The Data Collection Research Project for Transition to Work (TW) Guidelines

Final Report

The Nippon Foundation and Social Innovation Foundation

By The TSIS Limited Partnership

Acknowledgment

Executive Summary

The issue on the employment and job tenure among people with disability is a prolonged social issue in Thailand. The Nippon Foundation, in collaboration with the Social Innovation Foundation of Thailand and the TSIS Partnership, recognizes the lack of comprehensive, evidence-based guidelines for recommending inclusive employment practices have had a consequential impact on people with disabilities (PWDs) in transitioning to work from universities. This research project therefore aims to better understand the context and situation surrounding transition to work from universities among people with disabilities. In doing so, this project collected both quantitative and qualitative research data in area of employment and retention to create the Transition-to-Work baseline data and analyzed the data with a view to establish an effective Transition-to-Work guideline.

The project collected surveys of 423 people with disability of all disability types who are currently employed, and conducted 6 focus group discussions, including people with disabilities who are unemployed and employed, with and without the help of Disability Student Services (available in universities). Moreover, the focus group discussions also invited caregivers, employers, and organizations helping people with disabilities to share their experiences relating to job finding, work experiences, and job retention of people with disabilities. In terms of data collection, the sampling method employed is a stratified sampling based on the national proportion of all types of disability. However, the sampling is not a truly random sampling because the sources are gathered from various organizations working with persons with disability.

Together these data collected four different aspects relating to PWDs. First, **internal factors** are factors that characterize the PWDs themselves, and cannot be changed or controlled by policy directly. Knowing internal factors is useful for policymaking, nonetheless, because it creates insights into different groups of people with disabilities that might be facing different contexts in their working conditions and environments. Second, **external factors** are factors that come from the

nature of job finding activities or working environments surrounding the PWDs, mostly provided by the employers or the government. Hence, they are more easily controlled by policy changes.

Third, **job quality variables** are those indicating the quality of the job taken by PWDs, such as whether they are satisfied with their compensation and accommodation, whether they face challenges or obstacles/discrimination while working, and on the job training. Fourth, **job retention variables** indicate how long they have worked in the same job.

Together, these data help reveal insights relating to three important questions this project aim to find out. First, whether certain internal factors affect job quality and job retention of PWDs. Second, whether certain external factors affect job quality and job retention of PWDs. Third, whether there is relationship between job quality and job retention among PWDs.

The results can be divided into three separate chapters. The first is descriptive statistics that provide general pictures of the data collected. Second, inferential statistics comparing the means and proportion belonging to different groups are tested. These inferential statistics help confirm or refute certain trends found in the descriptive statistics. Third, focus group discussions are reported to confirm and explain certain results found in the inferential statistics. Together, these results help establish the following relationships and insights. The generalization of the results and insights should be done with caution.

1. The Effects of Internal Factors on Job Quality and Job Retention

The relationship between internal factors on job quality and job retention consists of four significant factors, namely (1) gender, (2) disability type, (3) educational background, and (4) critical period of job finding.

The influence of **gender** on job quality in terms of compensation is evident from research findings which shows clear statistical differences in compensation satisfaction between males and

females. The results indicate that males are more satisfied with their work compensation than females.

Types of disability also affect both job quality and retention. There are varying accessibility needs based on disability types and severity. This directly impacts work experience and costs associated with providing additional accommodation for people with disabilities in the workplace, as perceived by employers. Another issue is the familiarity of employers with people with disabilities in each type. Employers tend to hire people with disabilities that they understand or are more familiar with. Additionally, workplace discrimination varies across disability types. Hence, fostering understanding from employers and colleagues is crucial to broaden and increase employment opportunities for people with disabilities, as well as creating positive work experiences.

Educational factors significantly influence the quality of work experiences, particularly job satisfaction in the workplace. Those who have completed master's degrees express the highest level of job satisfaction compared to other educational levels. Regarding satisfaction with compensation, it varies depending on the field of study. Furthermore, people with disabilities who have completed master's degrees also tend to retain their jobs for longer periods compared to other educational levels, with an average tenure of 48.5 months per job change. Therefore, intervening and pushing for higher education is another way to help people with disabilities attain quality employment from employers and good job retention.

The final factor is related to **the time period for finding employment after graduation.** The research findings indicate that people with disabilities who secure employment in less than one month after graduation can hold onto their jobs for a longer period compared to other groups. Additionally, those who secure employment within 1-3 months can retain their jobs for the shortest period among all groups. According to the data analysis, assistance and intervention should be

provided during the 1-3 months period after graduation if individuals with disabilities have not yet found employment.

2. The Relationship of External Factors on Job Quality and Job Retention

The relationship between external factors on job quality and job retention consists of three significant factors, namely (1) job-education correspondence (2) assistance form DSS, and (3) job search channel and assistance.

Working in a field related to one's academic background has implications for compensation satisfaction, challenges faced at work, and job retention. People who work in fields directly related to their educational background tend to have shorter job retention compared to those who do not. This may suggest that they are much more dynamic than the other group. Those who work in a field related to their academic background reported that they are much more confident in their job and this statement is also reflected in the number where they are reported to feel less challenged in advancing in their job. Moreover, they have higher compensation satisfaction scores than the other group.

Preparation for people with disabilities working in fields related to their academic background involves securing suitable job positions and providing appropriate job interviews and other types of training early on by DSS. Furthermore, working in roles that utilize personal experiences of people with disabilities contributes to their overall work experience and job satisfaction.

The factors regarding **assistance from DSS** indicate a higher level of satisfaction with compensation among people who received assistance compared to those who did not receive assistance. At the same time, the assistance factors from DSS also indicate that people with disabilities have shorter job retention than those who did not receive assistance from DSS. There is no significant effect on the quality of work, such as appropriate accommodation or discrimination

at work. However, in focus group discussions, reports indicate assistance in job placement and internship finding for people with disabilities who were graduating from university are indeed helpful but is lacking in some universities compared to others.

The final factors identified **are assistance in job seeking and support from various organizations.** Research findings indicate that channels such as career networks and recruitment agencies significantly help with job retention of people with disabilities compared to those who receive assistance through other channels (an average of 56.3 and 44 months versus slightly over 30 months for other channels). Additionally, these channels contribute to better job quality compared to other groups. For example, job satisfaction and accommodation factors are notably higher. However, there are no significant differences observed regarding compensation satisfaction and experiences of discrimination at work. Moreover, based on the focus group on the employer side highlight that referrals are the most preferred channel for them. DSS could learn and share their experiences with other job finding assistants, particularly career networks and recruitment agencies.

3. The Relationship of Job Quality on Job Retention

The relationship between external factors on job quality and job retention consists of three significant factors, namely (1) compensation satisfaction (2) accommodation, and (3) training provision.

Compensation satisfaction does have an impact on the length of employment tenure. The highest level of satisfaction with compensation is observed with an average employment retention of 40-43 months, while individuals who are neutral or dissatisfied with their compensation tend to have the average of 32-35 months. However, there is not a significant difference between the levels of satisfaction among those who are neutral and dissatisfied. Findings from focus group discussions indicate that participants are concerned with fairness of compensation towards

employees with disabilities in some companies. Some participants reported that they received less compensation than their colleagues because their employees think their disabilities might hinder their working capacities.

The **provision of accommodation** significantly impacts the employment of people with disabilities. Insights from focus group discussions revealed that people with disabilities emphasized the importance of accommodation as their primary concern across all groups. Additionally, the survey results indicated that those who receive accommodations tend to have longer job retention compared to those who do not (averaging 42.5 months versus 26.4 months). Furthermore, providing suitable accommodations has a clear impact on work efficiency and the work environment, including the ability to utilize full potential and work on par with colleagues. This also extends to flexibility in the workplace.

In the final key findings, **providing on-the-job training** for people with disabilities in the workplace significantly influences their job retention. People who receive adequate on-the-job training tend to remain in their jobs for a longer duration (an average of 40 months) compared to those who do not receive such training (an average of 32 months). This observation is further corroborated by the findings from focus group discussions, indicating that organizational support in training initiatives, such as through the DSS facilitating internships and transitioning into actual work roles, enhances confidence and job performance, ultimately leading to extended job retention and career advancement resulting from these training interventions.

To conclude, internal factors, external factors, and job quality reveal how they interact with each other. There are many effective intervention channels, particularly for DSS in each university or vocational school during the critical period before graduation and 1-3 months after graduation. Profiling suitable job positions that fit with their educational backgrounds is also key to improving their work experiences. In terms of working with employers, there are also many venues to enhance the work experiences of people with disabilities and improve their job retention rates, such as on

the job training, adequate accommodation, and fair compensation. These venues could start, for example, from fostering better understanding between employees and their colleagues in the workplace.

Based on the findings from the survey on crucial skills that assist in job retention, the results indicate that the top three skills considered most important by people with disabilities are communication skills (53 percent of respondents), problem-solving skills (44 percent of respondents) and responsibility-taking skills (38 percent of respondents). Therefore, promoting or providing training in **communication, problem-solving, and responsibility-taking skills** for people with disabilities before they enter the workforce is essential to enable continuous employment opportunities for them. Besides, specific training programs are also needed for job retention. More specifically, trainings that are considered important by respondents are: **technical or job-specific training**. Following this are **professional development and career advancement training**, and **communication and teamwork training**. Therefore, apart from the aforementioned crucial factors in each of the aforementioned topics, receiving skill training during the pre-employment preparation phase and undergoing training during employment t invariably contribute to the employability and job retention of persons with disabilities.

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Table of Definition

Terminology	Definition
People with disability (PWDs)	People with disability herein refers to people who encounter limitations in performing activities of daily living due to impairments in vision, hearing, mobility, communication, cognition, learning, or other impairments, coupled with obstacles in various aspects of life. These individuals require special assistance in at least one area to function in daily life, like the general population. This definition follows the definition under "Empowerment Of People with disabilities Act, B.E. 2550 Section 4".
Caregiver requirement	Caregiver requirement herein refers to the requirement for specific care for people with disabilities, both physical and psychological, who is identified in the person with disability's card, specifying the caregiver for that individual. This definition follows the definition under "Empowerment Of People with disabilities Act, B.E. 2550 Section 4".
Internal factor	Internal factor herein refers to factors that characterize the people with disabilities themselves, and cannot be changed or controlled by policy directly, such as gender, age range, types of disability, education level, major of study, job finding periods after graduation, and whether they require caregivers.
External factor	External factor herein refers to factors that come from the nature of job finding activities or working environments surrounding the people with disabilities, mostly provided by the employers or the government. Examples are such as job search channels used by people with disabilities, job finding assistance, assistance from DSS, and job-education correspondence.

Job quality	Job Quality herein refers to the state of well-being of employees, encompassing physical, mental, and social aspects, including safety, rights, and freedoms, which could potentially affect work performance and job retention.
Job retention	Job Retention refers to the duration of an individual's uninterrupted employment within an organization, reflecting their perceived job suitability, enthusiastic engagement, and intention to sustain employment. Within academic discourse, this concept necessitates nuanced understanding and consideration of organizational dynamics, employee motivations, and strategic interventions aimed at fostering prolonged employee tenure.
Compensation	Compensation herein refers to all forms of income from work, encompassing the terms 'wage', 'salary', 'remuneration' or other terms that refer to the same meanings.
Time period after graduation	Time period after graduation herein refers to the period which people with disability took to find their jobs after graduation.
Job-education correspondence	Job-education correspondence herein refers to the characteristics of job or job descriptions that is related to the educational background of the people with disabilities. The correspondence can be implied to the potential and aptitude of people with disability towards jobs in the same field of education.
Accommodation	Accommodation herein refers to the provision of accessible facilities, services, and assistance to ensure equal access and participation. Accommodation includes amenities in the form of physical infrastructure such as ramps, elevators, accessible restrooms, and designated parking spaces that cater to people with mobility challenges. Accommodation also includes human support, such as trained staff or caregivers who provide

	personalized assistance, guidance, and care to people with disabilities, promoting their independence and well-being.
Types of disability	Type of disability herein refers to disabilities which are categorized into the types and criteria set forth by the Ministry of Social Development and Human Security. The Ministry has designated Seven types of disabilities: visual impairment; hearing or communication impairment; physical or mobility impairment; mental or behavioral impairment; intellectual disability; learning disability; and autism spectrum disorder
DSS	DSS (Disability Support Service) herein refers to organizations that fall under the responsibility of educational institutions such as universities or vocational schools have the duty to provide services for the care and support of students with disabilities on various aspects, particularly in facilitating accessibility in education or supporting students' careers before graduation and entry into the labor market.
Job turnover	Job turnover in this research is calculated by two different indicators. The first indicator is **the average number of months per job change by each respondent**. Second is **the percentage of respondents (out of 423 respondents) who changed their jobs in the years 2021-2023**.

1.1 Principles and reasons

The Nippon Foundation, a private grant-making organization from Japan dedicated to maritime development and assistance for humanitarian work, both locally and internationally, recognizes the significance of the issues surrounding employment and job retention for People with disabilities In particular, the lack of comprehensive, evidence-based guidelines for recommending inclusive employment practices have had a consequential impact on People with disabilities (PWDs) in transitioning to work from universities. The Social Innovation Foundation of Thailand, which focuses on developing new approach and innovative processes for employment of people with disabilities, similarly acknowledges these problems. Together, the Nippon Foundation and the Social Innovation Foundation of Thailand recognizes that there must be various multidimensional factors that can be utilized to address and enhance solutions, thereby creating effective pathways for assistance. As such, the Nippon Foundation and the Social Innovation Foundation of Thailand, in collaboration with The TSIS Limited Partnership, an organization specializing in conducting social research, and training to enhance knowledge-based society, decide to conduct and in-depth research on the transition to work for people with disabilities in Thailand in order to develop comprehensive, evidence-based guidelines for People with disabilities for their transition from universities to work.

This project ultimately aims to implement the Transition-to-Work (TW) program for people with disabilities. This initiative stems from the desire to address issues related to employment and job retention among People with disabilities who have completed university-level or vocational school level educational programs and have either work experience or are actively seeking employment. The program aims to provide guidelines to promote readiness for employment and sustained job retention for people with disabilities and graduates. It will involve developing transition-to-work guidelines for people with disabilities, which will be finalized and further developed in collaboration with five leading universities. These universities have expressed their

willingness to participate in developing the project guidelines. Upon successful establishment of the prototype guidelines, all five universities will collaborate to design a 3-year implementation plan, which can be further customized to suit the context, needs, and priorities of each university. The goal of this project is to produce outcomes that enhance the employability and quality of life of People with disabilities through a structured transition-to-work program.

To better understand the current situation and the needs of People with disabilities, it is imperative to undertake comprehensive data collection from people with disabilities who are currently employed. This project employs a mixed method, gathering data through both quantitative and qualitative research methodologies. The objective is to establish foundational understanding on transitions into employment of People with disabilities, which will aid project facilitators in understanding the status and gaps in terms of the effectiveness of transitions into employment. Additionally, this data collection will serve as a basis for goal setting. Following the analysis of both quantitative and qualitative data, project facilitators will possess sufficient information to devise effective strategies for facilitating transitions into employment for people with disabilities and ensure genuine responsiveness to their needs. Consequently, researchers propose a data collection process to establish foundational data on transitions into employment and to analyze it to ultimately delineate effective strategies for transitioning into employment.

1.2 Research Objective

1) To collect both quantitative and qualitative research data in area of employment and retention to create the Transition-to-Work baseline data.

2) To analyze research data and establish the Transition-to-Work guideline.

The project "Transition-to-Work (TW) Guidelines" for People with disabilities aims to address issues related to employment and job retention for people with disabilities who have completed university-level or vocational school level education and have work experience or are actively seeking employment. To achieve this, a literature review is necessary to understand the current work on the transition to work for people with disabilities. This review will provide insights into relevant concepts and policies supporting the employment of people with disabilities in Thailand and will be used to analyze and design a framework for collecting data from people with disabilities who are currently employed. This data will then be analyzed to identify and address issues related to the employment and job retention of People with disabilities.

Section 2.1 of this Chapter, first and foremost, provides definitions of disability types. Next, Section 2.2 covers concepts and policies supporting the transition to work for People with disabilities. This includes both international and national work. Section 2.3 proceeds to the employment of PWDs in the Thailand context. Section 2.4 looks at various measures implemented to promote skills and working opportunities of PWDs in Thailand. Lastly, Section 2.4 provides relevant research results and work done in the past.

2.1 Definition and types of disabilities

Thailand's Empowerment Of People with disabilities Act, B.E. 2550, defines "People with disabilities" as individuals who encounter limitations in performing activities of daily living due to impairments in vision, hearing, mobility, communication, cognition, learning, or other impairments, coupled with obstacles in various aspects of life. These individuals require special assistance in at least one area to function in daily life, like the general population, as per the types and criteria set forth by the Ministry of Social Development and Human Security. The Ministry has designated Seven types of disabilities:

1) Visual Impairment:

Blindness refers to significant limitations in daily activities or social participation due to impaired vision. This includes cases where vision with corrective lenses is worse than 3/60 or 20/400 or less, or where the field of vision is narrower than 10 degrees.

Low vision indicates limitations in daily activities due to impaired vision even with corrective lenses. This encompasses cases where vision with corrective lenses ranges from worse than 20/400 to better than 20/70, or where the field of vision is narrower than 30 degrees.

2) Hearing or Communication Impairment:

Deafness denotes significant limitations in daily activities or social participation due to an inability to receive information through hearing. This is determined by hearing thresholds of 90 decibels or more at frequencies of 500, 1,000, and 2,000 hertz in the better ear.

Hard of hearing signifies limitations in daily activities due to impaired hearing, with hearing thresholds ranging from 40 to 90 decibels at frequencies of 500, 1,000, and 2,000 hertz in the better ear.

3) Physical or Mobility Impairment

Mobility impairment refers to limitations or loss of mobility or motor function in limbs due to congenital or acquired conditions, such as paralysis, limb weakness, or limb absence, resulting in difficulties in performing manual or ambulatory activities. Types of mobility impairments include:

a. Wheelchair user

Wheelchair users often have mobility limitations due to physical disabilities such as paralysis or injuries, making it difficult for them to walk. Using a wheelchair enhances their mobility and daily activities.

b. Walker user

People with disabilities who use walkers typically have mobility limitations but are still able to walk to some extent. Walkers provide support and stability, assisting them in maintaining balance and reducing the risk of falling.

c. Weakness in limbs

Weakness in limbs means difficulty controlling and using muscles efficiently, often due to neurological or nervous system issues. This can lead to challenges in movement and activities requiring strength or flexibility.

Physical impairment refers to the limitation a person experiences in participating in activities of daily life or engaging in social activities due to deficits or abnormalities in the structure, appearance, or function of the body, including the head, face, limbs, and visible physical features. This can result in difficulties or challenges in movement, coordination, or physical appearance that are readily observable.

4) Mental or Behavioral Impairment:

Mental or behavioral impairment indicates limitations in daily activities or social participation due to mental or psychological disorders affecting perception, emotions, or cognition.

5) Intellectual Disability:

Intellectual disability refers to developmental delays or below-average intellectual functioning, typically manifested before the age of 18, resulting in difficulties in areas such as reading, writing, arithmetic, or basic learning processes.

6) Learning Disability

Learning disability denotes difficulties in learning and social participation, primarily affecting academic or learning-related activities, resulting from brain-based impairments.

7) Autism Spectrum Disorder

Autism spectrum disorder includes a range of developmental disabilities affecting social interaction, communication, and behavior.

In this project, these definitions and categories of disabilities will be utilized to design data collection methods comprehensively covering all types of disabilities to analyze and address employment and job retention issues among People with disabilities effectively.

2.2 Concepts and policies supporting the transition to work for people with disabilities

2.2.1 The rights of people with disabilities

On December 9th, 1978, the United Nations declared the Covenant on the Rights of people with disabilities, emphasizing respect for the dignity of people with disabilities. They have rights without any dispute specified in the Declaration of Human Rights. The rights of people with disabilities have been clearly defined and emphasized in addition to the Universal Declaration of Human Rights, emphasizing full protection as human beings. This is to enable people with disabilities to participate equally and fully in social activities. People with disabilities have the right to receive medical treatment, prosthetics or orthotics, education, vocational training, counseling, and appropriate assistance, and support. They have the right to economic and social security to ensure income, as well as the right to receive necessary economic and social support. People with disabilities must be protected from seeking any form of benefit, and regulations and practices should be non-discriminatory, violating, or humiliating. Disability organizations can act as consultants on all matters related to the rights of people with disabilities, families, and communities, and be informed fully and appropriately about the rights stipulated in the Covenant. (Supotthanaphat Mongkolsawasdi, 2001:17)

Moreover, the Convention on the Rights of People with disabilities (CRPD), adopted on December 20th, 1971, by the United Nations, has highlighted the rights of People with disabilities, particularly in intellectual or learning disabilities. This framework confirms the promotion and support of persons with intellectual or learning disabilities to have equal rights as others in society. It ensures that this group has the right to access medical services, education, and vocational training to their maximum potential. They are guaranteed economic security to sustain their livelihoods, the right to live with family and community support, and the right to have guardianship for protection of benefits. Moreover, they are protected from exploitation, abuse, discrimination, and violence.

The International Covenant on the Rights of People with disabilities in Thailand, B.E. 2541 (1998), was approved by the Cabinet on November 10, 2541 (1998), with the following content:

1. People with disabilities, have inherent dignity, rights, and freedoms as Thai citizens, protected under the Constitution of the Kingdom of Thailand, and have rights as specified in the Covenant without any exceptions, and without discrimination based on race, religion, politics, language, birthplace, gender, age, or any other status.

2. People with disabilities, have the right to express opinions and participate in political activities.

3. People with disabilities, have the right to participate in decision-making and policy development at national and local levels concerning People with disabilities

4. People with disabilities, have the right to rehabilitation and development from birth and initial disability detection, and parents and families of People with disabilities must receive support from the state in all aspects to enable full rehabilitation and development of People with disabilities according to individual needs.

5. People with disabilities have the right to receive rehabilitation services to fully live independently as much as possible for each individual.

6. People with disabilities have the right and opportunity to receive quality education at all levels and in all forms of education, according to the needs of People with disabilities, on an equal basis with the general population, including education within and outside the system, and lifelong learning without restrictions, segregation, discrimination, or exceptions.

7. People with disabilities have the right and opportunity to be prepared for employment, vocational training, and participation in all types of professions, to be employed or hired according to needs and abilities, with compensation, benefits, and progress, and to join labor unions without discrimination or exclusion.

8. People with disabilities have the right to protection from sexual abuse, physical and mental harm, confinement, exploitation, or any other harm related to disability, and they must receive legal assistance similar to the general population.

9. People with disabilities have the right to participate with their families and communities and have full participation in family, community, and family activities.

10. People with disabilities have the right to receive conveniences, services, and other assistance from the state to live in society like the general population.

11. People with disabilities have the right to disseminate and publicize to their families, communities, and society to be aware and understand People with disabilities, especially in creating awareness about rights, potentials, and abilities, as well as the benefits of People with disabilities, through complete research studies on "Models and Guidelines for Promoting Careers or Benefits for People with disabilities."

12. People with disabilities have the right to access information, particularly concerning the rights of People with disabilities, and must be supported with suitable media for People with disabilities, including sign language interpreters, Braille, electronic media, or other special communication devices.

13. People with disabilities and their families, communities, and society have the right to access and disseminate information to access rights specified in this Covenant universally.

14. The state must prioritize and adhere to the agreements related to People with disabilities, which Thailand has signed or agreed to at both national and international levels. Thailand has ratified the Convention on the Rights of People with disabilities (CRPD) on July 29th, 2008, resulting in Thailand being bound by obligations to promote and protect the rights of People with disabilities universally.

From various conventions, it leads to the enactment of the Disability Rights Promotion and Development Act B.E. 2550. Section 20 of the Act states that People with disabilities have the right to access and benefit from public facilities as well as other state welfare and assistance, as follows:

1. Medical rehabilitation services, including medical procedures and expenses for medical treatment, equipment, assistive devices, and developmental aids to improve physical, mental, emotional, social, behavioral, intellectual, and learning abilities, or to enhance capabilities as specified by the Ministry of Public Health.

2. Education according to the National Education Act or the National Education Plan, as appropriate, in specialized or mainstream educational institutions, alternative education, or informal education, with support from educational agencies responsible for providing appropriate assistance to People with disabilities

3. Vocational rehabilitation, standardized services, labor protection, employment measures, promotion of self-employment, and media services, assistive technology, or other assistance for the employment and vocational activities of People with disabilities, according to criteria, methods, and conditions specified by the Ministry of Labor.

4. Acceptance and participation in social, economic, and political activities fully and effectively on the basis of equality with the general public, as well as access to necessary facilities and services for People with disabilities

5. Assistance to access policies, plans, projects, activities, development, and public service products essential for livelihood, legal assistance, and provision of lawyers for dispute resolution in accordance with the regulations set by the committee.

6. Information, communication services, telecommunications services, information technology, and communication technology, as well as facilities for communication services for all types of disabilities, as well as public media services from state or private agencies supported by the state, according to criteria, methods, and

conditions specified by the Ministry of Information and Communication Technology.

7. Sign language interpretation services as specified by the committee.

8. The right to use guide animals, navigation aids, or any other assistive devices for travel purposes in any transportation or location for the benefit of People with disabilities, and to receive exemptions from service charges, fees, and additional rental fees for such animals, devices, or assistive equipment.

9. Provision of disability benefits according to criteria and methods specified by the committee.

10. Adjustment of living environments, provision of personal assistants for People with disabilities, or provision of other benefits according to criteria and methods specified by the committee.

11. Personal assistants for People with disabilities have the right to receive fee reductions or exemptions as specified by the committee.

12. People with disabilities who do not have caregivers have the right to receive housing and caregiving benefits from state agencies. In cases where private welfare institutions provide housing and welfare, the state must provide funding support to such private welfare institutions according to criteria and methods specified by the committee.

13. Caregivers of People with disabilities have the right to receive consultation, guidance, skills training, caregiving education, vocational promotion, and employment assistance, as well as any other forms of assistance to enable self-reliance, according to criteria and methods specified by the committee.

14. People with disabilities and their caregivers have the right to receive tax reductions or exemptions as provided by law. Private organizations providing benefits to People with disabilities under this provision have the right to receive tax deductions or exemptions as a percentage of the expenditure amount as provided by law.

15. Private organizations providing benefits to People with disabilities under this provision have the right to receive tax deductions or exemptions as a percentage of the expenditure amount as provided by law.

The Disabilities Act B.E. 2550 aims to establish guidelines and improve methods for promoting and enhancing the quality of life for People with disabilities, enabling them to be self-reliant. It outlines provisions regarding the benefits and protection of People with disabilities to prevent discrimination. This differs from the Rehabilitation of people of disabilities Act B.E. 2534, which primarily focuses on protection, assistance, development, and rehabilitation.

In this project, we will analyze and design data collection methods, both quantitatively and qualitatively, related to the rights of People with disabilities to employment as specified in international agreements and the Disabilities Act. We will identify obstacles and develop strategies to increase opportunities for employment for People with disabilities

2.2.2 The Evolving Concept of Social Welfare as the Origin of Policies Supporting People with disabilities

In the past, human livelihood security depended largely on the mutual support of family members, both in terms of household arrangements within extended occupational families focused on agriculture, which required family labor as the mainstay. Even in terms of health care, it was the responsibility of family members to care for each other in times of illness. However, in the present era, increased competition and economic pressure have led to changes in social and economic conditions, making it increasingly difficult to achieve life stability. As a result, the role of the state has expanded from its previous emphasis on protecting and maintaining internal peace to taking on the responsibility of ensuring the well-being of all citizens, providing access to basic necessities for life equally. This primarily involves taking care of and responsibility for the welfare of the people, ensuring that everyone can access essential factors for sustaining life equally. The main duty is to care for and take

responsibility for providing basic social services, or what is known as "social welfare," to all distressed people.

The meaning of the term "social welfare" may vary depending on the perspective and philosophy of individuals. Turner (1974) stated that "social welfare" refers to efforts to promote a basic standard of living security, covering services for individuals and communities in developing society, and enhancing individuals' ability to cope with physical, mental, economic, and social problems, as well as striving to eliminate conditions where people cannot support themselves.

Friedlander and Apte (1980, cited in Wanna Wasikasinsin et al., 2004) stated that "social welfare" refers to regulations, policies, benefits, and services that ensure that various services are provided in accordance with societal needs. Social welfare is considered a fundamental service that brings about rapid and sustainable changes from previously challenging conditions to anticipated improvements, including ultimately achieving the highest standards of well-being. Encyclopedia Britannica (cited in Narong Petchprasit et al., 1999: 4) defines "social welfare" as various activities established by both governmental and non-governmental organizations to help individuals, families, groups, and communities achieve a satisfactory standard of living, health, and social status, enabling them to help themselves and others in the same society. Encyclopedia Americana (cited in Narong Petchprasit et al., 1999: 6) defines social welfare as mostly referring to institutions and services primarily aimed at upholding and promoting the well-being of individuals in terms of physical, social, intellectual, or emotional aspects. The Encyclopedia of Social Work (cited in Wanna Wasikasinsin et al., 2007: 1) defines "social welfare" as various activities organized by both governmental and voluntary agencies to prevent and alleviate social problems or improve the well-being of individuals, groups, and communities. Such activities involve a wide range of professionals, including doctors, lawyers, engineers, administrators, social workers, and paraprofessionals.

The National Committee for the Promotion and Development of Social Welfare (2535 - 2539) defined social welfare as a system of social services aimed at addressing social problems arising from people's inability to live in or adapt to societal systems, as well as their

inability to fulfill their social roles. These services must meet the basic needs and social stability standards of the people, aiming to improve their quality of life comprehensively and fairly. Subsequently, the National Committee for the Promotion of Social Welfare (2545: 4) adjusted the definition of social welfare in the National Social Welfare and Social Development Plan 4th Edition (BE 2545 - 2549) to refer to a system of social services for preventing and solving social problems, developing society, and promoting social stability to enable people to live in society at a standard level. These services must respond to the basic needs of the people for comprehensive and equitable quality of life development, covering various aspects such as education, health, housing, employment, social security, recreation, and general social services. The social service system must respect human dignity and ensure that people's rights are upheld and that they participate in the social service system at all levels. The goal is to achieve the highest level of social well-being, as stated by Wanna Wasikasinsin (Wanna Wasikasinsin et al., 2007: 2), who described social welfare as aiming for social well-being for everyone, not just the poor, but for all individuals born on this earth who should receive responses to their basic needs. Finally, Suwate Chaovarit (Suwate Chaovarit, 1984: 4) stated that the meaning of social welfare can be easily understood as a societal goal that the state aims to achieve for its people, enabling them to live in society with fullness, abundance, and happiness, including physical, material, spiritual, and social well-being.

The International Labour Organization (ILO) (Marta Ruiz Carnes, 2005: 19) defines social welfare as the protection of populations collectively and at an individual level from economic problems and social distress that may arise from income insufficiency due to unemployment, illness, childbirth, work-related accidents, disability, old age, etc. Additionally, the term "social welfare" is also linked to other terms such as "social safety nets" (Somboon Yomnarn and colleagues, 2006: 11), which refers to components in social care for various groups, including laborers, disadvantaged individuals, and those facing social problems whom society should assist. "Social services" (Saksri Boriboonsapapat, 2535: 4) refer to various activities or services provided by social workers and other professionals to assist in social welfare, covering public services in health, education, and social welfare branches to help people become self-reliant.

The National Committee for the Promotion and Development of Social Welfare and Social Welfare (2545 - 2549) defines "social security" (Narong Petchprasit, 2546: 3-4) as a social system, both governmental and societal, aimed at reducing poverty, eliminating various risks, and enabling individuals to sustain themselves in society by supporting income, developing skills, and creating job opportunities.

Moreover, "social security" encompasses all aspects of social services that can instill a sense of security among the population, including social measures to maintain economic stability at a level provided by the state (Saksri Boriboonsapapat, 2535: 5). These efforts fall under the policy known as "Social Welfare Policy," where the government must allocate income and budget to achieve the social security objectives, referred to as the "Social Welfare Budget" (Narong Petchprasit, 2546: 4).

The definition of social welfare can be summarized as follows, connecting the criteria for being a program or service and the goals of ensuring well-being:

"Social welfare" refers to systems, programs, and services designed to meet the basic needs of all people for sustainable well-being and happiness, ensuring equality and equal opportunities for all members of society to lead normal and fulfilling lives. This includes efforts to address fundamental needs and promote development, creating long-term stability and security for individuals and society as a whole.

In terms of the components of social welfare, Pongkrit Mongkolsin (2536) stated that there are two main types: 1) defined according to meaning and 2) defined according to activities, projects, or services, which often have narrower meanings than the first type. These are typically defined based on the Social Security Act of 1935 in the United States.

Therefore, the components of social welfare, according to the broader or general meaning, typically consist of seven factors: 1. Education, 2. Health, 3. Housing, 4. Employment and Income Maintenance, 5. Social Security, 6. General Social Services and 7. Recreation.

Titmuss (1974) categorized welfare systems into three broad types:

1) Residual Model of Welfare: This model views welfare as a response to social needs, primarily relying on individuals, families, and the market to address these needs. It intervenes only in cases of extreme hardship or emergencies.

2) Industrial Achievement Performance Model: In this model, welfare serves as a mechanism within the economy, rewarding productivity and contributing to economic growth. Welfare allocation is based on factors such as work performance and productivity.

3) Institution Redistributive Model: This model considers welfare as an essential institution for social integration and stability. It focuses on ensuring social cohesion and addressing societal inequalities, complementing the free market economy.

