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Investigating Racial and Ethnic Disparities in the Provision of Workplace Accommodations in the United States

Abstract

This study used data from a nationally representative survey that follows people 50 and older over time (the Health and Retirement Study) to test whether the receipt of workplace accommodations by persons with work limitations varies by race/ethnicity. Workplace accommodations can include changes to time (allowing more breaks, allowing different arrival or departure times, or shortening the workday), provision of equipment/assistance (getting someone to help, getting special equipment, arranging special transportation), and changes to work (changing the job, helping to learn new job skills). We found that 85% of persons with work limitations identified a need for workplace accommodations, but only 32% actually received accommodations. While our preliminary analyses suggested some differences by race/ethnicity in the likelihood of receiving accommodations, when we also considered other factors (age, gender, education, organizational size, and physical nature of an occupation), these differences by race did not hold. Organizational size was a critical factor, however, as persons working for organizations that employed 100 or more people were significantly more likely to receive accommodations. This finding suggests that smaller employers may benefit from training or other supports to increase the availability of workplace accommodations. Workers with disabilities might also benefit from increased education offered by vocational rehabilitation agencies, workforce development programs, and other similar organizations on how to make requests for and implement reasonable accommodations.

Citation

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Introduction

This paper examines whether people with disabilities who are nonwhite are less likely to receive workplace accommodations than other people with disabilities in the United States, controlling for individual characteristics as well as industry and occupation. The existence of such a disparity would suggest that further efforts might need to be made to reduce workplace discrimination in terms of employment practices and that vocational rehabilitation programs that support workers with disabilities of all races and ethnicities strengthen their efforts to help employees advocate for needed workplace accommodations.

Literature review

In the U.S., people with disabilities have lower rates of employment than people without disabilities (Kessler Foundation and University of New Hampshire 2022) and people who are White have higher rates of employment than people who are other races and ethnicities (Bishop et al. 2021; Dam et al. 2022). Gaps in employment between people with disabilities of different races and ethnicities and people without disabilities of different races and ethnicities can provide a high-level view of disparities in this area. In 2020, for adults ages 18 to 64 without disabilities, rates of employment ranged from a low of 70% for people who are Black, non-Hispanic to a high of 77% for people who are Asian, non-Hispanic. For adults aged 18 to 64 with a disability, rates of employment ranged from a low of 30% for people who are Black to a high of 44% for people who are Asian. In contrast, rates of employment for people without disabilities for

this same period ranged from a low of 70% for people who are Black to a high of 77% for people who are white (Paul et al. 2021). More detail is included in Table 1 below.

Table 1: Percent of working-age people (ages 18 to 64) employed in the U.S., by disability and race/ethnicity, 2020

	Disability %	No disability %	Percentage point gap
White, non-Hispanic	38	77	39
Black, non-Hispanic	30	70	40
Asian, non-Hispanic	44	74	30
Other, non-Hispanic	36	72	36
Hispanic	40	73	33

Source: (Paul et al. 2021)

The intersection of disability and race on employment-related outcomes is understudied, although nascent research has found that disability and race are jointly associated with educational attainment, the types of jobs people attain, and employment outcomes (Lindsay et al. 2021; Maroto et al. 2019). Differences in educational attainment may expand or restrict employment opportunities for all people (U.S. Bureau of Labor Statistics 2022). Americans with disabilities have lower levels of educational attainment than others in the U.S. (Lindsay et al. 2021; Paul and Houtenville 2021) and racial disparities in educational attainment exist (Everett et al. 2011).

Discriminatory hiring and workplace practices may also impact employment rates for people with disabilities as well as those of different races and ethnicities (Gewurtz et al. 2016; Graham et al. 2019). Although the 1964 Civil Rights Act forbids employment discrimination on the basis of race, color, sex, religion, and national origin (Civil Rights Act 1964) and the 1990 Americans with Disabilities Act forbids, among other things, workplace discrimination on the basis of disability (Americans with Disabilities Act 1990), discrimination in hiring and workplace practices persists (Parker Harris and

Gould 2019). In recent years, the legal system has started to recognize more and more intersectional claims of workplace discrimination based on disability and race (Abrokwa 2018).

People with disabilities can experience workplace discrimination not just in terms of negative supervisor or co-worker attitudes, but also in terms of structural barriers such as a lack of physical accessibility or a lack of access to reasonable accommodations (Engel and Munger 2003). Certain subpopulations within the disabled community experience higher rates of discrimination. Older workers with disabilities, for example, are more likely to perceive and report employment discrimination (Bjelland et al. 2010). People with mental health conditions, whose need for accommodations might change at different times, are more likely to report workplace discrimination than people with other types of impairments (Chan et al. 2005). Workplace discrimination can negatively impact employment outcomes for people with disabilities. One study found that nearly a third of working age adults with disabilities who experienced workplace discrimination permanently exited the workforce (Kennedy and Olney 2001).

Racial discrimination in hiring and in workplace practices continues to limit the workforce participation and workplace advancement of Blacks in the U.S. (Pager and Shepherd 2008; Whitaker 2019). Having higher levels of education, higher income, or higher occupational status does not preclude Black workers from perceiving racial discrimination in the workplace, but does influence the amount of discrimination perceived and whether racial discrimination is perceived as arising from structural, organizational, or individual biases (Wingfield and Chavez 2020). People with higher educational levels are less likely to identify discrimination overall and, when

discrimination is noted, are more likely to identify structural and organizational issues as the source of discrimination whereas people with lower educational levels are more likely to report individuals as the source of discrimination (Wingfield and Chavez 2020).

