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Who Requests and Receives Workplace Accommodations? **An Intersectional Analysis**

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Abstract

Purpose This study investigates who requests workplace accommodations and who is more likely to have requests granted. We investigate the role of demographic characteristics and their intersection, including disability, gender, race/ethnicity, and age. We also consider the role of other personal and job-related factors.

Methods We use the data from the Current Population Survey (CPS) 2021 Disability Supplement to estimate the odds ratio of having requested workplace accommodations and having such request granted during the COVID-19 pandemic when the survey was conducted. In supplementary analyses, we explore the relationship between remote work and flexible scheduling and workplace accommodations, as well as possible trends using CPS 2019 Disability Supplement.

Results Our results indicate that Hispanics with disabilities are more likely than others to request workplace accommodations, but they are substantially less likely to be granted accommodations. Consistent with other studies, our paper also finds that people with disabilities, women, and older people are more likely to request accommodations than their respective counterparts. Other personal and job-related factors such as higher education, parenthood, being single, being a citizen, and working in management-related occupations are associated with higher likelihood of requesting workplace accommodations compared to their counterparts, while receiving accommodations is largely explained by occupational differences.

Conclusion Our findings show that there are still disparities in the rates of workplace accommodation requests and provision for multiply marginalized groups, and as such, taking into account intersectional differences in addition and in relation to disability is important.

Keywords Workplace accommodations · Employment · Disability · COVID-19 pandemic

Introduction

Work is an important aspect in the lives of all individuals, including people with disabilities. For individuals with disabilities, the benefits of employment often extend beyond the economic ones. Work can serve as a pathway to self-empowerment and community integration as well as overall better quality of life [1]. Despite this, people with disabilities continue to face extreme disparities in employment. The United

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States Bureau of Labor Statistics data show that only one in three working age people with disabilities (34.8%) were employed in 2022, as compared to three-quarters (74.4%) of their nondisabled peers [2]. Even when employed, people with disabilities earn, on average, significantly less per year than those without disabilities [3–5]. In particular, people with disabilities who embody other marginalized identities experience substantial employment and economic disparities beyond those faced more broadly by people with disabilities [2, 6-9].

Workplace accommodations are one effective method of overcoming barriers and promoting the employment of individuals with disabilities [10]. Workplace accommodations refer generally to modifications or adaptations made to a job or work environment to allow employees with disabilities to perform essential functions of the job or enjoy same opportunities as their nondisabled counterparts [7]. Nonetheless, effective workplace accommodations are not



always available to all workers [11]. A recent study of legal professionals in the United States (US) has shown that multiply marginalized individuals with disabilities are less likely to request and receive workplace accommodations than their counterparts [7]. This is likely tied to other workplace-related barriers such as lower rates of disability disclosure for multiply marginalized individuals [11], discrimination and attitudinal biases [12], and lack of supportive and inclusive workplaces [13].

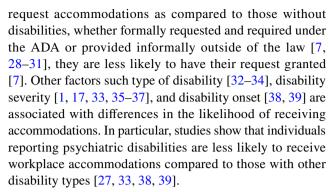
These recent studies call for more research that explores disparities in workplace accommodation requests and granting at a national level using a representative sample. In addition, they highlight the need for analytical approaches to account for intersectionality—that is, the way various forms of oppression coalesce and create unique barriers for multiply marginalized workers. In the current study, we take the next step in exploring differences in workplace accommodations across occupations for different marginalized groups using intersectionality as an informing paradigm.

Background

Research on workplace accommodations has examined different aspects of it, such as benefits and costs, types requested, and characteristics of people who request them. Overall, studies show that there are net benefits for employees and employers associated with the provision of workplace accommodations. For people with disabilities, provision of workplace accommodations is associated with overall better employment opportunities [14–16], job performance and satisfaction [17–21], tenure [15, 22], and worker well-being [20, 23, 24]. For employers, the benefits include increased employee retention, profitability, reduced new employee hiring and training costs, improved organizational culture and climate, and increased worker productivity [25, 26]. The importance of workplace accommodations is highlighted by an investigation of 2015 Survey of Disability and Employment data by Anand and Sevak [15] showing that employment barriers experienced by at least one third of nonworking people with disabilities could be addressed by workplace accommodations.

Despite the documented benefits, workplace accommodation requests rates remain low since passage of the Americans with Disabilities Act ("ADA") in 1990 [27]. A study conducted after the passage of the ADA using the National Health Interview Survey-Disability Supplement 1994–1995 showed that 12% of the respondents requested workplace accommodations [27].

More recent studies show that about half of individuals who may require accommodations are not provided them [16]. While people with disabilities are more likely to



Tied closely to the decision to request workplace accommodations is the decision to affirmatively disclose disability in the workplace. Research shows that workers with disabilities often forgo requesting workplace accommodations due to fears and concerns about stigma and discrimination associated with disability disclosure [40–42]. A recent study of legal professionals showed that disclosure is a strong predictor of workplace accommodation requests, a supportive workplace is associated with higher disclosure rates, and that overall, workers with disabilities are more likely to report discrimination and bias in the workplace compared to those without disabilities [7, 11, 12].

When it comes to types of accommodations requested, studies find differences between workers with and without disabilities. According to a 2022 Bureau of Labor Statistics report [43], workers with disabilities were more likely than those without disabilities to have flexible work schedules. Other studies have shown that flexible working schedules and telework are among the most common accommodations requested by people with disabilities [35]. While workers with disabilities are more likely to request workplace accommodations, they have a lower average number of accommodations requested per person [30].

Other demographic characteristics have been shown to be associated with workplace accommodation requests. Studies show that women have higher odds of requesting workplace accommodations compared to men [7, 27, 44]. Despite being more likely to request workplace accommodations, women are less likely to receive them compared to men [7]. The gender disparity in workplace accommodation requests and receipt is partially explained by female employees giving birth and requesting maternity leave [45] and being employed in jobs unsuitable for those with chronic illnesses such as those that are temporary, offer low pay, have unpredictable schedule, and have few employment protections [5, 46]. Other studies, however, have shown that that gender is not significantly related to requesting and receiving accommodations [47] or being satisfied with accommodations [31].