Each model has its implications and purposes within society, aiming to address social needs and promote well-being while navigating economic and social transformations. Therefore, addressing social issues, whether in terms of prevention, problem-solving, or recovery to develop a society where people have a good quality of life, security, and resilience, is an activity that must involve all systems within society through social policies. The roles and responsibilities of the state in social welfare, as various definitions of "social welfare" have suggested, have evolved over time depending on the prevailing ideologies, experiences, and dominant ideas influencing each state. The state's role in social welfare can generally be categorized into two main streams: liberal and social democratic.

In the liberal approach, the state's importance in social welfare is minimized, emphasizing individual freedom and the market mechanism. Social welfare in this context often takes the form of private initiatives such as insurance schemes, where individuals purchase various risk coverages from private entities. Conversely, when social democratic ideas gain prominence, the state's role in welfare provision increases significantly. Under social democracy, the state is tasked with ensuring comprehensive welfare coverage for the population, covering various aspects of social welfare, such as healthcare, education, and labor development.

However, as societal ideologies evolve, a blend of both liberal and social democratic ideas has emerged, leading to the concept of welfare pluralism. Welfare pluralism acknowledges the limitations of purely liberal or social democratic approaches in contemporary society, advocating for a diverse approach where various actors, including the state, local governments, private sector, civil society organizations, and individuals, participate in providing social welfare. This pluralistic approach aims to distribute the responsibility for social welfare across multiple stakeholders, including local governments, private businesses, and community organizations, rather than solely relying on the state.

In this context, social welfare becomes more decentralized, with local governments and community organizations taking on more significant roles in welfare provision, often in collaboration with the private sector. Moreover, individuals and communities are encouraged to participate actively in shaping and delivering welfare services, fostering a sense of ownership and responsibility for social welfare.

The significance of legislation in supporting social welfare initiatives cannot be overstated. Laws and regulations play a crucial role in defining rights and responsibilities for both providers and recipients of welfare services, ensuring clarity and accountability in the welfare system. Whether enacted by the state or welfare organizations themselves, such legislation aims to establish clear guidelines for welfare provision and entitlements.

In summary, the concept of social welfare has evolved over time, reflecting changing societal ideologies and priorities. While the state's role in social welfare provision has fluctuated between liberal and social democratic approaches, contemporary trends suggest a move towards welfare pluralism, where various actors collaborate to provide comprehensive and inclusive social welfare services. Legislation plays a vital role in supporting these initiatives, providing a framework for welfare provision, and ensuring clarity and accountability in the welfare system.

The concept of social welfare law can be explained in three forms:

1. Control-oriented Concept for Social Order: This perspective believes that human nature tends to be selfish and ready to exploit others whenever there is an opportunity,

especially in a free competitive system where the weak are always at a disadvantage against the strong and resourceful. Allowing uncontrolled competition could lead to chaos and social unrest because those in a disadvantaged position may not tolerate being consistently exploited. Therefore, it is necessary for the state to enact social welfare laws to reduce societal disparities, enabling peaceful coexistence among citizens. The idea emphasizes fairness to ensure equal opportunities in society, believing that all individuals are entitled to protection from society itself.

2. Justice-oriented Concept for Equality: This viewpoint posits that all individuals are born with inherent rights that society should protect. Laws and regulations regarding social welfare are necessary to ensure that citizens receive basic protection from the state and society, as well as to promote equal access to various welfare benefits for everyone. In order for social welfare initiatives to truly promote justice in society, they must first be recognized as legitimate through legal certification. This certification process ensures that social welfare measures are aligned with the goal of achieving genuine fairness in society.

3. Participation-oriented Concept for Community: The idea of community participation in social welfare stems from the changing roles of providers of life necessities. Traditionally, family members took care of each other within households. However, responsibilities have expanded to include groups outside the family or community. This shift has led to the recognition that all members of society have rights and duties to each other. Social welfare initiatives, therefore, need to involve clear legal frameworks to enhance mutual responsibility and understanding among citizens in society.

These three perspectives highlight the necessity of enacting social welfare laws to promote social order, justice, and community participation, thereby ensuring a more equitable and harmonious society.

In Thailand, the Empowerment of People with disabilities Act, B.E. 2550 and its Addition (Version 2), B.E. 2556 are the main law in response the global movement in protecting the right of people with disability. Specifically, the criteria for employment and hiring of People with disabilities are specified in Sections 33, 34, and 35, and can be summarized as follows:

Article 33: For promoting and enhancing the quality of life for People with disabilities, employers or business owners, as well as government agencies, shall employ People with disabilities in accordance with the nature of the work, at a proportion appropriate to the workforce in the establishment or government agency. The Minister of Labor shall issue ministerial regulations specifying the number of People with disabilities that employers or business owners and government agencies must employ, as stipulated in the ministerial regulations concerning the establishment of quotas. The number of People with disabilities that employers or business owners and government agencies must employ, and the amount of money that employers or business owners must contribute to the Fund for Promotion and Development of the Quality of Life of People with disabilities, B.E. 2554, can be summarized as follows:

In the case of private organizations:

(1) The number of People with disabilities to be employed shall be employers or business owners with one hundred or more employees, who shall employ People with disabilities who are able to work, regardless of their position, at a ratio of not less than one person with a disability for every one hundred employees.

(2) Definitions: The term "employer" or "employee" is not defined in these regulations; therefore, it shall be interpreted in accordance with labor protection laws, including the term "employer," which means a person who agrees to employ an employee by paying wages, including:

a. Persons authorized to act on behalf of the employer shall include:

b. In cases where the employer is a juristic person, this shall include persons empowered to act on behalf of the juristic person and persons authorized by the empowered persons to act on behalf of the juristic person. However, people with disabilities, as defined in the aforementioned regulations, are not limited solely to those with disability identification cards. Therefore, if an employer hires a person with a disability who does not possess a disability identification card or has a certificate substituting for a disability identification card, the employee must possess a certificate of disability issued by a medical professional in a

state hospital or a private medical institution according to the Department of Empowerment of People with disabilities announcement, specifying the disability status before the year in which the employer will exercise the right to report compliance with the law on employing people with disabilities, attached with the relevant report form. In cases where the disability is visually perceivable according to the Department of Empowerment of People with disabilities announcement, the employee must present themselves to the responsible officer, accompanied by a government official from the Department of Empowerment of People with disabilities or the Department of Social Development and Human Security, certified at the professional level or above to verify the aforementioned disability.

c. The method for counting the number of employees shall involve counting all employees on October 1st of the year preceding the year of obligation. In the case where the employer or business owner has multiple units or branch offices, all employees of these units or branch offices shall be counted together.

d. The method of hiring People with disabilities shall be by employing them as regular employees in accordance with labor protection laws, not as casual employees under the Civil and Commercial Code. The Revenue Department may establish selection criteria for hiring People with disabilities as it sees fit. Regarding placement in positions according to job descriptions and the payment of compensation, promotion shall be conducted in the same manner as for regular employees, but without any discriminatory practices.

Article 34 stipulates that employers or owners of establishments who fail to hire People with disabilities in accordance with the quota specified in Article 33 must contribute funds to the fund as specified in Article 24 (5). Furthermore, the Minister of Labor and regulations set the amount of money that employers or owners of establishments must contribute to the fund. Employers or owners of establishments who are required to contribute to the fund under the first paragraph but fail to do so, submit late, or do not submit the full amount of money, shall be subject to interest at a rate of seven and a half percent per annum on the amount of money not yet submitted to the fund. Employers or owners of establishments who hire People with disabilities or contribute to the fund as stipulated in the

first paragraph are entitled to a tax exemption of a percentage of the amount of wages paid to people with disabilities or the amount of money contributed to the fund, as prescribed by law.

Article 35 states that in cases where state agencies do not intend to hire people with disabilities in accordance with Article 33 or where employers or owners of establishments do not hire people with disabilities in accordance with Article 33 and do not intend to contribute funds to the fund as specified in Article 34, such state agencies, employers, or owners of establishments may provide facilities for the sale of goods or services, subcontract work, or provide services by special procurement methods, offer internships, or provide equipment or facilities, sign language interpreters, or any other assistance to People with disabilities or their caregivers, all subject to the criteria, methods, and conditions set by the committee in the regulations.

In summary, the concept of social welfare for People with disabilities is a fundamental principle in organizing social welfare for all types of disabilities at a basic level according to the rights stipulated in the constitution. This encompasses services related to health, education, employment and income, social security, housing, recreation, and social services. All sectors of society, including the government, private sector, local government organizations, and civil society, must participate in providing social welfare for people with disabilities to ensure comprehensive and fair coverage. Therefore, the government has policies to support and promote opportunities for people with disabilities to participate equally in various aspects of life and social activities. Consequently, the government intervenes to provide social welfare for people with disabilities to ensure their protection, assistance, development, and rehabilitation through various means such as medical care, education, social services, vocational training, and economic and social integration measures. Laws and regulations play a crucial role in defining measures and principles for organizing social welfare to assist and protect people with disabilities, ensuring that they have equal access to and benefit from public welfare and appropriate education, as stipulated in the current constitution of the Kingdom of Thailand. Accordingly, people with disabilities should receive

basic welfare that is not different from that of the general population, and the government and society must play a role in ensuring that People with disabilities receive full welfare to enable them to live happily integrated into society.

In this project, we will analyze and design data collection methods, both quantitatively and qualitatively, related to the welfare of people with disabilities in terms of employment, whether they receive appropriate benefits, what challenges they face, to analyze and develop strategies to increase employment opportunities for people with disabilities in the future.

2.3 The Context of Employing People with disabilities in Thailand

2.3.1 Current Employment Statistics of People with disabilities

According to data from the Department of Empowerment of People with disabilities, Ministry of Social Development and Human Security (2012), there are a total of 2,153,519 people with disabilities in Thailand. Among them, there are 855,816 individuals of working age (15-59 years old). Within this group, 310,586 people have provided clear information indicating their occupation, accounting for 36.29% of all working-age people with disabilities. From these figures, it is evident that a considerable number of People with disabilities have entered the labor market. However, there remains a significant portion who have not yet entered the labor market and may face various obstacles hindering their entry. This section reviewed the literature to summarize the problems and obstacles in employing People with disabilities in Thailand.

2.3.2 Problems and Obstacles in Employment of People with Disabilities

Warasa Jerntaweechok (2017) summarized the problems and obstacles encountered in employing people with disabilities in Thailand as follows:

Attitudinal problems towards people with disabilities persist among parents, teachers, employers, and the general public who continue to not recognize the capabilities of People with disabilities. There is still a perception that People with disabilities are incapable and hiring them is burdensome. Such negative attitudes often result in families neglecting to

stimulate the development of people with disabilities appropriately, leading to slow development and sometimes recurring disabilities. Additionally, schools may reject admitting children with disability, citing various reasons. Some may perceive investing in education for people with disabilities as futile. Many schools admit children with disability but provide inadequate support, reflecting negative attitudes that discourage teachers from providing suitable knowledge and skills training tailored to each individual with a disability. Regarding employers, negative attitudes lead them to reject hiring people with disabilities for various reasons, such as believing that hiring people with disability is not as effective due to the higher cost associated with accommodating people with disabilities, including workplace modifications and amenities. Therefore, prevalent negative attitudes towards people with disabilities largely impede their full development potential and job opportunities.

The lack of quality education and vocational training services for people with disabilities is a significant problem. Schools for people with disabilities are insufficient, and inclusive schools lack specialized education centers to assist people with disabilities adequately. This results in people with disabilities having limited opportunities for skill development and abilities compared to the general population. Furthermore, some people with disabilities who have received vocational training often turn to alternative occupations instead of utilizing the skills they have acquired, indicating that current vocational training programs do not meet the labor market demands adequately.

Coordination problems among relevant agencies involved in the education and employment of people with disabilities hinder effective collaboration. Although various ministries, such as the Ministry of Education, the Ministry of Public Health, and the Ministry of Labor, are responsible for education and employment for people with disabilities, efficient collaboration between these agencies is lacking. This leads to duplicated efforts, focusing on specific groups of people with disabilities while neglecting others, resulting in some people with disability not receiving assistance or entitlements.

The lack of clear and reliable data is another significant obstacle. Data on disabilities, numbers, and statistics vary significantly, and the collected data are incomplete, hindering

their use in employing people with disabilities. For example, data on the number of people with disabilities in different educational districts, the number of job positions in various fields, and information on private organizations providing vocational training for people with disabilities are insufficient. These data discrepancies pose challenges in planning and addressing the employment issues of people with disabilities and hinder the establishment of network systems for recruitment and resource mobilization for their development and employment.

Penicha Konyai (2016) conducted a study on the problems and obstacles that have hindered the promotion of employment for people with disabilities, resulting in challenges for state agencies, which are the main entities responsible for promoting and supporting the employment of People with disabilities. These problems include:

Problems related to the employment of people with disabilities: According to Article 33 of the People with disabilities Empowerment Act B.E. 2550 (2007), enterprises and state agencies are mandated to employ people with disabilities in positions appropriate to their qualifications. However, the term "appropriate positions" is not clearly defined, leading to challenges in interpretation. The Department of Empowerment of people with disabilities has used the definition of "employee" as outlined in the Ministerial Regulation (B.E. 2554) to specify the types of positions that enterprises and state agencies must hire people with disabilities for. This regulation stipulates that state agencies must hire people with disabilities only for permanent positions, such as civil servants and regular employees, and cannot hire them for temporary or contractual positions.

Problems with setting the proportion of employing people with disabilities: As mandated by the people with disabilities Empowerment Act B.E. 2550 (2007) and its amendment (No. 2) B.E. 2556 (2013), the requirement to employ People with disabilities at a ratio of 100:1 poses unfairness to enterprises and state agencies. This ratio does not consider the varying numbers of people with disabilities in the workforce across different provinces. Some provinces, where state agencies are located, may have a high demand for workers with disability but cannot find enough candidates within the province or nearby provinces to meet

the required ratio. Additionally, this ratio does not treat all groups of people with disabilities equally, as those with milder disabilities have a higher chance of being employed than those with more severe disabilities. Therefore, there is a need to adjust the proportion of employing people with disabilities to ensure equal opportunities for all types of disabilities.

Problems regarding the duration of employment for people with disabilities: According to the people with disabilities Empowerment Act B.E. 2550 (2007) and its amendment (No. 2) B.E. 2556 (2013), the duration of employment for people with disabilities must be at least one year to be considered compliant with Article 33 of the aforementioned Act. However, in practice, some people with disabilities hired by state agencies do not have contracts lasting for one year, or they may find it difficult to adapt to their work environment and quit their jobs prematurely.

2.4 Promoting the Skill Sets of People with disabilities

2.4.1 Employment Support Measures

Employment Support Measures (Kritta Thirakosonpong and Narakhet Yimsuk, 2561) are initiatives proposed by international labor organizations to establish policies or encourage stakeholders to promote equal opportunities for People with disabilities in each country. These measures are implemented for employers or people with disabilities, in conjunction with the enforcement of laws consistent with international labor organization laws and other human rights laws, to effectively practice these measures. Examples of employment support measures can be summarized as significant special measures for employers or people with disabilities as follows:

Provision of Special Work Assistance Equipment: In cases where people with disabilities require assistive devices in the workplace to enable them to work, such devices may be produced or modified without incurring significant costs. However, if providing such equipment imposes a burden on employers, the government should support by providing temporary loans or permanent distribution to people with disabilities or employers.

Provision of Special Daily Living Assistance Equipment: Providing assistive devices for daily living benefits people with disabilities for both work and other activities. It may not be appropriate for employers to bear the burden of providing such equipment directly. Therefore, the government should directly provide such equipment, both for daily living and work assistance devices. Especially for work-related assistive devices, it should be provided at no cost or may involve partial payment. Some countries use a method where individuals with high incomes pay for the equipment, while those with low incomes receive it free of charge.

Transportation and Travel Mobility Services: These services help people with disabilities travel to work safely and conveniently. Measures that can be implemented include:

- **Developing Public Transportation Systems Accessible to People with disabilities**: This entails providing regular buses, trains, subways, taxis, etc., that are accessible to the general public and wheelchair users.

- **Issuing Special Taxi Passenger Cards for people with disabilities:** Providing special taxi services for people with disabilities to commute to and from work, arranged by either employers or the government.

- **Financial Support for people with disabilities for Taxi Services** or Vehicle Purchase/Modification Expenses for Travel, as well as for assistants helping people with disabilities commute to work.

- **Establishing Special Transportation Systems Specifically for people with disabilities** to Travel to and from Work, such as modifying minibus to accommodate wheelchair users.

Financial Support for People with disabilities: Providing financial assistance to people with disabilities who start working to cover initial work-related expenses, such as buying new clothes, acquiring new equipment related to work, etc., is one way to eliminate obstacles to their employment.

Financial Support for Employers: The government provides funding to employers in the form of subsidies or tax incentives to offset the increased expenses incurred from hiring

people with disabilities, such as providing suitable accommodation or amenities for people with disabilities. These expenses may be partially or fully covered.

2.4.2 Vocational Rehabilitation for People with Disabilities in Thailand

Thailand recognizes the importance and pays attention to the vocational rehabilitation of people with disabilities, understanding that they are valuable resources for society and an integral part of the country's community. Therefore, they should be developed in a suitable manner. Vocational rehabilitation is essential to enable people with disabilities to be self-reliant and lead meaningful lives in society. Additionally, it aims to elevate the dignity of People with disabilities to be equal to that of the general population.

Since the year 1991, Thailand has enacted laws regarding the vocational rehabilitation of people with disabilities (Department of Empowerment of People with disabilities, 2534), leading to both government and private sector agencies coordinating efforts to rehabilitate people with disabilities for employment. Vocational rehabilitation comes in the form of training in institutions and community-based rehabilitation. The goal is to enable people with disabilities to assist themselves and their families without being dependent on others.

Currently, both public and private sector agencies provide vocational training for people with disabilities, can be categorized into two types:

1.Training in Vocational Training Institutions: This involves vocational training to enhance knowledge and skills suitable for people with disabilities It can take place in schools or vocational training institutions in collaboration with the general public and specialized vocational training institutions for people with disabilities, both in the public and private sectors.

2.Community-Based Vocational Training: This form of assistance for people with disabilities focuses on community-based rehabilitation, aiming to help, develop, and rehabilitate various aspects of life within the community. The vocational rehabilitation of people with disabilities emphasizes alignment with the community's suitability.

Moreover, there are skill enhancement services in various professions provided by the Labor Skill Development Center and the Department of Skill Development. These services offer vocational training for people with disabilities as part of inclusive learning alongside the general population, aiming to enhance knowledge and skills in various professions without any cost. There are a total of 8 institutions nationwide providing these services, located in various provinces.

Additionally, there are job placements for people with disabilities, which involve matching job opportunities for people with disabilities who have undergone vocational rehabilitation and those who are capable of working in positions suitable for their disabilities.

In this project, an analysis will be conducted on the promotion of employment to design data collection methods, both quantitatively and qualitatively, to assess whether people with disabilities currently receive appropriate employment promotion, the obstacles they face, and whether there is a need for further promotion. This analysis will lead to the development of strategies to increase employment opportunities for people with disabilities in the future.

2.4.3 Job Quality and Job Retention

To comprehensively evaluate the situation on employment of people with disabilities, measuring only employment rates and support systems is not sufficient. The study should include understanding factors that indicate the quality of work done by PWDs, in terms of both income and qualitative conditions. As such, this section includes backgrounds on the discussion of job quality and job retention, which typically indicates the quality of job held by PWDs.

Regarding job quality, several scholars have defined it differently. For instance, Davis defines job quality as the quality of the relationship between workers and **the overall work environment**. Merton (1977, cited in Chaiyann, 2001) adds an ethical dimension to the definition of job quality, stating that it encompasses all aspects of ethics in work and the work environment. Marcel and Dupuis (2006, cited in Royuela et al., 2007) summarize job quality

as emphasizing the importance of work roles for **employers, employees, and the work environment**.

Regarding the characteristics of job quality, several scholars have proposed concepts related to the quality of life at work. For example, Walton (1973) proposed eight key characteristics of job quality:

1. **Adequate and Fair Compensation**: Workers should receive adequate and fair compensation, including wages, salaries, and other benefits, comparable to other jobs or organizations.

2. **Safe and Healthy Environment**: The work environment should be physically and psychologically safe, comfortable, and not endanger health.

3. **Development of Human Capacities**: Jobs should provide opportunities for workers to develop genuine skills and knowledge and have opportunities for meaningful work.

4. **Growth and Security**: Jobs should not only enhance knowledge and skills but also provide opportunities for advancement and career stability, accepted by colleagues and family members.

5. **Social Integration**: Jobs should promote opportunities for workers to build relationships with others, **including** equal opportunities for advancement based on moral standards.

6. **Constitutionalism**: Organizational lifestyles and cultures should promote respect for individual rights, **fairness** in rewards and recognition, and freedom of expression, with governance by law.

7. **The Total Life Space**: Jobs should provide opportunities for workers to use both work and personal life in a balanced manner, avoiding excessive pressure from work.

8. **Social Relevance**: Organizations should feel responsible for various aspects of society, including production outcomes, waste management, environmental preservation, hiring practices, and marketing techniques.

These characteristics of job quality can contribute to the happiness and job retention of people with disabilities, ensuring their continuous and sustainable employment.

Kossen (1991, cited in Naparatdangklang, 2007) stated that processes supporting the quality of life of workers include: 1.) increasing job value, 2.) providing duties and responsibilities, 3.) offering opportunities for creativity, 4.) job rotation, 5.) transitioning from boring to preferred tasks, 6.) giving praise and recognition, 7.) providing good compensation, 8.) instilling a sense of responsibility towards work, 9.) providing childcare facilities for employees with childcare responsibilities during working hours, and 10.) having health promotion programs.

In summary, job quality refers to the state of well-being of employees, encompassing physical, mental, and social aspects, including safety, rights, and freedoms, which affect work performance and motivate continued employment.

Job Retention (Turner, 1972) denotes the tenure of an individual's employment within a specific position or organization, characterized by sustained commitment and engagement. It encompasses the organizational strategies and practices aimed at fostering employee satisfaction and loyalty, thereby reducing turnover rates and associated costs. This concept is subject to varied interpretations among scholars, encompassing factors such as organizational culture, compensation structures, and employee engagement initiatives.

The retention of employees is **propelled by multifaceted determinants**, necessitating alignment with organizational ethos, remuneration frameworks, and mechanisms for fostering employee commitment. It entails creating an environment conducive to prolonged employee tenure, particularly amidst competitive landscapes. Employee retention entails gauging the longevity of employees' association with the organization, reflecting their enduring presence within the workforce.

Furthermore, employee retention encapsulates the cultivation of a work culture conducive to fostering sustained employee engagement and allegiance, leading to prolonged organizational affiliation. It transcends mere efforts to curtail turnover rates for cost reduction

purposes and underscores the significance of retaining personnel capable of prolonged organizational tenure.

In essence, employee retention connotes the formulation and implementation of strategies and methodologies by organizations to facilitate sustained employee tenure amidst evolving competitive dynamics. These organizational interventions must engender positive attitudes, beliefs, and intentions among employees towards the organization.

To summarize, Job Retention pertains to the duration of an individual's uninterrupted employment within a specific role or organization, reflecting their perceived job suitability, enthusiastic engagement, and intention to sustain employment. Within academic discourse, this concept necessitates nuanced understanding and consideration of organizational dynamics, employee motivations, and strategic interventions aimed at fostering prolonged employee tenure.

This project borrows the concept of job quality and job retention from sources reviewed above and develops a survey form to investigate the relationship between various factors and determinants and job quality, as well as job retention indicators. Section 2.6 below provides an overview of relevant factors selected for the study of this project.

2.5 Other Relevant Research Works

The Research and Consultancy Institute of Thammasat University (2019) conducted a study on "Guidelines for Developing Employment Systems and Promoting Employment for people with disabilities in Thailand." **The study revealed that people with disabilities can pursue diverse occupations.** Therefore, it is crucial **to develop professions and skills tailored to the types of disabilities and aligned with the needs of people with disabilities**. This involves creating avenues for skill development, as well as refining and enhancing vocational training programs to remain contemporary and responsive to market demands.

Gandha Silacharoen (2002) conducted a study titled "Satisfaction with Disability Pension Benefits: A Case Study in Bangkok." The study found that the Rehabilitation of people with disabilities Act of 1991 aimed to rehabilitate people with disabilities by providing

vocational training to enable them to have job opportunities or sustain their lives in an inclusive society. From this research, it was found that those without occupations and incomes tended to seek more assistance from the government than those who were employed. Currently, policies aim to promote employment opportunities for people with disabilities to showcase their potential and develop themselves within business establishments. **Some employers are increasingly recognizing the capabilities of People with disabilities, who often exhibit resilience in the face of challenges**. In 2002, the government emphasized the importance of people with disabilities by designating it as the National Disability Employment Promotion Year. However, people with disabilities who lack employment opportunities due to their disability or other factors still rely solely on government assistance, such as disability pensions. **While this service targets the correct demographic, it may lead to dependency without encouraging self-help**. Therefore, further studies may contribute to better problem-solving and management strategies.

Kitipong Sutthi (2003) studied the "Promotion of Employment for people with disabilities according to the Rehabilitation of people with disabilities Act B.E. 2534 (1991)." The research found that **self-employment is one option that helps people with disabilities find work**, such as selling lottery tickets or goods. However, challenges faced by people with disabilities include lack of capital, knowledge, expertise, and skills in managing and decision-making to address problems.

Suwimon Wimolkanjanar (1998) conducted a study on "Monitoring the Results of Occupational Benefits under the Rehabilitation of people with disabilities Act B.E. 2534 (1991)." The study identified economic problems as a significant issue for people with disabilities, such as inadequate income, lack of investment capital, and limited loan amounts, which hinder investment opportunities. **Social issues included societal reluctance to accept people with disabilities**, as well as difficulties faced by disability service providers and employers.

Overall, these studies underscore the importance of promoting employment opportunities for people with disabilities, addressing societal attitudes, and providing necessary support and resources for their economic and social integration. This study also

collects relevant data, both quantitative and qualitative, on PWDs' work experiences and preferences, self-employment experiences, and issues facing PWDs in their work environments.

2.6 Research Hypotheses and Key Variables

Based on the background and research objectives stated in Chapter 1 and the literature reviewed above, we can conclude an overall research question as follows: how do internal and external factors affect job quality and job retention of PWDs? This research question may be divided into two parts:

1) How do internal factors affect job quality and job retention of PWDs?

2) How do external factors affect job quality and job retention of PWDs?

An **"internal factor"** is defined as factors that characterize the PWDs themselves, and cannot be changed or controlled by policy directly, such as gender, age range, types of disability, education level, major of study, job finding periods after graduation, and whether they require caregivers. Knowing internal factors is useful for policymaking, nonetheless, because it creates insights into different groups of people with disability that might be facing different context in their working conditions and environments.

An **"external factor"** is defined as factors that come from the nature of job finding activities or working environments surrounding the PWDs, mostly provided by the employers or the government. Hence, they are more easily controlled by policy changes. These factors are potential venues for policy changes for PWDs. Examples are such as job search channels used by PWDs, job finding assistance, assistance from DSS, job-education correspondence, and perception on the training requirements provided by employers.

Internal Factors	External Factors
▪ Age Range	▪ Job Search Channel
▪ Gender	▪ Job Finding Assistance
▪ Type of Disability	▪ Assistance from DSS
▪ Education Level	▪ Job-Education Correspondence

Major of Study	
▪ Job Finding Period after Graduation	
▪ Caregiver Requirement	

Table 2.1 Internal Factors and External Factors

Table 2.1 above shows relevant internal and external factors in this study. Moreover, the project is also interested in the relationship between job quality and job retention. Hence, we add the third research question as follows:

3) Does job quality in turn affect job retention of PWDs?

Job quality variables are those indicating the quality of the job taken by PWDs, such as whether they are satisfied with their compensation and accommodation, whether they face challenges or obstacles/discrimination while working, and on the job training. **Job retention** indicates how long they have worked in the same job.

Job Quality	Job Retention
▪ Compensation Satisfaction	▪ Current Job Duration
▪ Accommodation at work,	▪ Previous Job Duration
▪ Challenges/Obstacles at work because of disability	▪ Average job turnover (months per job change)
▪ On the Job Training provided by Employers	
▪ Discrimination	
▪ Job Satisfaction	

Table 2.2 Job Quality and Job Retention

Table 2.3 below summarizes three research questions of interest and relevant independent and dependent variables. The first research question is to answer which internal factors matter for job quality and job retentions. The details of each relationship will be further explained in the next chapter.

Research Questions	Research Hypotheses	Independent Variables	Dependent Variables
(1) How do internal factors affect job quality and job retention of PWDs?	Internal factors affect job quality and job retention of PWDs.	Internal Factors: ▪ Age Range ▪ Gender ▪ Type of Disability ▪ Education Level ▪ Major of Study ▪ Job Finding Period after Graduation ▪ Caregiver Requirement	▪ Job Quality (Compensation, Accommodation, Challenges/Obstacles because of disability, On the Job Training, Discrimination, Job Satisfaction) ▪ Job Retention (Current Job Duration, Previous Job Duration, Average Job Turnover)
(2) How do external factors affect job quality and job retention of PWDs	External factors affect job quality and job retention of PWDs.	External Factors: ▪ Job Search Channel ▪ Job Finding Assistance ▪ Assistance from DSS ▪ Job-Education Correspondence	▪ Job Quality (Compensation, Accommodation, Challenges/Obstacles because of disability, On the Job Training, Discrimination, and Job Satisfaction) ▪ Job Retention (Current Job Duration, Previous Job Duration, Average job turnover)

(3) How do job quality in turn affect job retention of PWDs?	Job quality affects job retention of PWDs.	▪ Job Quality (Compensation, Accommodation, Challenges/Obstacles, On the Job Training, and Discrimination, Job Satisfaction)	▪ Job Retention (Current Job Duration, Previous Job Duration, Average job turnover)

Table 2.3 Summary of Research Questions of Relevant Independent and Dependent

Variables

Source: Researcher (2022)

Chapter 3

Research Methodology

This chapter provides overviews of the research methodology of this study. The main method employed is a mixed method, which is a combination of quantitative data analysis and qualitative data analysis. The main purpose of the quantitative data analysis is to provide a bird's eyes view of the context relating to employment situations of PWDs in Thailand. The purpose of the qualitative data analysis is to provide a confirmation and/or refutation, and explanation of the quantitative results.

The organization of this chapter is as follows. First, Section 3.1 provides a research framework that builds on the research questions and hypotheses provided in Chapter 2 previously. Section 3.2 explains the requirement and process of ethical reviews. Next, Section 3.3 explains the data collection plan. Section 3.4 covers the quantitative data analysis and Section 3.5 covers the qualitative data analysis, including interview guideline development and focus group discussion employed in this study.

3.1 Research Framework

Building on the research questions and hypotheses provided in Chapter 2 previously, this section explains the research framework developed for this project. Figure 3.1 below shows the hypothesized relationship framework between internal factors, external factors, job quality, and job retention:
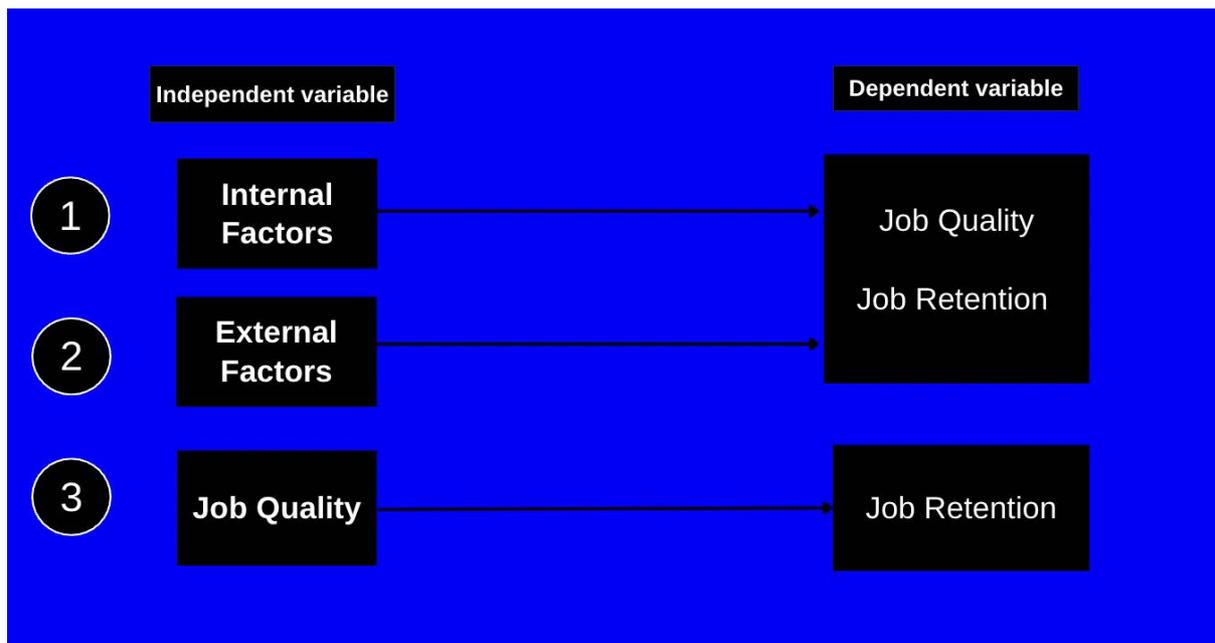
Figure 3.1 Hypothesized Relationship Framework

The first relationship corresponds to the first research question: which internal factors affect job quality and job retention of PWDs. The second relationship corresponds to the second research question: which external factors affect job quality and job retention of PWDs. Lastly, the third relationship corresponds to the third research question: whether job quality affects job retention of PWDs.
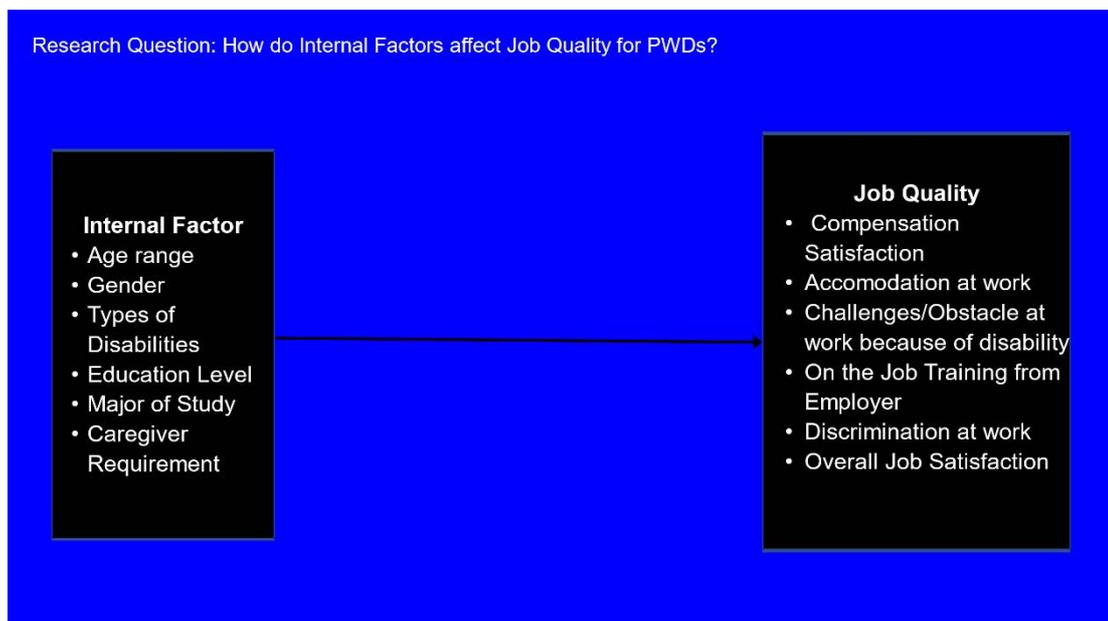
Figure 3.2 Internal Factors to Job Quality

Figure 3.2 above shows the details of internal factors and job quality factors. In particular, the test looks at: **age range, gender, types of disability, education level, major of study, job finding period after graduation, and caregiver requirement** as potential factors affecting job quality and job retention. For example, we hypothesize that PWDs from different age ranges might experience different levels of job quality and job retention, due to the duration of their working periods. Gender might also be an important factor, just as shown in general work experience. People with different types of disability may also have different working experiences. Education level and major of study potentially indicate different nature of job PWDs are looking for and hence different working experiences. Caregiver requirement is an important proxy for the severity of disability of each PWD. This is important because in Thailand, the PWD card does not indicate the level of severity for each type of disability.