For people with disabilities, the provision of workplace accommodations can expand employment opportunities. Providing assistive technology or specialized equipment, offering flexible work schedules, or providing human assistance can help people with disabilities succeed in the work place (Sundar 2017). Studies using data from the Health and Retirement Study (HRS) have shown that accommodation use increases job retention among workers with disabilities (Hill et al. 2016; Kofi Charles, 2004). Among workers experiencing the onset of a disability, the provision of workplace accommodations may reduce applications to Social Security Disability Insurance (SSDI) (Burkhauser et al. 1999; Hill et al. 2016).

Estimates of workplace accommodation receipt vary widely, from 12% to 65% (Hill et al. 2016; Maestas et al. 2019; Schur et al. 2014; Wong et al. 2021). Rates of accommodation vary by worker characteristics, including race and type of disability. Two studies have noted that the probability of receiving workplace accommodations is 6.5 percentage points higher for white workers than for nonwhite workers (Hill et al. 2016; Kofi Charles 2004). Employee-related factors, workplace-related factors, job-related factors, and accommodation-related factors can serve as facilitators and barriers that influence the provision of workplace accommodations (Wong et al. 2021).

Accommodation request and receipt varies by disability type. People with sensory disabilities, for example, are significantly less likely to request accommodations than people with ambulatory, cognitive, independent living, or self-care limitations (von

Schrader et al. 2014). When studying receipt of workplace accommodations among people working as cashiers, receptionists, or nursing assistant/nurses, Henly et al. (2022a) found that people with lower levels of physical and mental functioning are more likely to receive accommodations from their employers than other people.

As a first step in requesting accommodations, employees must disclose that they have a disability. Some workers may be hesitant to disclose their disability because they fear job loss or discrimination (Carr and Namkung 2021; Graham et al. 2019). Other workers may have certain personality traits, such as high levels of assertiveness, open communication, and self-determination, which increase the likelihood of requesting and therefore receiving accommodations (Hill et al. 2016; Wong et al. 2021).

Distinct types of occupations may offer different opportunities for accommodation. People who work in office settings, for example, can perhaps more easily adjust work schedules and use assistive technology to address accommodation needs. People who work in positions that require manual labor and/or offer more stringent work schedules may have fewer opportunities to use accommodations. Receipt of accommodation varies by type of work, with workers who have nonstandard and precarious types of jobs being more likely to have unmet accommodation needs (Shuey and Jovic 2013). College-educated people with disabilities tend to work in positions with less autonomy than college-educated people without disabilities, suggesting that options to adjust work schedules or job duties may be more limited in general for people with disabilities as people with disabilities have lower levels of educational attainment than others (Henly and Brucker 2020b; Paul et al. 2021).

As mentioned earlier, workers who identify as racial minorities and who have higher educational levels may perceive lower levels of workplace discrimination in general, may sort into jobs with more autonomy, and may therefore also have more confidence in believing that their accommodation requests will be met. To date, however, no studies have examined how race/ethnicity and occupation type might be associated with workplace accommodation receipt. To fill this gap, this study investigates the association of race and ethnicity in the receipt of workplace accommodations. Given the literature reviewed above, we hypothesize that workers with disabilities who are nonwhite will have lower rates of receiving workplace accommodations, controlling for demographic and work characteristics.

Methods

Data

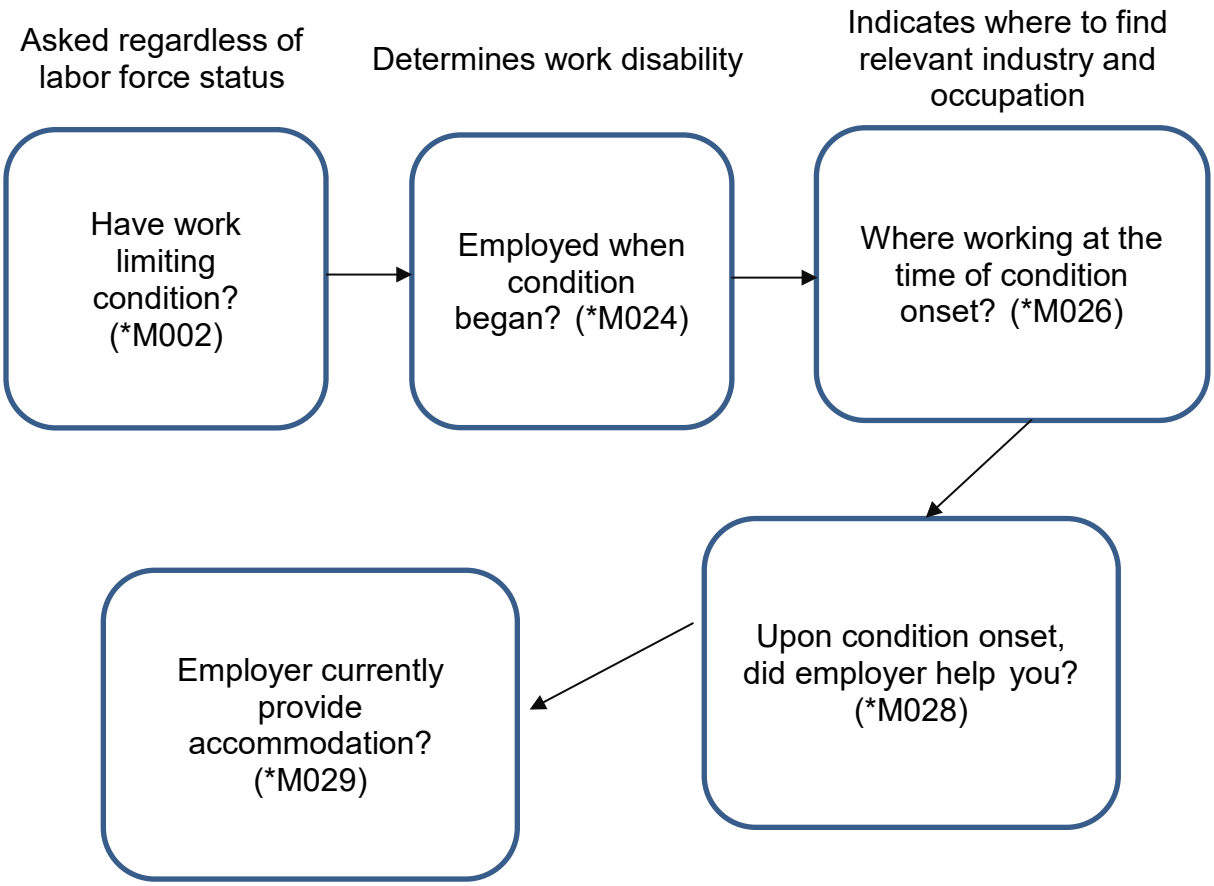
The primary data used for this project comes from public-use data files from the Health and Retirement Study (HRS). Funded by the National Institute on Aging (grant number NIA U01AG009740) and the Social Security Administration, the HRS is a nationally representative longitudinal study of people 51 and older who live in the U.S. Data collection for the HRS began in 1992. The HRS is conducted every two years and collects detailed information on assets, employment, finances, and health. Among nationally representative U.S. surveys, the HRS collects the most comprehensive information on workplace accommodations. Its focus on older Americans is particularly useful when examining the provision of workplace accommodations because of the

