Individual, Organizational, and Institutional Predictors of the Granting of Employer-sponsored Disability Accommodations

Katherine Breward, MBA, PhD, Assistant Professor, Department of Business and Economics
University of Winnipeg
k.breward@uwinnipeg.ca

Abstract

This research examines the predictors of accommodation granting among adult workers with disabilities using data collected from 5,418 respondents to a Statistics Canada post 2006 census survey called the Participation and Activity Limitation Survey. Using a rational choice perspective that focuses on perceived utility (limited by social identity effects), I test a series of hypotheses about individual, organizational, and institutional variables that predict willingness to grant disability-related workplace accommodations. One key finding is that different predictors are significant for different types of accommodations, highlighting the need to avoid generalizing from one type of accommodation to another. Another important finding is that, as a category, individual variables directly related to disability explained a greater amount of variance in accommodation granting than other aspects of personal identity, organizational factors, or institutional variables. There was evidence that decision-making was influenced by stereotyping and the stigmatization of particular disability types. There was also evidence that occupational and industry-based logics of appropriateness are salient for the most commonly requested types of accommodations. Meanwhile institutional forces meant to act as behavioural controls, such as legislation and union protection, do not seem to be having the intended positive influence on accommodation provision in the workplace. The findings suggest that other forms of intervention, such as community education, may be required to encourage greater access to workplace accommodations.

Introduction

Equal access to the labour force is a critical issue in the ongoing progression towards a just society. One group who experiences a disproportionate number of employment challenges is people with disabilities. Workers with disabilities, as compared to their non-disabled peers, are more likely to be unemployed (Schur, Kruse, & Blanck, 2005; Yeager, Kaye, Reed, & Doe, 2006), experience turnover (Schur, 2002), work part-time hours (Bruyère, Erickson, & VanLooy, 2000), be in entry level jobs (Kaye, 2009), experience job insecurity (Cunningham, James, & Dibben, 2004; Schur, Kruse, Blasi, & Blanck, 2009), and experience underemployment (Jones, 2007; Kaye, 2009). Employer sponsored accommodations can assist these workers in their
efforts to maximize their participation in the labour force. For example receipt of accommodations in competitive and supported employment contexts has been associated with job retention (Campolieti, 2005; Campolieti, 2009; Cook et al., 2007), morale, productivity, and ability to complete work tasks (Schartz et al, 2006; Yeager et al, 2006).

This study assesses predictors of accommodation granting by employers when employees formally request needed accommodations. The research makes a unique contribution in several ways. Firstly, the sample includes only those people who actually requested their accommodations, eliminating analytical confusion caused when accommodations are not provided due to a lack of awareness on the employer’s part. This is important since unwillingness to request needed accommodations has proven to be an issue in many workplaces (Breward, 2016). Secondly, this research assesses a broader range of variables than have been considered before in individual studies. Thirdly, the issue is explored through the lens of a psychological process theory, the theory of planned behaviour.

Theoretical Framework

Rational choice theory states that people’s decisions are based on their perceptions of what is advantageous to them. People assess the advantages and disadvantages of engaging in a given behaviour and act in the way that maximizes their interests as they perceive them (Coleman, 1990). Early evidence suggests that this is an appropriate way to analyze disability accommodation decisions. For example researchers presented 53 managers with fictional scenarios representing requests for alternative work arrangements (Powell & Mainiero, 1999). Regression weights from the cues in the scenarios were used to assess the reasons behind their decisions. Decision-making was influenced by the perceived disruption caused by the
arrangement, the criticality of the requestor’s tasks and skills, and the reason offered. All of these findings suggest that managerial decisions are being influenced by the manager’s short-term best interests.

The Theory of Planned Behaviour is an extension of rational choice theory which states that an individual’s behaviour is influenced by their behavioural intention, which is in turn influenced by their attitude toward the behaviour, subjective norms, and behavioural controls (Ajzen 1991). A review conducted by Ajzen (1991) indicated that the three factors instrumental to this theory consistently explain a minimum of 0.43 and a maximum of 0.94 of the variance in intention to perform a given action across multiple contexts and disciplines.

Decision-making related to accommodation granting is a complex phenomena since each assessment involves multiple layers of analysis. Rational choices (based on the theory of planned behaviour) to grant accommodations would be informed by the following:

1. **Attitudes**, which are informed by **social identity theory & stereotypes**.
   
   The decision maker asks: “Do I make positive attributions about this person and their accommodation request?”

2. **Norms** related to **organizational support and logics of appropriateness**.
   
   The decision maker asks: “are they a type of worker who gets support?”

3. **Behavioural controls** related to **institutional forces**
   
   The decision maker asks: “do rules mandate accommodation?”

This basic model has been supported by two recent studies. The first one, a vignette-based experiment with 240 subjects, found that responses to requests for accommodation were influenced by emotional responses to the requestor (attitudes), and perceptions of fairness (norms), as well as the characteristics of the impairment and the accommodation (Carpenter and
Paetzold, 2013). Patterson (2012) found that requests for mental health accommodations were determined by company culture (norms), the nature of the job, and the individual employee’s work history (attitudes).

It is important to define what constitutes a rational accommodation granting decision for a manager/decision-maker. Ultimately most managers are responsible for ensuring that operations run smoothly and cost effectiveness is maximized. Ensuring adequate employee satisfaction is generally considered an important part of maintaining operational effectiveness since poor job satisfaction can negatively impact organizational commitment, job performance, and organizational citizenship behaviours (Carmeli & Freund, 2004). Spending money appropriately and responsibly is also a key part of the managerial role, however, and one that can conflict with the goal of maximizing employee satisfaction since programs that support employees are a cost centre. This tension between being supportive and being fiscally responsible helps us define what is meant by a “rational decision” in the context of disability accommodation granting.