Job quality contains a set of variables: **compensation satisfaction, accommodation at work, challenges/obstacles faced at work because of disability, on the job training provided by employer, discrimination at work, and overall job satisfaction**. Together, we hypothesize that these variables indicate the job quality of PWDs and could be affected by internal factors mentioned earlier.
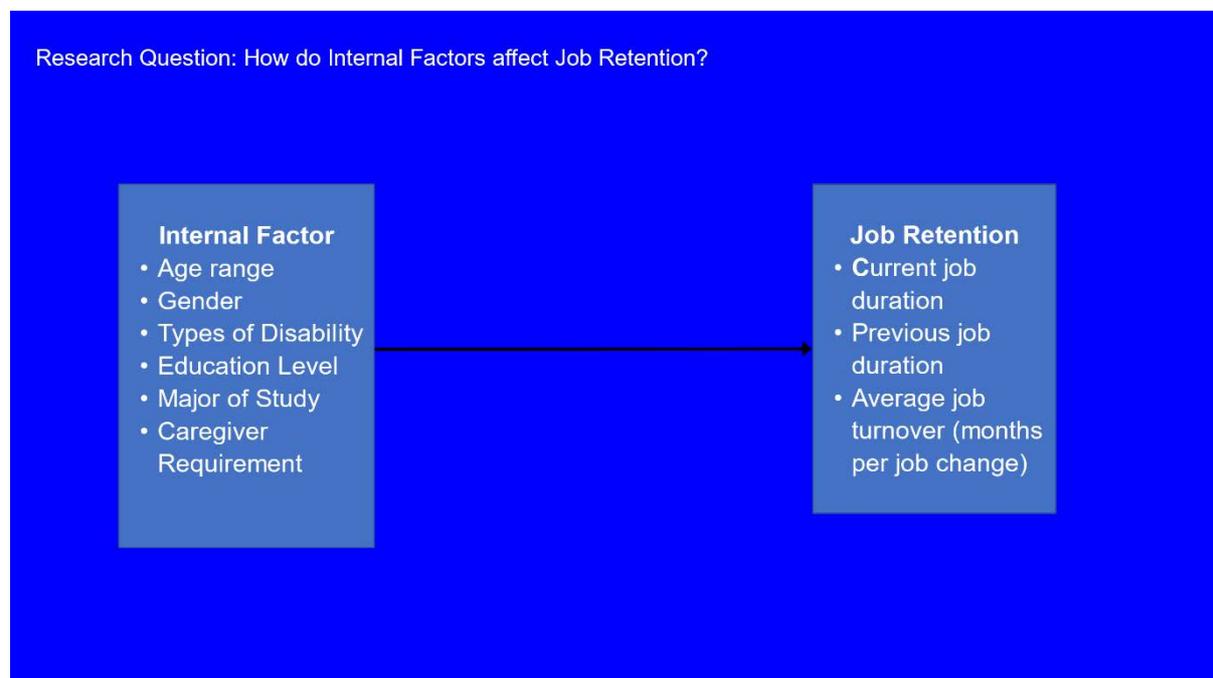
Figure 3.3 Internal Factors to Job Retention

Figure 3.3 above again shows the potential relationship between internal factors and job retention. Job Retention is a set of variables that indicate the ability to stay in one job by the PWDs, namely **previous job duration and current job duration**. Naturally different age ranges would have different job duration, simply because of the time they have worked so far. Gender might affect the job duration. We do not expect types of disability to affect the rate of job retention. However, if it is indeed the case, it would be important to know why. education level and major of study could potentially affect job retention rate as well. Caregiver requirement, which is a proxy for the severity of disability, could certainly impact job retention.

Next, the project looks at how external factors affect job quality and job retention of PWDs. Recall that external factors refer to variables that indicate the nature of PWDs' working environments and surroundings. These factors should be more directly controlled by policymaking. Examples of external factors are job search channel utilized by PWDs, job search assistance, Figure 3.4 below show the potential relationship between external factors and job quality. Crucially, at the heart of this project is to understand the role of DSS. How DSS has an impact on job quality of PWDs. The Require training and development from employer acts as a control variable for external factors. This variable is useful because we can understand the different level of expectations coming from PWDs towards their employers, and on the level of job quality they think they have.
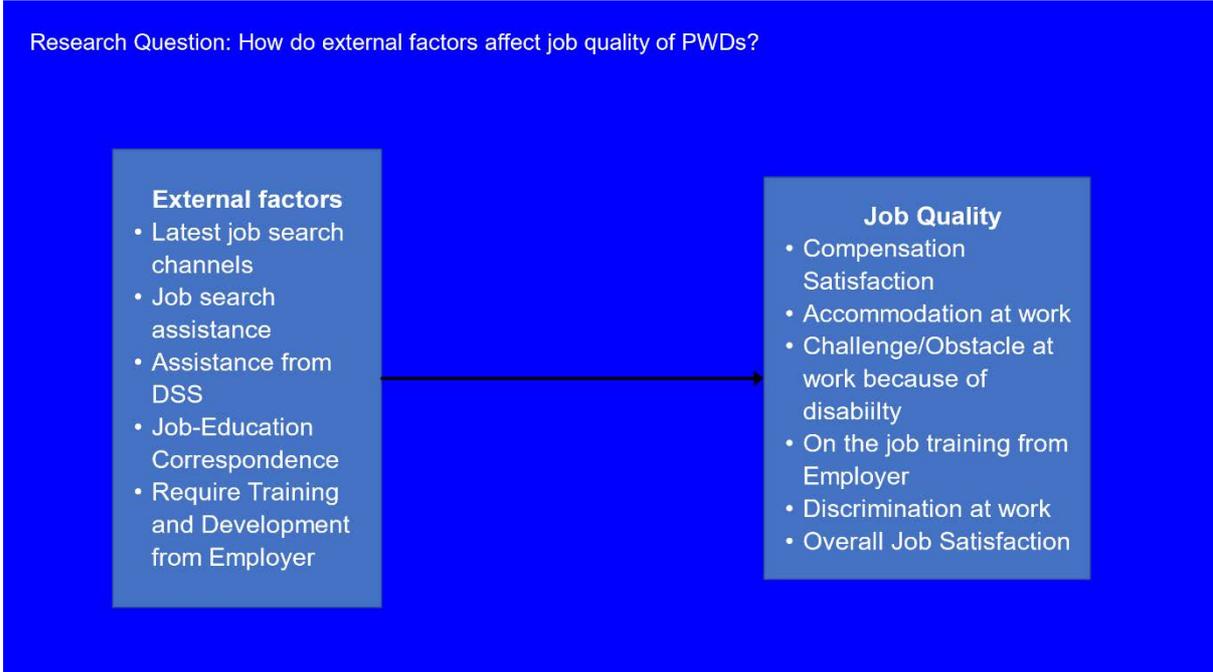
Figure 3.4 External Factors to Job Quality

Figure 3.5 below then shows the potential relationship between external factors and job retention. Similar to internal factors, the external factors could also affect how long PWDs choose to remain at the same job. In particular, job-education correspondence could be an important factor in maintaining the same job over time.
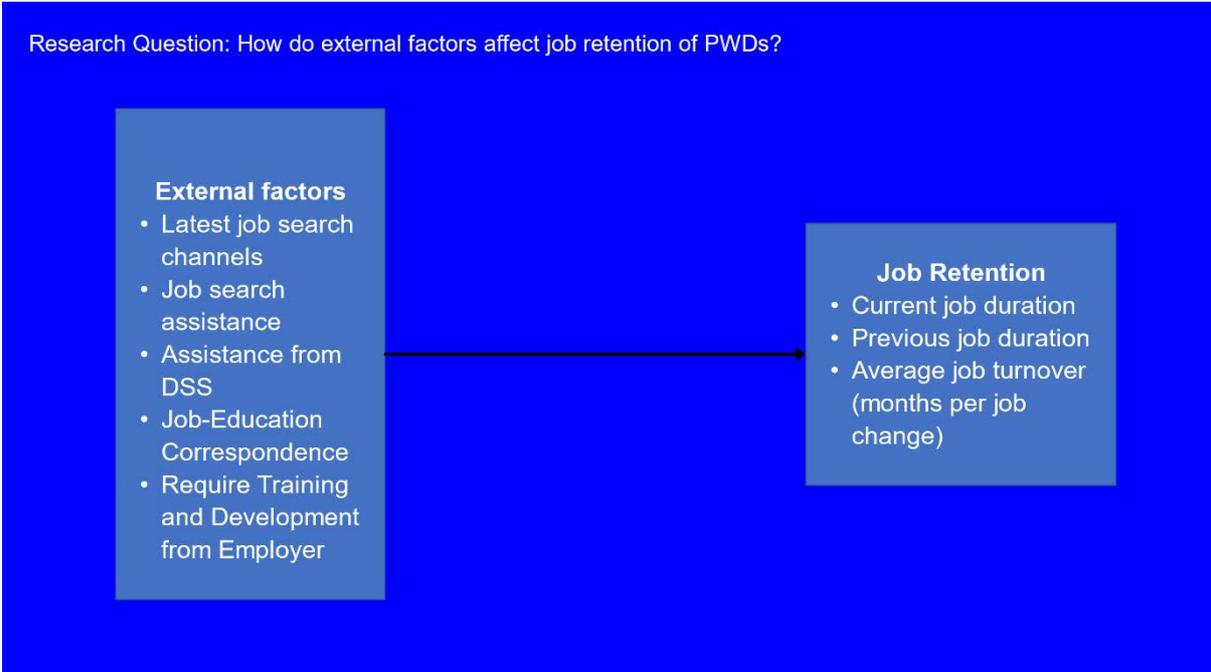
Figure 3.5 External Factors to Job Retention

Lastly, the project also investigates the relationship between job quality and job retention of PWDs. Figure 3.6 below shows the potential relationship between job quality and job retention. One would expect that higher job quality would lead to better job retention. However, studying the statistical relationship between the two will shed light on exactly which aspects of job quality matter for job retention.
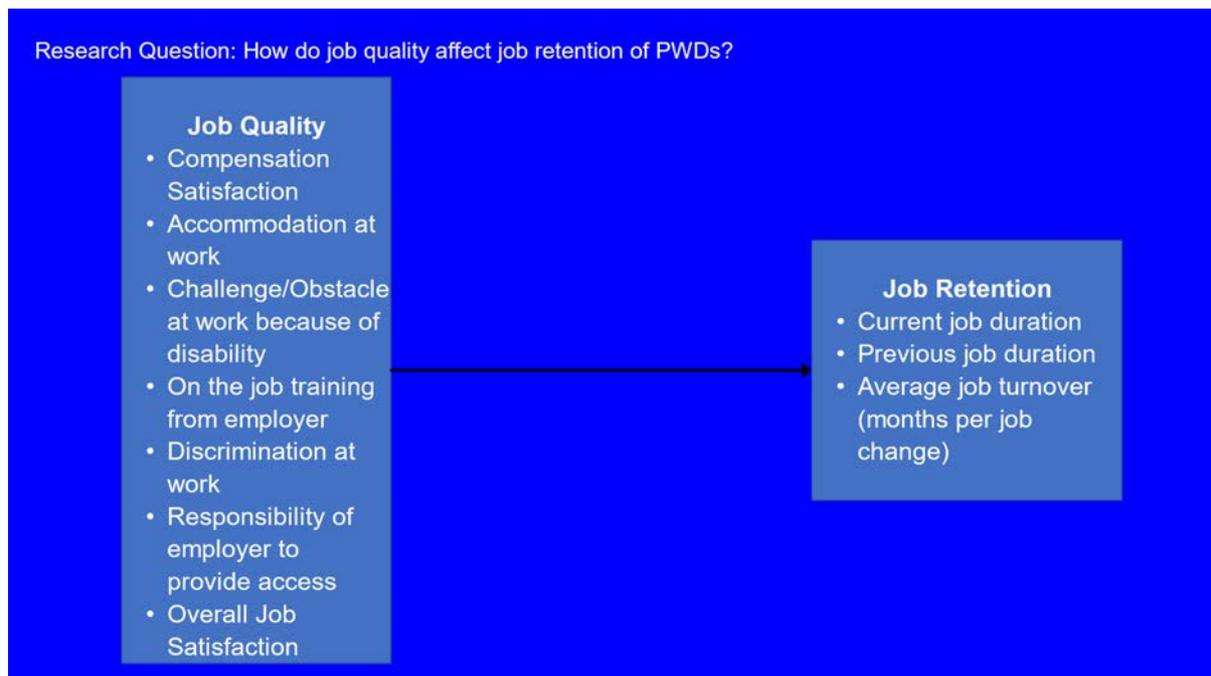
Figure 3.6 Job Quality to Job Retention

These research questions are primarily investigated by using the survey data and hence quantitative methods. We use two statistical tests: **ANOVA analysis and Crosstab analysis**, depending on the nature of the variables. The differences between ANOVA and Crosstab will be explained subsequently in Section 3.3 in this chapter. However, to complement the quantitative analysis, focus groups interviews of 6 different groups will also be conducted. In particular, the focus group investigated the connectivity between the quantitative data and qualitative data and summarized the findings from every group. The details of focus groups will be further explained in Section 3.5 below.

3.2 Ethical review with the IRB committees

Ethical reviews are paramount prior to data collection. Research participants are integral to the research process. Ethical reviews serve to protect both participants and researchers alike. Ethical approval will adhere to the ethical standards accepted in actual research studies. Typically, ethical reviews take approximately two months to complete. The draft research proposal has been submitted to the Ethical Review Committee of the Faculty of Sociology and Anthropology, Thammasat University, for ethical review. This submission was made on June 8, 2023, for ethical reviews of this research project in the fourth week of June.

Following the submission of research project documentation for ethical review of human research in June 2023, the research team received approval to conduct research involving the utilization of research tools on August 24, 2023. The approval period extended from August 24, 2023, to August 24, 2024.

3.3 Survey data collection

The research team will collect data through a survey using questionnaires that the ethical review committee has already approved. According to the recommendation of Krejcie and Morgan (1970), if the population is unknown or exceeds 100,000 people, data should be collected from a sample size of 384 respondents. However, based on the research team's experience, it was found that some respondents' responses to the questionnaire were not comprehensive enough for analysis. Therefore, it was recommended to increase the sample size by 10% to a total of 423 respondents. Additionally, interviews were conducted to gather specific data targeting people with disabilities for subsequent qualitative analysis. The data collection process in this project is done through stratified sampling, based on the national demographic of all types of disability. Three sources of survey respondents are: 1) Non-Governmental Organizations (NGOs), 2) private companies, and 3) Disability Support Services (DSSs), which are organizations that assist people with disabilities in universities. The research aims to examine factors that may influence the employment rate and career pathways of People with disabilities.

The research team will proceed with the selection of research participants providing quantitative data based on five criteria: (1) People with disabilities of all types, (2) individuals obtained Vocational certificate, or Bachelor and/or Master degree, and currently employed (3) participants aged 18 and above but not exceeding 45 years, (4) individuals consenting to participate in the research, and (5) individuals holding disability cards. The types of disabilities targeted for data collection encompass eight categories: (1) visual impairments, (2) hearing impairments or communication disorders, (3) physical impairments, (4) mental impairments, (5) intellectual disabilities, (6) learning disabilities, (7) autistic spectrum disorders. And (8) multiple disability. The number of participants in each category can be adjusted based on the availability of volunteers meeting the selection criteria. Volunteers' willingness to be interviewed and their age range, between 18 and 45 years old, will also be considered, and, in the context of people with hearing impairments participating in survey collection, sign language interpreters are utilized to facilitate communication. Additionally, repeated questioning is employed to confirm the accuracy of information. Subsequently, the target population for the research is stratified into meaningful and mutually exclusive categories according to specified factors. The researchers select the analysis of disability types as a primary factor. Finally, People with disabilities who are employed are randomly selected based on the size of the aforementioned sample groups, with the ability to separate the number of individuals with each type of disability to be surveyed according to the proportion of the total number of People with disabilities shown in Table 3.1 below.

No.	Type of Disability	Number of People with Disability Population (people)	Number of People with Disability Population to be collected (people)
1	Visual impairment	185,000	36
2	Hearing or meaning Impairment	398,000	78
3	Physical or mobility impairment	1,080,000	214
3	Mental or behavioral disability	166,000	32
4	Intellectual disability	145,000	28
5	Learning disability	14,502	2
6	Autism	18,737	3
7	Multiple disabilities	153,000	30
	Total	2,160,239	423

Table 3.1 Number of People with Disability in Thailand

Source: Ministry of Social Development and Human Security (Thailand) (2022)

In this research project, data collection will be conducted through questionnaire surveys. A draft of questionnaires is attached in Appendix A, along with other related documents, such as the Index of Item-Objective Congruence (IOC) review for the questionnaire survey. The IOC was conducted to evaluate the correspondence of the research objects and the survey. For the outline of IOC review, see Appendix J. Respondents will answer the questionnaire with the assistance of facilitators who possess knowledge and understanding of disabilities in each respective category. In cases where respondents are unable to provide data independently, facilitators will assist them. Data collection through questionnaire surveys will be facilitated via telephone, Zoom, and face-to-face interviews. Data collectors will guide respondents to select predefined responses or allow them to answer the questionnaire

independently. Additionally, the research team will employ qualitative data collection methods through interviews for in-depth analysis.

3.4 Quantitative data analysis and interview guideline development

The research team will analyze data obtained from a sample group of 423 respondents using descriptive statistics, one-way ANOVA, and cross-tabulation with chi-square tests. Data analysis can provide in-depth insights into the needs of the population and offer essential information for developing transitional strategies towards employment. Additionally, the research team will continue to utilize analytical data to develop interview guidelines to confirm the analysis findings in group discussions. Data will be collected through a survey using a questionnaire approved by the ethics committee. The researchers will collect data following the guidelines of Krejcie and Morgan (1970), who developed a widely used formula to determine the necessary sample size for studies when the population size is limited. The equation referred to generally as the "Population Sample Equation of Krejcie and Morgan (1970)." This equation is utilized to determine the sample size necessary to achieve the desired level of accuracy or confidence in the results, considering the population size and the desired level of precision. The formula is as follows:

$$n = \frac{X^2 N p(1-p)}{e^2(N-1) + X^2 p(1-p)}$$

Where:

n = Sample size refers to the number of sub-populations that need to be studied for analysis.

N = Population size refers to the total number of populations we want to study.

e = Acceptable sampling error refers to the maximum error we can accept in sampling.

χ^2 = Chi-square value at df = 1 and 95% confidence level refer to the chi-square value corresponding to 95% confidence level. Generally, a value of 3.841 is used.

p = Proportion of the characteristic of interest in the population refers to the expected proportion to be found in the population. In general, a value of 0.5 is used when the true proportion is unknown.

Researchers can utilize this formula to calculate the necessary sample size to achieve the desired level of accuracy in their study. This aids in determining a sufficiently representative sample that can generalize findings to the entire population. However, if the population size is unknown or exceeds 100,000 people, data can be collected from a sample size of 384 respondents. Nonetheless, based on researchers' experience in data collection, it has been observed that some volunteers may not respond adequately to questionnaires for analysis. Therefore, it is recommended to increase the sample size by an additional 10% of the original sample size of 384 respondents, totaling 423 respondents. Next, we mainly use two statistical tests: ANOVA analysis and Crosstab analysis, depending on the types of variables. The differences between ANOVA and Crosstab will be explained as follows:

ANOVA analysis

In statistical analysis (Lyman Ott R. and Micheal T, 2010), one commonly used method is Analysis of Variance (ANOVA), which compares standard deviations, variances, or variations, typically applied to data with two or more groups, such as age, occupation, salary, or position. It starts with testing for differences in means. If there are differences in means, the next step is Multiple Comparison, where the independent variables are grouped, such as teaching methods or age, while the dependent variables are quantitative, such as academic performance or organizational commitment.

In this project, we will apply One-way ANOVA Analysis to study the correlation between internal and external factors with job quality and job retention. The One-way ANOVA format will be utilized, assuming relationships between internal and external factors with job quality and job retention as the primary variables.

Additionally, the research team will apply a "post hoc analysis t-test" (Andy Field, 2000). This type of statistical analysis is designed to be conducted after data collection

because ANOVA's hypothesis testing is an overall test that assesses whether the means of multiple groups are equal or different. As a result, ANOVA alone cannot determine which specific pairs of means are significantly different from each other. Post hoc analysis becomes necessary when the ANOVA test results indicate significance, suggesting that there are notable differences among the means of the groups being compared.

The goal of post hoc analysis is to identify which pairs of sample means exhibit significant differences. This analysis can shed light on relationships such as the correlation between age and types of occupations. Specifically, within different age groups, post hoc analysis can reveal which age ranges are associated with specific types of occupations.

For the post hoc analysis in this project, Fisher's LSD (Least Significant Difference) method is utilized (Andy Filed, 2000). This approach helps control the increased error that can arise from making multiple pairwise comparisons of means. It's important to note that post hoc analysis is carried out only after the ANOVA test shows statistical significance. This sequential approach ensures a higher level of accuracy compared to other methods.

Crosstab Chi-square Test

Chi-square (Hubert Gaignon, 2013) tests the sum of squared deviations between observed and expected frequencies, or it tests the distribution of data, commonly used with discontinuous data, which can be classified into two dimensions:

One-Dimensional Classification Data, like student names and English scores, or dates and service users, or TV brands and customer counts. An example hypothesis test could be whether students have an average English exam score of 15 with a standard deviation of 2 or not, at a significance level of 0.05.

Two-Way Contingency Table, such as gender and interest in further study courses, income and occupation, or age and annual travel expenses. An example hypothesis test could be whether gender is unrelated to interest in further study courses, income is unrelated to occupation, or age is unrelated to travel expenses.

In this project, we will utilize Chi-square analysis in a Two-Way Contingency Table format for variables with binary responses, specifically addressing questions about receiving workplace amenities to understand the relationship between external and internal factors impacting the effectiveness of obtaining quality employment. This approach aims to enhance the efficiency of obtaining quality employment opportunities.

The research team will also apply the "Probability Distribution Table (Shaun Turney, 2023). The probability distribution table is a table with two rows (or columns), where the first row lists the possible values of the random variable, and the second row lists their corresponding probabilities.

Probability distribution tables play a crucial role in various statistical analyses. They enable researchers to assess the likelihood of specific outcomes. By looking at the probabilities in the table, you can determine how probable it is for certain values to occur. Additionally, these tables allow for the comparison of different probability distributions. By comparing the tables of two random variables, one can gain insights into how their probabilities are spread out.

3.5 Qualitative data analysis: Conducting focus-group interview

The research team will conduct interviews through group discussions, specifically targeting groups capable of providing crucial in-depth information for the development of transition guidelines towards work. These groups can also aid in verifying the results of survey data analysis. The sampled groups are significant for guideline development, with each group being interviewed once, totaling six sessions. The number of participants ranges from 18 to 42 people per group, with details for each group as follows:

1. Group of people with disabilities who have graduated with a bachelor's degree or from a higher vocational school and have received support from Disability Support Services (DSS).

2. Group of people with disabilities who have graduated with a bachelor's degree or from a higher vocational school and have not received support from Disability Support Services (DSS).

3. Group of employers.

4. Group of people with disabilities who have graduated with a bachelor's degree or from a higher vocational school and have no work experience.

5. Group of family members of people with disabilities.

6. Group of NGOs and independent organizations that support people with disabilities, such as the Disability Support Service (DSS), The Asia-Pacific Development Center on Disability (APCD), etc.

For each focus group discussion, a total duration of one and a half hour is allocated. The focus group discussion uses a video conferencing program like Zoom for conducting interviews to ensure convenience for the volunteers. Using the video conferencing program will maintain the same level of accuracy as conducting interviews in person.

After conducting subgroup interviews, the research team will utilize content analysis to analyze the data obtained from these subgroup discussions. This analysis will then be integrated with the quantitative data obtained from the participants, resulting in foundational data that can inform the development of guidelines for transitioning to a work environment. These guidelines will be utilized in practical workshops and future operational meetings for the leading university.

This chapter presents preliminary descriptive statistics of the survey data. The descriptive statistics are presented in five different sections and the information within the parentheses indicate the question number in the questionnaires (Appendix I). This chapter structures as follows. Section 4.1 provides general profiles of the respondents, including the sources from which this project collected the survey responses. Section 4.2 and Section 4.3 focus on descriptive statistics relating to job findings and working experiences, respectively. Section 4.4 reports the descriptive statistics of job retention and finally Section 4.5 on career advancement and job satisfaction. Section 4.6 briefly concludes the results.

4.1 General Profiles of Data

This section provides general data to understand the characteristics of the survey respondents before delving into further comprehension in subsequent sections. This data we have sourced from Disability Support Services (DSS), non-governmental organizations (NGO) and private companies. Details are provided in Table 4.1 below.

No.	Source of Contact	Quantity
1	Disability Support Services (DSSs)	114
2	Non-governmental Organizations (NGOs)	167
3	Private Companies	142
	Total	423

Table 4.1 Source of data we collected from

4.1.1 Age range and gender (1.2 and 1.3)
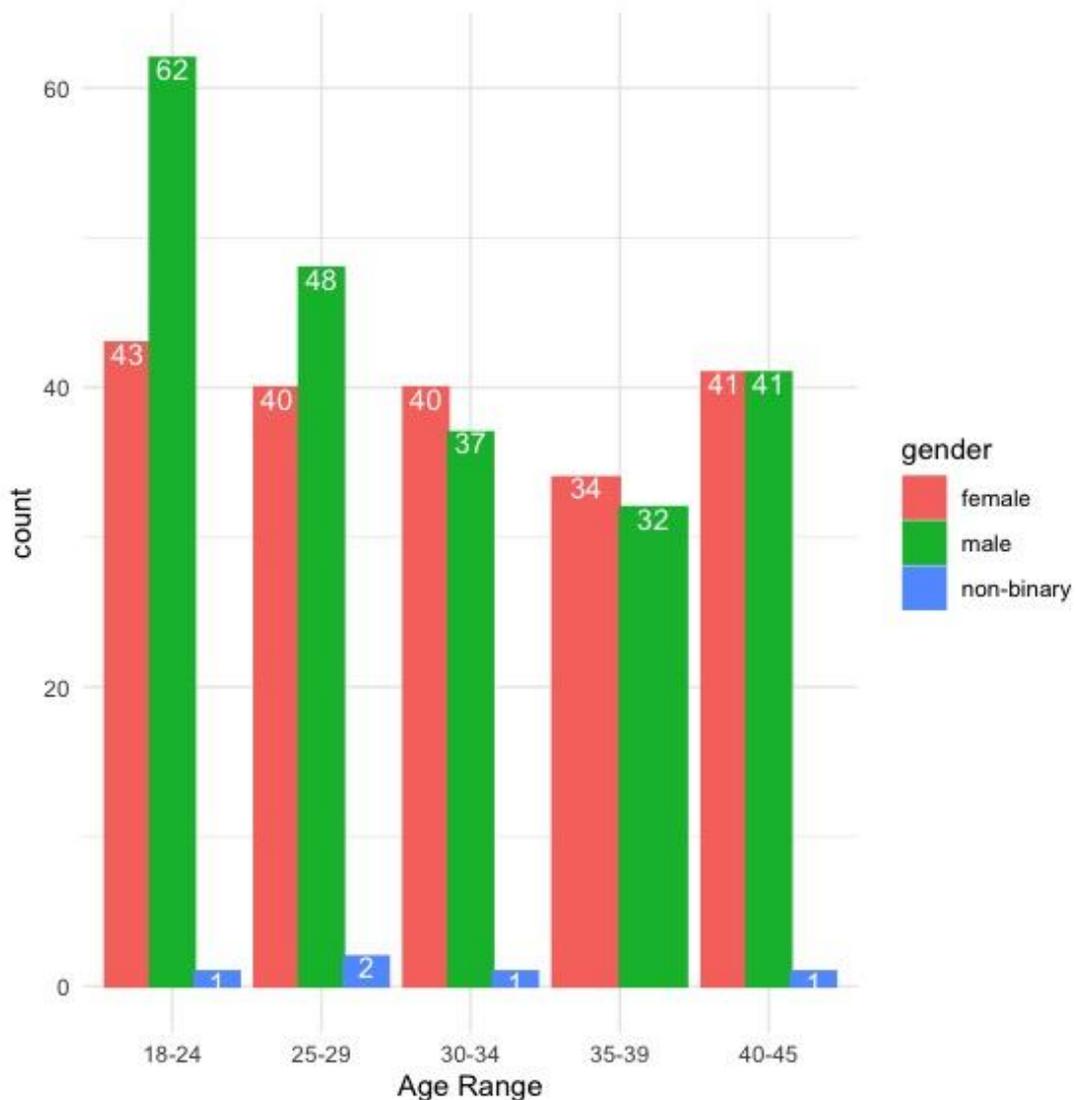
Figure 4.1 Age range and gender

Figure 4.1 presents a bar chart describing respondents categorized by age range and group by gender. It shows that the highest number of respondents is in the age range of 18-24 with a total of 106 respondents, while the age range of 35-39 has the fewest respondents, with a total of 66. Respondents in the age groups 18-24 and 25-29 have more males than females, while the age groups 30-34 and 35-39, where females outnumber males. Additionally, the age group 40-45 has an equal number of male and female respondents. This indicates that the age group 18-24, which is the main target groups of this research, comprises the

majority of respondents to the questionnaire, while the number of male and female respondents varies across different age groups.