heightened onset of disability at older ages (Schimmel Hyde et al. 2022). We focus our HRS analysis on data collected in waves 2002 through 2018.

Sample

We restricted the HRS analytical sample to employed people who experienced a work-limiting health condition while employed at least once during their survey participation (See Figure 1). The HRS captures this information in each wave using question *M024 which asks: “Were you employed at the time your health began to limit your ability to work?” This question is asked of those who reported yes to an earlier item asking, “Do you have any impairment or health problem that limits the kind or amount of paid work you can do?” Excluding people who were self-employed (as they would have their own ability to use accommodations) and across waves of data from 2002 to 2018, we identified 6,444 individuals to include in our analytic sample, which is about one-quarter of all adults in this sample.

Figure 1: HRS questions to identify target population and accommodation receipt



Taken together, items M028 and M029 indicate whether an accommodation was received (options: Yes, None needed, No, Left immediately, Was self-employed)

Measures

In the HRS, accommodation receipt at the onset of the disability is measured using question M028, which asks: “At the time your health started to limit your ability to work, did your employer do anything special to help you out so that you could stay at work?” Possible responses include: Yes, No help needed, No, Left Immediately, Self-

employed, Don't know, Refused. Current accommodation receipt is measured using question M029, which asks: "Does your employer currently do anything special to make it easier for you to stay at work?" Possible responses include: Yes, No help needed, No, Don't know, Refused. We created a new variable (received accommodation) from these two variables, counting anyone who reported yes to either of these items as receiving an accommodation and all others in our work disability sample as not receiving an accommodation. We also created a "needed accommodation" variable from these two variables, where people who reported Yes, No, or Left Immediately were categorized as needing accommodation. People reporting No help needed were categorized as not needing accommodations.

For people who responded affirmatively to any of these accommodation questions, the HRS captures more detailed information about the types of accommodations received. Following Hill et al. (2016), we grouped these accommodation types into three categories: time-related accommodations (allowing more breaks, allowing different arrival or departure times, or shortening the work day), assistance-related accommodations (getting someone to help, getting special equipment, arranging special transportation), and job modification accommodations (changing the job, helping to learn new job skills).

Independent variables

Our key focal independent variables for this analysis are race/ethnicity and occupation. We measured race/ethnicity as white, non-Hispanic; Black, non-Hispanic; Other, non-Hispanic; and Hispanic. Occupation is captured using three different U.S. Census Bureau coding schemes in the HRS: The 2010 occupational codes are provided

for occupations reported in waves 2010 to 2018; the 2000 occupational codes are provided for occupations reported in waves 2004 to 2010; and the 1980 codes are used for occupations reported in 2002 and earlier waves. There are between 17 and 25 masked occupation codes across these schemes that do not map directly to one another in the absence of the unmasked occupational codes. We have created a mapping approach that considers the physicality of job duties and groups similarly physical occupations (based on the Occupational Requirements Survey, ORS) together (See Appendix Table A1). Eighty percent of occupational data came from the most recent coding system, 10% from the 2000 typology and 10% from the 1980 typology. Because survey respondents report their occupation held at the time of the onset of their work-limiting condition, employer and position information generally is captured in the current wave where they are responding if the person is still employed, in the prior wave if the person experienced recent work disability onset, or in a separate question path if it was earlier. About 25% are missing occupation information either due to being self-employed (in which case we did not examine it) or due to item nonresponse.