Research has demonstrated that race and ethnicity influence the likelihood of receiving workplace accommodations, revealing that racial minorities are less



likely to be accommodated. This suggests that, despite diversity, equity, and inclusion programs ("DEI"), organizations may show a higher willingness to provide accommodations to white employees compared to employees of color [47, 48]. Moreover, employees of color express lower satisfaction with the accommodations they receive. This could be explained by greater opportunities offered to white employees to engage in the accommodation process compared to other marginalized groups [31] or discrimination and bias still prevalent in the workplace [12].

Other personal factors such as age and education are also associated with likelihood of requesting workplace accommodations. Studies show that, counter to expectations, older individuals are less likely to request workplace accommodations [7, 29, 49] but more likely to have such requests granted than younger employees [7]. Employees with a college education, on the other hand, are more likely to request workplace accommodations compared to those with lower levels of educational attainment [17, 21, 27, 50, 51]. These differences are largely explained by self-efficacy/ self-advocacy skills, knowledge of ADA, and knowledge of accommodations shown by those with higher education [1, 50, 52–54].

In addition to demographic factors, research has examined job-related factors that determine workplace accommodation requests and receipt. Working full-time and being a permanent employee [47, 55] is associated with an increased likelihood of requesting and receiving accommodations. Previous studies analyzing Census data show that workers with disabilities feel more constrained to their temporary job and are more likely to report it as the only type of job they were able to find [5]. In addition, they are twice as likely than those in other types of jobs to say that their accommodation request was not fully met, suggesting that temporary employees with disabilities are more likely to have unmet accommodation needs [5].

In terms of industry, people with disabilities are more likely to request accommodations than their nondisabled peers in jobs that require onsite activity such as manufacturing, wholesale and retail trade, transportation and utilities, and educational and health services [30]. Likewise, working for a private organization is associated with lower odds of requesting workplace accommodations compared to governmental organizations [7].

Organizational climate and culture are also important to accommodation provision. Employees perceiving greater workplace support are more likely to request accommodations [17, 29] and to formally disclose their disability in the workplace [11]. Having existing disability policies and practices that offer flexibility and autonomy are also cited as beneficial to workers with disabilities who need workplace accommodations [44, 56]. Furthermore, research indicates that specific accommodation requests

and provisions are also influenced by organizational factors such as the extent to which the workplace culture or climate encourages employee input, union membership, and employer-sponsored health insurance [57, 58]. The COVID-19 pandemic resulted in broad culture changes that saw remote work and flexible work schedules become more commonplace [59]. Workers with disabilities were more likely than those without disabilities to be working from home prior to the pandemic. However, during 2020–2022, their increase in remote work was relatively modest compared to people without disabilities. By 2022, workers with disabilities were more likely to be working remotely but less likely to be working remotely as a direct result of the pandemic [60–62].

While we know how individual characteristics separately shape access to workplace accommodations, we know less about how different forms of oppression interact. Intersectionality, as theorized by Professor Kimberly Crenshaw, views an individual's lived experience as more than the sum of their identities, recognizing that inequalities can intersect and compound [63, 64]. It advocates for an interactive approach to considering inequalities rather than a single-category perspective. Intersectionality is not about adding up or ranking identities or inequalities; rather, it serves as a lens to identify systemic disparities faced by diverse individuals, which coalesce to perpetuate social oppression [65, 66].

Intersectionality has driven a paradigm shift in research, law, and policy, directing attention towards socioeconomic inequalities and their interconnections [67]. Yet, the use of intersectionality in studying the employment of persons with disabilities remains limited. Existing literature applying an intersectional lens has relatively little focus on disability [68-71], resulting in a lack of information about the experiences of marginalized communities in relation to disability. Empirical research on the inequalities people with disabilities face in employment and other areas of daily life has had some success embracing the idea of intersectionality and thus showing that multiply marginalized people with disabilities face unique challenges in joining the labor force [72–74]. Latest data from Bureau of Labor Statistics show that among people with disabilities of all ages, Asians have the lowest employment rate at 17.8% followed by Black individuals at 18.0%. On the other hand, people with disabilities who are White and Hispanic reported the highest employment rate at 21.9% and 22.9%, respectively. Hispanics have the highest employment rate even among individuals without disabilities at 67.3% followed by Asians at 65.6% and Whites at 65.5%. Black people without disabilities have the lowest employment rate of all these four groups at 64.4% [2].

In relation to workplace accommodations, there have been recent studies that have explored disparities using



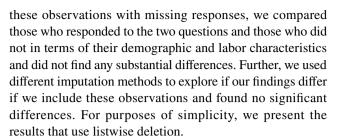
an intersectional lens [7]. While the findings are limited to white-collar workers, they highlighted the importance of documenting experiences of multiply marginalized individuals with disabilities. The present study aims to expand on this research by using a nationally representative sample across occupations. Specifically, using data from the Current Population Survey (CPS) July 2021 Disability Supplement, this study examines patterns in workplace accommodation requests and provisions. We consider the following research questions: (1) To what extent do disability, gender, race, and age individually, and in combination, predict an individual's likelihood of making a workplace accommodation request? (1a) To what extent do personal and job-related factors predict an individual's likelihood of making a workplace accommodation request? (2) To what extent do disability, gender, and race individually, and in combination, predict an individual's likelihood of receiving workplace accommodations? (2a) To what extent do personal and job-related factors predict an individual's likelihood of receiving workplace accommodations?

Methodology

To answer our research questions, we employ data from the CPS July 2021 Disability Supplement, conducted during the COVID-19 pandemic. The CPS is a monthly survey of about 50,000 households that collects information on various labor outcomes at the national level. The July 2021 Disability Survey is a supplement to the CPS that asks disability-related employment questions. This is the third time that the Disability Supplement survey was conducted. Questions are asked of both people with and without disabilities.