4.1.2 Types of Disability (1.6)
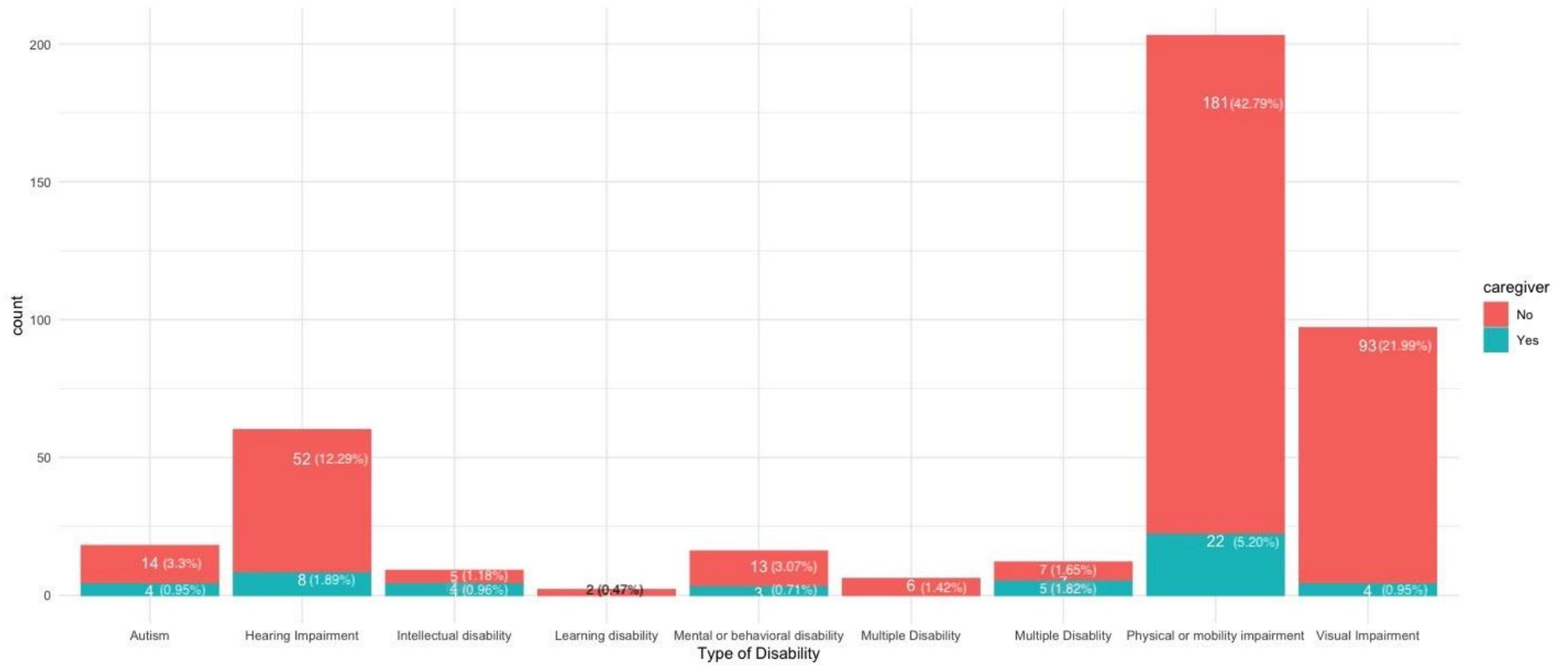
Figure 4.2 Type of Disability and Caregiver

Figure 4.2 presents a bar chart showing respondents based on different types of disability and grouped by whether they require caregivers. It shows that the highest number of respondents are physical or mobility impairments, with a total of 203 respondents, accounts for 48%, followed by those with visual impairment, with a total of 97 respondents, accounting for 23%, hearing impairment with a total of 60 respondents, accounting for 14%, followed by mental or behavioral disability, autism, and multiple disabilities. Intellectual disability has a total of 9 respondents, accounting for 2%, while Learning disability has the fewest participants, with a total of 2, also accounting for 2%. Across all types, respondents indicated being capable of taking care of themselves more than needing assistance from caregivers. The proportion of each type of disability, more or less, corresponds to the national demographic of all types of disability in Thailand. Moreover, the majority of respondents overall are capable of taking care of themselves, rather than requiring caregivers.

Figures 4.3 to 4.5 will provide detailed information about respondents with disabilities, categorized as visual impairment, physical or mobility impairment, and hearing impairment, respectively.
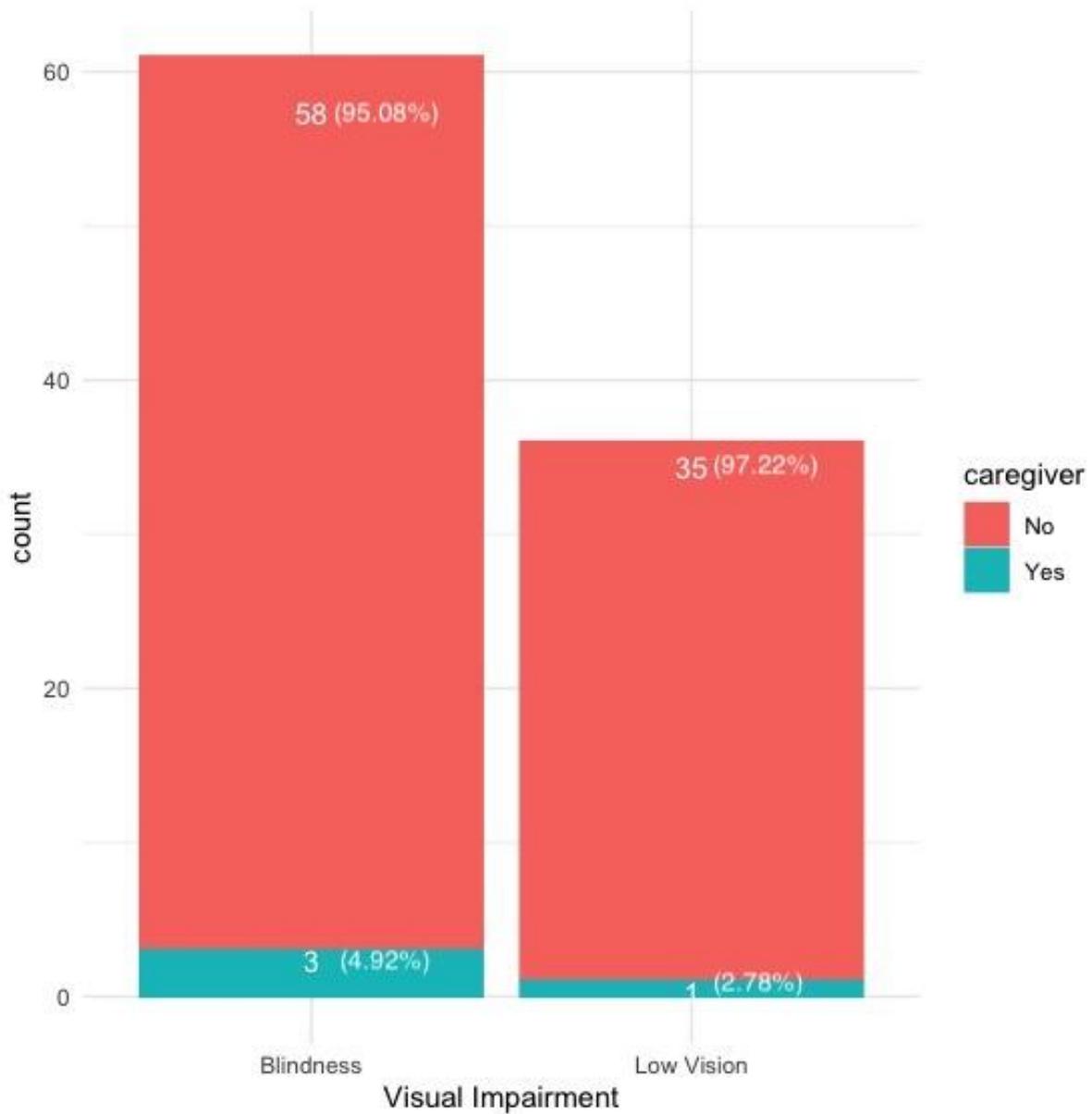
Figure 4.3 Visual Impairment and Caregiver

Figure 4.3 presents a bar chart of respondents with visual Impairment and grouped by whether they require caregivers. The data shows that respondents with blindness has the higher number of respondents, totaling 61 than respondents with low vision, which has 36 respondents. Both respondents indicated a higher capability of taking care of themselves than needing assistance.
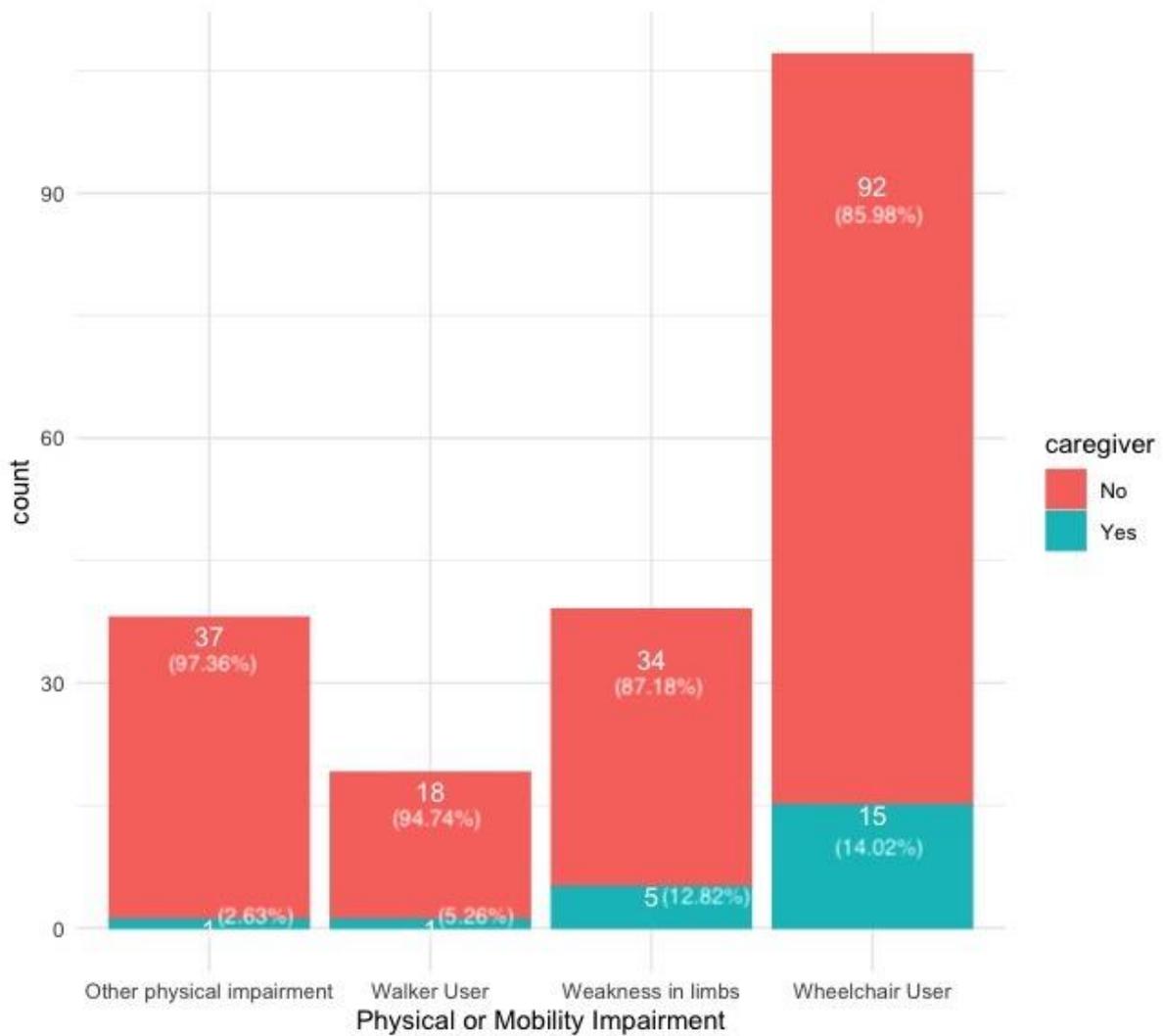
Figure 4.4 Physical or Mobility Impairment and Caregiver

Figure 4.4 presents a bar chart of respondents with physical or mobility Impairment and grouped by whether they require caregivers. The data shows that wheelchair users are the highest number of respondents among the group, totaling 107 respondents, while walker users are the fewest respondents, with a total of 19 respondents. There are more respondents who do not require caregivers than those who require one.
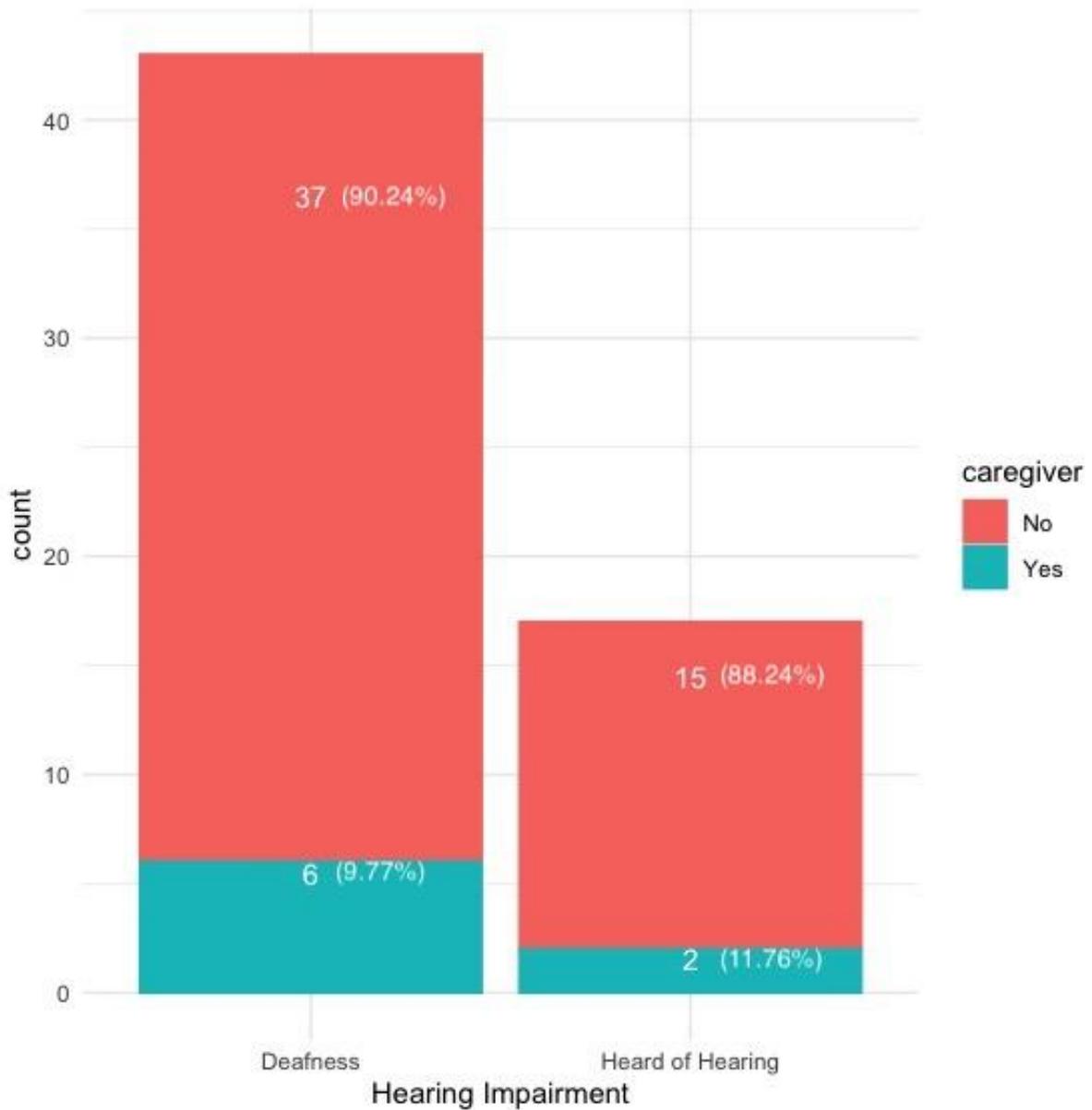
Figure 4.5 Hearing Impairment and Caregiver

Figure 4.5 presents a bar chart of respondents with hearing impairment and grouped by whether they require caregiver. The data shows that deafness has the highest number of respondents, totaling 43 responses, surpassing hard of hearing, which has 17 respondents. Across all categories, there are more respondents who are capable of taking care of themselves than needing assistance.

Hard of hearing

4.1.3 Education Level. (1.10)
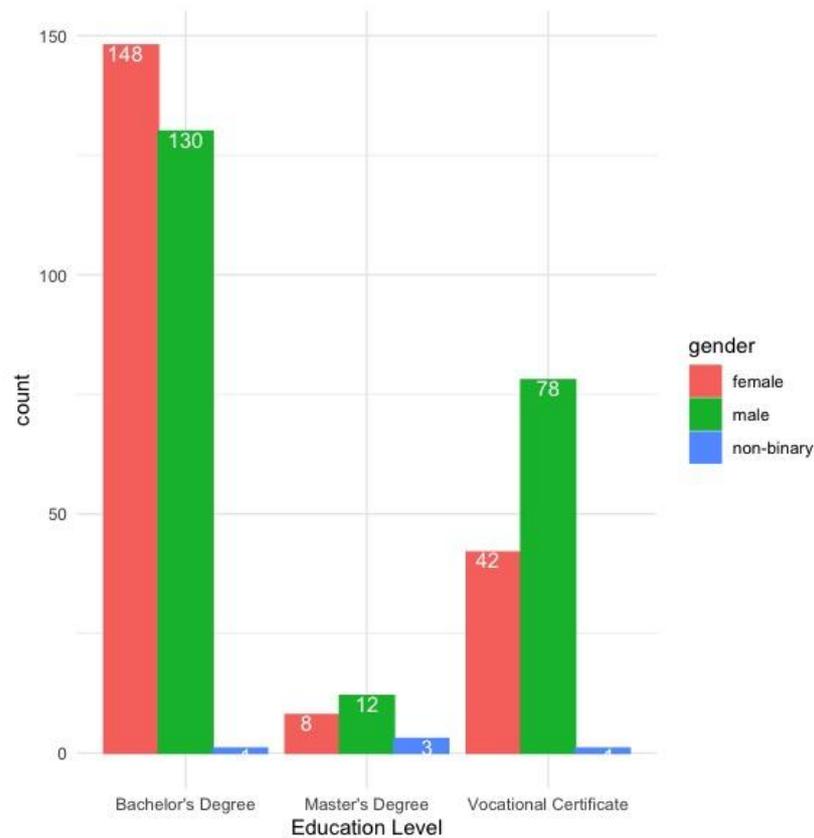
Figure 4.6 Education Level and Gender

Figure 4.6 presents a bar chart of respondents by their education level and grouped by gender. It reveals that the highest number of respondents have bachelor's Degrees, with a total of 279 respondents, while respondents with master's degree are the fewest with a total of 23. There are more females than males for bachelor's degree, but for vocational certificate and master's degree categories, males outnumber females. This indicates that the bachelor's degree level of education comprises the majority of respondents to the questionnaire and the number of male and female respondents varies across different education levels.
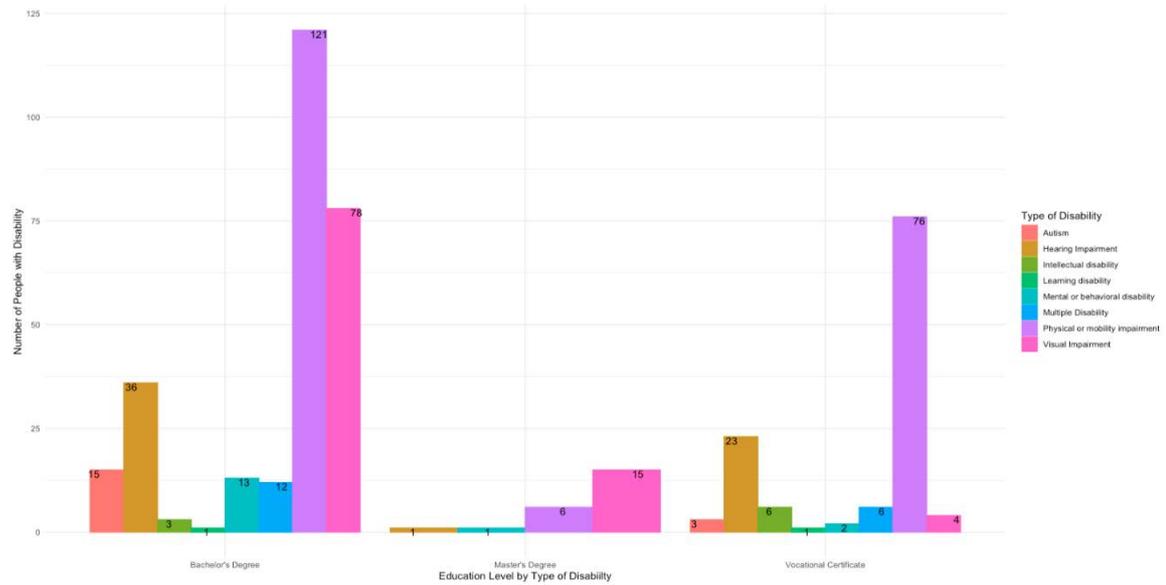
Figure 4.7 Education Level and Type of Disability

Figure 4.7 presents a bar chart of respondents categorized by education levels and grouped by types of disability. For all levels of education, there are more respondents with physical or mobility impairments, except for respondents with master's degree, which have more respondents with visual impairments.

In this section, we present the general profiles of respondents to provide an understanding of the background of the survey respondents. It was found that the majority of respondents are physical and mobility impairments, aged between 18 and 24 years old, mostly holding bachelor's Degrees, and do not require caregivers. The next section will discuss Job Findings data, which will shed light on the current situation and challenges faced by people with disabilities while seeking employment.

4.2. Job Findings

This section provides the current situation and challenges faced by people with disabilities in finding employment in various aspects, including job search channel, job search assistance, and whether they face any discrimination.

4.2.1 Job Finding Channel (2.1)

Figure 4.8 below presents a bar chart showing the latest job search channels used by respondents, and grouped by whether they face discrimination during the job application process. The majority of respondents rely on job referrals from friends or family, totaling 144 respondents. The second most popular channel is organizations for PWDs with 98 respondents, and followed by online job board with 74 respondents, respectively. The least utilized job channel was via social media, with only 1 respondent. In summary, the most popular job search channel for respondents to secure employment opportunities is through referrals from friends or family, followed by organizations for people with disability and online job boards, respectively. The bar chart also reports different proportions of respondents facing discrimination based on different job search channels.
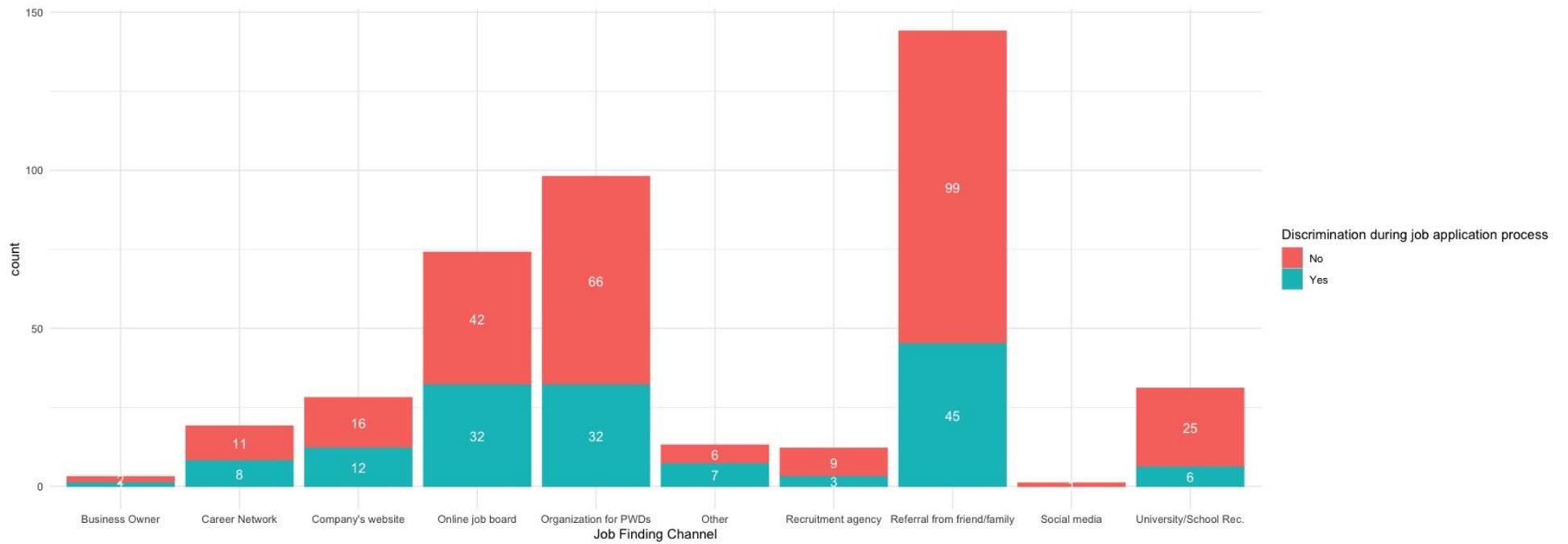
Figure 4.8 Job Finding Channel and Discrimination during job application process
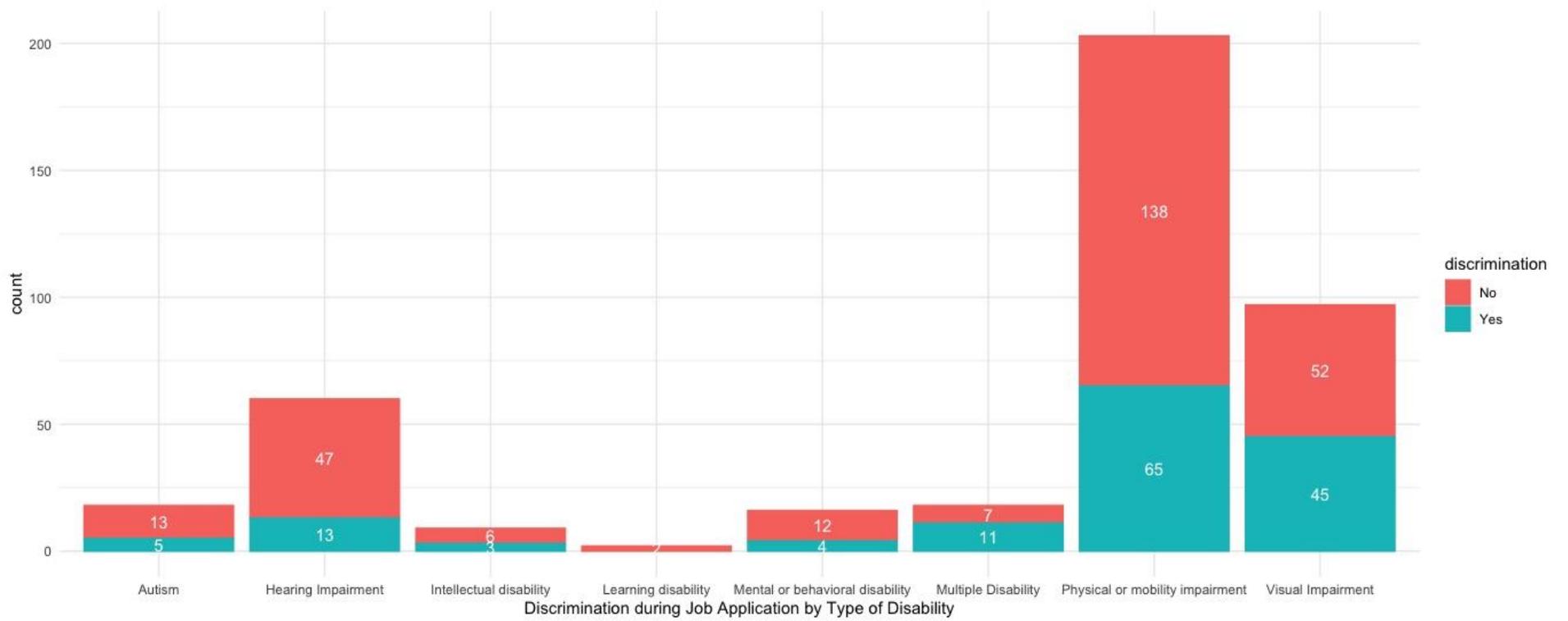
Figure 4.9 Type of Disability and Discrimination during job application process

4.2.2 Discrimination in Job Application by Type of Disability (2.2)

Figure 4.9 above presents a bar chart of respondents by types of disability and grouped by whether they have ever faced discrimination during the job application process. Based on the responses, every type of disability had a fewer number of respondents facing discrimination compared to those not facing discrimination. When considering the proportions of respondents, it was found that respondents with visual impairments had the highest proportion of those facing discrimination during job application.

4.2.3 Job Finding Assistance (2.4)
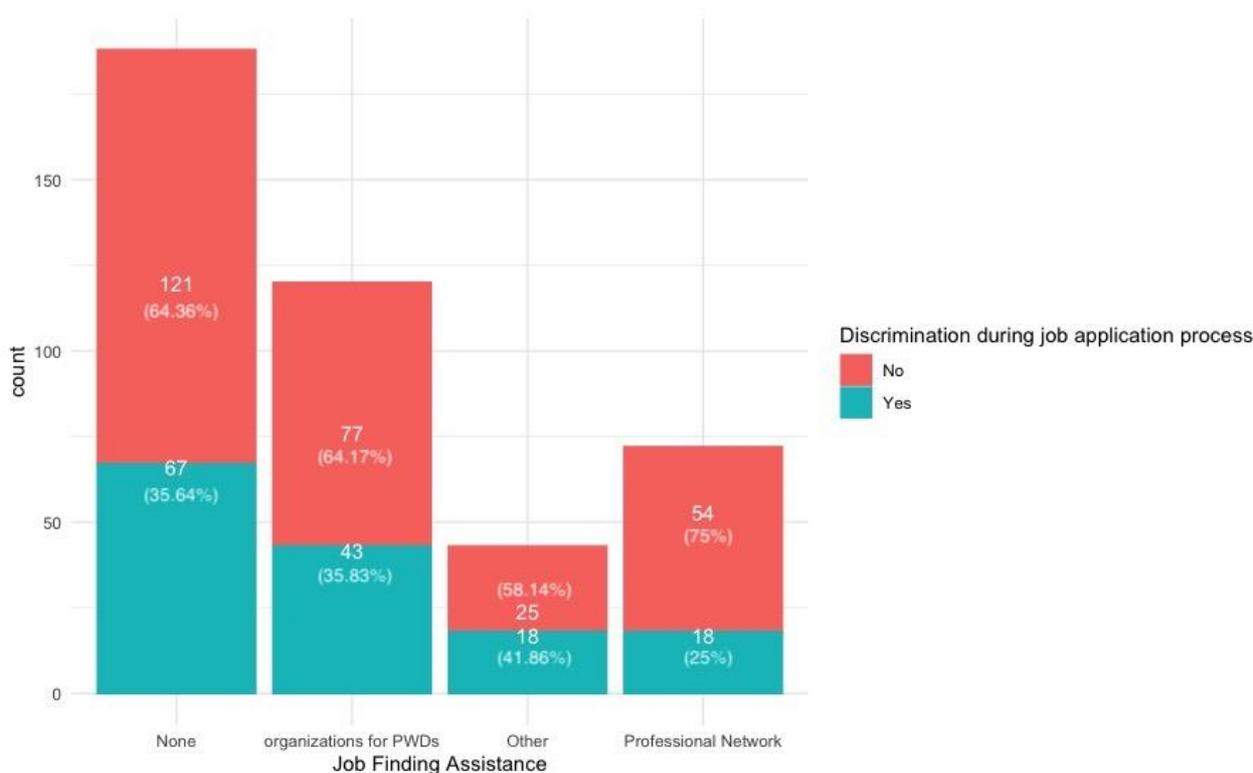
Figure 4.10 Job finding Assistance and Discrimination during job application process

Figure 4.10 presents a bar chart of respondents having assistance in job searching and grouped by discrimination during the job application process. The majority of respondents never received support from agencies in job searching, with 188 respondents. Following this, organizations for people with disabilities and professional networks were used by 120 and 72 respondents, respectively. In terms of discrimination during job application, the group seeking "other job-finding

assistance" encountered the most rejections, with 18 respondents out of 43 who were seeking other job-finding assistance during the job application process, accounting for 42%. Following this were those with no assistance, with 67 respondents out of 188 facing discrimination, and from organizations for people with disabilities with 43 out of 120 respondents, each accounting for 35%. Professional Network had 18 respondents out of 72, accounting for 25%.

4.2.4 Assistance from government (2.5)
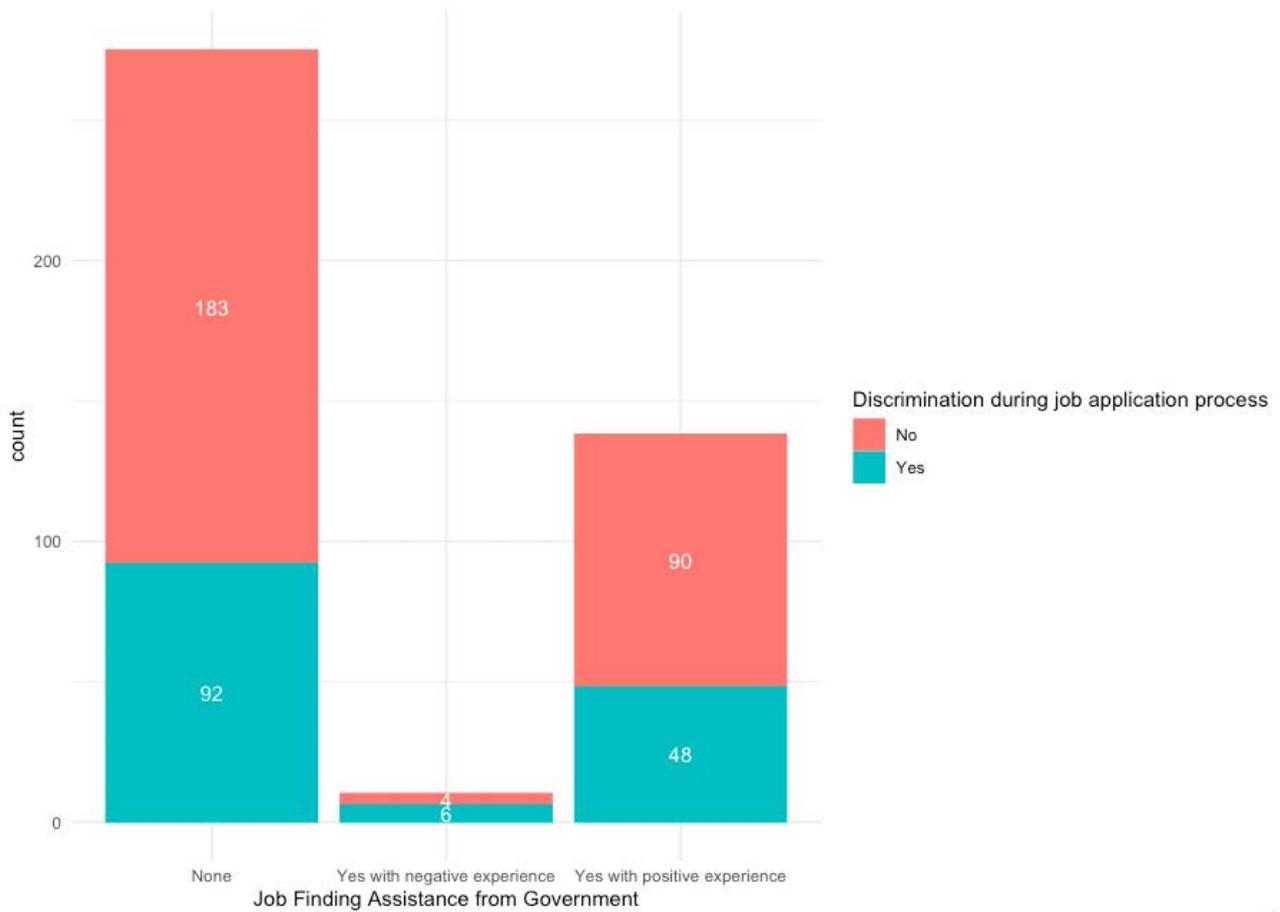
Figure 4.11 Job finding Assistance from Government and Discrimination during job application process

Figure 4.11 presents a bar chart of respondents receiving job finding assistance from the government sector, grouped by whether they have experienced discrimination in job searching. The majority of respondents did not opt for job search assistance from the government sector, with 275 respondents. Following this, those who opted for and received positive experiences

totaled 138 respondents. Regarding discrimination in job applications, respondents who did not opt for government support faced more discrimination compared to the other group, with 92 out of 275 respondents, accounting for 33%. Meanwhile, those who opted for and received positive experiences faced less discrimination, with 48 out of 138 people, accounting for 29%.

