*p < .05. \*p < .10.

the least enjoyment of their work, they also reported the highest levels of poor treatment such as discrimination and lack of support. The results shown in Table 1 suggest that this group is less likely to be living in the western United States, and has significantly higher loneliness. They reported higher income, higher overall ability to work, but lower ability to meet interpersonal demands of the job.

# Class 4: high personal interference in supportive work environment

The last work environment class included 14% of the sample. Figure 1 shows this class was characterized by reporting the most personal life interference with work, but the best scores related to support (from supervisor, coworkers, and overall in their job). The results shown in Table 1 suggest that this group is more likely than the other groups to report being a spousal caregiver who has help from other people (i.e., other paid or unpaid caregivers), and has a higher proportion who report another race other than White or Black, and a lower proportion Hispanic.

We conducted sensitivity analyses to explore a comparable sample of noncaregivers (n = 2,666), with results indicating a three-class model (results available upon request) in which noncaregivers were in low-quality, average, and high-quality work environments. The unique combinations of differences in the work environment variables salient for caregivers (e.g., personal life interference) suggested caregiver work environments should be examined separately in order to best inform research and policy focused on this group.

# **Discussion**

In order to better support working caregivers, we must first understand the work environments they occupy. Structural environments, employer relations, and work-based social supports play a particularly important role in workers' ability to remain engaged in work while caring for others (Kossek et al., 2011). This study employed LCA to produce four work environment typologies of spousal and parental caregivers and found that caregivers in a high-quality work environment—characterized by low chronic work discrimination, personal life interference, job lock, workload, and demanding work environment—experienced low financial strain and better health in comparison to other groups. Conversely, caregivers in low-quality work environments were characterized by individuals with high financial strain and the poorest health. These findings might suggest that a high-quality work environment is associated with the best outcomes for working family caregivers. On the other hand, our findings may simply suggest that certain types of workers are more privileged than others and are able to choose work environments in which they have more support and ability to balance their work and caregiving

opportunities. Further research is needed to evaluate the causal direction of our findings.

Age, gender, and racial/ethnic differences by work environment should also be explored further in future research to determine whether certain working caregivers are more likely to leverage positions that are supportive than others. In the current study, more men constituted the high-quality work environment group, while younger ages and racial/ethnic minorities constituted lower-quality work environments. These differences are concerning, especially given the disproportional representation of women and minorities in this group, a group more likely to experience greater caregiver strain and hours providing care (AARP and National Alliance for Caregiving, 2020). All family caregivers should have access to, and the benefits of, supportive work environments.

In terms of limitations, the findings from the current study are based on cross-sectional data, so causal relationships among variables could not be evaluated. A variety of confounding factors may explain both selection into particular types of jobs and the associations between particular classes and well-being outcomes. Future research will be needed to isolate causal associations between work environments, well-being, and caregiving-related factors. Also, while this study captures a variety of work environment characteristics, other characteristics identified elsewhere (e.g., opportunities to telecommute or be referred for counseling/employee assistance; Templeman et al., 2020) were not available for inclusion in the analyses. The approach used here (LCA) is useful in developing typologies but the class number and characteristics rest on the variables chosen, suggesting other available variables would result in more, less, or different classes of caregiver work typologies. Using this technique, individuals are assumed to be homogenous within class; therefore, research using other strategies might further disentangle variability within these broad work environment types.

Despite these limitations, our findings have implications for workplace policy and employers. First, it is likely that caregivers with more significant supports, both structural and social, will have better outcomes than those in poorer, more constrained work environments. Work cultures that allow people to feel safe reporting that they are serving in informal caregiving roles (e.g., those that promote psychological safety) is an important starting point for development of work-related resources, and identification of specific work practices that increase well-being, retention, and successful performance among working caregivers (Newman et al., 2017). This study offers a first step for informing the design of workplace interventions that can support the U.S. workforce juggling paid work with family caregiving.

# **Supplementary Material**

Supplementary data are available at *The Journals of Gerontology, Series B: Psychological Sciences and Social Sciences* online.

# **Funding**

None declared.

#### **Conflict of Interest**

None declared.

# **Author Contributions**

D. C. Carr planned the study, supervised data analysis, and wrote the paper. K. Jason and T. R. Washington wrote the paper. M. Taylor performed statistical analysis. All authors contributed to the revision of the paper.

# References

- AARP and National Alliance for Caregiving. (2020). Caregiving in the United States 2020. AARP. doi:10.26419/ppi.00103.001
- Arno, P. S., Viola, D., & Shi, Q. (2011). The MetLife study of caregiving costs to working caregivers: Double jeopardy for Baby Boomers caring for their parents. The MetLife Mature Market Institute.
- del-Pino-Casado, R., Frías-Osuna, A., Palomino-Moral, P. A., & Martínez-Riera, J. R. (2012). Gender differences regarding informal caregivers of older people. *Journal of Nursing Scholarship*, 44(4), 349–357. doi:10.1111/j.1547-5069.2012.01477.x
- Fuller, J., & Raman, M., (2019). The caring company: How employers can help employees manage their caregiving responsibilities—While reducing costs and increasing productivity. Harvard Business School.
- Gallicchio, L., Siddiqi, N., Langenberg, P., & Baumgarten, M. (2002).
  Gender differences in burden and depression among informal caregivers of demented elders in the community. *International Journal of Geriatric Psychiatry*, 17(2), 154–163. doi:10.1002/gps.538
- Health and Retirement Study. (2016). Produced and distributed by the University of Michigan with funding from the National Institute on Aging (grant number NIA U01AG009740).

- Kossek, E. E., Pichler, S., Bodner, T., & Hammer, L. B. (2011). Workplace social support and work-family conflict: A meta-analysis clarifying the influence of general and work-family-specific supervisor and organizational support. *Personnel Psychology*, 64(2), 289–313. doi:10.1111/j.1744-6570.2011.01211.x
- Neal, M. B., & Hammer, L. B. (2017). Working couples caring for children and aging parents: Effects on work and well-being. Psychology Press.
- Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human Resource Management Review*, 27(3), 521–535. doi:10.1016/j. hrmr.2017.01.001.
- Nobel, J., Weiss, J., Sherman, C., Wilson-Myers, C., & Pickering, L. (2017). Supporting caregivers in the workplace: A practical guide for employers. https://nebgh.org/wp-content/uploads/2017/11/ NEBGH-Caregiving\_Practical-Guide-FINAL.pdf
- Parsons, S. K., & Kumar, A. J. (2019). Adolescent and young adult cancer care: Financial hardship and continued uncertainty. *Pediatric Blood & Cancer*, 66(4), e27587. doi:10.1002/pbc.27587
- Reinhard, S., Feinberg, L. F., Houser, A., Choula, R., & Evans, M. (2019). Valuing the invaluable: 2019 Update charting a path forward. *Insight*. doi:10.26419/ppi.00082.001
- Sharma, N., Chakrabarti, S., & Grover, S. (2016). Gender differences in caregiving among family-caregivers of people with mental illnesses. *World Journal of Psychiatry*, 6(1), 7–17. doi:10.5498/wjp.v6.i1.7
- Templeman, M. E., Badana, A. N. S., & Haley, W. E. (2020). The relationship of caregiving to work conflict and supervisor disclosure with emotional, physical, and financial strain in employed family caregivers. *Journal of Aging and Health*, **32**(7–8), 698–707. doi:10.1177/0898264319848579
- Wagner, D. L., & Neal, M. B. (1994). Caregiving and work: Consequences, correlates, and workplace responses. *Educational Gerontology: An International Quarterly*, 20(7), 645–663. doi:10.1080/0360127940200704