Our sample is restricted to the employed civilian labor force ages 15 years and older who completed the interview. We take into account younger workers in an attempt to capture their unique experience. We use guidance from the Fair Labor Standards Act (FLSA) that sets the minimum age of employment at 14 [75] as well as reports from the Bureau of Labor Statistics indicating that the youth labor force grows during the summer months (when this survey took place) [76]. We conducted sensitivity analyses to see if our main findings change if we set the starting age higher and did not find significant differences. However, we find that differences in accommodation requests between the 15–25-year-old group and those 26–45 years old are less pronounced if we exclude participants aged 15–17 from our sample.

We also exclude self-employed individuals and respondents who did not answer questions about the type of organization they work or if they are temporary workers. To ensure that our findings are not biased by having excluded



We further limit our sample to only those who have responded to the accommodation questions. As such, we consider two analytical samples in answering our main research questions. The first sample of 33,912 respondents is derived from those who answered the question: "Have you ever requested any change in your current workplace to help you do your job better? For example, changes in work policies, equipment, or schedules." This analytical sample is used to estimate the likelihood of requesting workplace accommodations for different groups. The second sample is derived as a subsample from the first one. It contains 2261 respondents who answered the question "Were the changes granted?" This sample is used to answer the second research question regarding accommodation provision. Online Table A1 in the online appendix provides a detailed summary of our two analytical samples and their distribution by our independent and dependent variables.

Outcome Variables

Accommodation Requested

The first primary dependent variable is binary: "Have you ever requested any change in your current workplace to help you do your job better?", coded as 1 "Yes" and 0 "No."

Accommodation Granted

The second primary dependent variable is based on the question: "Were the changes granted?" Respondents could answer "Yes," "No," and "Partially." Responses that the request was granted fully or partially were coded as 1 for "Yes," and where the request was not granted were coded as 0 for "No."

Demographic Characteristics

Disability is coded as 1 if one of the six CPS disability questions was answered as yes and 0 for no disability. **Gender** is coded as a binary variable (1 "Women", 0 "Men"). **Race and ethnicity** is coded as 1 if the respondent identified as "non-Hispanic (NH) White," 2 for "NH Black," 3 for "Hispanic," and 4 for all "other racial and ethnic groups". In main analyses, we include each race/ethnicity as



a separate binary variable and omit NH White. *Age* is coded as a categorical variable. In main analyses, we include each age group as a separate binary variable and omit ages 15–25.

Other Personal Characteristics

Education is coded as a categorical variable with three levels. In main analyses, we include each level as a separate binary variable and omit those with less than a high-school education. Family Income is coded as an ordinal variable with six levels. In our main analyses, we treat the ordinal measure of income as separate binary variables and omit those with income of less than \$35,000. Parenthood is coded as a binary variable (1 "has a child/children under the age of 18," 0 "does not have children under the age of 18"). Marital Status is coded as a binary variable (1 "married," 0 "not married"). Citizenship: is coded as a binary variable (1 "non-citizen," 0 "citizen").

Job-Related Factors

Occupation is coded as a categorical variable taking six values: 1 for "management, professional, and related occupations," 2 for "service occupations," 3 for "sales and office occupations," 4 for "farming, fishing, and forestry occupations," 5 for "construction, and maintenance occupations,", and 6 for "production, transportation, and material moving occupations." In main analyses, we include each category as a separate binary variable and omit management occupations.

Temporary Work is a binary variable. Respondents who answered "yes" to the question "Some people are in jobs that last only for a limited time or until the completion of a project. Is your job temporary?" were coded as 1 and those who answered "no" were coded as 0. **Practice Type** is a binary variable coded 1 to indicate if respondent works for a "private organization" and 0 if respondent works for a "government organization." **More than One Job** is a binary variable coded 1 if respondent has more than one job and 0 if the respondent reports only one job.

Flexible Schedule is a binary variable coded 1 if respondent has flexible work hours that allow them to vary or make changes in the time they begin and end work and 0 for otherwise. Remote Work is a binary variable coded 1 if respondent does any work at home for their job and 0 otherwise.

Analytic Strategy

To explore the relationship between our dependent and independent variables, we estimate differences in characteristics between respondents who requested and did not request accommodations, and for those who had their accommodation request approved and those who did not have their request approved. We use Pearson's chi-squared to test for the general association between variables. We use a p < 0.1 to reject the null hypothesis that our variables are independent.

To answer the two primary research questions, we estimate the odds ratio of requesting accommodations and of having the request approved. Using logistic models, we estimate differences in odds according to individual characteristics, adjusting for covariates mentioned above. First, we estimate a basic model (Model 1) with demographic independent variables only. We progressively add to this model other personal covariates such as education, income, parenthood, marital status, and citizenship status (Model 2). Next, we add job related factors such as occupation, contingent work, type of organization, and more than one job (Model 3). Finally, we add 2×2 interactions between disability status and other individual characteristics (Model 4). This is done to consider ways in which individual characteristics independently, and together, associate to create a unique personal and structural experience for workers who request and who are provided accommodations. The final model is shown below:

$$\begin{split} p_i/\left(1-p_i\right) &= \beta_0 + \beta_1 \, Disabled_i + \beta_2 \, Woman_i + \beta_3 NH \, Black_i + \beta_4 \, Hispanic_i \\ &+ \beta_3 NH \, Other_i + \beta_6 \, Age \, 26 - 45_i + \beta_7 \, Age \, 46 - 65_i \\ &+ \beta_8 65 +_i + \gamma X_i + \delta Y_i + \delta Z_i + \varepsilon_i \end{split}$$

Results

Descriptive Statistics

Tables 1 and 2, and 3 provide descriptive statistics on accommodation requests and provision by different groups. Table 1 shows frequency distributions for accommodation requests and provisions by individual characteristics, with row percentages. Below we discuss differences among groups that are statistically significant.