- A rational decision is a decision that fulfills a need or resolves a problem that the manager perceives as hampering the job performance of an employee with a disability and that is also directly related to functional limitations associated with the employee’s disability such that the same need or limitation is not present among employees without a disability who are completing the same tasks.

Using this definition of rational decision making it becomes clear that, in order for an accommodation to be provided, the manager must perceive that the worker is indeed disabled, that their disability inhibits job performance, and that provision of the accommodation will improve job performance. Unfortunately perception and attribution errors, particularly those
associated with stereotypes and subconscious discrimination can interfere with the accuracy of these perceptions. Social identity effects and stereotyping therefore influence the “attitudes” component of the TBP model of accommodation granting.

**Limitations to Rationality**

Social identity theory is a psychological theory of the social self, intergroup relations, and group processes. It was originally developed by Tajfel and Turner (1979). The basic premise is that social category membership defines the individual, at least in part. Since social identities are evaluative there is a profound need for the individual to feel that their ingroup(s) are superior to the relevant out-group(s). Out-group members are depersonalized to maximize the difference between in-group members and out-group members. Thus social identities encourage the type of categorization and self-enhancement that lead to stereotyping, feelings of superiority, competition, and favoritism (Hogg, Terry, & White, 1995).

Social identity theory helps explain the process of stigmatization. Stigmatization refers to negative reactions to attributes that are both part of one’s social identity and deeply discrediting (Goffman, 1963). Stigma is therefore the result of a co-occurrence of labeling, stereotyping, separation, status loss, and discrimination (Link & Phelan, 2001). Stereotypes are often automatically triggered and operate on a subconscious level (Devine, 1989). Numerical minorities are especially vulnerable to stereotyping because they are more likely to be perceived in terms of the category that makes them a minority (Schneider, 2004). This suggests that attributions related to disability are more likely to dominate perceptions of and behavior toward workers with disabilities as compared to attributions related to occupation or work qualifications.
This makes them more likely to experience discrimination, which occurs when a group is systematically disadvantaged or treated differently as a result of prejudice (Slattery, 2002).

Discrimination can be pervasive even when individuals attempt to avoid prejudice and group norms do not support it. The evaluative process associated with social identities operates below the level of awareness once perceived in-group and out-group traits become so familiar as to be automatically triggered or primed by external cues (Brewer & Gardner, 1996). At that point the evaluation takes place unconsciously in milliseconds (Bargh, Chaiken, Raymond, & Hymes, 1996). Automatic evaluation occurring in the context of social groups can therefore cause people to behave in discriminatory ways without conscious endorsement (Park & Glaser, 2008).

The automaticity of implicit attitudes related to social roles does not imply that we completely lack control over them. For individuals whose explicit attitudes support egalitarianism, the realization that they have behaved in prejudicial ways can be distressing. This leads to a new motivation – the motivation to control prejudice. Motivation to control prejudice can operate implicitly or explicitly (Hausmann & Ryan, 2004; Glaser & Knowles, 2008). In either case it acts as a regulatory device preventing discriminatory behaviours that arise as a result of social identity biases. This effect has been documented in studies of race (e.g. Glaser & Knowles, 2008; Park, Glaser, & Knowles, 2008; Ziegart & Hanges, 2005), ethnicity (e.g. Hausmann & Ryan, 2004), and prejudice against the overweight and obese (e.g. Brochu & Morrison, 2007).

As mentioned, stereotypes are important components influencing the cognitive processes that lead to discrimination. As such it is informative to review common stereotypes associated with people with disabilities and outline the evidence that there is disability related
discrimination in the workforce. Numerous researchers have outlined the preponderance of negative stereotypes about people with disabilities and the relationship between those stereotypes and marginalization (e.g. Bucciere & Reel, 2009; Crawford & Ostrove, 2003; Dahl, 1993; Gallagher, 1995; Hunt & Hunt, 2004; Klie, 2010; Reel & Bucciere, 2010). Stereotypes that are cited over and over again in these reviews include the following: that disabled people are unable to perform physical tasks, are generally less capable, defective, incompetent, passive, dependent, infantile, likely to be absent when needed, and likely to cause social disruptions. Other more positive stereotypes were also observed including the “wounded hero” who commands respect through past personal sacrifice (Dahl, 1993) and the “super-capable” disabled woman who contributes despite challenges, demonstrating personal fortitude and nobility (Crawford & Ostrove, 2003). The preponderance of the more negative stereotypes, however, suggests that the effect of stereotyping and socially identity related marginalisation on attitudes must be considered.

In addition to perceptual errors related to stereotyping, rational decision making about accommodation granting is also constrained by organizational and institutional factors, representing the “norms” and “behavioural controls” components of the model respectively. Institutions are defined as “comprising normative and regulative environmental factors that provide stability and meaning to social life” (Scott, 2000, p.48). Normative factors refer to values, norms, roles, and internalized controls. Norms are relevant in the context of accommodation granting because they help establish legitimacy in the form of what is culturally supported (Scott, 2001). “Compliance occurs in many circumstances because other types of behaviour are inconceivable; routines are followed because they are taken for granted as the ‘way we do things’”, (Scott, 2001, p.57). Individual decision-makers select actions that will
maximize conformity and lessen the possibility of punishment. They do this by applying shared logics. Logics are defined as broad cultural beliefs and rules that guide decision-making (Ocasio, 1997). What emerges from this process are structures and practices that are reflections of the conventions of the institutional environment (Powell, 2007). Norms and attendant logics of appropriateness are very salient in determining employer supportiveness, particularly in contexts that are likely to be less familiar to individual decision-makers such as a request for a disability accommodation. As a result widespread norms of increased supportiveness for certain types of workers, notably full-time, permanent, trained, and long-tenured workers (Galarneau, 2005; Gaskell & Rubeson, 2004; Shore et al., 2008; Zeytinglu et al., 2009) make it more likely those individuals will receive needed accommodations. In addition, decision-makers will be constrained by formal regulatory controls, such as legislation and collective agreements, which limit their possible behavioural responses if they wish to avoid legal risks.