Occupation was collapsed into the following 10 categories: managerial, business, finance, and sales; professional occupations in computers, science, engineering, legal, and community; personal care; clerical, office, and administrative support; service (food, protective, building, and grounds); healthcare; farming, fishing, construction; entertainment and arts; military; and transport/handlers/material movers (See Appendix Table A1 for details). We took the additional step of rating each of these occupations for physical demands by identifying the percentage of the day that people in these occupations spend sitting, on average, as reported in the ORS in 2020. These

estimates ranged from a low of 2.4% in food service occupations to a high of 87% in computer and math occupations. We coded anyone working in an occupation that spent less than one-quarter of the day sitting as working in a “physical job.” About 25% of all workers were employed in physically demanding occupations under this definition.

As control variables, we chose a parsimonious set of variables that have been shown to be associated with accommodation receipt and occupation: age (at onset of condition), sex (male/female), and educational attainment (less than high school/GED, high school diploma, some college, or bachelor’s or more).

Analytical approach

We first ran bivariate analyses to compare need for and receipt of accommodations by demographic variables, organizational size, and occupation type. We used t-tests to test for differences in age and Chi square to test for differences among our other variables, which were all nominal. We next used logistic regressions to estimate the odds of receiving a workplace accommodation, controlling for demographic variables, organizational size, and our measure of the physical nature of the occupation. Using our final logistic model, we computed marginal effects to estimate the predicted probability of receipt of workplace accommodations among our sample of people with work limitations for each value of our race/ethnicity variable, holding all else constant. We also examine differences in receipt of the types of accommodations received (time-related, assistance-related, or job modification) by demographic and work characteristics, using t-tests and Chi square.

Results

Table 2 shows differences in the need for accommodation by weighted demographic and work characteristics for people who reported a work-limiting condition between 2002 and 2018. The mean age of disabilty onset was 55.7 years. Just under half of those with a work-limiting condition (46.9 percent) were male. The racial distribution of those with a work disability was similar to the U.S. population: 76.6% were white, non-Hispanic; 11.0% were Black, non-Hispanic; 8.3% were Hispanic, and 4.1% were other races, non-Hispanic. Overall, 35% of our analytic sample had a high school diploma or GED, 28% had some college education, and 22% had a bachelor's degree or more education.

*Table 2: Need for accommodation by demographic and work characteristics, Health and Retirement Study, 2002-2018 (*n = *6,444)*

			Needed an accommodation				
	Overall		Yes		No		*p*
	Percentage/ Mean	(Std. Error)	Percentage/ Mean	(Std. Error)	Percentage /Mean	(Std. Error)	
Overall (%)	-	-	88.5%	(0.5)	11.5%	(0.5)	
Age at onset (mean)	55.65	(0.2)	55.12	(0.2)	60.09	(0.5)	***
Gender (%)							***
Female	53.1%	(0.7)	89.8%	(0.5)	10.2%	(0.5)	
Male	46.9%	(0.7)	87.1%	(0.7)	12.9%	(0.7)	
Race/ ethnicity (%)							**
White, non-Hispanic	76.6%	(1.2)	87.6%	(0.6)	12.4%	(0.6)	
Black, non-Hispanic	11.0%	(0.7)	92.8%	(1.1)	7.2%	(1.1)	
Other, non-Hispanic	4.1%	(0.5)	88.9%	(2.2)	11.1%	(2.2)	
Hispanic	8.3%	(0.9)	91.1%	(1.4)	8.9%	(1.4)	
Education (%)							*
Less than HS	14.9%	(0.6)	88.6%	(1.3)	11.4%	(1.3)	
GED	6.7%	(0.5)	92.7%	(1.5)	7.3%	(1.5)	
High school diploma	28.4%	(0.9)	88.9%	(0.9)	11.1%	(0.9)	
Some college	27.9%	(0.7)	89.5%	(0.9)	10.5%	(0.9)	
College	22.2%	(1.0)	85.7%	(1.2)	14.3%	(1.2)	

Number of employees (%)							**
Fewer than 15	5.9%	(0.4)	93.6%	(1.6)	6.4%	(1.6)	
15-24	2.1%	(0.4)	98.5%	(1.5)	1.5%	(1.5)	
25-49	4.3%	(0.4)	98.5%	(0.7)	1.5%	(0.7)	
50-99	7.4%	(0.5)	93.9%	(2.0)	6.1%	(2.0)	
100-499	78.7%	(0.9)	92.0%	(0.6)	8.0%	(0.6)	
500 or more	1.7%	(0.3)	93.6%	(4.7)	6.4%	(4.7)	
Occupation (%)							***
Management, etc.	16.7%	(0.7)	92.5%	(1.3)	7.5%	(1.3)	
Professional, etc.	12.3%	(0.6)	90.7%	(1.5)	9.3%	(1.5)	
Personal care	4.5%	(0.4)	94.7%	(1.7)	5.3%	(1.7)	
Clerical, etc.	12.5%	(0.7)	94.5%	(1.0)	5.6%	(1.0)	
Service, etc.	12.8%	(0.6)	96.3%	(0.9)	3.8%	(0.9)	
Health care	7.2%	(0.5)	94.6%	(1.9)	5.4%	(1.9)	
Farming, fishing, construction	20.7%	(0.8)	97.7%	(0.8)	2.3%	(0.8)	
Entertainment and arts	2.9%	(0.4)	90.9%	(3.7)	9.1%	(3.7)	
Military	3.8%	(0.4)	93.7%	(2.7)	6.3%	(2.7)	
Transportation, etc.	6.7%	(0.4)	99.6%	(0.2)	0.4%	(0.2)	
Physical job (%)							
Yes	25.8%	(0.8)	96.7%	(0.6)	3.3%	(0.6)	***
No	74.2%	(0.8)	85.7%	(0.6)	14.3%	(0.6)	

Note: *p<0.05, **p<0.01, ***p<0.001

The majority of older adults with a work-limiting condition (78.7 percent) worked for employers with 100 to 499 employees. Just 5.9% worked for employers with fewer than 15 employees, a company size that is not legally required to make workplace accommodations under the Americans with Disabilities Act.