As expected, workplace accommodation requests vary based on disability status. Specifically, 17% of respondents with disabilities reported having requested accommodations as compared to only 7% of those without disabilities (Table 1).

Other results in Table 1 show that the rates of workplace accommodation requests differ based on respondent's gender, race, and age. 9% of women in our sample requested accommodations compared to 7% of men. In addition, NH White respondents were more likely than other racial and ethnic groups to request accommodations (9%). Finally, individuals in the age group 15–25 had the lowest rates of



Table 1 Descriptive statistics

	Requested Accommodations		Accommodation Granted if Requested	
	Yes	<i>p</i> -value	Yes	<i>p</i> -value
Disability		'		'
Non-disabled	7		85	
Disabled	17	0.0000	83	0.4431
Gender				
Man	7		84	
Woman	9	0.0000	86	0.1546
Race				
NH White	9		86	
NH Black	7	0.0299	83	0.3605
Hispanic	5	0.0000	81	0.1152
NH Other	8	0.0771	88	0.4272
Age				
Age 15–25	4		81	
Age 26–45	9	0.0000	85	0.2147
Age 46–65	7	0.0000	85	0.2265
Age 65+	7	0.0001	88	0.1006
Education				
Less than HS	3		81	
HS but no college	6	0.0000	80	0.9568
College degree or more	10	0.0000	88	0.1749
Income				
< \$35,000	6		76	
\$35,000-\$59,999	7	0.1673	84	0.0218
\$60,000–\$74,999	7	0.3813	79	0.0469
\$75,000\$99,999	8	0.0134	84	0.0376
\$100,000\$149,999	8	0.0005	87	0.0010
> \$150,000	8	0.0001	92	0.0000
Parent				
Not a parent	7	0.0004	84	
Parent	9		87	0.0905
Marital Status				
Not married	7		84	
Married	8	0.2668	86	0.0914
Citizenship Status				
Citizen	8		85	
Not a citizen	3	0.0000	83	0.6233
Occupation Sector				
Management	10		89	
Service	6	0.0000	81	0.0037
Sales and Office	7	0.0000	84	0.0154
Agriculture	3	0.0000	59	0.1616
Construction	4	0.0000	77	0.0209
Production and Transport	5	0.0000	76	0.0002
Contingent Worker Status	5	0.0000	, 0	0.0002
Non-temporary worker	8		85	
Temporary worker	6	0.0141	88	0.5836
Type of Organization	Ü	0,0171	00	0.5050

Table 1 (continued)

	Requested Accommodations		Accommodation Granted if Requested	
	Yes	<i>p</i> -value	Yes	<i>p</i> -value
Government Organization	7		85	
Private Organization	9	0.0001	86	0.5392
Works > 1 Job				
One job	7		85	
More than one job	11	0.0001	84	0.5725
Allowed Flexible Schedule				
Not allowed flexible hours	5		78	
Flexible hours	12	0.0000	92	0.0000
Works Remotely				
Non-remote worker	5		80	
Remote worker	14	0.0000	91	0.0000

All independent variables included in our analyses are categorical N = 33,912 for Sample 1; N = 2661 for Sample 2

Pearson chi^2 test and its associated *p*-value account for survey design *p*-values reflect differences between the given group and the base group for that variable

Columns two and four present row percentages

Statistically significant results (p < 0.1) are given in bold

accommodation requests and provision compared to the other older groups.

There are also significant differences in accommodation requests based on other personal and job-related factors. Table 1 shows that 10% of individuals with college or higher education reported having requested workplace accommodations compared to 6% of those with a high school degree but no college and only 3% of those with less than high school education. A higher household income was also associated with accommodation requests and receipt. Parents and married individuals reported higher rates of accommodations

Table 2 Descriptive statistics by type of disability

Type of disability	Accommodation requested	Accommodation Granted if requested
Hearing Only	9	83
Vision Only	5	100
Cognitive Only	23	75
Ambulatory Only	17	84
Self-Care Only	40	100
Independent Living Only	12	77
>1 Disability	24	89

N = 33,912 for Sample 1; N = 2661 for Sample 2

Presented here are percentage row totals for each disability type Categories are mutually exclusive



Table 3 Descriptive statistics by type of accommodation requested

Type of accommodation	Disability	No Disability	<i>p</i> -value
New or modified equipment	32	38	0.136
Physical changes to the workplace	14	13	0.502
Policy changes to the workplace	13	19	0.003
Changes in work tasks, job structure or schedule	43	40	0.430
Changes in communication or information sharing	13	15	0.556
Changes to comply with religious beliefs	0	1	0.002
Accommodations for family or personal obligations	10	13	0.189
Training	9	9	0.983
Other	20	15	0.127

N = 33,912. Categories are not mutually exclusive

Shown here are proportions

p-value shown for Wald test

requests and provisions compared to non-parents and unmarried individuals. Individuals who are non-citizens reported overall lower rates of accommodations request (3%) compared to citizens (8%).

When it comes to job-related factors, occupational sector matters. Individuals in traditional white-collar jobs reported higher rates of workplace accommodation requests and provisions. Contingent workers, those working for government organizations, those working one job only reported lower rates of accommodation requested compared to their counterparts. Finally, and expectedly, those who report flexible work schedules and engagement in remote work also report higher rates of workplace accommodation requests and provision. However, as results in Table 1 show, not all of the respondents who have flexible schedules and work remotely report accommodations.

Table 2 shows that among respondents with disabilities, those who reported self-care difficulties (40%) and those with more than one disability (24%) have the highest rates of accommodation requests. When it comes to provision of accommodations, all respondents who reported vision or self-care difficulties and requested accommodations had such accommodations either fully or partially granted. In comparison, individuals who reported cognitive and independent living difficulties had the lowest rates of accommodation provision at 75% and 77%, respectively.