Hypothesis Development

Hypotheses 1-6: Attitudes Component of the Model

In the attitudes component of our model the decision-maker asks themselves (overtly or subconsciously), “do I make positive attributions about this person and their accommodation request”? Disability type is associated with acceptance in the workplace, with degree of stigmatization mediating the strength of that association (Carpenter and Paetzold, 2013; McLaughlin et al., 2004). Workers with invisible disabilities, most notably mental and psychiatric impairments, experience more stigmatization and related prejudice than people with other types of disabilities (Beck et al., 1998; Cook et al., 2007; Dunn, Wewiorski, & Rogers, 2008; Sanderson & Andrews, 2006; Scheid, 2005). Supervisor attitudes towards
accommodations also differ by disability type, partially due to perceived ease of accommodation. Some supervisors also perceive greater complexity involved with accommodating workers with mental and learning impairments because needs are more specific to the individual due to task complexity and the overall learning process (Towns & Moore, 2005). In terms of physical impairments, mobility impairments are erroneously perceived as especially difficult to accommodate (Lee, 1996; Lowman, West, & McMohan, 2005; McMohan, Shaw, West, & Waid-Ebbs, 2005). By contrast, Unger and Kregel (2003) found that managers were most confident identifying and developing accommodations for people with communication-based and sensory disabilities. As a result we would anticipate managers being more open to accommodating certain types of disabilities:

**H1:** Mental impairments (including memory, learning, developmental, and emotional impairments), are negatively associated with accommodation granting.

**H2:** Mobility and agility impairments are negatively associated with accommodation granting.

**H3:** Sensory, and communication-related impairments, are positively associated with accommodation granting. This includes hearing, seeing, and communication impairments.

Accommodations for severe disabilities are more likely to be perceived as by management as costly and disruptive to the workplace, diminishing the likelihood of a favorable decision (Jackson et al., 2000; Powell & Mainiero, 1999; Unger & Kregel, 2003).

**H4:** Disability severity is negatively associated with accommodation granting.

A number of studies have demonstrated that there are greater labour market impacts for people who became disabled as adults (Brown & Emery, 2010; Jones, 2008; Wilkins, 2004).
This suggests that people who acquire their disabilities later in life may be more likely to be denied workplace accommodations.

**H5: Age of disability onset is negatively associated with accommodation granting.**

The intersectional approach requires acknowledgement that no identity group is homogeneous and the complex intersections of multiple identity statuses impact attitudes and therefore require careful attention (Cronin & King, 2010; Radacic, 2008; Zarrehparvar, 2007). The experience of workplace stigmatization among disabled workers may be heavily influenced by other aspects of their identity, particularly if they reflect identities that are either privileged (in North American workplace contexts men, the domestic born, and Caucasians) or identities that are frequently marginalized (older people, women, etc.). For example among hearing impaired workers age was found to be a substantive predictor of accommodation provision, with accommodations perceived to be more normatively appropriate for young workers (Baldridge and Swift, 2016). The World Health Organization has identified that “women with disabilities experience gender discrimination as well as disabling barriers” (WHO, 2011), a statement confirmed through assessments of case law and precedent (Shinall, 2016; Simmons, 2016). Immigration status and visible minority status have also been identified as barriers to full inclusion since they influence both interpersonal assessments related to accommodation requests and access to disability supports (Mereish, 2012; Sooerenian, 2013). The additive role of ethnicity, immigration status, age, and gender layered onto disability should therefore be assessed.

**H6a: Gender will be associated with receiving requested accommodations such that women will be less likely to be granted accommodations than men.**
**H6b:** Immigration status will be associated with receiving requested accommodations such that immigrants will be less likely to be granted accommodations.

**H6c:** Visible minority status will be associated with receiving requested accommodations such that visible minorities will be less likely to be granted accommodations.

**H6d:** Age will be negatively associated with receiving requested accommodations.

**Hypotheses 7-10: Subjective Norms Component of the Model**

In this context subjective norms represent behavioural norms, or logics of appropriateness, that guide and direct managerial behaviour. For example when managers perceive that employees are committed to the organization they are more likely to reciprocate with behaviours that demonstrate commitment to the employee (Shore et al., 2008). There is evidence of an established norm of greater support for employees with longer tenure (Shaw et al, 2014), in particular because workers who returned to their previous employers after becoming disabled were less likely to experience wage reductions than those who changed jobs (Campolieti, 2009; Gunderson & Hyatt, 1996; Thun, 2007).

**H7: Tenure is positively associated with accommodation granting.**

Employers should be more willing to accommodate employees when they have invested time and money in their training as a means of protecting their prior investment in the individual.

**H8: Being trained in one’s job is positively associated with accommodation granting.**

There is a well established norm in many workplaces of diminished supportiveness for temporary and part-time workers (Galarneau, 2005; Zeytinoglu et al., 2009). Zwerling et al. (2003) and Balser (2007) both found that full-time employees with a disability were more likely to receive accommodations as compared to their part-time peers.

**H9: Being a fulltime employee is positively associated with accommodation granting.**
H10: Being a permanent employee is positively associated with accommodation granting.