4.2.5 Job Denial Due to Disability (2.6)
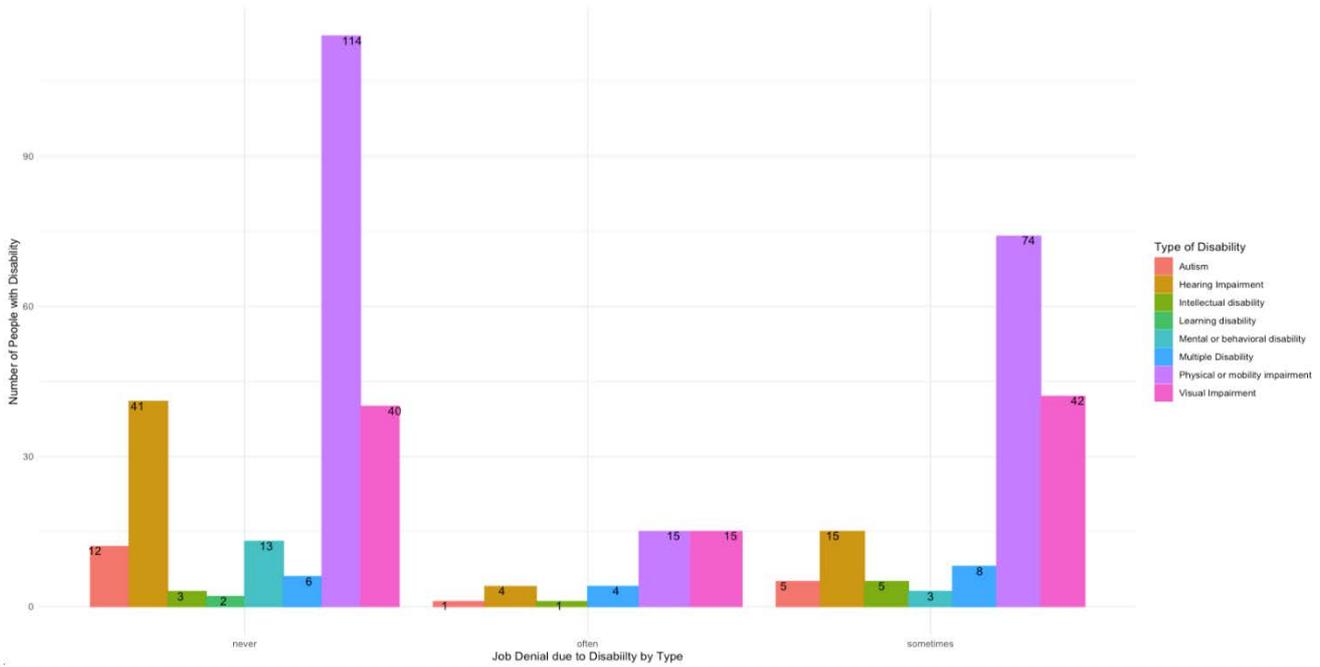
Figure 4.12 Job Denial Due to Disability and type of Disability

Figure 4.12 presents a bar chart of respondents who have had job denial due to their disability status, grouped by type of disability. The majority of respondents did not experience job rejection due to their disability, with 231 respondents. Following this, some respondents experienced occasional rejections based on their disability, totaling 152 respondents, and a minority faced regular rejections based on their disability, totaling 40 respondents. Respondents with mobility impairments were the most rejected, totaling 74 respondents out of 152 respondents who experienced occasional job denials due to disability, accounting for 49%. This was followed by respondents with visual impairments, totaling 42 respondents, accounting for 28%.

4.2.6 DSS Assistance (2.7)
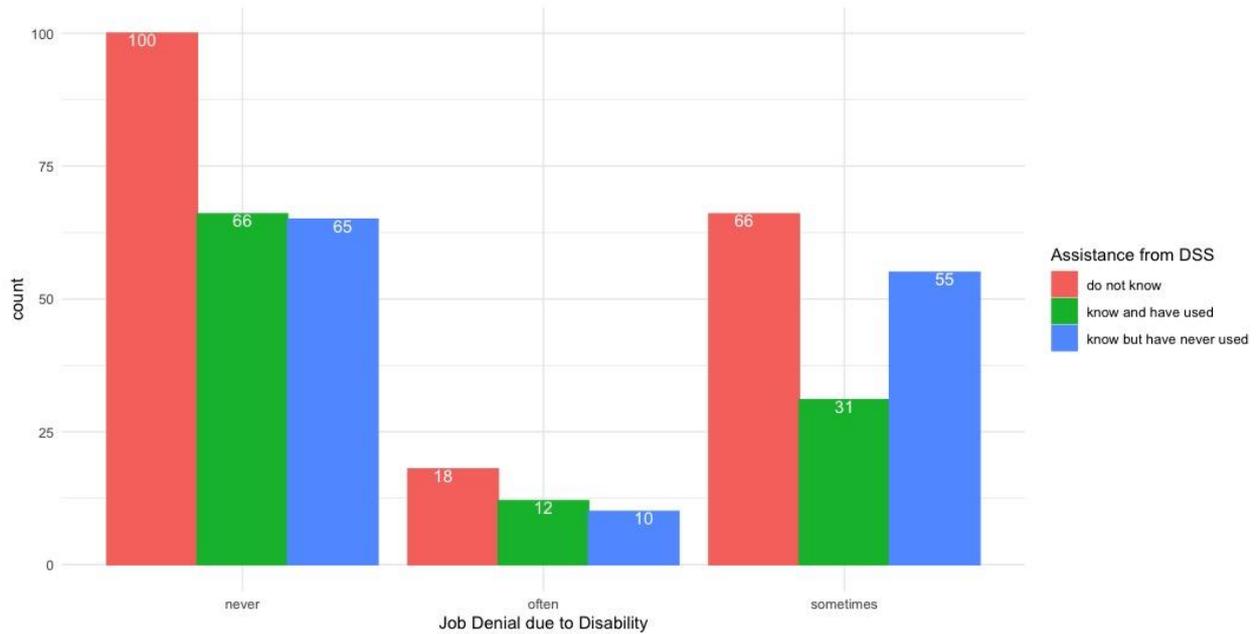
Figure 4.13 Job Denial Due to Disability and Assistance from DSS

Figure 4.13 presents a bar chart of respondents based on whether they were denied a job offer due to disability, grouped by whether they received assistance from Disability Support Services (DSS). The majority of respondents who were sometimes rejected for job employment were those who either didn't know about DSS or knew about it but had never used its services, with 66 and 55 respondents out of 152 respondents who experienced occasional job denials due to disability, accounting for 43% and 36%, respectively. On the other hand, only 31 respondents accounted for 20%, who used DSS services, were occasionally rejected for job employment due to disability. For respondents who were often denied a job offer due to their disability, the majority of them do not know DSS, with 18 respondents, while those who know and have used DSS services comes second with 12 respondents.

Moving on to the next topic, we will discuss the working experiences of respondents based on the survey results in order to understand the current situation, issues, and needs related to the employment of people with disabilities. This will enable us to find ways to provide quality

employment opportunities that match the requirements of people with disabilities and ensure they receive appropriate compensation.

4.3 Working Experiences

This section presents the current situation and challenges encountered by people with disabilities in their work experiences. Its goal is to analyze the prevailing circumstances, obstacles, and requisites concerning the employment of people with disabilities. This analysis will facilitate the identification of strategies to offer high-quality employment opportunities tailored to the specific needs of people with disabilities and to ensure they receive fair compensation. The details provided in this section are presented below.

4.3.1 Compensation Satisfaction (3.3)
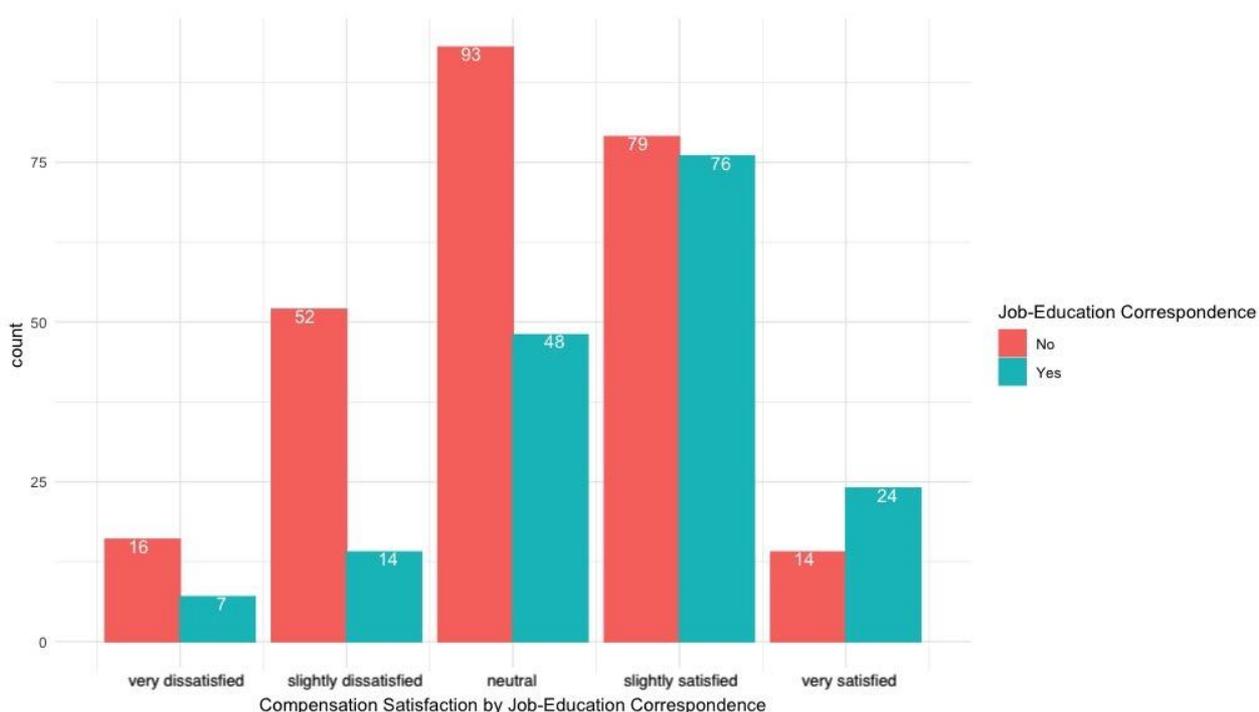
Figure 4.14 Compensation satisfaction by Job-Education Correspondence

Figure 4.14 presents a bar chart of respondents based on their compensation satisfaction, grouped by whether their jobs are aligned with their field of study. It shows that among respondents whose profession doesn't align with their education, the most popular responses are "neutral"

with 93 respondents, accounting for 35.61 percent. On the other hand, for those whose jobs align with their education background, the most popular responses are "slightly satisfied" with 76 responses, accounting for 44.97 percent.
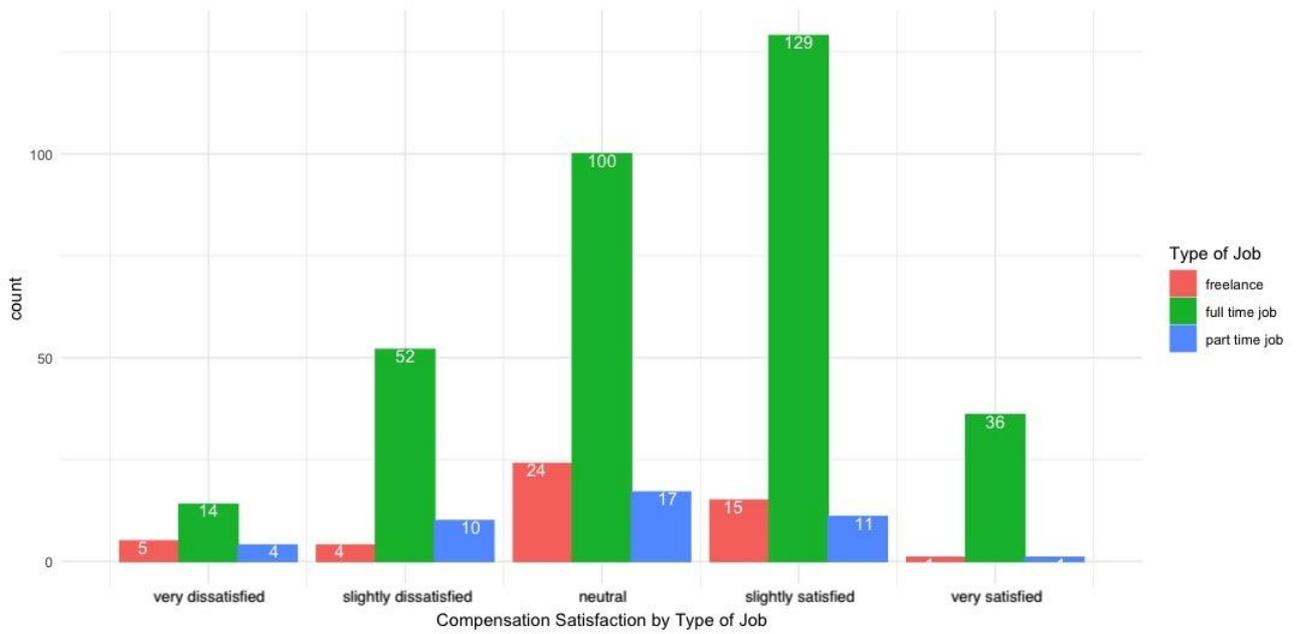
Figure 4.15 Compensation satisfaction by Type of Job

Figure 4.15 presents a bar chart of respondents according to their compensation satisfaction, grouped by type of Job. It shows that among respondents with full time jobs, the most popular responses are "slightly satisfied" with 129 respondents, accounting for 38.97 percent. On the other hand, for those with part time jobs and who are freelance, the most popular responses are "neutral" with 17 and 24 responses, accounting for 29.81 and 48.98 percent, respectively. Based on the responses, therefore, more percentage of respondents with full time jobs are more satisfied with those with part time jobs or who are freelance.

4.3.2 Current Job Duration (3.4)

	Min	1st Qu.	Median	Mean	3rd Qu.	Max
Summary	1.00	10.00	24.00	41.61	60.00	264.00

Table 4.2 Summary of Current job Duration

Table 4.2 presents the summary of respondents' current job duration distribution. Overall, respondents have a minimum duration of 1 month and a maximum of 22 years. The average tenure of respondents is 3.5 years, with the highest number of respondents reporting a tenure of 2 years.

Based on Table 4.2, which displays the summary of respondents' current job duration, Figures 4.16 to 4.22 will provide detailed information about respondents' current job duration, grouped by various variables describing their working conditions.
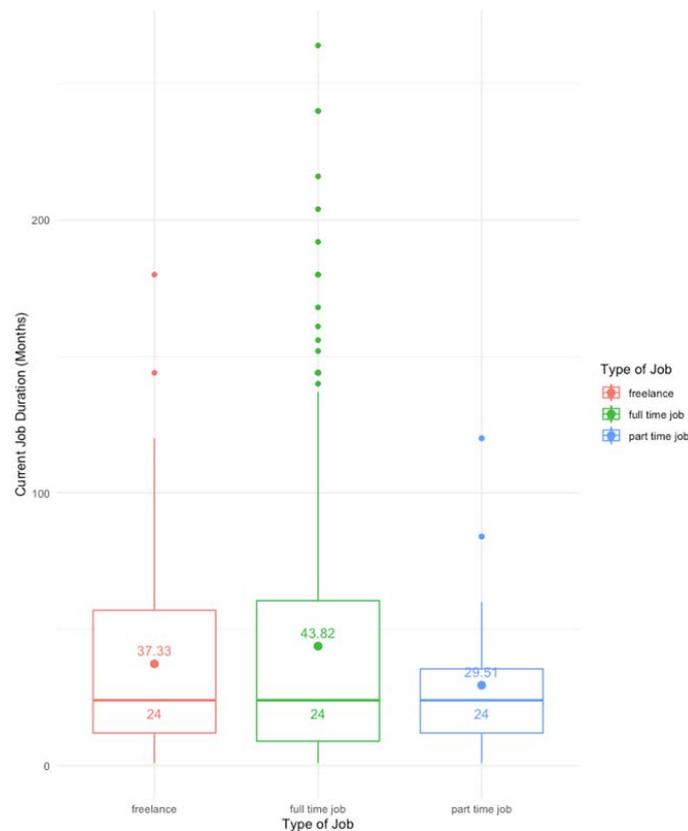
Figure 4.16 Type of job and current job duration

Figure 4.16 presents a box plot describing respondents' current job duration, grouped by type of job. Full-time respondents have the longest average job duration (average of 43.8 months), followed by freelance workers (average 37.3 months), and then part-time workers (29.51 months). Therefore, according to the survey responses, those with full time jobs have a longer current job duration on average than other types of job.
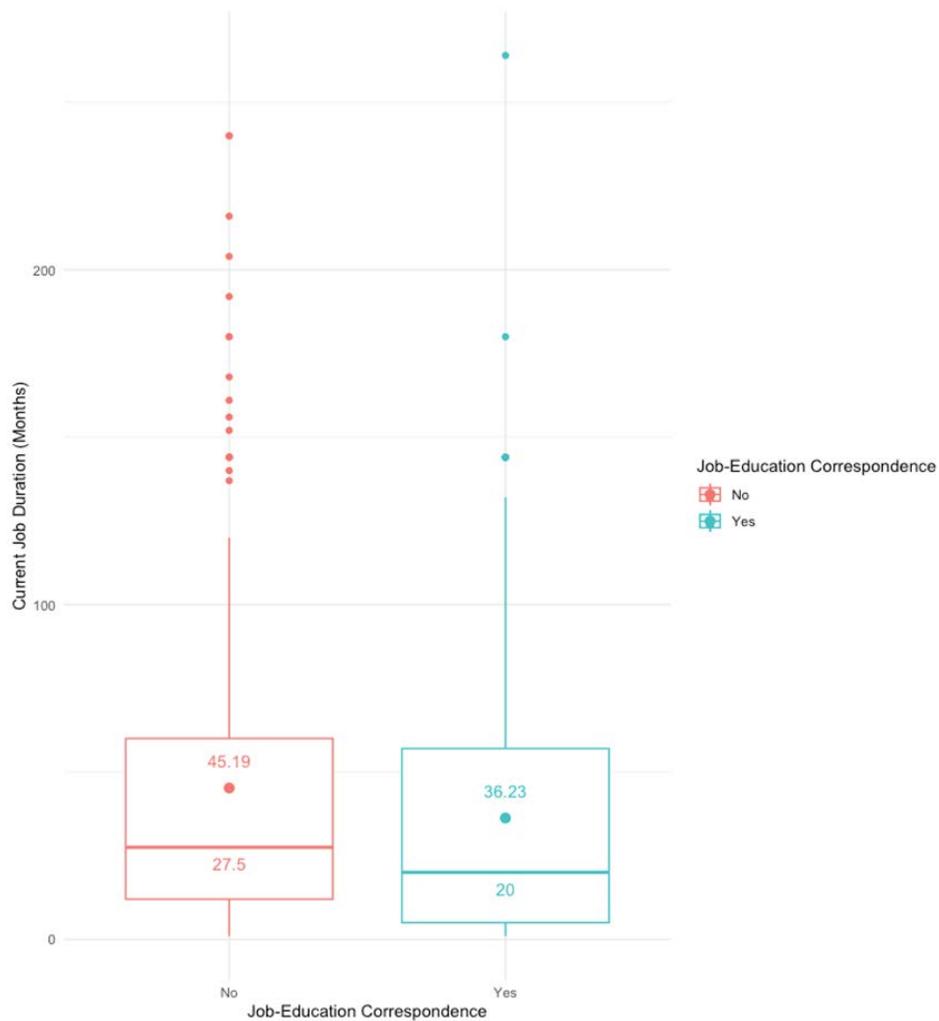
Figure 4.17 Job-Education correspondence and current job duration

Figure 4.17 presents a box plot describing respondents' current job duration, grouped by Job-Education correspondence. It is found that respondents' job durations differ based on their

Job-Education correspondence. Based on the survey responses, workers who are not working in their field of study tend to hold jobs longer on average.
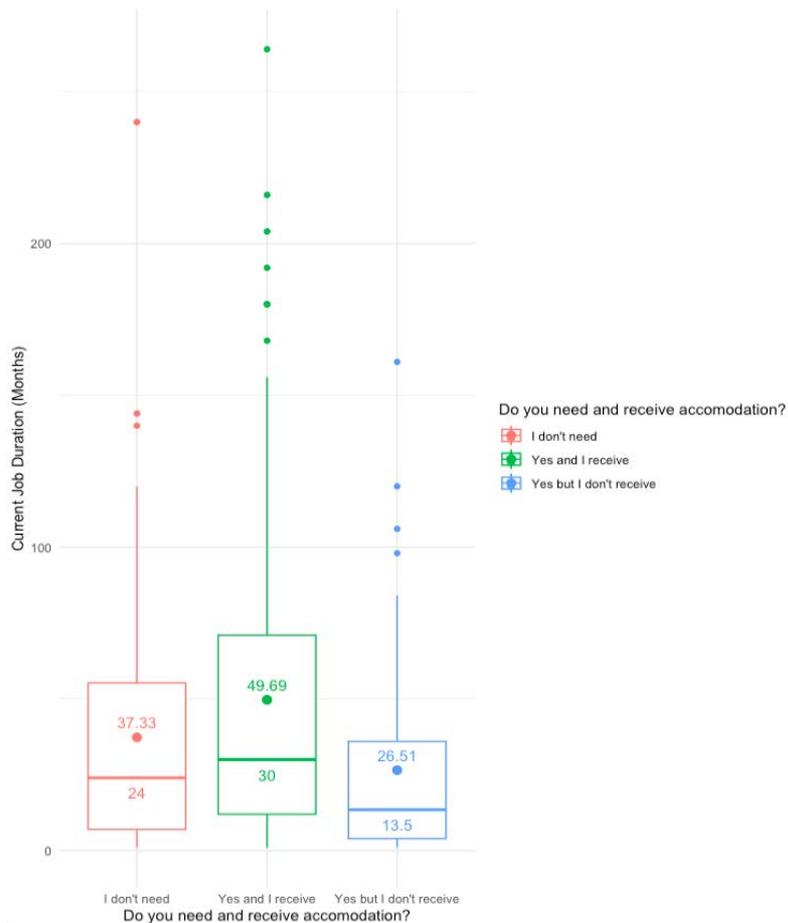
Figure 4.18 Respondents need and receive accommodation and Current job Duration

Figure 4.18 presents a box plot describing respondents' current job duration, grouped by the need and receipt of accommodation from employers. It is found that respondents' job durations differ based on their receipt of accommodation, particularly for those who tend to have a need for accommodation but have not yet received them. Respondents with the longest job retention are those who need and have received accommodation (average of 49.69 months versus 26.51 months from those who did not receive).
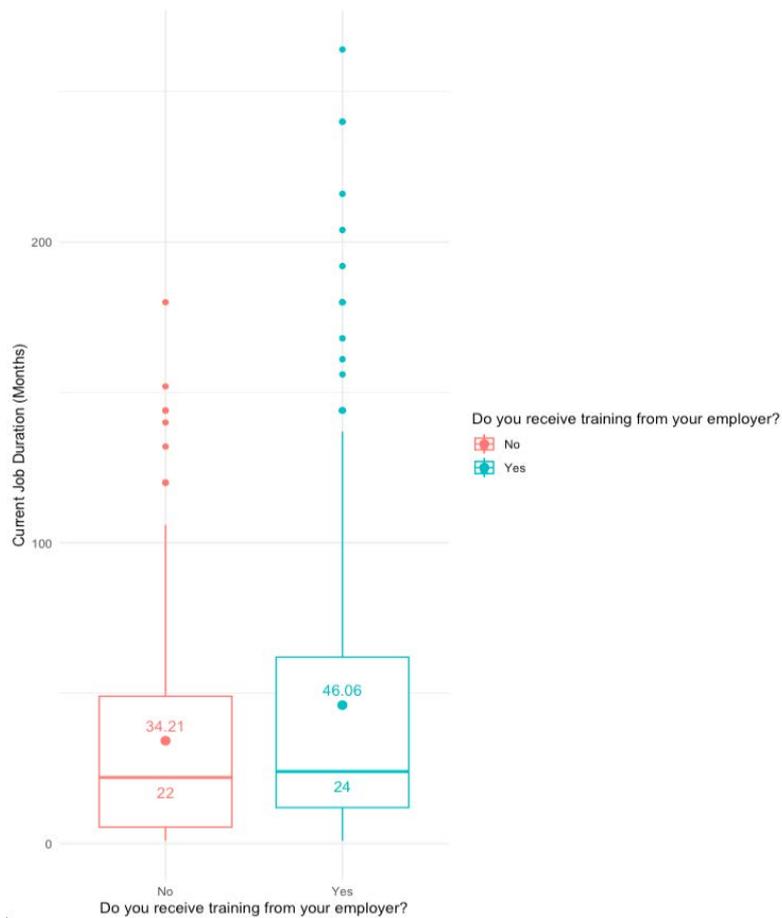
Figure 4.19 Respondents receive training from your employer and Current job Duration

Figure 4.19 presents a box plot describing respondents' current job duration, grouped by whether they received training from employers. Based on the survey responses, respondents' job durations differ based on whether they receive training from employers or not. Respondents receiving training from employer, on average, have longer job durations (average of 46.06 months), compared to those who did not (average 34.21 months).
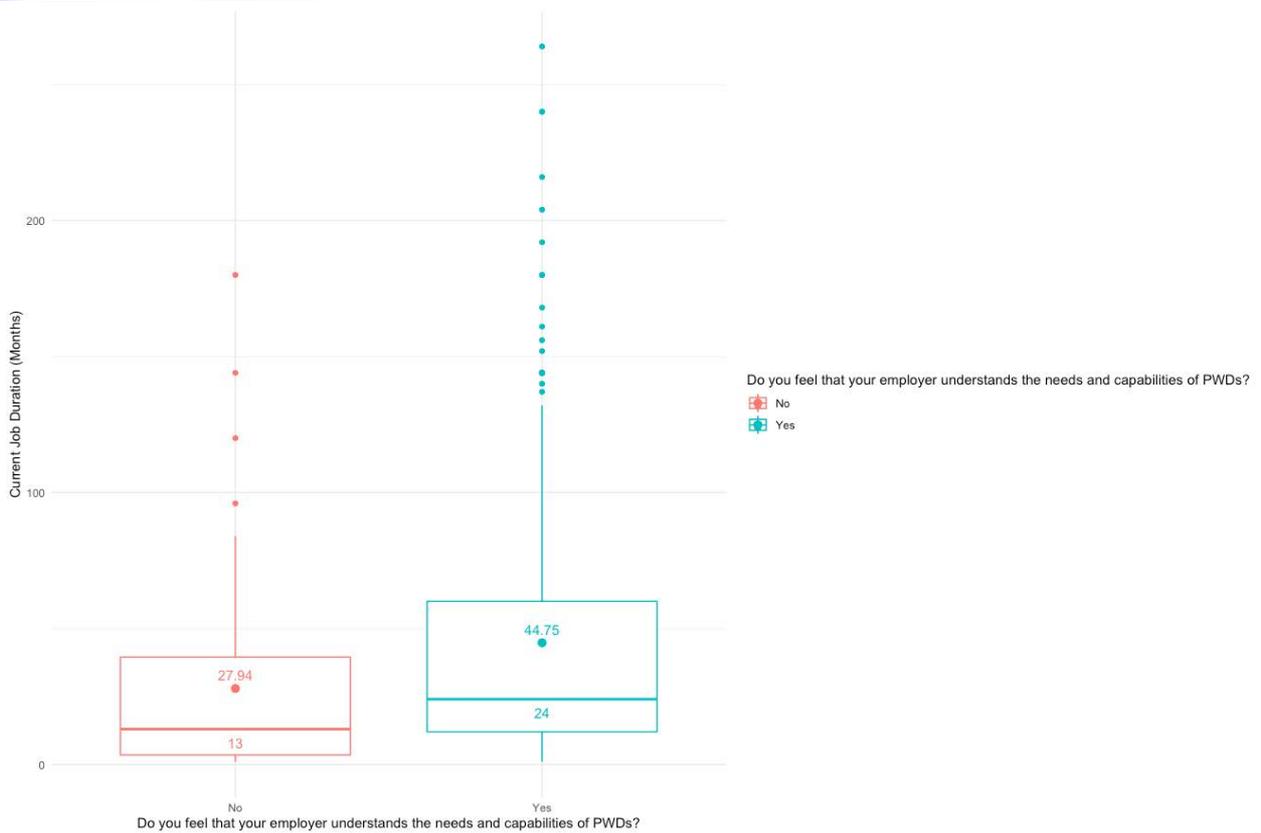
Figure 4.20 Respondents feel that your employer understands the needs and capabilities of PWDs and Current job Duration

Figure 4.20 presents a box plot describing respondents' current job duration, grouped by their perception of their employers' understanding of their needs and capabilities. Respondents' job durations differ based on how they feel about their employer's understanding of the needs and capabilities of People with disabilities (PWDs). The majority of respondents feel that their employer does not understand their needs and capabilities at work. However, those who feel their employer understands these matters work stay longer in one job on average (44.75 months versus 27.94 months).
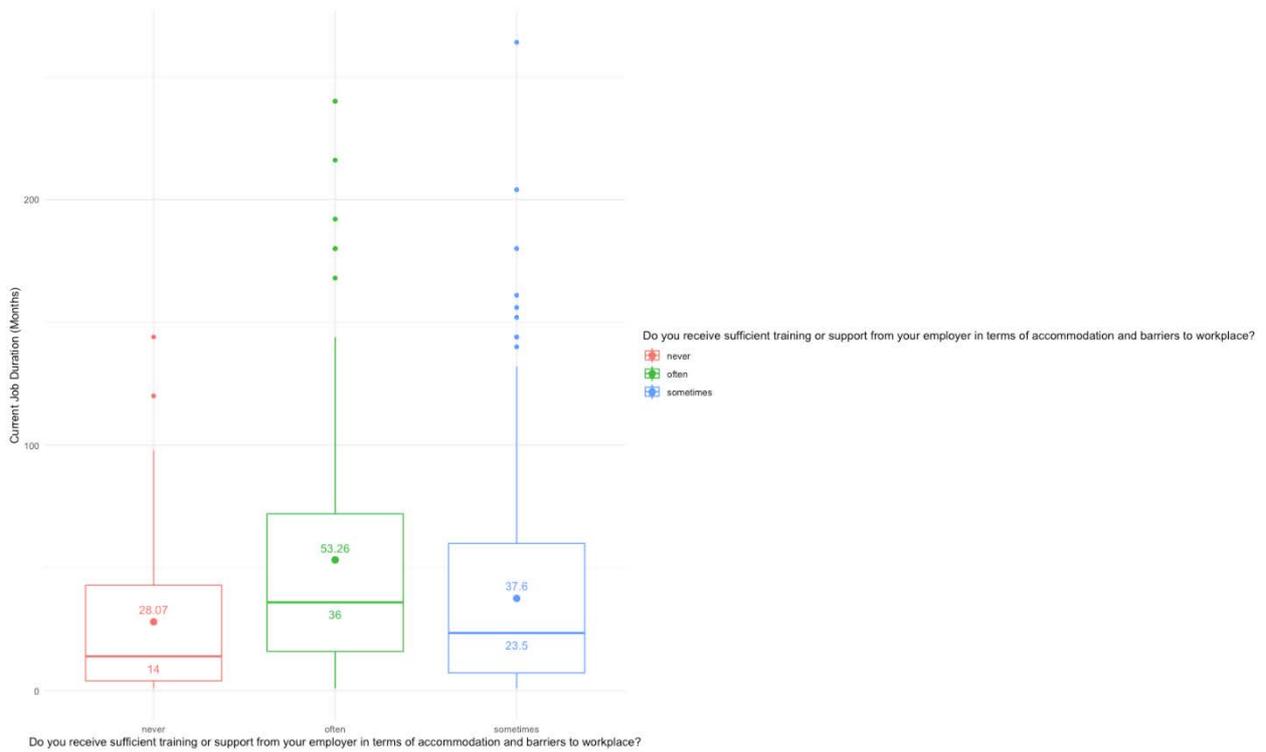
Figure 4.21 Respondents receive training or support relating to accommodation from your employer and current job duration

Figure 4.21 presents a box plot describing respondents' current job duration, grouped by the frequency of training or support relating to accommodation from their employers. The plot suggests that those who receive more training hold longer job duration on average (53.26 and 27.5 months versus 28.07 months from those who have never received). This includes both frequent and occasional support.
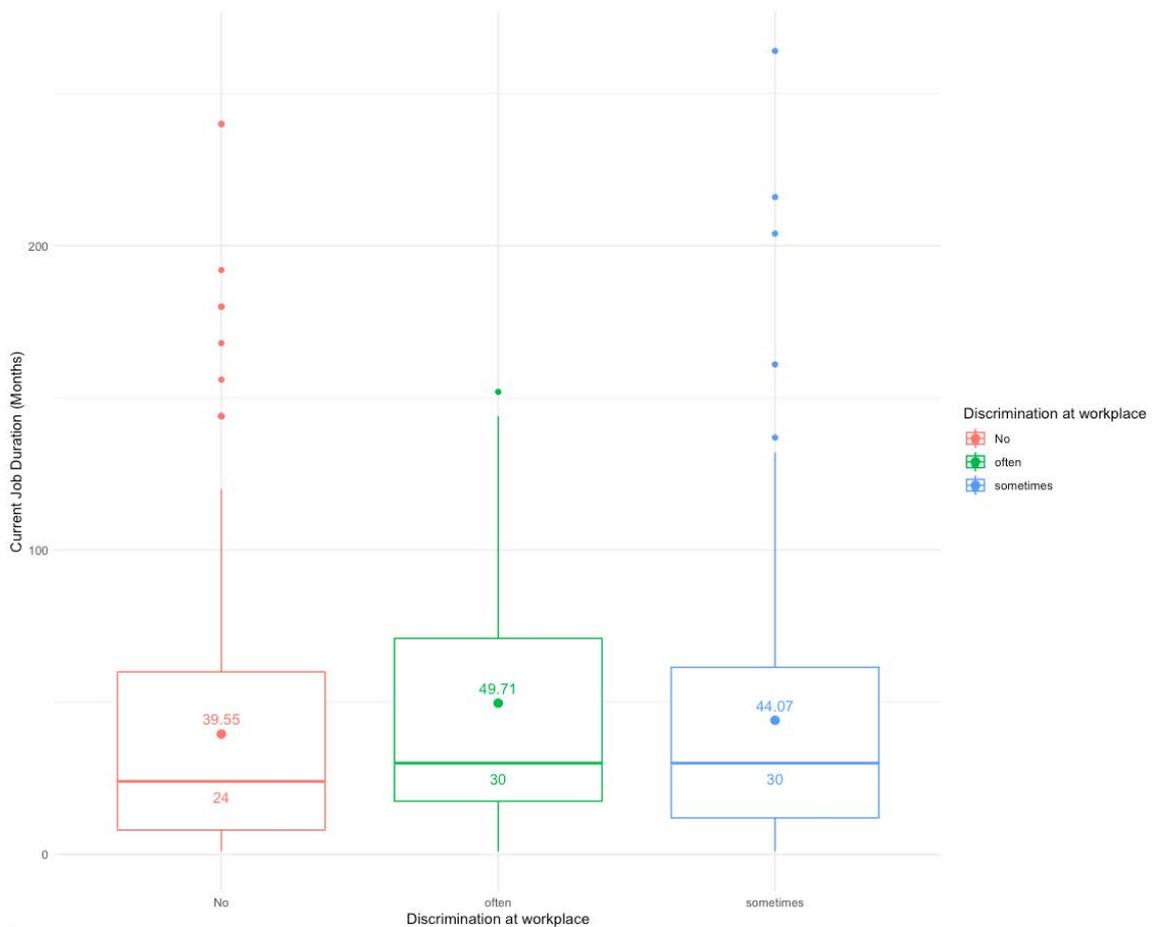
Figure 4.22 Respondents Discrimination at workplace and Current job Duration

Figure 4.22 presents a box plot describing respondents' current job duration, grouped by their experiences of workplace discrimination. Surprisingly, those experiencing discrimination tend to stay longer in their jobs. Those experienced discrimination at workplace stays, on average, 49.71 months in their current jobs, while those never faced discrimination stays, on average 39.55 months in their current jobs. This could be interpreted as indicating that people with disabilities stay in their jobs despite their experiences with discrimination.