Results in Table 3 shows that, among individuals with disabilities, changes in work tasks, job structure, or schedule, new or modified equipment, and other types of accommodations are among the most common types of workplace accommodations requested. On the other hand, among individuals without disabilities, changes in work tasks, job structure, or schedule, new or modified equipment, and policy changes to the workplace are the most common. While

there are similarities in the most common accommodations requests, there are differences in the rates of requests. For example, people with disabilities are more likely to request changes in work tasks, job structure, or schedule compared to people without disabilities (43% vs. 40%), but people without disabilities are more likely to request new or modified equipment compared to those with disabilities (38% vs. 32%).

Estimating the Odds of Accommodation Requests

The results in Table 4 show the odds ratio ("OR") for requesting accommodation as estimated from a series of logistic regression models. We start with a basic model, progressively adding individual characteristics such as disability status, gender, race, and age. The model including all these characteristics is our baseline model. We then add blocks of personal control variables, job-related control variables, and 2×2 interactions. We also conduct a Wald test to compare the nature of these models. Results from the test show that Model 4 is significantly better than Model 3 in predicting our outcome variable.

Results from Model 1 in Table 4 show that people with disabilities, women, and older individuals have higher odds of requesting workplace accommodations compared to their counterparts. On the other hand, NH Black, Hispanic, and other racial/ethnic groups reported lower odds of requesting workplace accommodations compared to NH White respondents. Controlling for other personal and job-related factors (Model 2 and 3) matters but does not significantly change the association between accommodation requests and demographic independent variables.

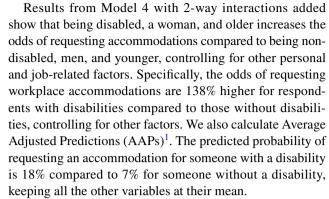


Table 4 Odds ratio for requesting workplace accommodations

	Model 1	Model 2	Model 3	Model 4
	OR	OR	OR ———	OR
Demographics				
Disabled	2.62***	2.73***	2.75***	2.38***
Woman	1.29***	1.20***	1.12**	1.10*
NH Black	0.79***	0.83**	0.83**	0.83**
Hispanic	0.52***	0.67***	0.70***	0.66***
NH Other	0.86*	0.92	0.91	0.89
Age 26–45	2.28***	1.96***	1.89***	1.90***
Age 46–65	1.71***	1.58***	1.52***	1.55***
Age 65+	1.46***	1.37**	1.35**	1.46***
Other Personal Factors				
HS but no college		1.45***	1.37**	1.37**
College degree or more		2.35***	1.84***	1.86***
\$35,000-\$59,999		1.04	1.02	1.04
\$60,000-\$74,999		0.93	0.90	0.90
\$75,000-\$99,999		1.02	0.95	0.95
\$100,000-\$149,999		1.04	0.95	0.94
> \$150,000		1.03	0.91	0.91
Parent		1.12*	1.12**	1.12**
Married		0.85***	0.85***	0.85***
Non-citizen		0.53***	0.55***	0.56***
Job-related Factors				
Service			0.69***	0.69***
Sales and Office			0.71***	0.71***
Agriculture			0.45*	0.45*
Construction			0.55***	0.55***
Production and Transport			0.61***	0.62***
Temporary worker			0.95	0.95
Private Organization			1.02	1.02
More than one job			1.49***	1.49***
2-way Interaction Terms				
Disabled * Woman				1.34*
Disabled * NH Black				0.90
Disabled * Hispanic				1.92**
Disabled * NH Other				1.71
Disabled * Age 26-45				1.01
Disabled * Age 46–65				0.82
Disabled * Age 65+				0.63
Constant	0.04***	0.03***	0.04***	0.04***
Wald test p-value	0.000	0.000	0.000	0.063
McFadden(adjusted)	0.024	0.035	0.040	0.041

N = 33,912

Omitted groups are non-disabled individuals, women, NH whites, individuals aged 15–25, those with an education less than HS, those with income less than \$35,000, those without children, those not married, citizens, management occupations, government organizations, and individuals working only one job



The odds of requesting accommodations for women are 10% higher than for men, controlling for other covariates. The predicted probability (AAP) of requesting an accommodation for women is 8% compared to 7% for men. NH Black and Hispanic respondents are 17% and 34% less likely than NH White respondents to request workplace accommodations, respectively. The predicted probability (AAP) of requesting an accommodation for NH Black respondents and Hispanics is 7% and 6%, respectively, compared to 8% for NH White respondents. Age groups 26–45, 46–65, and 65 + have 90%, 55%, and 46% higher odds of requesting workplace accommodations than age group 15–25, respectively, controlling for other factors.

The relationship between disability and race and accommodation requests is more nuanced once we account for intersectionality. Results from Model 4 suggest that Hispanic respondents with disabilities had 1.92 times higher odds of requesting workplace accommodations compared to non-Hispanic respondents without disabilities, controlling for personal and job-related factors.

Interpreting the results from Model 4 in Table 4 while accounting for intersectionality is complicated as we must consider the main effects and interactive effects of demographic variables. To ease interpretation, we convert the odds ratio of requesting workplace accommodations for different groups (based on disability, gender, and race/ethnicity) into predicted probabilities. Specifically, we calculate Adjusted Predictions at Representative values (APRs) of disability, gender, race, while keeping other independent variables as observed in the survey. Results from Fig. 1 show that Hispanic men and women without disabilities have the lowest probability of requesting workplace accommodations at 5% and 6%. On the other hand, Hispanic women and women of other races and



^{***}p < 0.01, **p < 0.05, *p < 0.1

¹ To calculate AAP, we consider the whole model, including the interaction terms. All other independent variables besides the variable of interest are left as observed in the survey.