Hypotheses 11-13: Behavioural Controls

Employers who are considering whether or not to grant accommodations may be aware of institutional factors that regulate accommodation granting patterns within their organization. In Canada the Employment Equity Act is federal legislation, and as such, applies only to certain industries that are regulated under the Canadian constitution (although the Canadian Human Rights Act, which also mandates accommodation but in less specific terms, does apply to all industries). It seems highly probable that people who fall under equity legislation will be more likely to receive accommodations since the legislation serves as a behavioural control mandating action by their employer.

H11: Being in an industry regulated by employment equity legislation is positively associated with accommodation granting.

The explicit goal of unions is worker protection, as such it is anticipated that most union contracts would include provisions related to the accommodation of disabled workers. Unionization is generally associated with increased access to formal benefits (Glass & Fujimoto, 1995, Renaud, 1998). That said the focus on formal rules, regulations, and process may inhibit the provision of disability accommodations since regulations can constrain behaviour and encourage a focus on compliance rather than a focus on people (Renaud, 1998). For example one study of 186 healthcare workers in Ontario found that being a union member was positively associated with having employer-sponsored disability case management, however the same study found that unionization was negatively associated with having a people oriented culture (Williams, Westmorland, Shannon, & Amick, 2007). Despite these counter findings, the need to comply with union regulations should act as a control encouraging accommodation granting.
H12: Being a member of a union is positively associated with accommodation granting.

Labour market factors can also act as a behavioural control on employers. Employers are willing to provide greater levels of support to employees with skills that are in high demand in an effort to minimize turnover and maintain access to their expertise (Kuttner, 1997; Shaw et al., 2014). In addition people with power, including expert power, are better able to influence the decisions made by their supervisors and managers (Ringer and Boss, 2000).

H13: Being in an occupational role impacted by a skill shortage is positively associated with accommodation granting.

Methodology

Sample

To test the hypotheses, data were drawn from the 2006 Participation and Activity Limitation Survey (PALS), a post-census survey conducted by Statistics Canada. The survey uses a nationally representative stratified random sample drawn from people who self-identified as having activity limitations in the national census. The data were collected using a telephone administered survey from late 2006 to early 2007, resulting in a sample of 22,513 respondents. For the purposes of this study, only adults over 18 years of age who held paid jobs and who reported needing at least one workplace accommodation were included. Self-employed persons and individuals who had not reported needing at least one workplace accommodation were excluded from the analysis. This resulted in a total sample of 5,418 including 2,483 men and 2,935 women. Of those 663 were members of a visible minority group and 444 were immigrants.
Measures

Unless otherwise noted all binary variables were coded as “0” or “1” with “0” indicating absence and “1” indicating presence. For example for the variable “mobility impairment” those reporting impairment would be coded as “1” and those without “0”.

Accommodation Type Categorization: Accommodations were separated into four distinct categories since the nature of the accommodation may influence granting patterns. When the “granted accommodations” variables were created these categorizations were maintained such that five separate binary variables were created indicating granting of each distinct type of accommodation.

a) Changes to the job: Includes job redesign and modified work hours.

b) Technical interventions: Physical items and technology used to directly assist people with disabilities.

c) Human Support: Accommodations involving human intervention such as a personal support worker.

d) Structural changes: Accommodations that require large scale structural changes involving construction such as accessible elevators and accessible washrooms

Granted (Received) Accommodations: In order to ensure that the results of this study were not subject to systemic error the researchers eliminated subjects from the sample who had failed to request their accommodation, regardless of the reason for the lack of requesting. (The topic of accommodation requesting was analyzed in detail using the same base sample in an earlier publication. That publication outlines how “failure to request” was identified. Please see Breward, 2016). “Received Accommodations” was derived by combining data from several
PALS questions, each of which is indicated below with PALS’s protocol of using an “HH” and a number/letter.

- **HH1a** of the PALS, which asks which types of accommodations the respondents require in order to perform their job. Accommodation options include: job redesign, modified hours, human support, technical aids, specialized computers or software, communication aids, modified workstations, special chairs, handrails, elevators, and accessible transportation, parking, and washrooms. Three types of accommodations were excluded from the study due to categorization difficulties: handrails, accessible transportation and accessible parking. Transportation and parking were eliminated since many employers may legitimately consider transportation to and from work beyond the scope of their accommodation responsibilities, expecting government to address this need with public services such as HandiTrans vans (a specialized municipal transportation service for people with disabilities), and accessible busses. Handrails were excluded because they did not fit neatly into the “technical interventions” or the “structural changes” category since handrails have traits associated with each. For example they are low cost like many technical devices but may require more comprehensive renovations to install safely depending on the building’s age, state, and structure.

- **HH2a-m** of the PALS, which asks whether needed accommodations were received or not.

- **JJ5** of the PALS, which asks if, in the past five years, the respondent had been denied a workplace accommodation.

- **HH3a-b** of the PALS, which asks why accommodations were not granted. Options offered include that it was too expensive, the request was refused, their condition is not severe enough, they are on a waiting list, the accommodation was not available locally,
and other (with write-in). There were other options in the original survey that reflected failure to request but, as explained earlier, they were eliminated from this sample. Respondents who reported not receiving an accommodation because they were on a waiting list were also removed from the sample since this delay may be beyond the control of the employer and is therefore not necessarily indicative of a negative response.

**Independent Variables**

- **Disability Type**: Respondents were asked whether they had each of 10 types of disabilities, specifically, hearing, seeing, communication, mobility, agility, pain, learning, memory, developmental, and emotional disabilities.

- **Disability Severity**: The severity score is derived by Statistics Canada and is reported on a four point scale with 4 indicating the highest degree of severity.

- **Age at onset**: Respondents were asked to identify their age at the time they first became disabled.