Table 2 also displays the distribution of workers with a work disability across occupational categories. The most common occupations were in farming, fishing, or construction (20.7 percent), management, business, finance, and sales (16.7 percent), service, including food, protective, building, and grounds (12.8 percent), and clerical, office, and administrative support (12.5 percent). Nearly 26% of our sample of people with work limitations were working in physically demanding jobs.

Eighty-nine percent of people with work limitations identified a need for accommodation, stating either that their employer did something to help them, employer did not do something to help them, or they left their job immediately upon onset of the work-limiting condition. Significant differences in need for accommodations were noted by age, gender, and educational attaintment. People who needed an accommodation were significantly younger (55 years old) compared to those who did not need an accommodation (60 years old, $p<0.001$). Females were significantly more likely need an accommodation ($p<0.001$). Variation was noted in need for accommodations by educational attainment ($p<0.05$).

Significant differences in need for workplace accommodations were noted by race/ethnicity, as 93% of people who were Black, 91% of people who were Hispanic, 89% of people of other races, and 88% of people who were white needed accommodations ($p<0.01$). Table 2 further shows differences in needing

accommodations by number of employees (p<0.01) and occpuation type (p<0.001). Ninety-seven percent of people with work limitations who worked in more physically demanding jobs needed an accommodation, compared to 86% of people who worked in less physically demanding jobs (p<0.001).

Table 3 shows differences in receipt of accommodation by weighted demographic and work characteristics. Only 33% of workers with limitations received accommodations. Significant differences in receipt of accommodations were noted by age, gender, educational attaintment, and the physical nature of the job. People who received an accommodation were significantly younger (53 years old) than those who did not (57 years old, p<0.001). Females were significantly more likely to receive an accommodation (p<0.05) and receipt of accommodations varied by educational attainment (p<0.001). Thirty-seven percent of people with a physical job received accommodations, compared to 32% of people with less physically demanding jobs (p<0.05). Differences in receipt of accommodations by race/ethnicity, organization size, or occupation type were not significant.

Table 3: Receipt of accommodation by demographic and work characteristics

Health and Retirement Study, 2002-2018 (n=6,711)

	Received accommodation				
	Yes		No		*p*
	Percentage/ Mean (Std. Error)		Percentage/ Mean (Std. Error)		
Overall (%)	32.9%	(0.8)	67.1%	(0.8)	
Age at onset (mean)	53.1	(0.3)	57.0	(0.2)	***
Gender (%)					*
Female	34.6%	(0.9)	65.4%	(0.9)	
Male	30.9%	(1.2)	69.1%	(1.2)	
Race/ethnicity (%)					
White, Non-Hispanic	33.5%	(1.0)	66.5%	(1.0)	
Black, Non-Hispanic	30.7%	(1.8)	69.3%	(1.8)	
Other, Non-Hispanic	33.9%	(3.9)	66.1%	(3.9)	
Hispanic	29.8%	(1.9)	70.3%	(1.9)	
Education (%)					***
Less than HS	24.9%	(1.4)	75.1%	(1.4)	
GED	31.6%	(2.9)	68.4%	(2.9)	
High school diploma	31.9%	(1.5)	68.1%	(1.5)	
Some college	36.0%	(1.7)	64.0%	(1.7)	
College	36.0%	(1.9)	64.0%	(1.9)	
Number of employees (%)					
Fewer than 15	29.6%	(3.6)	70.4%	(3.4)	
15-24	34.7%	(7.1)	65.3%	(7.1)	
25-49	34.5%	(4.9)	65.5%	(4.9)	
50-99	34.0%	(3.4)	66.0%	(3.4)	
100-499	36.5%	(1.0)	63.5%	(1.0)	
500 or more	50.4%	(7.2)	49.6%	(7.2)	
Occupation (%)					
Management, etc.	40.8%	(2.6)	59.2%	(2.6)	
Professional, etc.	37.3%	(2.6)	62.7%	(2.6)	
Personal care	47.4%	(3.9)	52.6%	(3.9)	
Clerical, etc.	39.3%	(2.6)	60.7%	(2.6)	
Service, etc.	33.1%	(3.0)	66.9%	(3.0)	
Health care	40.4%	(3.7)	59.6%	(3.7)	
Farming, fishing, construction	37.4%	(2.1)	62.6%	(2.1)	
Entertainment and arts	31.3%	(4.9)	68.8%	(5.1)	

Military	40.7%	(4.9)	59.3%	(4.9)	
Transportation, etc.	30.8%	(2.7)	69.2%	(2.7)	
Physical job (%)					
Yes	36.7	(1.8)	63.3%	(1.8)	*
No	31.6%	(1.0)	68.4%	(1.0)	

Note: *p<0.05, **p<0.01, ***p<0.001

Table 4 shows the results of the logistic regressions predicting receipt of accommodations. Model 1 includes only age, gender, and race/ethnicity as predictor variables. Compared to people who were white, Hispanic people had significatly lower odds of receiving accommodations (OR: 0.77, p<0.01). People who were Black or other races did not have significantly different odds of receiving accommodations than people who were white. Model 2 adds in education and finds that people with less than a high school education had significantly lower odds (OR: 0.68, p<0.01) of receiving accommodations compared to those who hold a college degree. No racial differences were noted. In Model 3, organizational size was added. People working in organizations that were larger (100 employees or more) had significantly higher odds of receiving accommodations compared to those with fewer than 15 employees. In Model 4, we add in our measure of the physical nature of jobs, based on whether an occupation allows workers to sit for less than 20 perecent of the day, on average. While this measure was not significantly associated with the odds of receiving accommodations, organizational size remained significant in Model 4.[1]

[1] We also ran an additional model similar to Model 4 (not shown) using occupation type in place of physical nature of the job, just to check the utility of this approach even though we did not note any significant differences by occupation in our bivariate analyses. In this model, using fishing, farming, construction as the reference group, we found that people working in personal care occupations had significantly higher odds of receiving accommodations, but no other significant differences among occupation types.