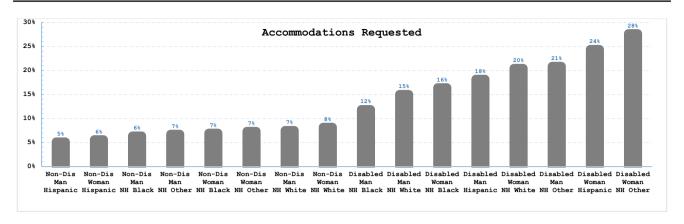


Fig. 1 Predicted probability of requesting workplace accommodations by disability, gender, and race/ethnicity

ethnicities with disabilities have the highest probability of requesting workplace accommodations at 24% and 28%, respectively.

Other results from Table 4 show that having a highschool or college degree increases the odds of requesting workplace accommodations by a factor 1.37 and 1.86 compared to having a less than high school educational attainment, controlling for other covariates. As suggested by the previous literature, being a parent is associated with higher odds of requesting workplace accommodations (12%) compared to non-parents, keeping all other factors constant. In supplementary analyses, we explore if the relationship between parenthood and accommodation requests is explained by higher rates of women giving birth and requesting accommodations (see Table A2 in Online Appendix). Our results show that the main coefficient for parenthood and gender loses significance once we account for the interaction between gender and parenthood. Being married and non-citizen decreases the odds by 0.85 and 0.56 compared to being unmarried and a citizen, respectively, controlling for other covariates.

Our results from Model 4 show that job-related factors such as type of occupation and having more than one job are important. Specifically, working in service, sales and office, agriculture, construction, and production and transport occupations is associated with lower odds of requesting workplace accommodations compared to working in management occupations, keeping all other factors constant. Having more than one job increases the odds of requesting workplace accommodations by 49% compared to having only one job, controlling for other covariates (Table 4).

Estimating the Odds of Accommodation Receipt

The results in Table 5 present the odds ratio ("OR") of having accommodation requests granted as estimated from a series of logistic regression models. Like the previous

models, we start with a basic model, progressively adding individual characteristics such as disability status, gender, race, and age. The model including all these characteristics is again considered the baseline model. We then add control variables (Model 2 and 3), and 2×2 interactions (Model 4), as we have done prior. We also conduct a Wald test to compare the nature of these models. Results from the test suggest that including interaction terms in Model 4 does not significantly improve Model 3.

Results from Model 1 in Table 5 show that none of the individual demographic variables are statistically significant. These results do not change even when we control for other personal and job-related factors or 2×2 interactions. Results from Model 4 show that respondents with an income in the range of \$35,000-\$59,999, \$100,000-\$149,999, and those with an income higher than \$150,000 are 66%, 72%, and 170% more likely to have their accommodation request granted compared to those who make less than \$35,000, controlling for other covariates. Income categories in between the range mentioned above were not statistically significant. Working in construction and production and transport occupations is associated with a 45% and 44% decrease in the odds of having accommodation requests granted compared to working in management occupations, respectively, keeping other factors constant.

Our intersectional analyses suggest that there is a unique experience for Hispanic respondents with disabilities. The odds of having an accommodation request granted are 72% lower for disabled Hispanics compared to non-Hispanics without disabilities, controlling for other covariates.

To ease the interpretation of the results from Model 4 while accounting for intersectionality, we convert the odds ratio of having accommodation requests granted for different groups (based on disability, gender, and race/ethnicity) into predicted probabilities. Specifically, we calculate APRs at different values of disability, gender, race, while keeping other independent variables as observed in the survey.



Table 5 Odds ratio for having workplace accommodation requests granted

	Model 1 OR	Model 2 OR	Model 3 OR	Model 4 OR
Demographics				
Disabled	0.82	1.02	1.02	1.66
Woman	1.17	1.15	1.04	1.06
NH Black	0.80	0.98	1.03	1.03
Hispanic	0.74	0.85	0.88	1.06
NH Other	1.18	1.15	1.10	1.08
Age 26–45	1.33	1.04	1.07	1.09
Age 46–65	1.34	1.06	1.11	1.10
Age 65+	1.69	1.42	1.49	1.61
Other Personal Factors				
HS but no college		0.86	0.83	0.84
College degree or more		1.18	0.99	1.00
\$35,000-\$59,999		1.66*	1.63**	1.66**
\$60,000–\$74,999		1.15	1.11	1.12
\$75,000-\$99,999		1.47*	1.39	1.38
\$100,000-\$149,999		1.90***	1.72**	1.72**
> \$150,000		2.99***	2.67***	2.70***
Parent		1.18	1.20	1.20
Married		0.90	0.90	0.91
Non-citizen		0.91	0.96	0.90
Job-related Factors				
Service			0.77	0.75
Sales and Office			0.83	0.83
Agriculture			0.25	0.24
Construction			0.55**	0.55**
Production and Transport			0.56**	0.56**
Temporary worker			1.44	1.46
Private Organization			0.91	0.90
More than one job			0.81	0.81
2-way Interaction Terms				
Disabled * Woman				0.84
Disabled * NH Black				1.04
Disabled * Hispanic				0.28**
Disabled * NH Other				1.27
Disabled * Age 26-45				0.78
Disabled * Age 46–65				0.97
Disabled * Age 65+				0.61
Constant	4.33***	2.92***	4.27***	4.00***
Wald test <i>p</i> -value	0.378	0.000	0.233	0.498
McFadden(adjusted)	0.006	0.031	0.037	0.040

N = 2661

Omitted groups are non-disabled individuals, women, NH whites, individuals aged 15–25, those with an education less than HS, those with income less than \$35,000, those without children, those not married, citizens, management occupations, government organizations, and individuals working only one job

^{***}p < 0.01, **p < 0.05, *p < 0.1



Results from Fig. 2 show that Hispanic women and men with disabilities have the lowest probability of accommodation provision at 68% and 70%, respectively. This is in contrast with results from Fig. 1 that show Hispanic women with disabilities as having one of the highest probabilities of requesting workplace accommodations.

Intersectional Supplementary Analyses

In supplementary analyses, we investigated the relationship between disability and race to understand why the likelihood of requesting workplace accommodations is higher, but provisions are lower for Hispanics with disabilities.