- **Age**: Respondents provided their age at the time the survey was taken.

- **Gender**: Females were coded as 2 while males were coded as 1.

- **Immigration status**: Respondents were asked whether they were born in Canada.

- **Visible minority status**: Respondents were asked whether they were members of a visible minority group.

- **Permanent**: Respondents were asked whether their employment was permanent.

- **Fulltime**: Fulltime was defined as working 30 hours per week or more. Respondents were classified based on their self-reported “usual” number of hours worked per week.
• **Trained in the job:** Respondents were asked whether they had received job-related training in the past 12 months.

• **Tenure:** Respondents were asked what date they started their job. Tenure in months was derived from this date, rounded up to the nearest month.

• **Equity Industry:** NAICS industry codes provided within the survey were used to determine who worked in industries covered by Canada’s Employment Equity Act.

• **Union Member:** Respondents reported whether or not they were unionized.

• **Scarce Occupation:** The occupations were categorized into “scarce” and “not scarce” based on province-specific lists of scarce occupations published between 2005-2007 under the Temporary Foreign Worker Program.

**Control Variables:** all taken from responses to the PALs survey:

• **Industry type:** Based on North American Industry Classification (NAICS) codes, which are standard classifications used by various Canadian government agencies. Groupings included agriculture, natural resources, manufacturing, trade, business services, professional services, tourism, and personal services.

• **Occupation type:** Based on National Occupation (NOC-S) codes, which are also used by Canadian government agencies. Options included management, professional, technical, clerical, sales/service, trades, and labourers.
Analysis Method

Logistic regression was used to test the hypotheses. Logistical regression allows the prediction of binary outcomes, such as group membership, from a set of independent variables that may include both continuous and indicator variables. The odds ratio represents the change in the likelihood of membership in a target group of a one unit change in the predictor variable. In addition to being able to assess the impact of independent variables there are also measures of overall model fit. One measure of model fit is the Nagelkerke $R^2$. This is a pseudo-$R^2$ measure that indicates the strength of the relationship between the predictors and the dependent variable. The larger the Nagelkerke the better the model fit.

Regressions were run separately for each of the four categories of accommodation. The control variables (industry and occupation) were entered in the first step of the regression. The second step controlled for three of the four categories of predictors being considered (disability related, intersectional, organizational, and institutional). The third step included the predictor variables that were not controlled for in the second step. When repeated four times such that each category of predictor was added last in one of the models, this process enabled a comparison of the goodness of fit added by each category of predictor.

To comply with Statistics Canada’s requirements the regressions were weighted so that results accurately reflect the population. To guard against the possibility of inflating the degrees of freedom in the regression analysis, fractional weights were used. Unweighted analyses showed that the weighting had no effect on the primary conclusions of the study.
Results

Summary of the Overall Results Predicting Accommodation Granting

Results of the regressions predicting “being granted accommodations” for all four types of accommodations can be seen in Tables 1 and 2. Particular attention should be paid to the changes in model fit as indicated by the Nagelkerke scores in Table 1. These changes show a pattern: The institutional and intersectional variables were generally either insignificant or significant but insubstantive predictors of accommodation granting. Individual variables directly related to disability explained the most model fit, followed at a distant second by organizational variables (which were also insubstantive in some cases). Specific predictors that were associated with “being granted accommodations” for each type of accommodation can be seen in Table 2. The variation in the relationships between the predictors and accommodation granting by accommodation type are especially notable – clearly not all accommodations are treated in the same way.

<table>
<thead>
<tr>
<th>Type of Request</th>
<th>Overall model with controls</th>
<th>Model fit contributed by disability variables</th>
<th>Model fit contributed by identity variables</th>
<th>Model fit contributed by org variables</th>
<th>Model fit contributed by institutional variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Changes</td>
<td>.205***</td>
<td>.094***</td>
<td>.009***</td>
<td>.037***</td>
<td>.004***</td>
</tr>
<tr>
<td>Tech Intervention</td>
<td>.263***</td>
<td>.079***</td>
<td>.019***</td>
<td>.015***</td>
<td>.007***</td>
</tr>
<tr>
<td>Human Support</td>
<td>.449***</td>
<td>.191***</td>
<td>.064***</td>
<td>.006</td>
<td>.010</td>
</tr>
<tr>
<td>Structural Change</td>
<td>.271***</td>
<td>.156***</td>
<td>.025***</td>
<td>.017***</td>
<td>.004*</td>
</tr>
</tbody>
</table>

*** = significant at p < .001, ** = p < .01, * = p < .05

Hypotheses Results

When describing results the term “partial support” indicates that the anticipated relationship between the variable and accommodation granting occurred for some types of accommodations while the other types were not statistically significant. The term “mixed support” is used to indicate inconsistent relationships, with positive associations with some forms of accommodation but negative associations with others.
H1 suggested that mental impairments (memory, learning, developmental, and emotional) would be negatively associated with accommodation granting. Surprisingly, this received almost no support, with the exception of a negative association between memory impairments and receiving requested job changes. Learning disabilities showed no significant relationship to granting of any accommodations. Otherwise, memory-related disabilities were positively associated with receiving structural changes; developmental disabilities were positively associated with receiving technical supports; and emotional impairments were positively associated with receiving three of the four types of accommodation (all except job changes, which was non-significant).

H2 postulated that mobility and agility impairments would be negatively associated with receiving accommodations. This received partial support since there were negative associations between mobility challenges and being denied structural changes, and between agility impairments and being denied job changes, technical interventions, and structural changes.

H3 also received partial support. Sensory and communication impairments were positively associated with receiving requested job changes (hearing and communication), and structural changes (hearing, seeing, and communication).