4.3.3 Job Turnover (3.4 and 3.5)

Job turnover in this research is calculated by two different indicators. **First, the average number of months per job change by each respondent** is calculated and reported in the first part of Section 4.3.3. **Second, the percentage of respondents (out of 423 respondents) who changed their jobs in the years 2021-2023** are reported in the second part of Section 4.3.3.

Table 4.3 below reports the distribution of average job turnover (months for per job change) among the respondents. It reveals that respondents have a minimum duration of 1 month and a maximum of 22 years. The average job turnover of respondents is a bit more than 3 years, and the highest number of respondents reporting a job turnover of 2 years.

	Min	1st Qu.	Median	Mean	3rd Qu.	Max
Summary	1.00	11.00	24.00	36.92	51.00	240.00

Table 4.3 Summary of Job Turnover (months)
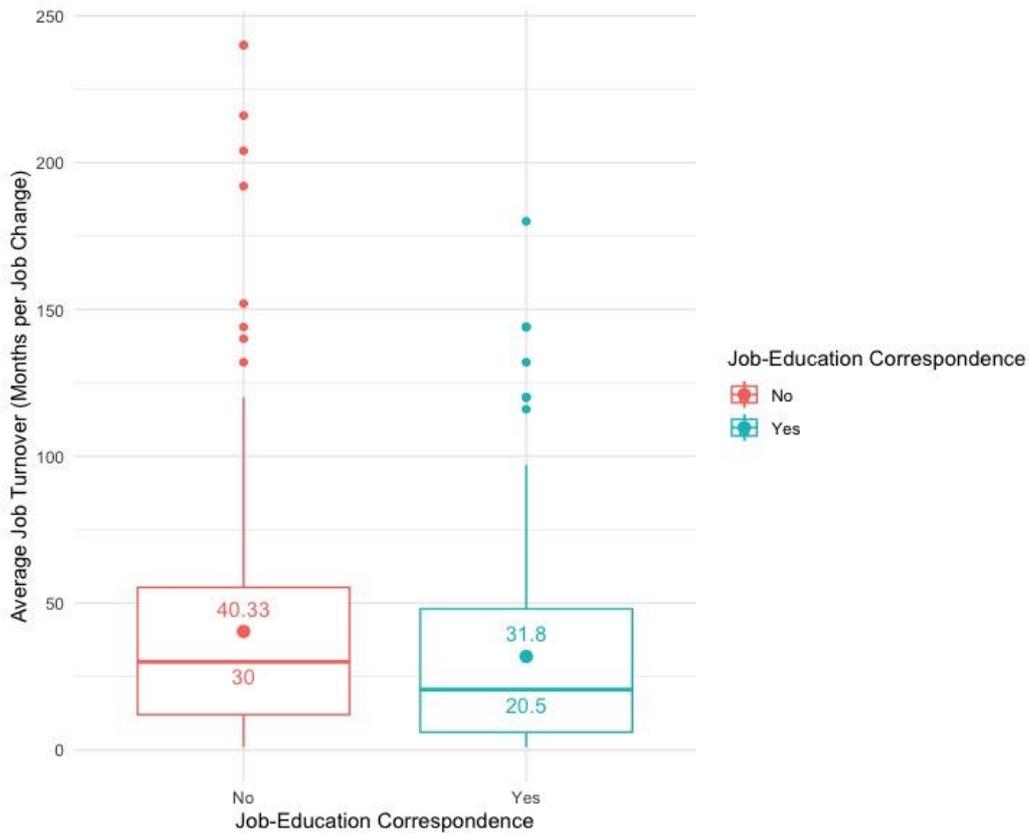
Figure 4.23 Respondents Job-Education correspondence and Job Turnover

Figure 4.23 shows the boxplots of average job turnover, grouped by whether respondents are working in the same field as their study (job-education correspondence). **The average number of months per job change for respondents who are working in a different field than their study is longer than respondents who are working in the same field as their study** (an average of 40.33 months versus 31.8 months).
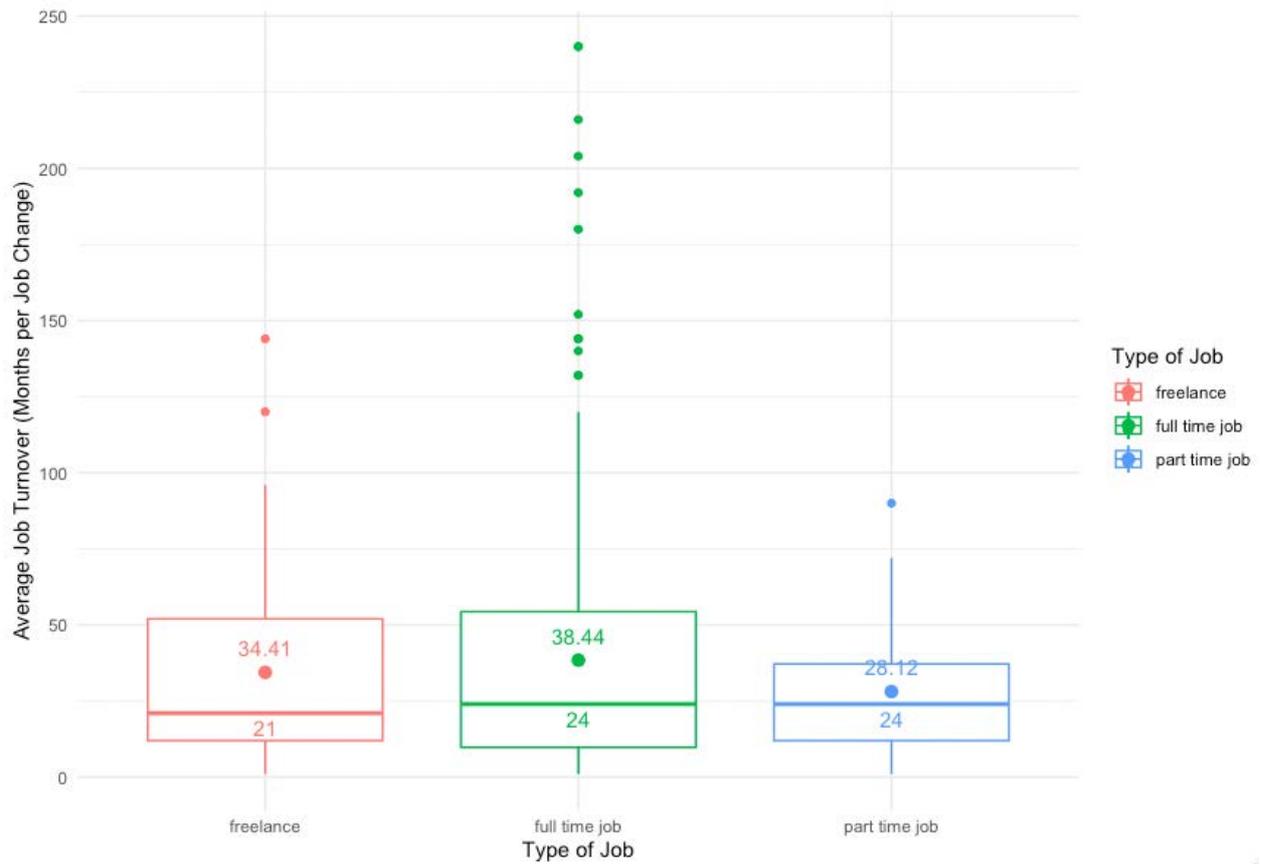
Figure 4.24 Type of job and Job Turnover

Figure 4.24 shows the box plots of average job turnover, grouped by type of job. The average turnover rate of respondents working in full-time jobs is longer than that of respondents working as freelance and in part-time jobs. (an average of 38.33 months versus 34.41 months and 28.12 months).
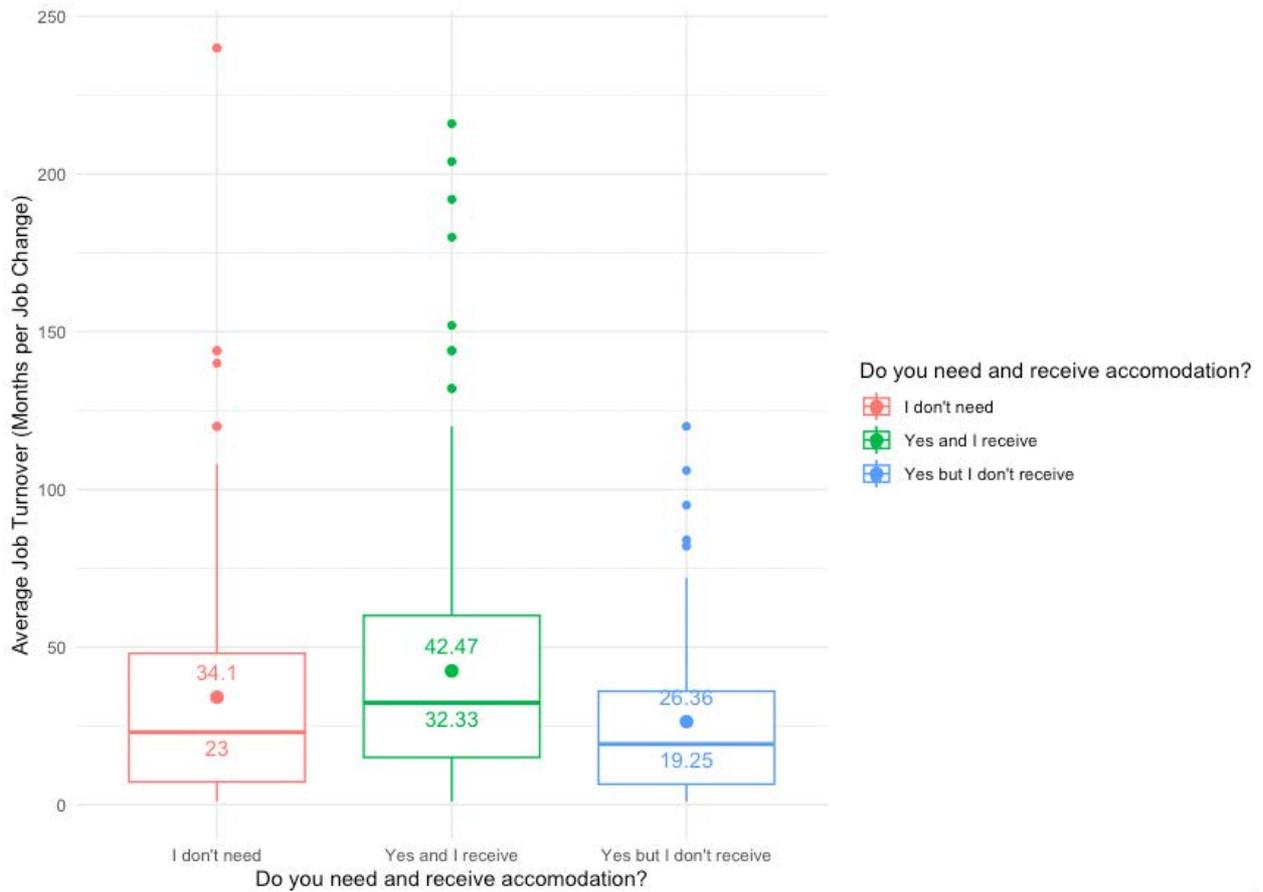
Figure 4.25 Respondents need and receive accommodation and Job Turnover

Figure 4.25 shows the box plots of average job turnover, grouped by whether respondents need and receive accommodation. **The average turnover rate of respondents who need and receive accommodation is longer than that of respondents who do not need accommodation and respondents who need it but do not receive it, in descending order.** (an average of 42.47 months versus 34.1 months and 26.36 months).
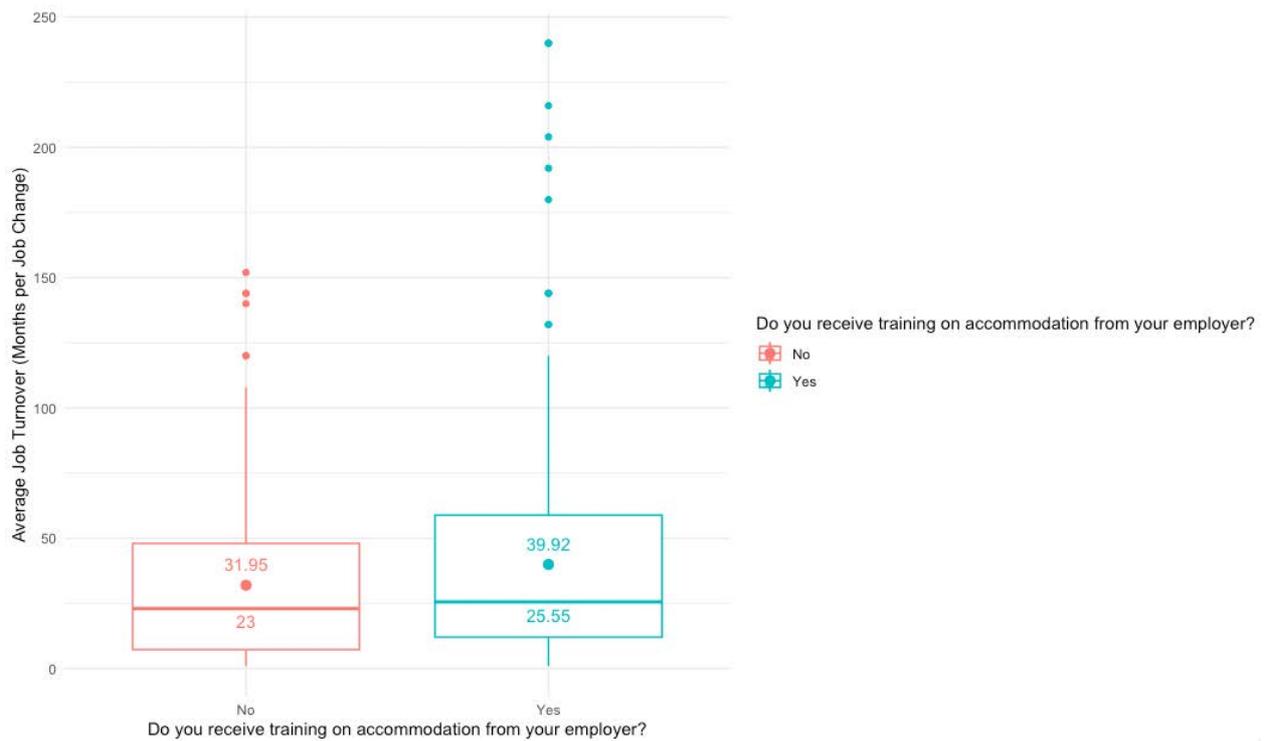
Figure 4.26 Respondents receive training from your employer and Job Turnover

Figure 4.26 shows the boxplots of average job turnover, grouped by whether respondents receive training from their employer. **The average turnover rate of respondents who receive training from their employer is longer than that of respondents who do not receive it** (an average of 39.92 months versus 31.95 months).
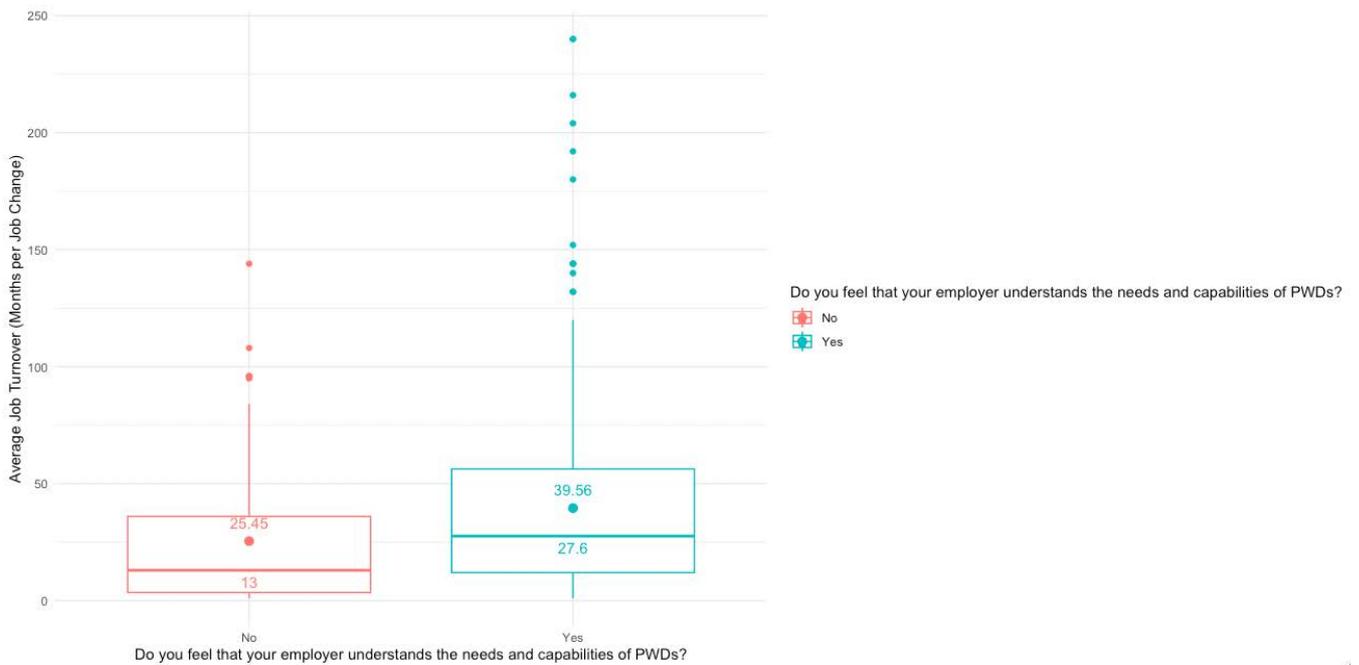
Figure 4.27 Respondents feel that your employer understands the needs and capabilities of PWDs and Job Turnover

Figure 4.27 shows the boxplots of average job turnover, grouped by whether respondents feel that their employer understands the needs and capabilities of PWDs. **The average turnover rate of respondents who feel that their employers understand the needs and capabilities of people with disabilities is longer than that of respondents who feel otherwise** (an average of 39.56 months versus 25.45 months).
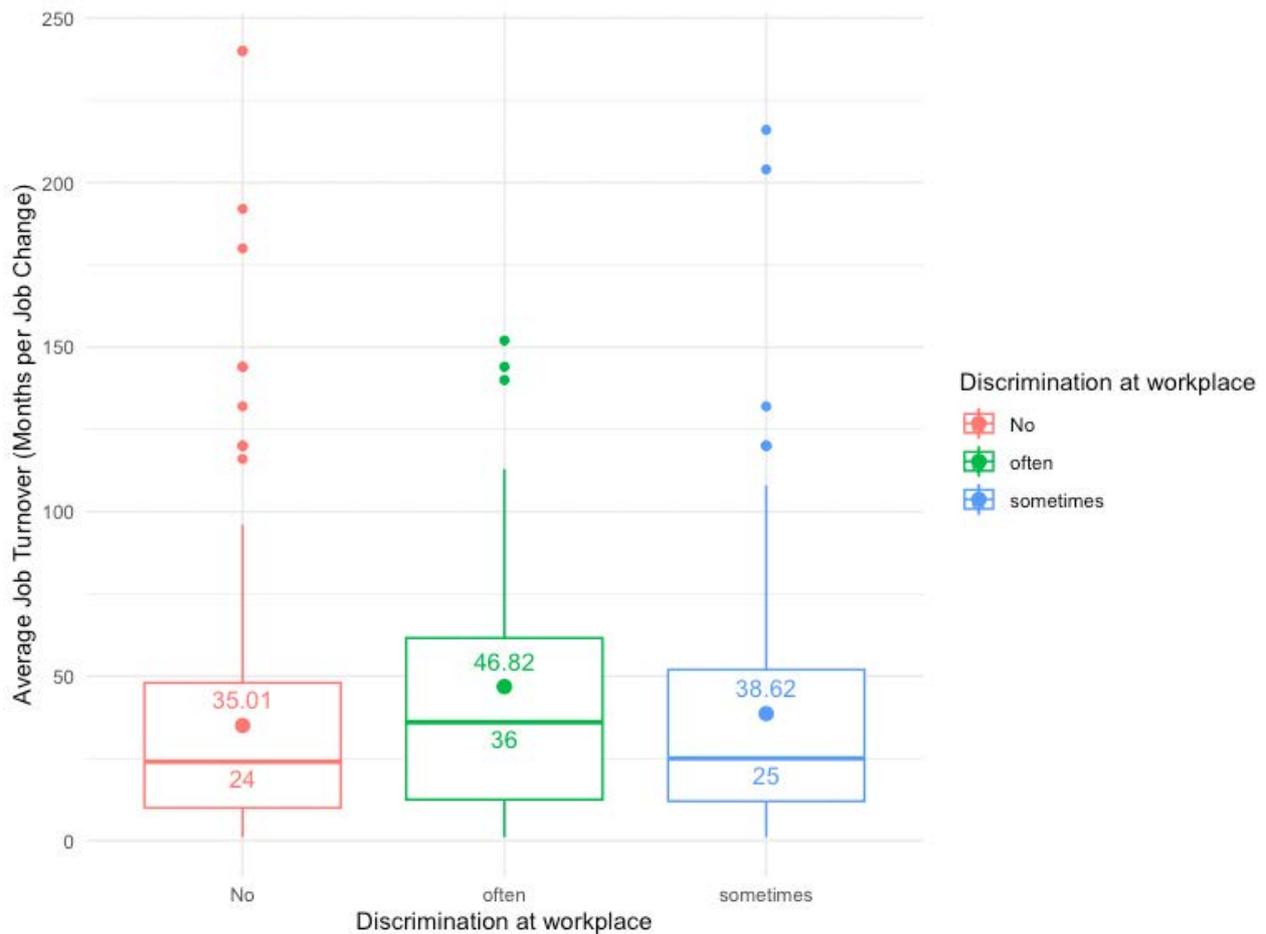
Figure 4.28 Respondents Discrimination at workplace and Job Turnover

Figure 4.28 shows the boxplots of average job turnover, grouped by whether respondents experience workplace discrimination. **The average turnover rate of respondents who often face discrimination at work is longer than that of those who sometimes or never experience it** (an average of 46.82 months versus 38.62 months and 35.01).

Annual Turnover Rate (as Calculated from Job History of Respondents)

Next, an alternative calculation of job turnover is presented here. With this method, **a total number of respondents who changed job in the years 2021-2023 are reported and divided by a total number of respondents in the survey multiplied by 100.** This method and its result can be utilized to assess the employment situation for persons with disabilities within the transition to work program in the future.
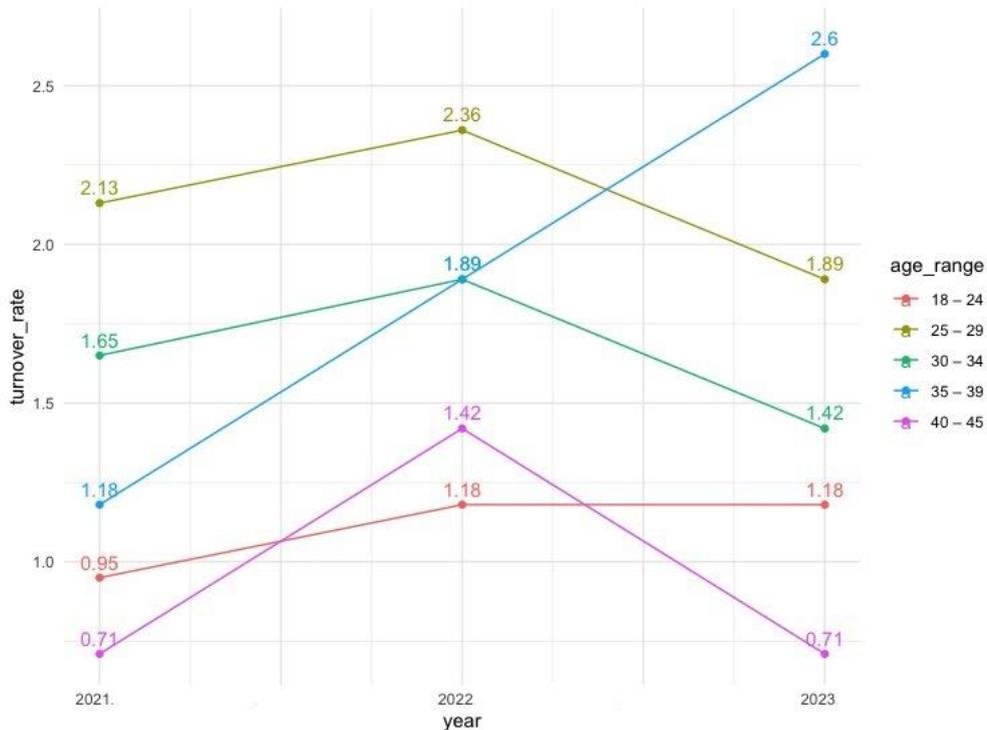
Figure 4.29 Annual Turn Over Rate by Age Range

The above graph illustrates the turnover rates varying across different age groups of people with disabilities who responded to the questionnaire survey. The survey data showing percentage of turnover rates in the graph are depicted over a 3-year period, namely 2021, 2022, and 2023. **From the graph, it is evident that the highest turnover rate in 2021 was observed in the age group of 25-29 years, with a turnover rate of 2.13%**. In the same year, the age group with the lowest turnover rate was 40-45 years, accounting for 0.71%. **In 2022, the age group with the highest turnover rate remained 25-29 years at 2.36%,** while the age group with the lowest turnover rate shifted to 18-24 years at 1.18%. In **2023, the age group with the highest turnover rate was 35-39 years at 2.6%,** and the age group with the lowest turnover rate was 40-45 years, with a turnover rate of 0.71%.

Furthermore, it is indicated that the age group with the highest increasing trend in turnover rates over the past 3 years is the 35-39 years age group, while the 18-24 years age group shows a relatively stable turnover trend. From 2022 to 2023, there were no changes in turnover rates and percentages for other age groups, with overall increases in turnover rates observed in 2022 followed by decreases in the subsequent year. **Therefore, the graph suggests that only the 35-39 years**

age group shows an increasing trend in turnover rates, which may decrease in the following years when considering the 40-45 years age group.

4.3.4 Important Skills (3.8 and 4.6)
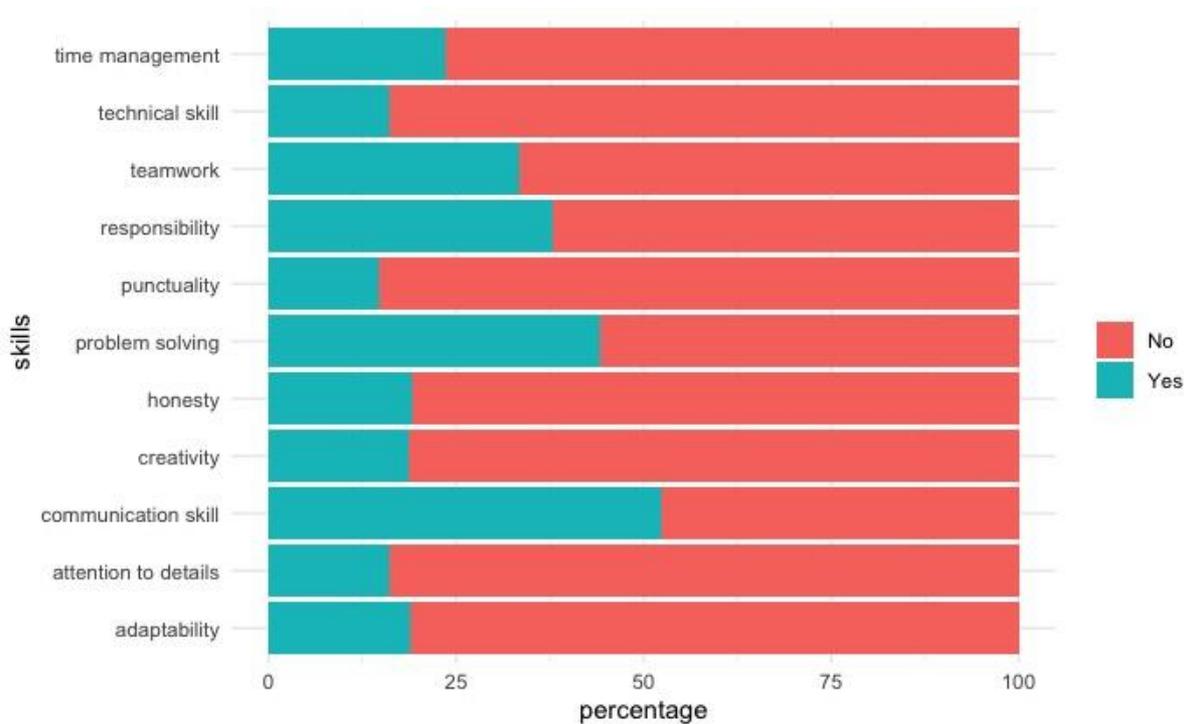
Figure 4.30 Important skill disability need to retention work

Figure 4.30 presents a percentage chart describing important skills that people with disabilities feel they need to retain employment. Respondents chose up to three options among the choices. **Communication skills** are the most crucial, with 53% of respondents highlighting its importance. Following this, **problem-solving abilities** were ranked second at 44%, and **responsibility-taking skills** at 38%. Therefore, promoting or providing training in communication, problem-solving, and responsibility-taking skills for people with disabilities before they enter the workforce is essential to enable continuous employment opportunities for them.