First, we explored occupational differences by race by including interaction terms, expanding occupational categories, and exploring differences by predicting type of accommodation requested. Our hypothesis was that Hispanics with disabilities are more likely to be in certain occupations associated with higher rates of workplace accommodations requests. Our results showed that while Hispanics working in sales and office occupations are more likely than other groups to request workplace accommodations, this relationship does not fully explain the interaction effect between disability and race that we observe in Model 4 (Online Table A3 in Appendix). Expanding occupational categories did not help explain this relationship either.

Next, we conducted subsample analyses for respondents with and without disabilities. We estimated the same models as above for each group to see if the intersectionality results observed in the full model (Model 4) are driven by higher rates of accommodation requests by one particular group of Hispanics (Online Table A4 in Appendix). Our results for the disabled subsample show that race does not predict accommodation requests. On the other hand, our results for the non-disabled show that Hispanic and NH Black respondents have lower odds of requesting workplace accommodations than NH white respondents (34% and 16% lower, respectively), controlling for other factors. This suggest that the intersectional results showing Hispanics with disabilities as having substantially higher rates of requesting workplace accommodations might be driven by the fact that the comparison group—Hispanics without disabilities—are substantially less likely that other racial groups to request accommodations.

Similar as with accommodation requests, we conduct supplementary analyses to explore the different rates of workplace accommodation provision for disabled Hispanics. We run the full model for the two subsamples—respondents with and without disabilities (Online Table A5 in Appendix). Our findings show that for respondents with disabilities, being Hispanic is associated with 65% lower odds of having a workplace accommodation request granted compared

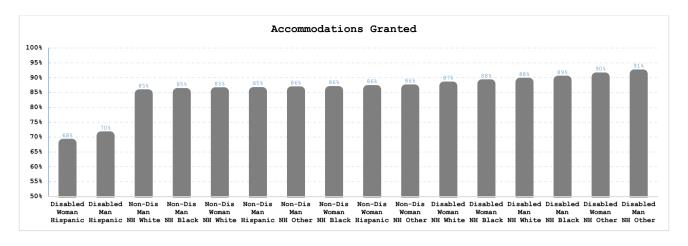


Fig. 2 Predicted probability of having workplace accommodation granted by disability, gender, and race/ethnicity

to being NH white, controlling for other covariates. The coefficient for Hispanics is not statistically significant for the non-disabled subsample.

Taking into consideration that the survey was conducted during the COVID-19 pandemic, we estimated the same models using CPS 2019 Disability Supplement and found that this relationship was not present before the pandemic (Online Table A6 in Appendix). To further explore the role of the pandemic, we linked the two data sets and added year fixed effects as well as interaction terms between year and race and disability (Online Table A7 in Appendix). Our findings show that respondents in 2021 were less likely to request workplace accommodations than respondents in 2019, controlling personal and job-factors (29% less in comparison to 2019). On the other hand, controlling for other factors, respondents with disabilities were more likely to request accommodations in 2021 compared to 2019, while respondents without disabilities were less likely leading to an overall downward trend.

Accounting for time fixed effects does not explain the higher rates of workplace accommodations requests observed for disabled Hispanic respondents. Further examination shows that these differences in the rates of accommodation requests are being driven by substantially lower rates of accommodation of non-disabled respondents in 2021 compared to 2019 (Online Table A7 in Appendix).

Our supplementary analyses using CPS 2019 Disability Supplement data do not show a significant association between the interaction of race and disability and accommodation provision (Online A8 in Appendix). Our results from the linked supplement dataset show that including year fixed effects does not help explain this relationship (Online Table A7 in Appendix).

Overall, our supplementary analyses exploring intersectional results provide some evidence that the relationship might be driven by lower rates of accommodation requests by non-disabled Hispanics. We also get some evidence that the results we observe might be driven by the lower provision of accommodations for Hispanics with disabilities in 2021 compared to 2019.

The Role of Flexible Workplaces

Previous literature has shown that more supportive and flexible workplaces are beneficial for workers who need accommodations. In supplementary analyses, we estimate models using flexible schedule and remote work variables as proxies for flexible workplaces. While these models face an issue with endogeneity because these practices may be both a proxy for a flexible workplace and a type of accommodation, we present some exploratory results in this section that might be useful for future research investigating workplace accommodations. The increased availability of telework and flexible scheduling as a result of the pandemic requires that we take consider the impact of these changes.

While remote work and flexible schedule are associated with having a disability and requesting workplace accommodations, they do not completely predict each other. This fact was further highlighted during the pandemic when this survey was conducted and when remote work became available to a lot of white-collar workers regardless of disability status, so workers did not see the practice as an "accommodation" per se. Our findings show that a higher proportion of people with disabilities reported flexible schedule compared to those without disabilities (40% vs. 34%, p-value = 0.0004) but a higher proportion of people without disabilities reported doing some work from home compared to those with disabilities (28% vs. 26%, p-value = 0.1646). Of those who did not report requesting any workplace accommodations, 33% reported to having a flexible schedule and 26% reported doing some work from home (Online Table A9 in Appendix).



We further re-estimated Model 4 in Table 4 that includes demographic variables, personal and job-related covariates, and 2×2 interaction terms, with flexible schedule and remote work added as independent variables (Online Table A10 in Appendix). Some of the main effects for personal and job-related factors either lose significance or have magnitude changed once we control for availability of flexible schedule and remote work, providing some evidence that supportive and flexible workplaces are important.

Discussion

The findings in this study highlight the importance of considering individual identities alone and in interaction with each other to better understand disparities in workplace accommodation requests and granting. Our findings show that disability, gender, race, and age are important in understanding who requests workplace accommodations. For example, the odds of requesting workplace accommodations were higher for people with disabilities, women, NH White, and older individuals compared to those without disabilities, men, NH Blacks, Hispanic, and those between the ages 15–25.