H4 posited a negative relationship between disability severity and receipt of accommodations. This was disconfirmed, with positive relationships between severity and the receipt of job changes and human support.

H5 anticipated a negative relationship between age at onset of disability and accommodation receipt. This hypothesis received mixed support since it was positively related to
receipt of job changes but negatively associated with receipt of human support and structural changes.

H6a speculated that females would be more likely to be denied accommodations than men. This proved true for technical interventions but untrue for human support, suggesting gender role congruence effects that are further explored in the discussion section.

H6b posited that immigrants would be more likely to be denied accommodations than the domestic born. This proved true for human support-based accommodations.

H6c postulated that visible minorities would be more likely to be denied accommodations than Caucasians. This was not supported and strong disconfirmatory findings emerged demonstrating that visible minorities were more likely to receive requested accommodations across all four categories. This suggests managerial fear of appearing prejudiced, which is further explored in the discussion section.

H6d suggested that age would be negatively associated with accommodation granting. It was indeed associated with denial of requests for job changes, technical interventions, and human support. Age was positively associated with receiving requested structural changes though.

H7 tested whether tenure was positively associated with receipt of accommodations. This was supported for job changes and technical interventions.

H8 examined whether recent (within a year) investments in training were positively associated with receipt of accommodations. Surprisingly this was disconfirmed since there was a
negative relationship between getting training and receipt of requested technical interventions and structural changes.

H9 examined whether fulltime workers were more likely to receive accommodations. They were more likely to receive job changes and human support but less likely to receive technical interventions or structural changes.

H10 explored whether permanent workers were more likely to receive accommodations. Surprisingly, this was not supported. Temporary workers were more likely to receive technical interventions.

H11 posited that being in an equity industry would be positively associated with receipt of accommodations. The relationship was indeed positive but non-significant.

H12 postulated that union membership would result in higher levels of accommodation. This was true for technical interventions but union membership was negatively associated with receiving requested job changes. That is unsurprising given the typical union focus on standardization of job roles.

H13 suggested that being in a scarce occupation would be positively associated with accommodation receipt. This was true for job changes but negative associations emerged for technical interventions and structural changes.

Table 2: Binary Regressions Predicting Accommodation Granting

<table>
<thead>
<tr>
<th>Variable</th>
<th>Job Change N = 2,022</th>
<th>Technical Int. N = 1,770</th>
<th>Human Sup N = 169</th>
<th>Structural N = 399</th>
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<td>.657</td>
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<td>3.171 ***</td>
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<td>2.071 ***</td>
<td>.319</td>
<td>1.471</td>
</tr>
<tr>
<td>Trade</td>
<td>.632 **</td>
<td>2.411 ***</td>
<td>.080</td>
<td>1.835</td>
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</table>
Breward, “Predictors of the Granting of Accommodations”
*CJDS* 6.4 (November 2017)

<table>
<thead>
<tr>
<th>Category</th>
<th>Odds Ratio</th>
<th>(95% CI)</th>
<th>p-value</th>
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</thead>
<tbody>
<tr>
<td>Business Svcs</td>
<td>.813</td>
<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Pro. Svcs</td>
<td>.968</td>
<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<tr>
<td>Tourism</td>
<td>.626</td>
<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Personal Svcs</td>
<td>.490</td>
<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<tr>
<td>Management</td>
<td>.387</td>
<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Professionals</td>
<td>.267</td>
<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Technicals</td>
<td>.434</td>
<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Clericals</td>
<td>.452</td>
<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Sales/Svc</td>
<td>.402</td>
<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<tr>
<td>Trades</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<tr>
<td>Laborers</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<tr>
<td>Hearing</td>
<td>1.764</td>
<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<tr>
<td>Seeing</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<tr>
<td>Communication</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<tr>
<td>Memory</td>
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<td>&lt; .001</td>
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<tr>
<td>Learning</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<td>Emotional</td>
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<td>&lt; .001</td>
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<td>Pain</td>
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<td>&lt; .001</td>
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<tr>
<td>Developmental</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<tr>
<td>Agility</td>
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<td>&lt; .001</td>
</tr>
<tr>
<td>Mobility</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<td>Severity</td>
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<td>&lt; .001</td>
</tr>
<tr>
<td>Age at onset</td>
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<td>&lt; .001</td>
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<tr>
<td>Female</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Age</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Visible minority</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Immigrant</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Permanent job</td>
<td>.796</td>
<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Fulltime</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<tr>
<td>Trained in job</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
</tr>
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<td>Tenure</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<td>Union member</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
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<td>Equity industry</td>
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<td>(1.020, 1.020)</td>
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<tr>
<td>Scarce occ.</td>
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<td>(1.020, 1.020)</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

*** = regression coefficient significant at p < .001, ** = p < .01, * = p < .05
Odds ratios are taken from regressions which also included a measure of prior experiences of discrimination in the step that added intersectional variables (not included in table).

Note that the significance level noted for Exp(B) is actually the significance level of the Wald statistic. Since the actual Wald statistic does not provide useful information to aid in interpretation it has not been included in these tables.

**Supplementary Analysis - Evidence for Industry and Occupation Specific Logics**

Some unexpected findings emerged during the analyses that warranted further investigation. The first important insight was that not all accommodation needs are influenced by the same sets of variables in the same way. Technical interventions, the second most frequently requested type of accommodation, were a particular outlier. The control variables of “occupation” and
“industry” explained comparatively more fit for technical interventions (see Table 1), and three occupations and seven industries were significantly associated with granting technical interventions (see Table 2). Job changes, the most frequently requested accommodation, were also significantly associated with a large number of occupations and industries but these findings were less substantive when compared to the degree of model fit contributed by occupation and industry for technical interventions.