Table 4: Logistic regression models predicting odds of having received an accommodation among those with a work-limiting condition, Health and Retirement Study, 2002-2018

	Model 1			Model 2			Model 3			Model 4		
	OR	**se**	**p>|t|**	**OR**	**se**	**p>|t|**	**OR**	**se**	**p>|t|**	**OR**	**se**	**p>|t|**
Age at condition onset (in years)	0.96	0.00	***	0.96	0.00	***	0.96	0.00	***	0.96	0.00	***
Female	1..11	0.09		1.11	0.09		1.10	0.09		1.11	0.10	
Race (ref=White, non-Hispanic)												
Black, non-Hispanic	0.83	0.09		0.87	0.09		0.90	0.10		0.90	0.10	
Other, non-Hispanic	0.88	0.17		0.89	0.18		0.87	0.19		0.87	0.19	
Hispanic	0.77	0.08	**	0.87	0.09		0.97	0.10		0.97	0.10	
Education (ref=college degree or more)												
Less than high school	-	-		0.68	0.08	**	0.81	0.11		0.79	0.11	
GED	-	-		0.79	0.12		0.82	0.14		0.80	0.14	
High school graduate	-	-		0.88	0.10		0.91	0.11		0.89	0.11	
Some college	-	-		1.02	0.11		1.02	0.12		1.01	0.12	
Number of employees (ref=fewer than 15)												
15-24	-	-		-	-		1.42	0.50		1.42	0.50	
25-49	-	-		-	-		1.40	0.39		1.41	0.39	
50-99	-	-		-	-		1.11	0.28		1.11	0.28	
100-499	-	-		-	-		1.54	0.30	*	1.55	0.31	*
500+	-	-		-	-		2.49	0.87	*	2.48	0.87	*
Physical occupation	-	-		-	-		-	-		1.07	0.11	
Constant	5.47	1.47	***	5.76	1.68	***	4.78	1.63	***	4.60	1.60	***
Number of cases	*5,780*			*5,780*			*4,853*			*4,853*		

Note: *p<0.05, **p<0.01, ***p<0.001; OR=odds ratio; se=standard error

Figure 2 shows the predicted probability of receiving workplace accommodations by race, using Model 4 as the basis for estimation. Note that the sample used in Model 4 includes fewer people (*n* = 4,853) than than the number of people included in our bivariate analysis (*n* = 6,444) that estimated that 32% of people with work limitations received accommodations. The predicted probabilities here are slightly higher: approximately 37% for people who are White or Hispanic, 35% for people who are Black, and 34% for people of other races.

Figure 2: Predicted probability of receiving accommodations among people with work limitations by race, controlling for demographic and work characteristics, Health and Retirement Survey, 2002-2018

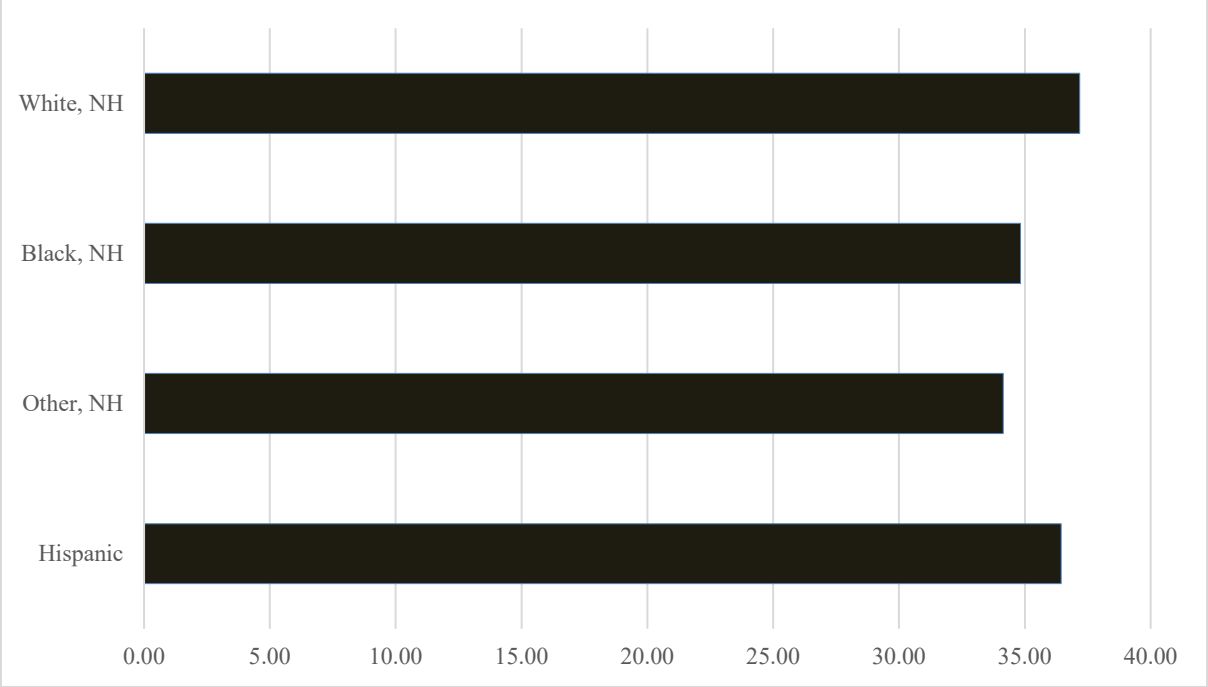


Figure 3: Predicted probability of receiving accommodations by number of employees, controlling for demographic and work characteristics, Health and Retirement Survey, 2002-2018