Our findings on disability, gender, and race comport with previous studies showing that people with disabilities are more likely to request workplace accommodations than people without disabilities [7, 28-31], women are more likely than men [5, 7, 44-46], and people of color are less likely than white workers to request workplace accommodations [7, 47, 48]. Our findings on disability are likely explained by greater needs of workers with disabilities for workplace accommodations to level the playing field [15]. This is further supported by our supplementary findings showing that during the COVID-19 pandemic, respondents with disabilities were more likely to request workplace accommodations compared to prior to the pandemic (2019). Our findings, similar to previous studies [5, 45, 46], suggest that parenthood and occupational differences help explain the relationship between gender and workplace accommodation requests to some extent. Other factors that were not explored in this study might explain further the differences between men and women such as attitudinal biases and discrimination experiences that might make accommodation requests more difficult [12, 73, 77-791.

Likewise, differences in accommodation requests by race/ethnicity might be explained by oppression and discrimination experienced by employees of color that might put them in a more precarious social or economic situation should they disclose disability or request workplace accommodations [12]. Our findings on age show that, unlike prior research, older individuals are more likely to request

workplace accommodations [7, 29, 49]. While this might be expected due to age-related disabilities and impairments or increased knowledge or self-efficacy skills, the relationship between older age and accommodation requests holds true even after controlling for disability, income, and education. Other factors such as tenure that are indicative of power in an organization might explain this difference. When it comes to provision of accommodations, none of the main effects of demographic variables were statistically significant.

With one exception, findings incorporating intersectional analyses do not capture the unique challenges experienced by multiply marginalized individuals when requesting workplace accommodations beyond the challenges they face with each of their identities. We found that Hispanics with disabilities who have higher odds of requesting workplace accommodations but lower odds of having such requests granted. Our supplementary analyses suggest that this might be spurious or driven by substantially lower rates of Hispanics without disabilities requesting workplace accommodations. While our analyses do not provide evidence that the COVID-19 pandemic explains our intersectionality findings, other studies have shown that Hispanics were disproportionally impacted, especially those in occupations such as food processing, food manufacturing, and agriculture [80, 81], and are more likely than other racial/ethnic groups to report long COVID [82].

Another possible explanation as to why we do not observe the unique challenges experienced by multiply marginalized people with disabilities is that those with accommodation needs are largely excluded from the labor market, perhaps because they do not feel comfortable or entitled to ask for the needed accommodations. Preliminary findings analyzing American Community Survey (ACS) 2016–2020 data by the authors using a similar methodology to this paper, show that multiply marginalized individuals with disabilities face unique employment challenges. As such, they might not be represented in our sample. Therefore, caution should be used interpreting our results. While we do not find most of the interaction terms to be statistically significant, our findings using main effects still show that multiply marginalized people with disabilities face more challenges in accessing workplace accommodations than White men with and without disabilities.

Other personal factors such as education, parenthood, being unmarried, and being a citizen are associated with higher odds of requesting workplace accommodations in contrast to the counterparts. These findings support conclusions reached by previous research that higher levels of education are associated with an increased likelihood of requesting workplace accommodations, likely explained by access to more knowledge about accommodation processes [17, 21, 50–54].



When it comes to job-related factors, our findings show that occupation and having more than one job determines the likelihood of workplace accommodation requests. Specifically, working in white-collar or office settings such as management occupations is associated with higher likelihood workplace accommodation request and provision. These differences are likely explained by constraints faced by non-office jobs in providing workplace accommodations. Our supplementary analyses show that much of these differences are explained by greater availability of remote work and flexible work schedules in white-collar occupations. Other supplementary analyses not presented in this paper showed that some marginalized workers such as people of color and women reported lower odds of having flexible scheduling and working remotely compared to White respondents and men, suggestive of disparities in the provision of these two accommodations.

Having more than one job is also associated with higher likelihood of workplace accommodation requests. Supplementary analyses not presented here show that this might be driven by the need of those with more than one job to ask for scheduling changes. Our findings show that respondents with more than one job were more likely to request changes in work tasks, job structure or schedule compared to those with only one job (32% vs. 27%). Higher family income on the other hand is associated with higher likelihood of having accommodation requests granted. Income might be reflecting a person's job status, tenure, or an overall level of economic power and privilege, and that we were unable to control for in our models. Unlike previous studies [7, 47, 55], we do not find a significant relationship between temporary work or type of organization and workplace accommodation requests and provision.

Limitations

Given the complexity and diversity of experiences within disability community, further research is necessary to explore in depth how disparities in workplace accommodations are produced. The current study is limited by existing employment measures collected by CPS. It is essential to acknowledge that while broad groupings for disability, race, and gender identity help increase statistical power, they fail to capture the unique and diverse challenges experiences by multiply marginalized workers. Future work should consider the heterogeneity within these groupings.

Future work using online surveys across occupations should also consider the evolving role of diversity, equity, and inclusion efforts (for example, in light of the U.S. Supreme Court's recent decision on affirmative action in higher education) as well as the changing work norms in removing barriers to accessing workplace accommodations

for people with disabilities from marginalized communities. Finally, future studies should pay attention to informal accommodations/informal changes to work environment and type of accommodation needed in predicting willingness to request workplace accommodations.

Conclusion

Our findings with regards to workplace accommodations highlight the importance of considering other demographic factors in addition and relation to disability. The significant main effects show that marginalized groups, regardless of disability status, experience disparities in requesting workplace accommodations. In addition, intersectional analyses show that Hispanic women and men with disabilities have the lowest probability of accommodation provision despite Hispanic women with disabilities having one of the highest probabilities of requesting workplace accommodations. These results open the way for employers and researchers to consider the role of culture in shaping workplace accommodations and the ways we can expand disability-specific workplace trainings to pay attention to the challenges faced by other marginalized workers.

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Data Availability The datasets analyzed in this study are publicly available in the United States Census Bureau repository [https://www2.census.gov/programs-surveys/cps/datasets/2021/].

Declarations

Conflict of interest The authors declare no competing interests.



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