These findings led to the second insight. It has been suggested that industry and occupational sub-cultures and their associated logics of appropriateness may make it more likely that certain types of accommodations will be provided in specific industries and for specific occupations. The findings associated with granting technical interventions and, to a lesser degree, granting job changes, provide further evidence for the existence and relevance of these logics since the control variables of industry and occupation had significant impact on accommodation granting.

**Discussion and Future Research Directions**

Overall the findings failed to clearly support or disconfirm a rational decision-making model in which accommodation granting decisions are influenced by social identity and stereotype driven attitudes, organizational norms, and institutional behavioural controls. Some results were consistent with the theory of planned behaviour, notably findings related to disability type, tenure, and positive results related to unionization and being fulltime. These findings support the theory of planned behaviour because the outcomes are attributed to individual attitudes informed by social identity effects, well-established norms surrounded who gets the most organizational support, and institutional behavioural controls such as union contracts. Other accommodation types, however, showed inconsistent relationships with these
variables. The negative associations observed, particularly for organizational variables, are very difficult to explain using the theory of planned behaviour and an organizational support based perspective. It seems probable that occupation and industry specific logics and norms are at play, creating inconsistencies in the results across occupational and industrial sub-groups. Strong evidence of these logics appeared, particularly in the analysis of technical interventions. Further research may help identify some of those logics and help illuminate some of the more puzzling and counter-intuitive findings.

As mentioned in the analysis section, interesting patterns emerge when examining the overall models of granting accommodations. Institutional variables were non-significant predictors for most types of accommodations and, when significant, they explained very little of the model fit. The non-findings about institutional factors can be interpreted in two different ways. One interpretation is that policy interventions at the institutional level have little or no impact on accommodation granting patterns. If this interpretation is correct, it could imply that these rights are poorly understood, difficult to enforce, and/or are poorly protected. The disproportionately high incidence of formal Human Rights Tribunal complaints related to disability discrimination supports this view (Lynk, 2008). Empirical studies have also found that employers do not consider legal rights and potential for litigation when making accommodation decisions, focusing instead on other, often emotion or culture-driven, criteria (Carpenter & Paetzold, 2013; Patterson, 2012). There is, however, an alternate interpretation. Overall the data indicate that roughly 84% of needed accommodations are ultimately provided. While this still leaves many workers unsupported, it does indicate that for the majority of employees with disabilities, accommodations are available. Perhaps the existence of the more broadly applicable
Canadian Human Rights Act minimizes the impact of targeted legislative and union efforts. Further research is required to determine which interpretation is correct.

Variables related to intersectional aspects of identity were salient for accommodation granting, but in unexpected ways. Visible minority status was significantly positively associated with accommodation granting across all types of accommodation. I speculate that this positive association relates to the decision-makers’ fear of being perceived as being biased. Managers who are motivated to appear unprejudiced (or to actually be unprejudiced) may be more likely to grant accommodations to members of visible minority groups because managers are aware of the status of visible minorities as people who have historically experienced discrimination and are therefore sensitized to it.

The intersectional analysis also provided evidence of gender role congruency effects in accommodation granting. Females were significantly more likely to receive human support-based accommodations than males. Women who need this form of personal support may receive it more often because, stereotypically, women are expected to work communally. This still indicates that stereotypical thinking is dominating accommodation granting decisions, it merely takes a slightly different form than anticipated: perceived gender role congruence may well moderate the relationship between gender and accommodation provision.

The greatest contributor to model fit was individual factors directly related to being disabled. There is some support for the hypothesis that people with stigmatized disabilities are less likely receive accommodations than people with non-stigmatized disabilities, as demonstrated by reduced rates of accommodation granting for mobility, agility and memory impairments and heightened rates for sensory and communication impairments. Emotional impairments were a notable but readily explainable exception. The positive association between
emotional impairments and receiving accommodations are counter-intuitive given that psychiatric impairments are generally the most misunderstood and heavily stigmatized of all disabilities (Hinshaw, 2007). Social exchange theory is an extension of rational choice theory that explicitly extends the cost-benefit analysis into social-emotional contexts. As such it acknowledges that cost-benefit is not a purely material calculation (Roloff, 1981). I believe this counter-intuitive finding represents a cost-benefit analysis based on avoidance of negative affect on the decision-makers’ part. There is a widely held stereotype that people with psychiatric illnesses are more prone to extreme outbursts and even physical violence than other people (Hinshaw, 2007, Paterson, 2006). Managers and HR personnel who have stereotypical ideas about the behaviour of people with emotional impairments may therefore prefer to avoid all possibility of confrontation and immediately provide requested accommodations as an avoidance mechanism. Ironically people with emotional impairments may receive their requested accommodations because of the extremely negative stereotypes associated with their particular disability rather than because of a rational belief that the accommodation will assist them in performing job tasks.

It is not clear if, overall, these findings disprove the rational choice perspective or simply clarify the criteria used to determine what is considered rational. The assessment of norms, which suggested that industry and occupation specific norms are more relevant than generalized norms related to organizational supportiveness, is an excellent example. That still represents a rational decision, just not the type of rational calculation that was originally anticipated since the decision-makers appear to be focused on different criteria than expected. Similarly, the findings related to visible minority status (and attendant motivation to appear unprejudiced), gender (and role congruence effects), and emotional impairments (possible stereotype driven avoidance of
confrontation), also support rational decisions using slightly modified criteria and more sophisticated moderators.