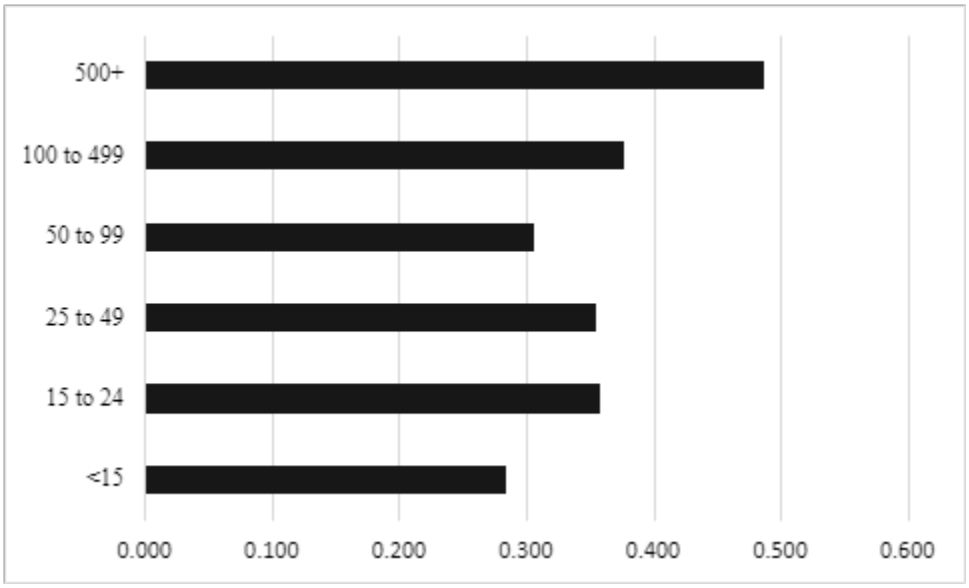


Table 5 shows differences in type of accommodation received by key demographic and work characteristics. Notably, significant variation in receipt of time-related accommodations and job modification accommodations are found by race. No differences were found by race in terms of receiving assistance types of accommodations. A significantly higher proportion of people with a physically demanding job (51 percent) received job modification accommodations than people with less physically demanding jobs (35 percent) (p<0.001).

Table 5: Accommodation type received by demographic and work characteristics, Health and Retirement Study, 2002-2018 (n=1,954 who received accommodations)

	Time related		Assistance related		Job modification accommodations	
	%	*p*	%	*p*	%	*p*
Overall	52.7%		47.1%		39.8%	
Gender (%)						*
Female	52.5%		45.6%		37.0%	
Male	53.1%		49.1%		43.3%	
Race/ethnicity (%)		*				**
White, non-Hispanic	51.5%		46.0%		37.2%	
Black, non-Hispanic	59.4%		52.3%		48.7%	
Other, non-Hispanic	65.2%		50.9%		44.6%	
Hispanic	50.7%		49.6%		51.9%	
Education (%)						***
Less than HS	54.3%		43.8%		41.9%	
GED	47.5%		41.0%		50.4%	
High school diploma	48.6%		48.0%		43.6%	
Some college	53.8%		46.3%		42.3%	
College	56.8%		50.5%		28.4%	
Number of employees (%)						
Fewer than 15	57.0%		43.2%		38.5%	
15-24	50.6%		47.1%		31.2%	
25-49	56.5%		47.2%		29.6%	
50-99	60.7%		55.1%		44.6%	
100-499	54.6%		49.2%		42.2%	
500 or more	54.6%		50.2%		56.3%	
Occupation (%)						
Management, etc.	60.2%		50.5%		31.9%	
Professional, etc.	50.0%		50.1%		35.9%	

Personal care	49.6%		42.8%		43.4%	
Clerical, etc.	54.6%		49.1%		38.0%	
Service, etc.	53.2%		46.0%		50.8%	
Health care	62.6%		46.2%		37.7%	
Farming, fishing, construction	58.2%		52.6%		51.8%	
Entertainment arts	51.4%		66.9%		22.3%	
Military	49.7%		57.8%		63.4%	
Transportation, etc.	45.7%		44.4%		44.3%	
Physical job (%)						***
Yes	56.7%		50.5%		50.6%	
No	51.1%		45.8%		35.4%	

Note: *p<0.05, **p<0.01, ***p<0.001

Discussion

The results from this study do not confirm that people who are nonwhite are less likely to need or receive workplace accommodations when controlling for age, gender, education, organizational size, and the physical nature of a particular job. Issues of racial discrimination do not appear evident when examining this particular workplace outcome. Specifically, our fully adjusted models find no significant variation in receipt of workplace accommodations by race, estimating that 37% of people with work limitations who are white, 35% of people who are Black, 34% of people who are of other races, and 37% of people who are Hispanic received accommodations. 32% of people with work limitations received accommodations. This finding counters other research which has found that the probability of receiving workplace accommodations is 6.5 percentage points higher for white workers than for nonwhite workers (Hill et al. 2016; Kofi Charles 2004), perhaps because we adjusted for a different set of variables than these other

studies. Our estimates are also lower than those of Maestas et al. (2019) who reported that 42% to 53% of people ages 18 to 70 who have a work-limiting condition received an accommodation at work, although their estimates were based on data from an Internet panel and included a wider age range.