4.3.5 Preferred Type of Job Search Support (3.9)
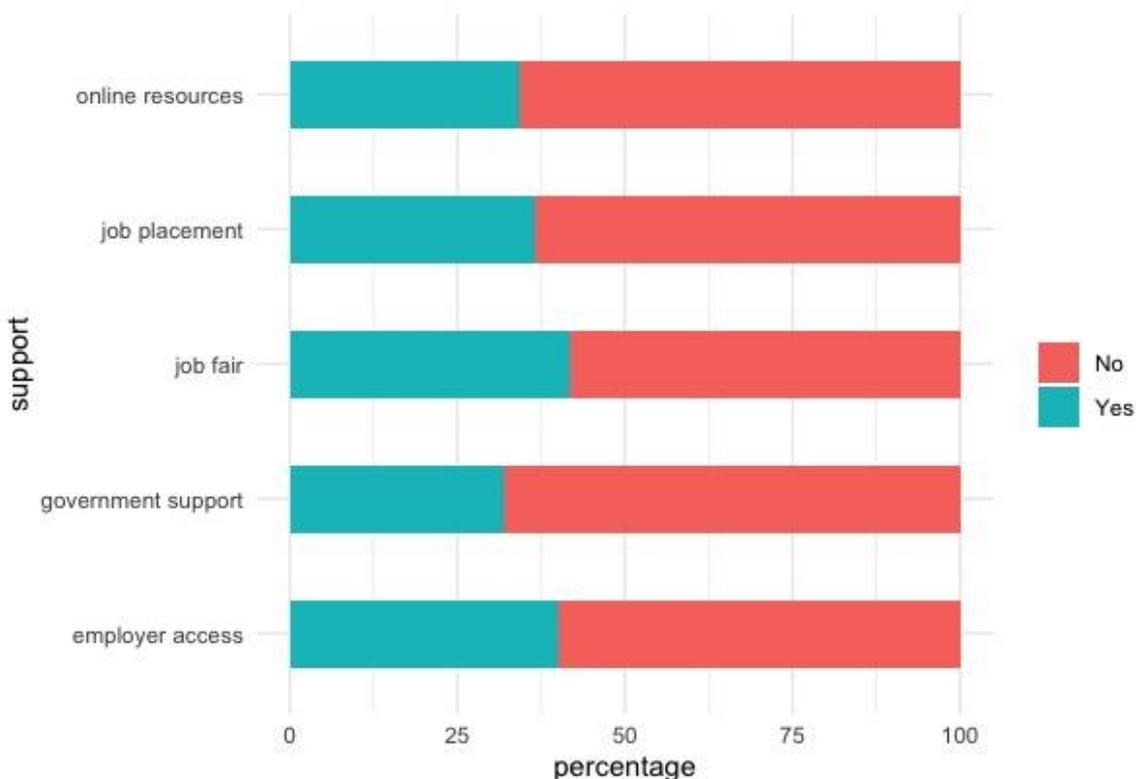
Figure 4.31 Preferred Type of Job Search Support

Figure 4.31 presents a percentage chart describing respondents' Preferred Type of Job Search Support. Respondents chose up to three options among the choices. It reveals that expanding **access to employers and job fairs** is deemed highly beneficial, with 42% of respondents in agreement. Additionally, 37% agreed with the effectiveness of job placement services, while 34% favored online resources, and 32% endorsed government support. In conclusion, respondents prioritize expanding access to employers and job fairs as the most preferred means of supporting employment for people with disabilities.

4.3.6 Which factor is helpful in hiring PWDs? (3.10)
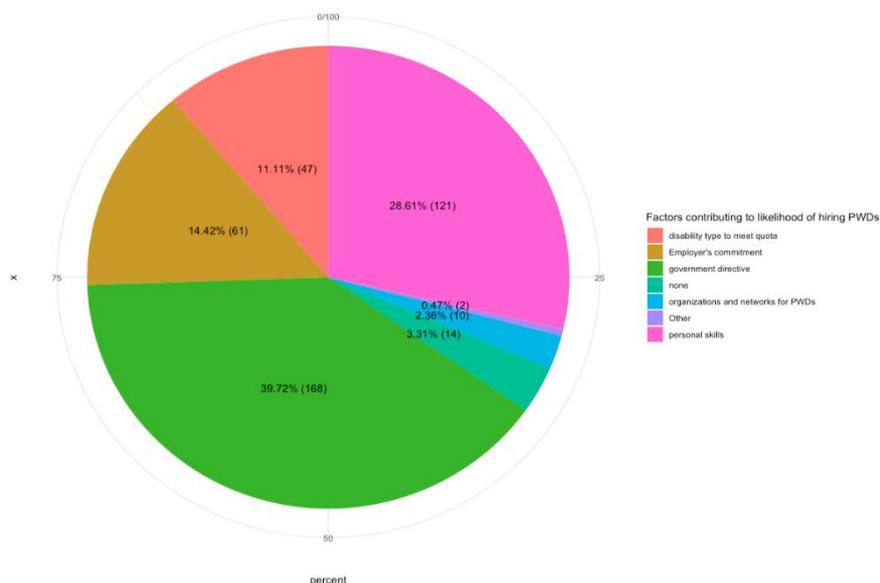
Figure 4.32 The respondent mentioned factor is helpful for hiring PWDs.

Figure 4.32 presents a bar chart describing respondents' opinions on factors that lead employers to hire people with disabilities more. R**espondents believe that enforcing state laws mandating the employment of people with disabilities has the most significant impact** on encouraging employers to hire them, with 168 respondents indicating so. Following this, respondents identified **the skills and abilities of people with disabilities as the second most influential factor,** with 122 respondents, with 62 respondents. In summary, respondent **and employer policies on hiring people with disabilities as the third** consider the enforcement of laws as the most crucial factor in increasing opportunities for people with disabilities to find employment, followed by the development of skills to match job requirements and employer policies for hiring People with disabilities, respectively.

4.3.7 What kind of accommodation you find helpful for your productivity (3.14)
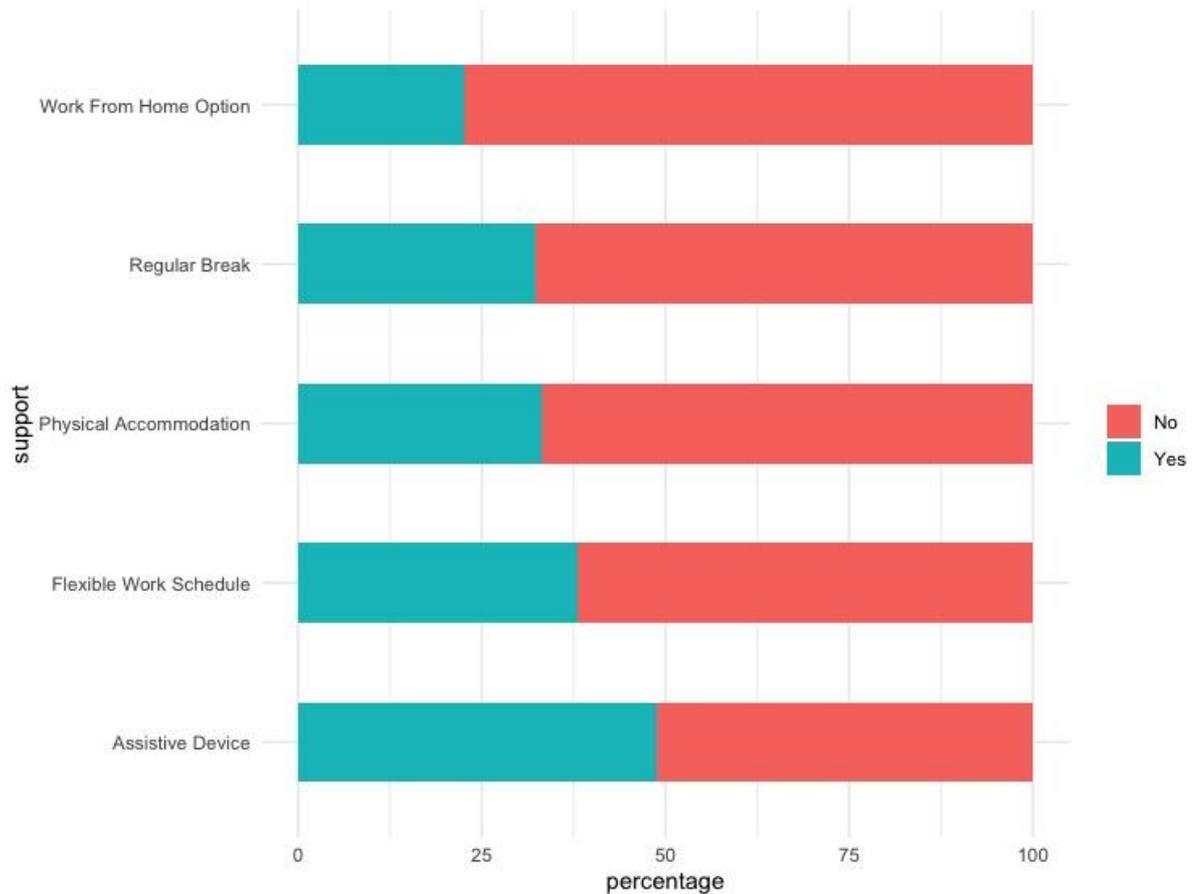
Figure 4.33 Helpful Supports for Productivity

Figure 4.33 presents a percentage chart describing respondents' preferences for helpful accommodations to enhance their productivity. Respondents chose up to three options among the choices. It was found that the most preferred accommodation was **assistive devices**, accounting for 49% of all respondents. This was followed by **flexible work schedule**, accounting for 38%, and **physical accommodation**, accounting for 33%.

4.3.8 Do you think your disability is an obstacle for your career? (3.15)
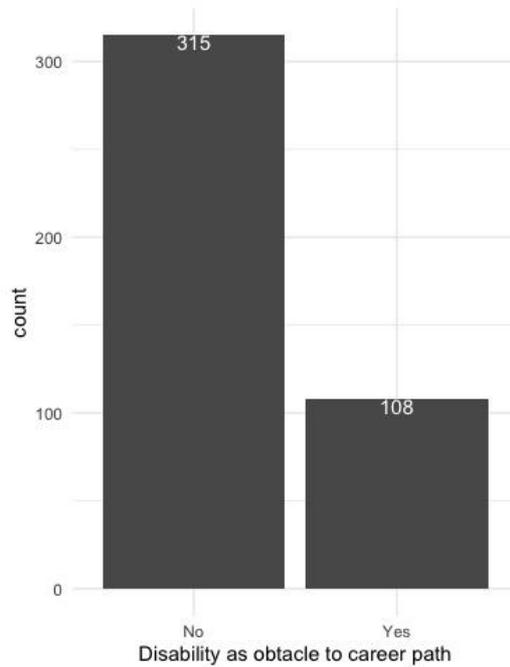
Figure 4.34 Disability as obstacle to career path

Figure 4.34 presents a bar chart describing whether respondents think their disabilities are obstacles to their career path. **The majority of respondents, 315 respondents, believe that disabilities do not impact career progression,** while 108 respondents think otherwise. However, it should still be highlighted that a significant portion (roughly 25.5 percent) of people with disability still consider that their disabilities are obstacles to their career paths.

4.3.9 What factor is most important for your job retention? (3.16)
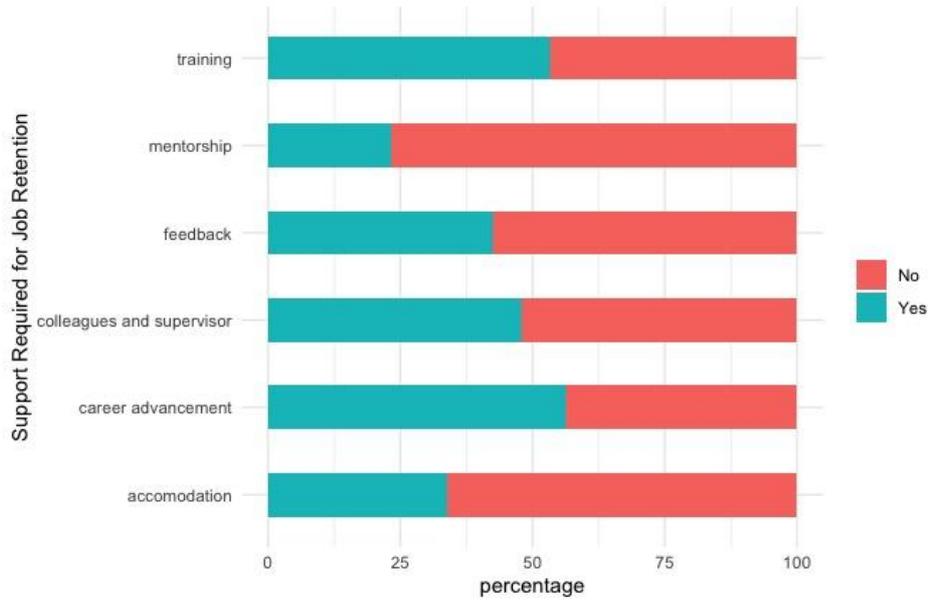
Figure 4.35 What factor is most important for respondents' job retention

Figure 4.35 presents a bar chart describing the most important factors for respondents' job retention. Respondents chose up to three options among the choices. It was found that **career advancement opportunities** are the most crucial factor, with 56%, followed by **training opportunities** at 53%, **support from colleagues** at 48%, **performance evaluations** at 44%, **access to facilities** at 33%, and **mentoring** being the least preferred at 23%.

4.3.10 Employer has a responsibility to provide appropriate accommodations for employees with disabilities (3.19)
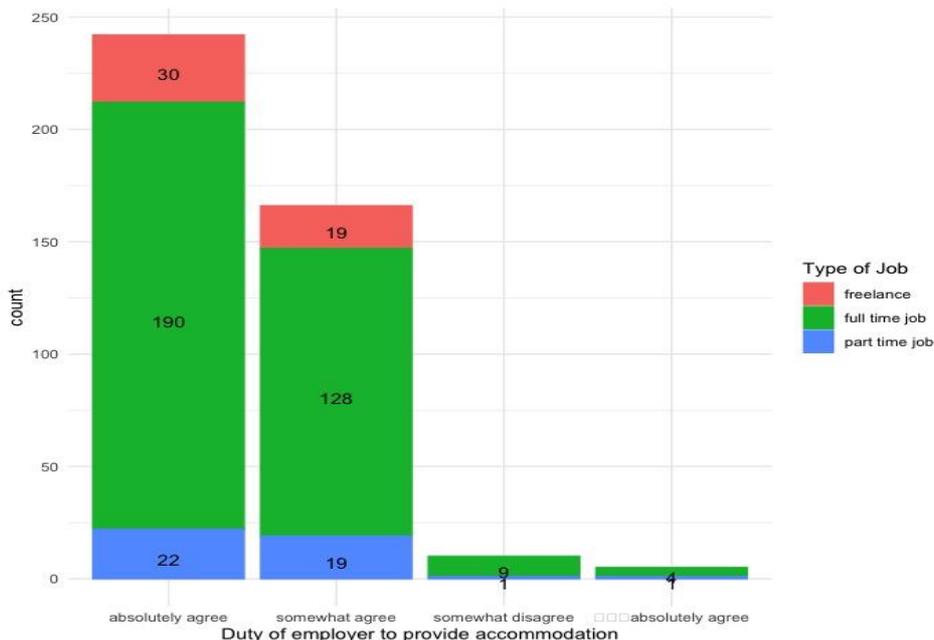
Figure 4.36 Duty of employer to provide accommodation group by type of job

Figure 4.36 presents a bar chart describing respondents' duty of employer to provide accommodation, grouped by their job types. Across all job types, respondents strongly agree that employers should provide accommodations for people with disabilities. The number of respondents for this statement includes 190 for full-time jobs, 30 for freelance work, and 22 for part-time jobs. Somewhat agreeing, the numbers of respondents were 128 for full-time jobs, 19 for freelance work, and 19 for part-time jobs.

To summarize the survey results, the majority of respondents work outside their field of study. The majority of jobs held by respondents are full-time, with an average job retention of 2 to 3.5 years. The type of job that leads to the longest job retention are full-time jobs, where they receive accommodation and on-the-job training. Respondents whose employers understand the limitations of disabilities and provide opportunities for advancement in the jobs that people with disabilities undertake are reported to have much longer job retention.

In terms of skills for employment retention as preferred by the respondents, communication skills, problem-solving skills, and responsibility skills are found to be the most necessary skills for people with disabilities to retain jobs. Regarding support in job seeking, respondents reported that there should be specific job market initiatives for people with disabilities, and projects that allow employers direct access to hiring people with disabilities are most effective. In terms of factors promoting employment, respondents believe that government orders mandating employers to hire people with disabilities and promoting personal ability skills for people with disabilities help increase their chances of employment.

Moving on to the next topic, we will discuss various factors related to employment, such as reasons for job changes, workplace management strategies, and so on. These discussions will help create guidelines to support people with disabilities in retaining employment for longer periods.

4.4 Job Retention

This section presents the various reasons and problems that result in people with disabilities being unable to retain employment for extended periods. The analysis of these findings will be used to create guidelines aimed at supporting people with disabilities in maintaining employment for longer durations. The details provided in this section are as follows.

4.4.1 Reasons for changing job (4.1)
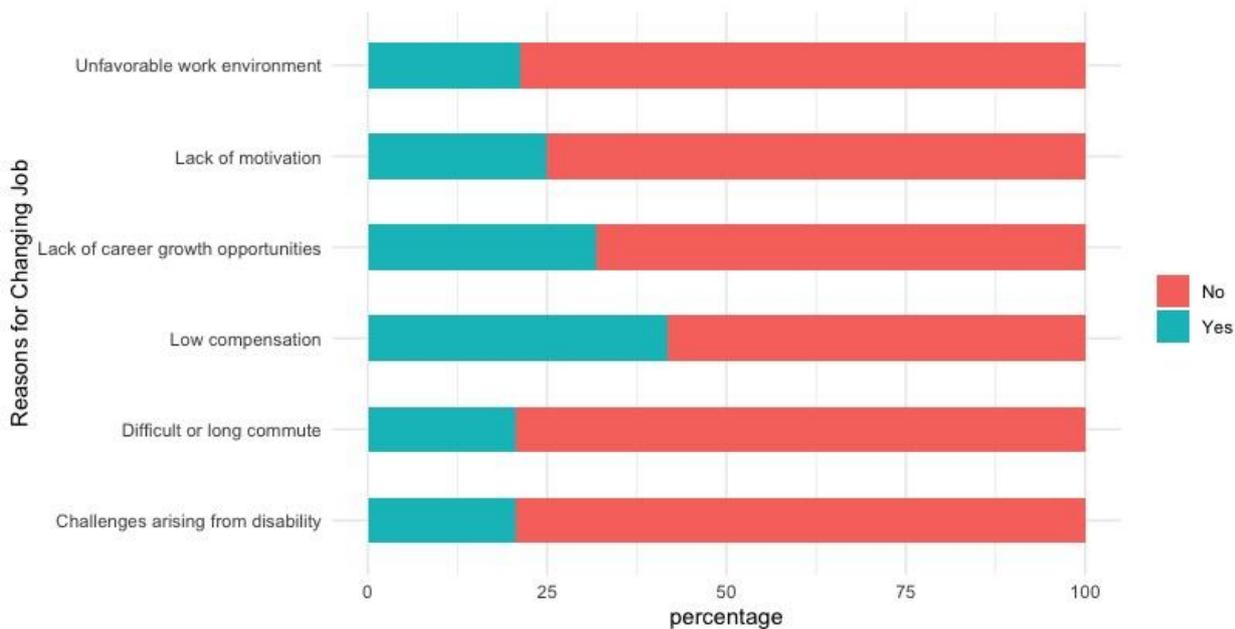
Figure 4.37 Reasons for changing job

Figure 4.37 presents a percentage chart describing the reasons respondents left their jobs. Respondents chose up to three options among the choices. **Low compensation** is the most selected option leading to job exits, accounting for 42%. Following this is the **lack of opportunities for career growth** in the current job at 32%, followed by **the lack of motivation** at 25%. Working environment factors such as lack of support, difficult commuting, and challenges arising from disabilities are the least common reasons, at 21%.

4.4.2 Factors contribute to your current job retention (4.3)
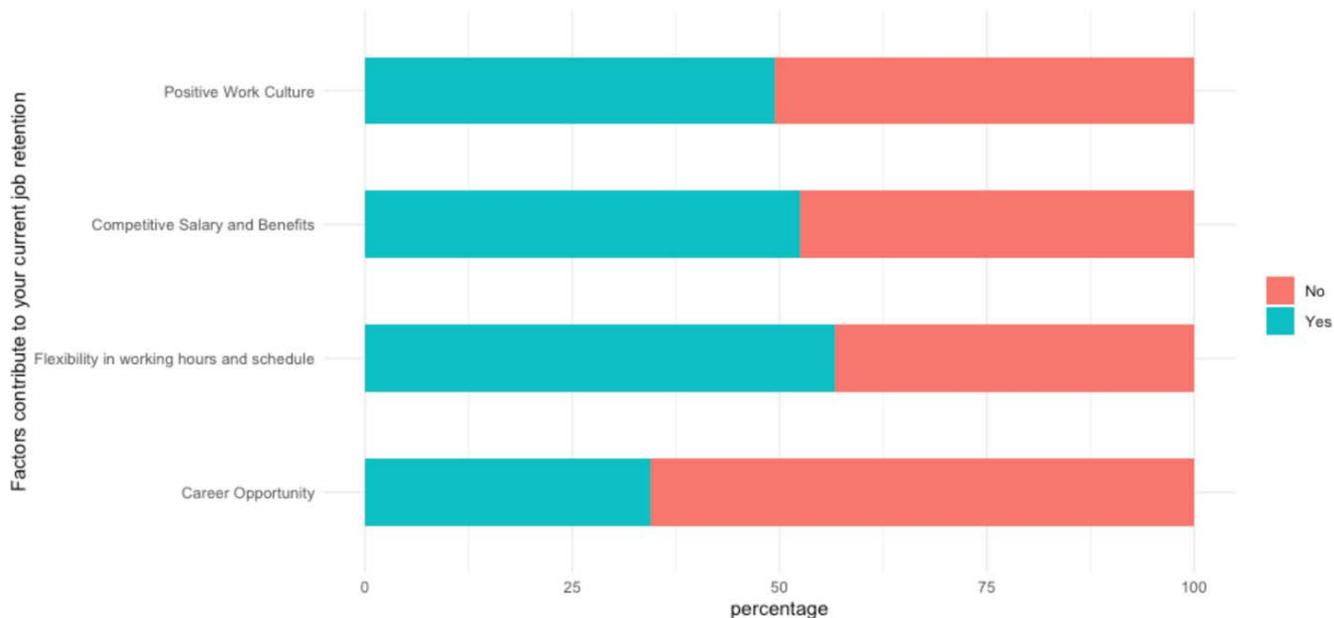
Figure 4.38 respondents' perceptions regarding factors contributing to longer job retention

Figure 4.38 presents a bar chart describing respondents' perceptions of factors contributing to longer job retention. Respondents chose up to three options among the choices. **Flexibility in work hours** contributes the most to longer job retention according to the respondents, at 57%. Following this, **appropriate salary and benefits** are selected by 52% of respondents, **workplace culture** by 49%, and **opportunities for career advancemen**t by 34%.
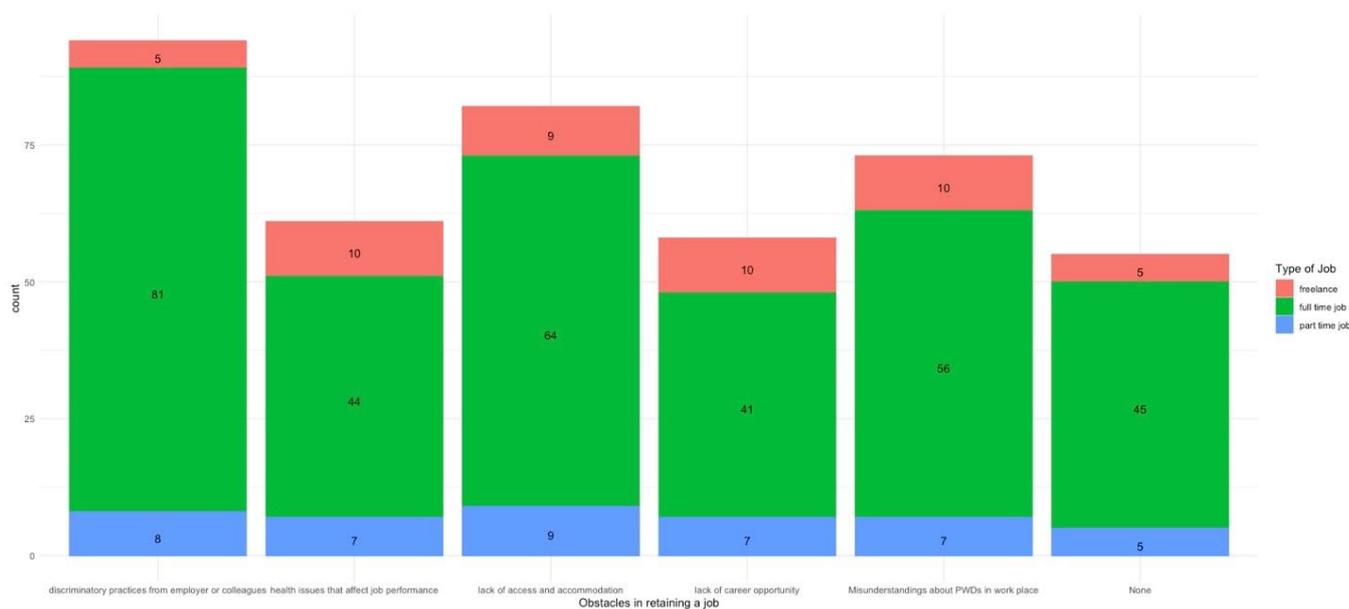
Figure 4.39 Obstacles or barriers in securing employment as a result of your disability group by type of job

Figure 4.39 presents a bar chart describing respondents' obstacles or barriers faced in securing employment due to their disability, grouped by their types of jobs. In the category of full-time jobs, the most significant obstacle to employment is **negative attitudes or discriminatory practices from employers or coworkers, with 81 respondents reporting it.** Following this are **the lack of access and accommodations in the workplace and misunderstandings about people with disabilities** in the workplace, with 64 and 56 respondents respectively. In contrast, in self-employment, the most significant obstacles to employment are **their health issues that affect job performance**, **lack of access and accommodations in the workplace, and misunderstandings about people with disabilities** in the workplace, each reported by 10 respondents. For part-time job, the most significant obstacle to employment **is the lack of access and accommodations in the workplace**, reported by 9 respondents, followed by **negative attitudes or discriminatory practices from employers or coworkers**, reported by 8 respondents. In summary, the most significant barriers and obstacles to employment for people with disabilities

are negative attitudes or discriminatory practices from employers or coworkers, followed by lack of access and accommodations in the workplace, and misunderstandings about people with disabilities in the workplace, in descending order.

4.4.4 Type of training or support would be most beneficial for you in maintaining employment (4.7)
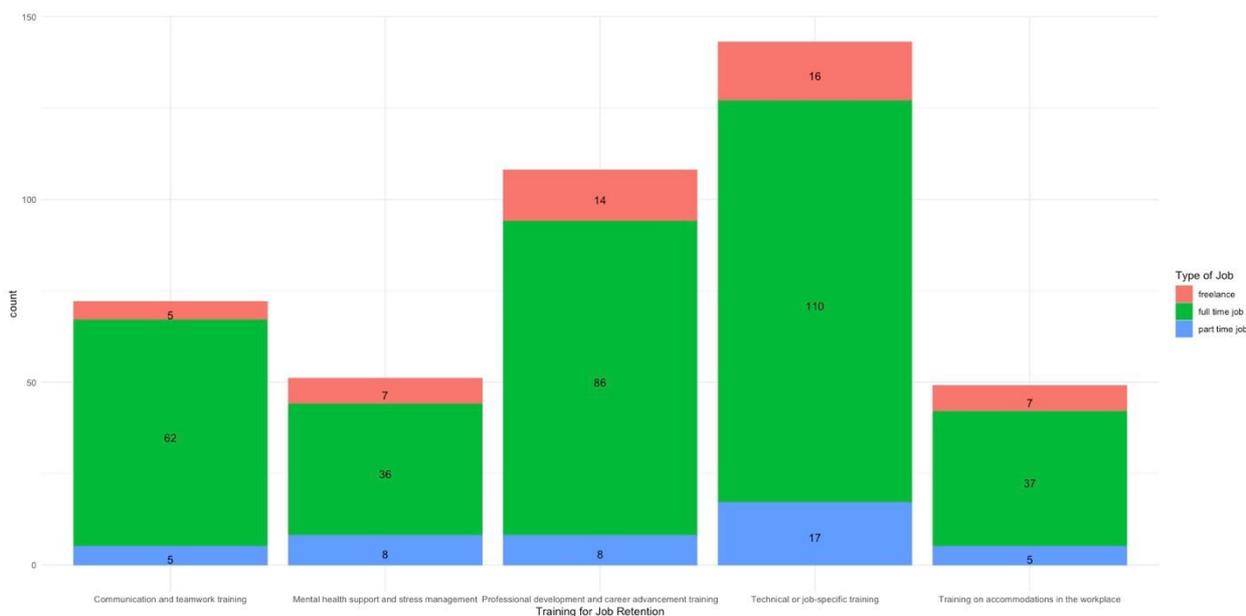
Figure 4.40 respondents' training for job retention group by type of job

Figure 4.40 presents a bar chart describing respondents' preferences regarding training for job retention, grouped by their job types. In the full-time job category, **technical or job-specific training** is considered the most crucial, with 110 respondents identifying it as such. Following this are **professional development and career advancement training**, and **communication and teamwork training**, with 86 and 62 respondents respectively. In the freelance category, **technical or job-specific training** is deemed most important, identified by 16 respondents. Following this are **professional development and career advancement training** with 14 respondents, **mental health support and stress management**, and **training on accommodations** in the workplace, with 7 respondents each. For part time jobs, **technical or job-specific training** is considered the most significant, identified by 17 respondents. Following this are **professional development and**

career advancement training with 14 respondents, and **mental health support and stress management** with 8 respondents each. In summary, the types of training most likely to help people with disabilities in gaining employment are **technical or job-specific training**, followed by **professional development and career advancement training**, and **communication and teamwork training,** respectively.

Moving on to the next topic, we will discuss career advancement and job satisfaction in order to analyze and find ways to support people with disabilities in obtaining quality employment and achieving long-term job retention.

4.5 Career Advancement and Job Satisfaction

This section presents career advancement and job satisfaction. The analysis of these findings will be used to find ways to support people with disabilities in obtaining quality employment and achieving long-term job retention. The details provided in this section are as follows.