**Practical Implications**

The most important thing for practitioners to take from this research is that disability type is the single largest determinant of accommodation granting. Because all respondents included in each regression reported needing the relevant accommodation, this finding is not simply due to natural differences in need that are a direct result of the disability itself. The findings imply that, as far as accommodations go, not all disabilities are created equal. This state of affairs is a concern because it implies that stereotyping about particular disabilities poses a barrier to accommodation. Education aimed at dispelling those stereotypes may therefore be helpful. That said, not all diversity training is equally effective. A review of 178 articles on diversity training effectiveness found that standalone training focused on a specific identity group (such as people with disabilities) that was delivered using only one method (such as lecture) was relatively ineffective at changing workplace attitudes and behaviours. Diversity attitudes and behaviours were improved by multi-method integrated training that was part of broader systematic change supported across the entire organization. For example lectures could be supplemented with formal coaching or experiential learning activities that foster the development of empathy. Leaders would also be expected to model appropriate behaviours and performance management systems should be aligned with pedagogical goals. Within that broader organizational context, the most effective training initiatives focused on more than one identity category and made use of positive case studies that highlighted the contributions of workers from equity seeking groups (Berukova, Jehn, & Spell, 2012).
When making accommodation granting decisions, managers also need to be aware of unconscious prejudices and attribution errors. Managers should take particular care to ensure their decisions are consistent since the data currently indicates that one group in particular, visible minorities, receive their accommodations at significantly higher rates than other workers, creating potential for perceptions of unfairness and accusations of discrimination. Gender role congruence effects should also be conscientiously avoided.

**Strengths and Limitations**

This study makes a contribution because it analyzes accommodation granting across a representative sample of Canadian workers with disabilities. As such it addresses the sample limitations associated with much of the prior research in this area, which tended to focus on relatively homogeneous sub-populations and/or a limited range of disability types. Another strength of this study is that it compares the relative model fit contributed by categories of predictors. This analytic method makes the study more relevant to policy makers because it focuses and directs attention towards policies that are most likely to have a meaningful impact on rates of accommodation granting. Overall, the findings suggest that education efforts aimed at combating common disability-related stereotypes may be a more effective strategy than further legislative efforts.

This study also makes a contribution because the breadth of variables considered enables multiple layers or levels of analysis, from individual factors to the organizational and institutional. All three levels have clear reasons for influencing accommodation decisions and this study is the first to examine all of them simultaneously, integrating literature from numerous
sub-disciplines, providing a more nuanced and comprehensive picture of accommodation granting in Canada today.

This study has several limitations. Interpretation of some of the results, although well supported by prior research and theory, is difficult because multiple interpretations are possible. The post-hoc explanations for surprising findings that appear in the discussion section should therefore be considered speculative until confirmed by qualitative interviews. In addition the significance of the industry and occupation control variables, most notably for technical interventions, suggests that previously unidentified industry and occupation specific logics have a profound impact on accommodation granting patterns. Hierarchical linear modeling may be a useful tool in this regard since industry characteristics (such as capital intensity) could be measured and treated as the group level variable, enabling more nuanced analysis of the role of industry in accommodation provision. Finally, the intersectional analysis presented here only looks at the intersections between disability and one other identity variable (immigration status or gender, etc.). It would be informative to conduct detailed assessments of varied combinations of identity factors, examining the combined impact of gender, ethnicity, immigration status, disability, and age. That analysis involves significant additional complexity and is beyond the scope of this paper; however it is currently being undertaken for future publication.1

1 Comprehensive intersectional analysis requires the systematic testing of all possible identity combinations. New independent variables are created that represent each combination of identity markers. For example immigration status would be multiplied by gender and visible minority status such that 8 different categories would be created. Interpretation of the odds ratios associated with this form of analysis requires graphing. It is only through graphing that one can perceive at which point the lines cross over, indicating that intersectional effects do exist. In our previous example, which examined the intersection of immigration status, gender, and visible minority status, the probability of receiving an accommodation would appear on the Y axis of a graph while the dichotomous variable Caucasian/visible minority status would appear at each end of the X axis. A point would then be added to the graph representing the probability (based on the odds ratio) of a migrant female who is Caucasian receiving an accommodation and a point would be added representing the probability of a migrant female who is a visible minority receiving one. These points are then joined to create a line on the graph. This permits an assessment of whether the migrant females who are Caucasian receiving an accommodation more frequently than migrant females who are visible minorities. The process would then be repeated for domestic born females, migrant males, and domestic born males. The graph would indicate true intersectional effects when two or more of the resulting four lines cross, indicating that the probability of receiving an accommodation was being impacted by the identity variable on the X axis in combination with the other variables under study. This process, while fairly straightforward, necessitates detailed explanation of the statistical techniques used as well as inclusion of the actual graphs themselves. The interpretation of intersectional results
Conclusion

In conclusion this research ultimately generated more questions than answers because there was much more variation in accommodation granting by accommodation type, industry, and occupation than anticipated. While the rational choice perspective was supported in some ways, counter-intuitive findings also emerged. These inconsistent findings are difficult to interpret because they may represent rational decision-making using criteria that were not anticipated (i.e. industry and occupation specific logics) or they may be indicators that another, yet unidentified psychological process is the primary determinant of accommodation granting. There are indicators that institutional logics of appropriateness, managerial motivation to control prejudice, and perceived congruence of social roles may be influencing accommodation granting rates. Further research is required in order to more fully interpret these findings.

It is clear, however, that factors directly related to the individual’s disability, such as disability type and severity, continue to be the most substantive influence on accommodation granting. This finding in and of itself suggests that not all disabilities are being accommodated to an equal degree. There are particular types of disabilities, notably mobility, agility, and memory impairments, which seem to present more challenges. Focused education efforts aimed at dispelling stereotypes associated with these specific disabilities and informing people about how the associated impairments can be accommodated (which may not be obvious for mental...
impairments in particular) may help improve outcomes for these sub-groups of workers with disabilities.
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