In our models, organizational size is the primary predictor of receipt of workplace accommodations. As other research has found that most organizations in the U.S. that employ more than 25 people have formal processes in place to allow employees to request accommodations (Houtenville et al. 2022), the lack of accommodation provision noted in this study is concerning. Employees working for larger firms had significantly higher odds of receiving accommodations, suggesting that organizational size, rather than employee characteristics, is one of the most important factors driving the receipt of any workplace accommodation. Our results suggest a 20 percentage point difference in receipt of accommodations between people working at small organizations (29% in organizations employing less than 15 people and large organizations (49% in organizations employing 500 or more people). We did not find any differences by organizational size in the types of accomomdations provided. Organizational size might serve as a proxy for job quality in that larger organizations are more likely to offer better protections for employees, provide more standard work schedules, and have other benefits that make the provision of accommodations more likely. As Shuey and Jovic (2013) note, workers who have nonstandard and precarious types of jobs are more likely to have unmet accommodation needs.

Our preliminary analyses did highlight the large gap between need for and receipt of accommodations overall, with 85% of people with a work limitation identifying

a need for accommodation, yet only 32% receiving accommodations. The HRS does not collect any information about whether employees requested accommodations, however. Without such information, we are not able to fully understand the reasons for this gap. For example, we cannot determine what percent of people might have requested but not received an accommodation. This type of information is particularly important in understanding employer behavior as it is unclear from our data whether employees disclosed their disabilities and requested accommodations.

Our bivariate analysis did not indicate any significant differences in need for nor receipt of workplace accomodations by occupation type. While occupation type may perhaps have utility for other studies, measures of the actual job functions and the nature of the job can provide more meaningful context when studying workplace accommodations. Although our proxy for the physical nature of jobs was not significantly related to the odds of accommodation receipt in Model 4, perhaps other measures that more closely examine the mismatch between job duties and functional ability could be helpful in better understanding situations in which employees need to receive accommodations. Our measure of the physical nature of a job also did not capture other job duty characteristics important in the context of accommodations, such as mental functioning (Henly et al. 2022a; Henly et al. 2022b).

Limitations

Several limitations of our study must be noted. First, our data spans a broad period of time (2002 to 2018). We would expect that improvements have been made in recent decades which would increase the use of accommodations across the board, as well as for certain subpopulations. A recent survey of supervisors found substantial

increases from 2017 to 2022, for example, in the percent of supervisors reporting that their organizations had dedicated accommodation funds (Houtenville et al. 2022). Second, our data is focused on older adults who are reporting retrospectively, excluding younger workers who might also require accommodations. In addition, the COVID-19 pandemic has increased the percentage of the general population that is working remotely (Parker et al. 2022) or with flexible schedules (Houtenville et al. 2022), two work options that are commonly used as accommodations for people with disabilities. Additional analyses, with more recent data, can examine whether disparities exist in workplace acommodations in the post-COVID-19 era by race/ethnicity.

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Appendix

Appendix Table A1. Crosswalk of occupations across 1980-2000 Census coding typologies

	2010 codes	2000 codes	1980 codes
Management, Business, Finance and Sales	Management occs	Management occupations	Managerial specialty
	Business+financial oper	Business Operations Special	Sales
	Sales+Related Occs	Financial specialists	
		Sales Occups	
Professional specialties, Computer, Science, Engineering, Legal, Comm/Social Services, Librarians	Computer+Mathematical Oc	Computer+Math Occs	Prof specialty opr/tech
	Architecture+Engineering	Architecture+Engineering	
	Life/Physical/Social Sci	Life/Physical/SocailSci	
	Community+Social Service	Community+Social Svcs Oc	
	Legal Occs	Legal Occups	
	Education/Training/Libra	Education/Training/Libra	
Personal care	Personal Care+Service Oc	Personal Care+Service Oc	Personal svc
Clerical, office, administrative support	Office+Administrative Su	Office+Admin Support Occ	Clerical/admin supp
Service, including food, protective, building, grounds	Protective Service Occs	Protective Service Occs	Svc: prv hhld/clean/bldg
	Food Prep+Serving Relate	Food Prep+Service Oc	Svc: protection
	Building/Grounds Cleaning	Bldg/Grounds/Clean/Mai	Svc: food prep
Health care	Healthcare Practitioners	Hlthcare Practition/Tech	Health svc
	Healthcare Support Occs	Healthcare Support Occs	
	Farming/Fishing/Forestry	Farm/Fish/Forestry Occup	Farming/forestry/fishing

Farming, fishing, construction	Construction+Extraction	Construction Trades	Mechanics/repair
	Installation/Maintenance	Extraction Workers	Constr trade/extractors
	Production Occs	Install/Maint/Repair Wor	Precision production
		Production Occups	Operators: machine
Entertainment and arts	Arts/Design/Entertainment	Arts/Design/Entertnmt Oc	
Military	Military Specific Occs	Military specific occups	Member of Armed Forces
Transportation, handlers, material movers	Transportation +Material	Transport/Material Moving	Operators: transport, etc
			Operators: handlers, etc.