4.5.1 Job Satisfaction (5.1)
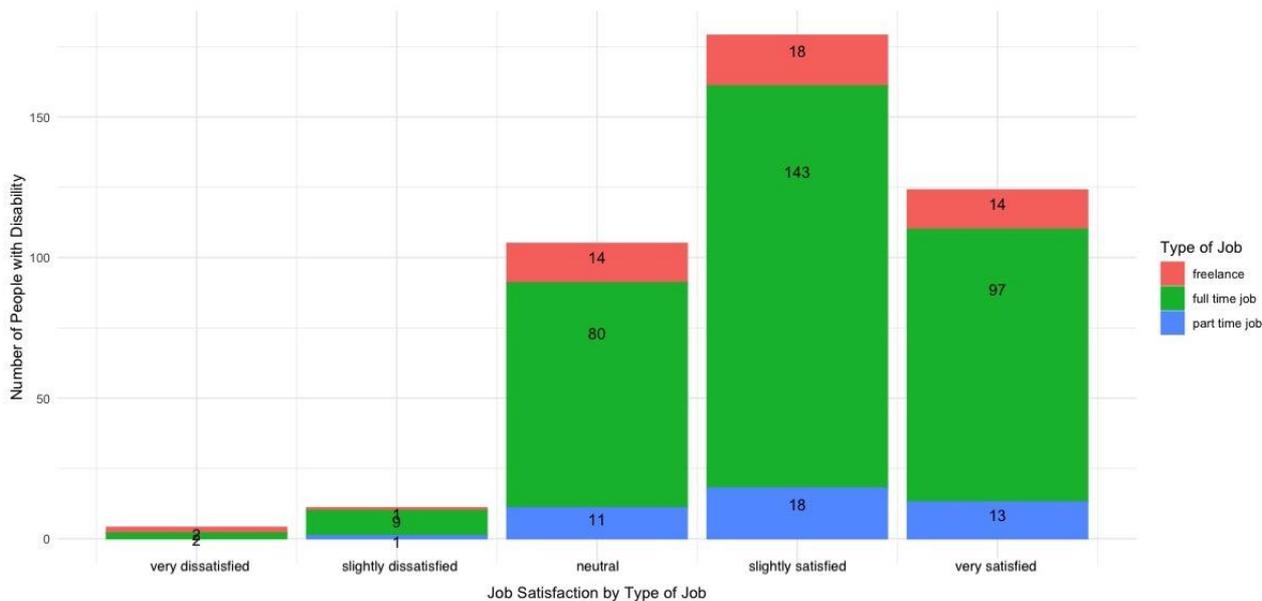
Figure 4.41 Job Satisfaction by Type of Job

Figure 4.41 presents a bar chart describing respondents' job satisfaction, grouped by their job types. In the full-time job category, the majority of respondents expressed that they are "slightly satisfied" with their jobs, with 143 respondents. Following this are respondents who are "very satisfied," with 97 respondents, and those who are "neutral," with 80 respondents. In the freelance category, most respondents reported that they are "slightly satisfied" with 18 respondents, followed by an equal number of 14 respondents who are "very satisfied" and "neutral." For part time job category, most respondents reported that they are "slightly satisfied" with 18 respondents, followed by 13 respondents who are very satisfied, and 11 respondents who are "neutral." However, up on closer examination in Chapter 5 below, one would see that those with "neutral" attitude toward their job actually exhibits strong relationship with lower job retention, suggesting that the respondents are actually not very satisfied with the status quo.
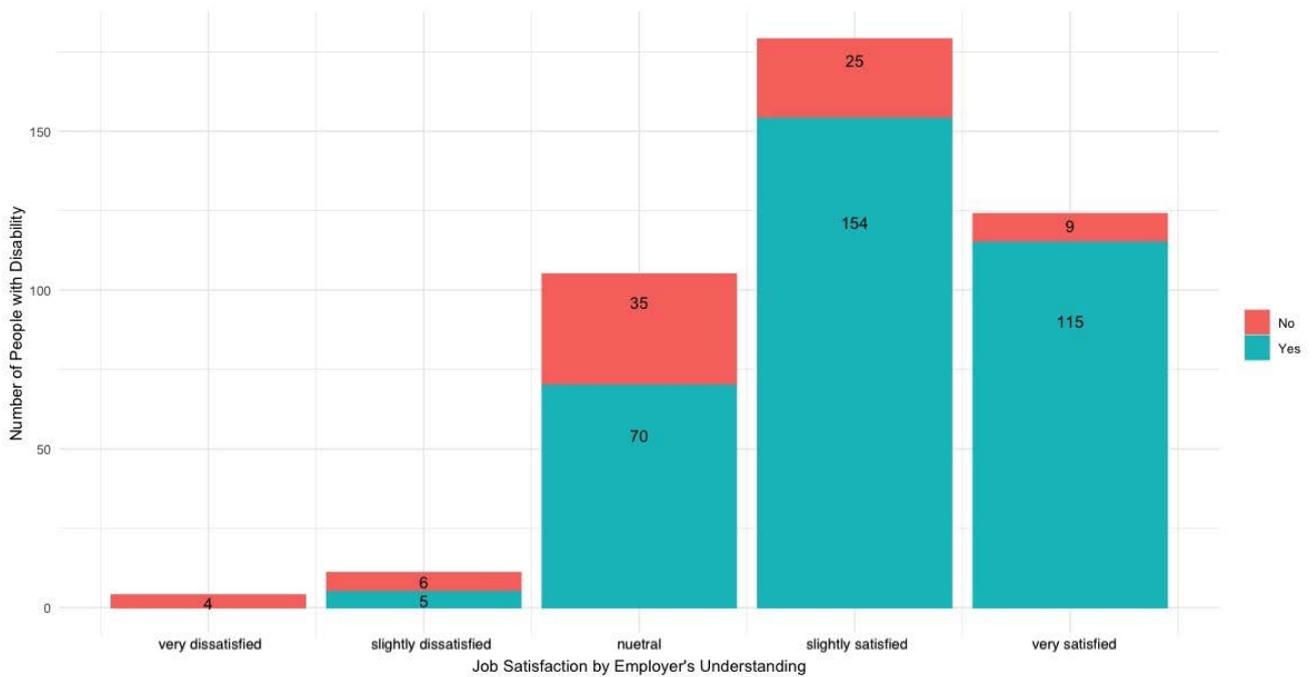
Figure 4.42 Job Satisfaction by Employer's Understanding

Figure 4.42 presents a bar chart describing respondents regarding job satisfaction, grouped by their employer's understanding. It was found that respondents who think their employers understand them have the higher level of job satisfaction, with 154 respondents reported that they are "slightly satisfied" and 115 respondents reported that they are "very satisfied." In contrast, most respondents who feel that their employers do not understand them have a more "neutral" attitude towards their jobs, with 35 respondents.

4.5.2 Career Goal (5.3)
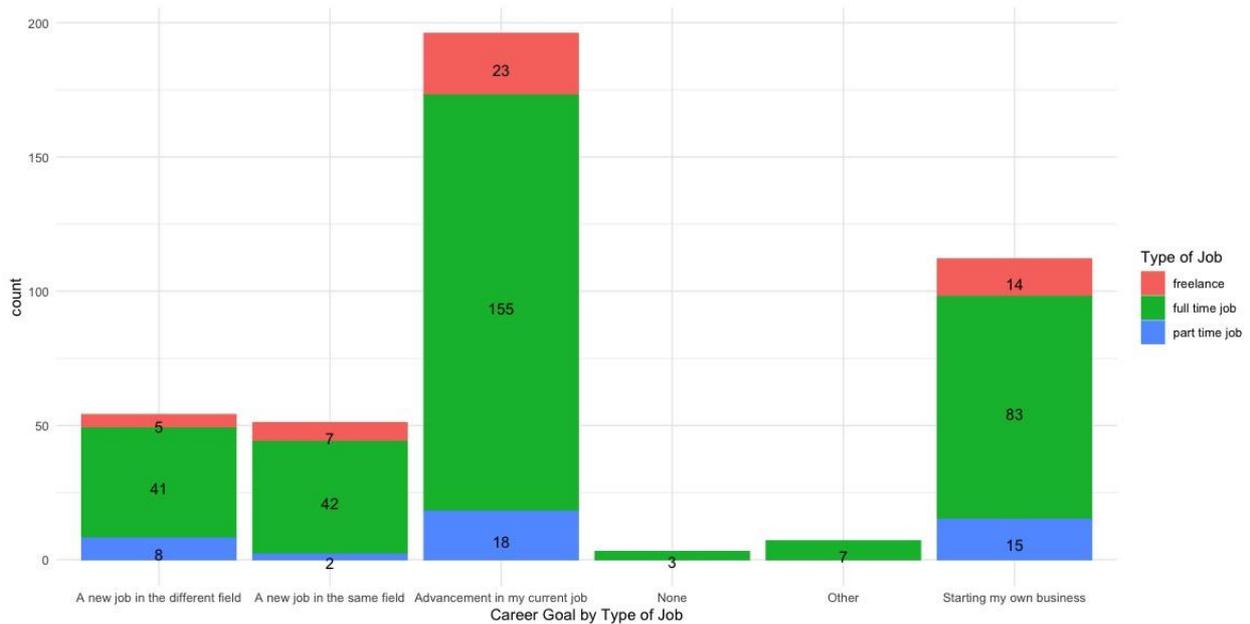
Figure 4.43 Career Goal by Type of Job

Figure 4.43 presents a bar chart describing respondents' career goals, grouped by type of job. For the full-time job category, the most common career goal is "advancement in my current job," with 155 respondents. The following are "starting my own business" with 83 respondents, and "a new job in the same field" with 42 respondents. In the freelance category, the most common career goal is also "advancement in my current job," with 23 respondents. Following this are "starting my own business" with 14 respondents, and "a new job in the same field" with 7 respondents, respectively. For part time job types, the most common career goal is "advancement in my current job," with 18 respondents. Following this are "starting my own business" with 15 respondents, and "a new job in a different field" with 8 respondents. Overall, the majority of respondents' career goals, regardless of job types, are primarily focused on "advancement in their current job," followed by "starting their own business."

4.6 Conclusion

To summarize, based on the descriptive statistics presented in this chapter, one can suspect that certain factors, both internal and external factors, may affect the job quality and job retention of people with disabilities. For example, employers' accommodation, their understanding of the nature of disability, and discrimination seem to result in different levels of job retention, both job duration and job turnover. Job-education correspondence, moreover, seems to affect the compensation satisfaction level of respondents. These are, however, simply preliminary observations that require additional inferential tests to confirm and/or refute such observations made in this chapter.

As such, the next chapter analyzes the relationship between various factors that impact the quality of employment and job retention for people with disabilities, as explained in the framework in Chapter 3, utilizing statistical analysis methods such as one-way ANOVA and crosstab chi-square. The results of this analysis will be combined with insights gathered from focus group discussions to identify which factors influence quality employment and job retention for people with disabilities. These findings will then be used to develop recommendations for supporting people with disabilities in obtaining quality employment and achieving longer job retention in Chapter 7.

Chapter 5
Inferential Statistical Results and Analysis

This chapter presents the inferential statistics set forth in Section 3.1 of Chapter 3, the Research Framework. As explained previously, two types of inferential statistics are employed: the ANOVA test and Crosstab (Chi-Square Test). ANOVA is employed when the dependent variables are continuous variables, such as job duration, or satisfaction scores. The test will suggest which factors result in significant differences in the means of dependent variable (job quality and job retention). The Crosstab Chi-Square test is employed to test any significant differences in categorical variables (i.e. variables that divide in certain numbers of non-overlapping groups). This is called the two-way contingency tables. All tests report statistically significant results at 90 percent confidence interval. It should also be reminded that the results, conclusion, and any implication suggested in this chapter are based on the survey data collected for this project. The generalization of the results should be approached with caution.

The remaining part of this chapter structures as follows. First, Section 5.1 reports the first research question: the effects of internal factors on job quality and job retention. Next, Section 5.2 presents the results from the second research question: the effects of external factors on job quality and job retention. Section 5.3 then describes the relationship between job quality and job retention. Finally, Section 5.4 concludes the significant findings from this chapter.

5.1 Research Question 1: How do Internal Factors affect Job Quality and Job Retention?

This section reports the statistical results of a set of independent variables that belongs to the Internal Factor category. Internal factors, as defined in Section 2.6 of Chapter 2, are factors that characterize people with disabilities themselves and are usually hard to change after such characteristics are exhibited. Hence, it is harder to intervene by policy. However, as stated in Chapter 2, it is still very useful to know the potential impacts of these characteristics as starting conditions of different groups of people with disability. In other words, the results would serve as a great context for policymaking on transition to work for different groups of people with disabilities.

As shown in Chapter 2, the internal factors selected for statistical tests here are: age range, gender, type of disability, education level, major of study, job finding period after graduation, and caregiver requirement. The dependent variables, as proxies for job quality and job retention, are as shown in Chapter 2. Specifically, Sections 5.1.1 to 5.1.7 reports the results of various dependent variables representing job quality, while Sections 5.1.9-5.1.10 reports the results of job retention.

5.1.1 Internal Factor x Compensation Satisfaction Score (ANOVA) (3.3)

	F	Sig.
Age Range	2.867	0.023*
Gender	5.458	0.005*
Type of Disability	1.463	0.497
Caregiver	0.025	0.874
Education level	1.62	0.199
Major of study	2.117	0.027*
Time Period after graduation	0.837	0.524

Table 5.1 Internal Factors x Compensation Satisfaction

Table 5.1 shows the results of one-way ANOVA of 7 internal factors to determine whether there are significant differences in the compensation satisfaction scores across different groups. The results show that, based on the survey responses, there are indeed significant differences between groups for 3 internal factors, namely age range, gender, and major of study. This suggests that, based on the data collected, respondents across different age groups, different genders, and majors of study report different satisfaction levels for their compensations. See Figures 5.1-5.2 below for references.

Post-hoc analyses (see Figures 1-4 in Appendix H) showing pairwise t-test comparisons (comparing the means) between a pair of groups for those 3 internal factors show the following:

- For the age range, there are significant differences between the age group 18-24 years old and the age group 30-34 years old. The age group 30-34 years old are less

happy with their compensation than the age group 18-24 years old peers, however no significant differences among other age groups.

- For the gender, there are significant difference between male and female but both groups do not differ from non-binary. Females are less happy with their compensation than their male peers.

- T-test does not show any significant difference among any pairs of major of study. Hence, the differences reported among different majors is inconclusive.
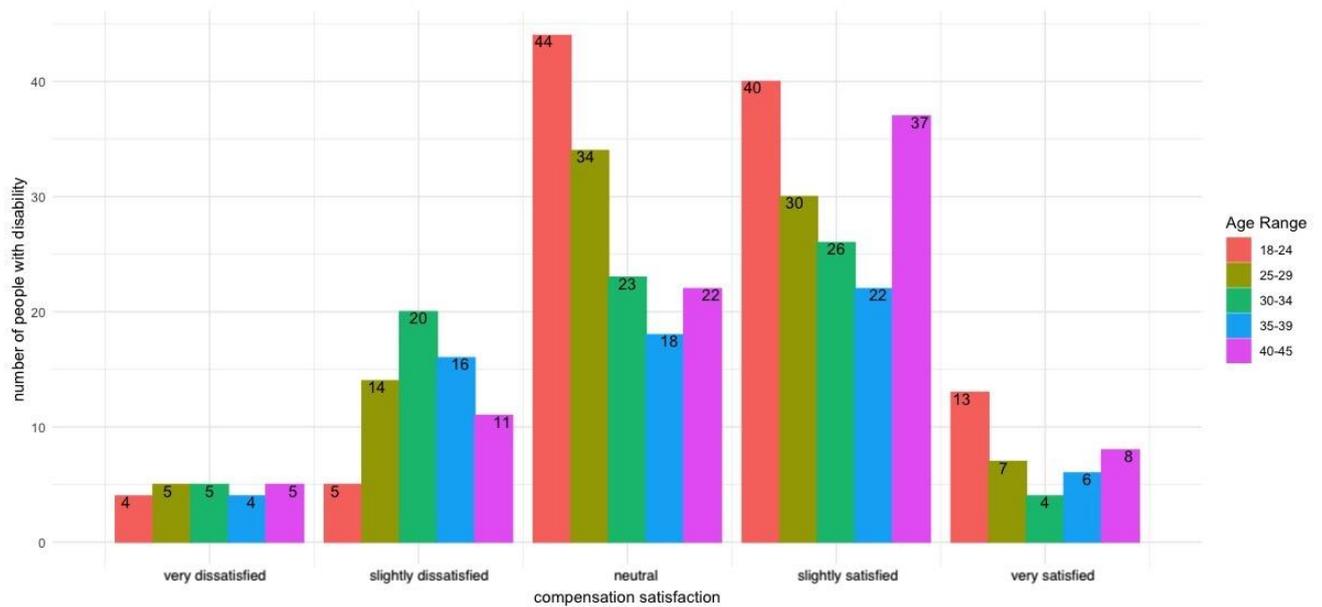
Figure 5.1 Age Range x Compensation Satisfaction
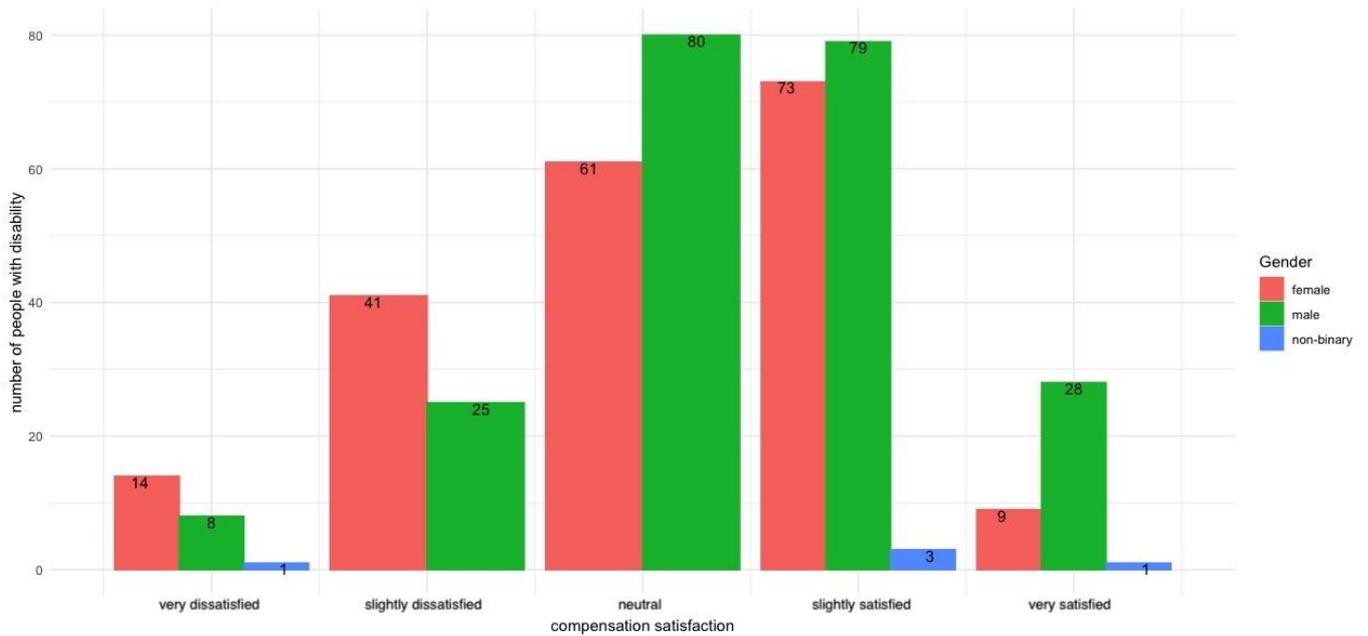
Figure 5.2 Gender x Compensation Satisfaction

5.1.2 Internal Factor x Accommodation (Chi-Square Test) (3.13)

	Df	Asymptotic Significance (2-sided)
Age Range	8	0.000*
Gender	4	0.515
Types of Disability	24	0.000*
Caregiver	2	0.017*
Education Level	4	0.836
Major of Study	18	0.268
Time Period after Graduation	10	0.237

Table 5.2 Internal Factors x Accommodation

Table 5.2 shows the crosstab chi-square test results of 7 internal factors to determine whether there are significant differences in the distributions across different groups. The results show that there are indeed significant differences for different groups in 3 internal factors, namely age range, type of disability, and caregivers. This suggests that based on the data collected, people

with disabilities across different age groups, types of disability, and caregiver requirement require and receive different levels of accommodation. See Figures 5.3-5.5 below for references.

- For the age range, there are significant differences between the age group 18-24 years old and the age group 30-34 years old. The age group 30-34 years old receive accommodation less than the age group 18-24 years old peers. However, there is no significant differences among other age groups.

- For types of disability, people with physical disability report that they mostly require accommodation (more than other types of disability) and they do receive them most of the time. Overall, roughly 23 percent of people with disability do need but do not receive accommodation.

- For the caregiver, the focus is on the group that need but do not receive accommodation. In this group, there are 65 respondents who do not have caregivers, and 11 respondents who have caregivers. Calculating based on the total number of respondents, we found that those who do not receive accommodation amounted to 17.4 percent of all respondents in the group with no caregiver, and 22 percent of all respondents in the group with caregivers. Based on the data, people with caregiver often do not receive accommodation more than people without caregivers, by percentage.
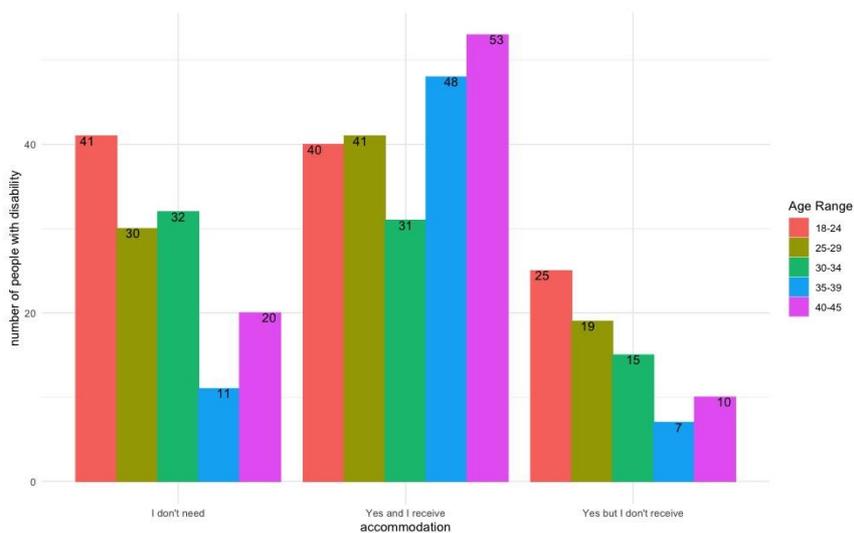
Figure 5.3 Age Range x Accommodation
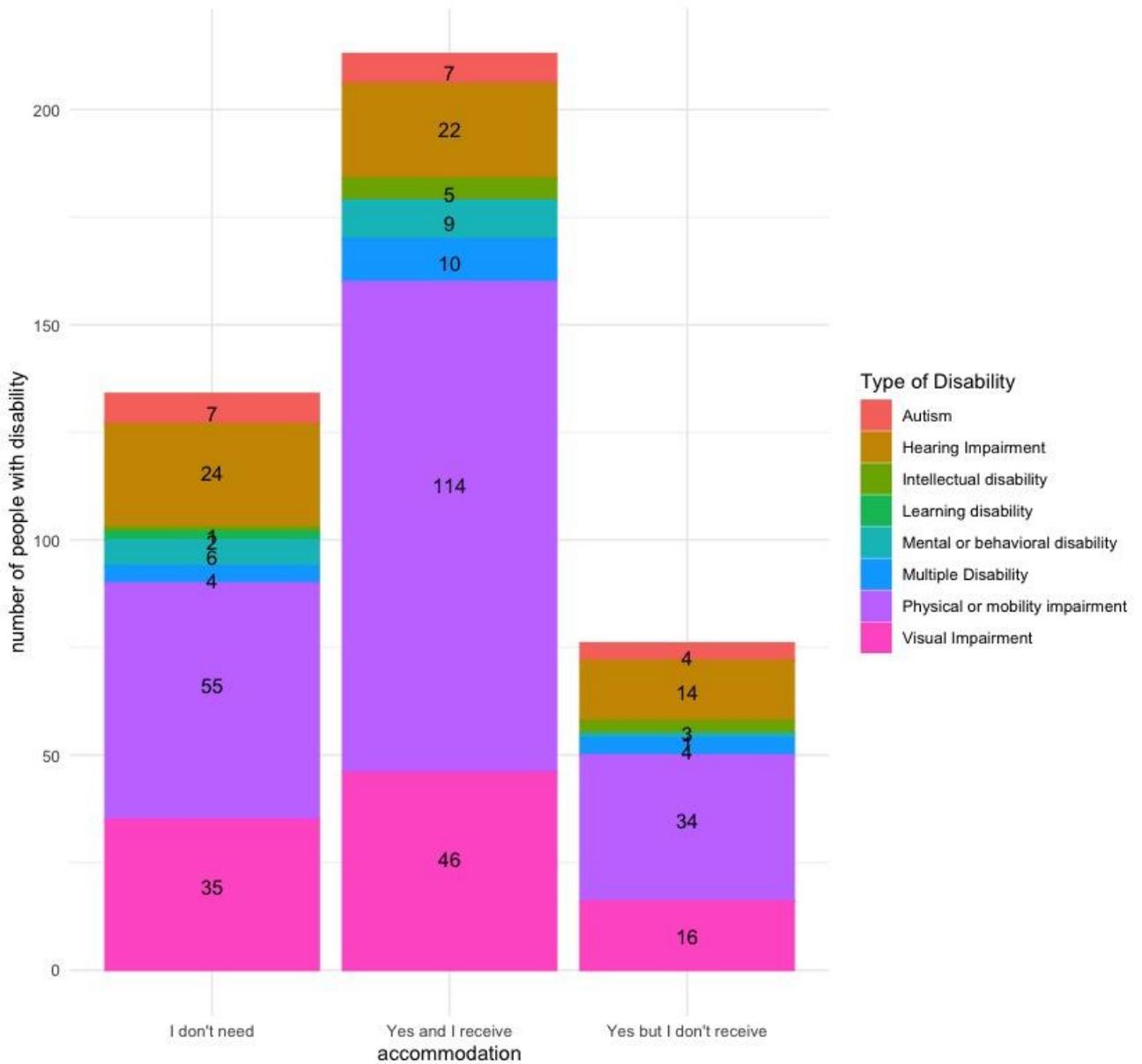
Figure 5.4 Types of disability x Accommodation
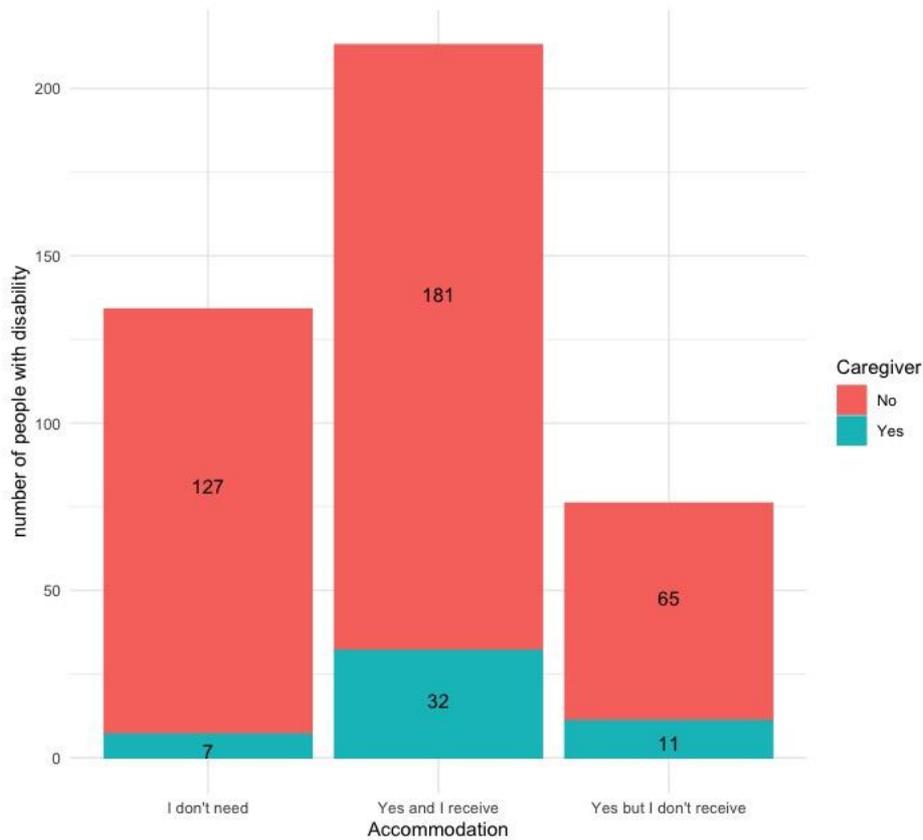
Figure 5.5 Care giver x Accommodation

5.1.3 Internal Factor x Challenge/Obstacles in Advancing the Career due to Disability (Chi-Square Test) (3.15)

	Df	Asymptotic Significance (2-sided)
Age Range	4	0.217
Gender	2	0.894
Types of Disability	12	0.148
Caregiver	1	0.003*
Education Level	2	0.577
Major of Study	9	0.231
Time Period after Graduation	5	0.461

Table 5.3 Internal Factors x Challenges/Obstacles in advancing the career due to disability

Table 5.3 shows the crosstab chi-square test results of 7 internal factors to determine whether there are significant differences in the distributions across different groups. The results show that there are indeed significant differences for different groups in for people with disability who require and do not require caregivers. People with disabilities who require caregiver tend to face more challenges in advancing their career due to their disabilities. See Figure 5.6 below for references.
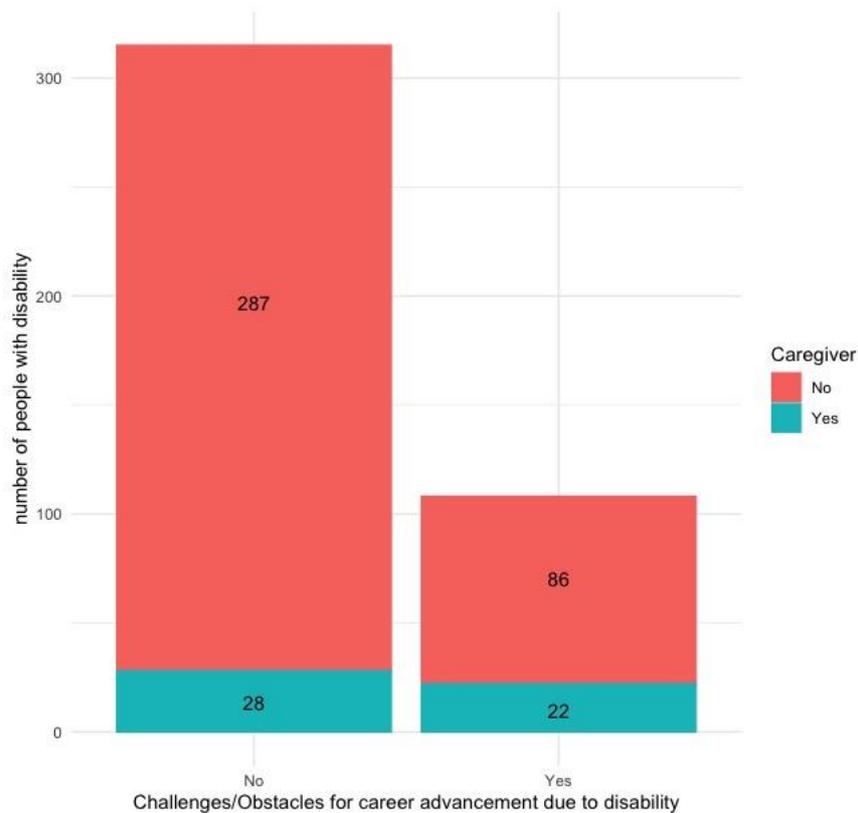
Figure 5.6 Caregiver x Challenges/Obstacles in advancing the career due to disability

5.1.4 Internal Factor x Employer's Provision of Training (Chi-Square Test) (3.20)

	Df	Asymptotic Significance (2-sided)
Age Range	8	0.001*
Gender	4	0.074*
Types of Disability	24	0.256

	Df	Asymptotic Significance (2-sided)
Caregiver	2	0.156
Education Level	4	0.186
Major of Study	18	0.287
Time Period after Graduation	10	0.855

Table 5.4 Internal factor x Employer's Provision of Training

Table 5.4 shows the crosstab chi-square test results of 7 internal factors to determine whether there are significant differences in their experience with employers' training. The results show that there are indeed significant differences for different groups in age ranges and gender. See Figures 5.7-5.8 below for references.

- For gender, a further analysis shows that there is no significant different between male and female (see Figures 6 in Appendix H). The main differences came from the treatment of non-binary, as compared to male and female peers.)

- For the age range, overall, respondents do receive training from employers than not. However, there are more respondents in the younger age ranges that never receive any training from the employers, among those who never receive training. This is expected, since the more time and experiences they have working, the more opportunity they will receive trainings.
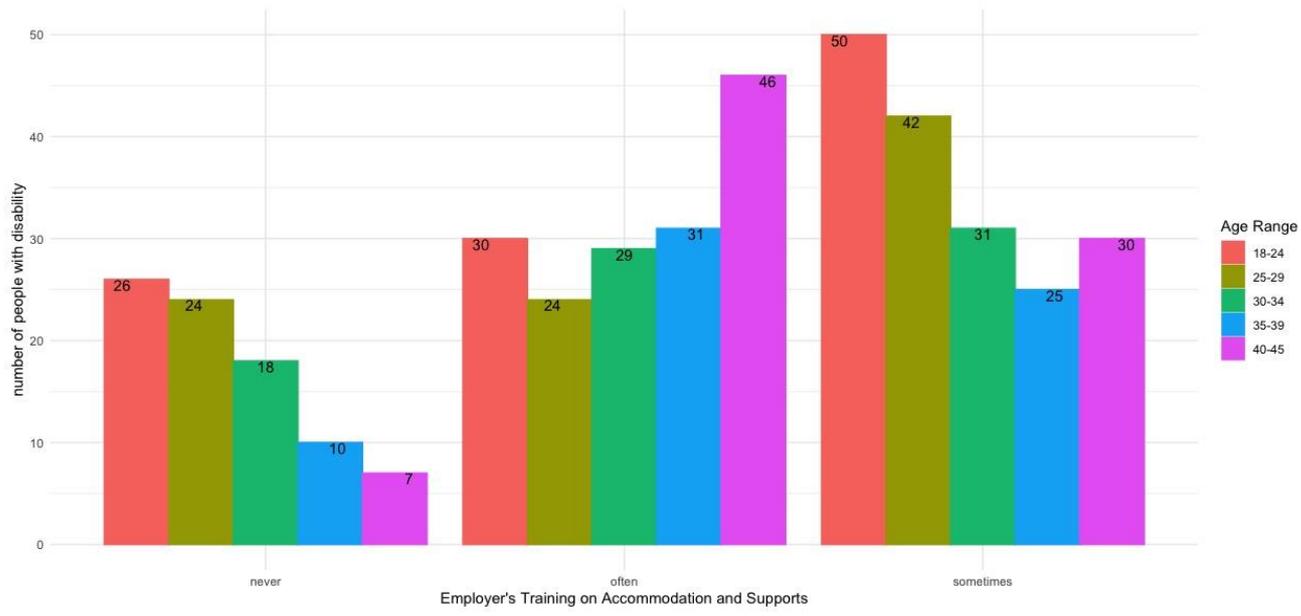
Figure 5.7 Age range x Employer's Provision of Training
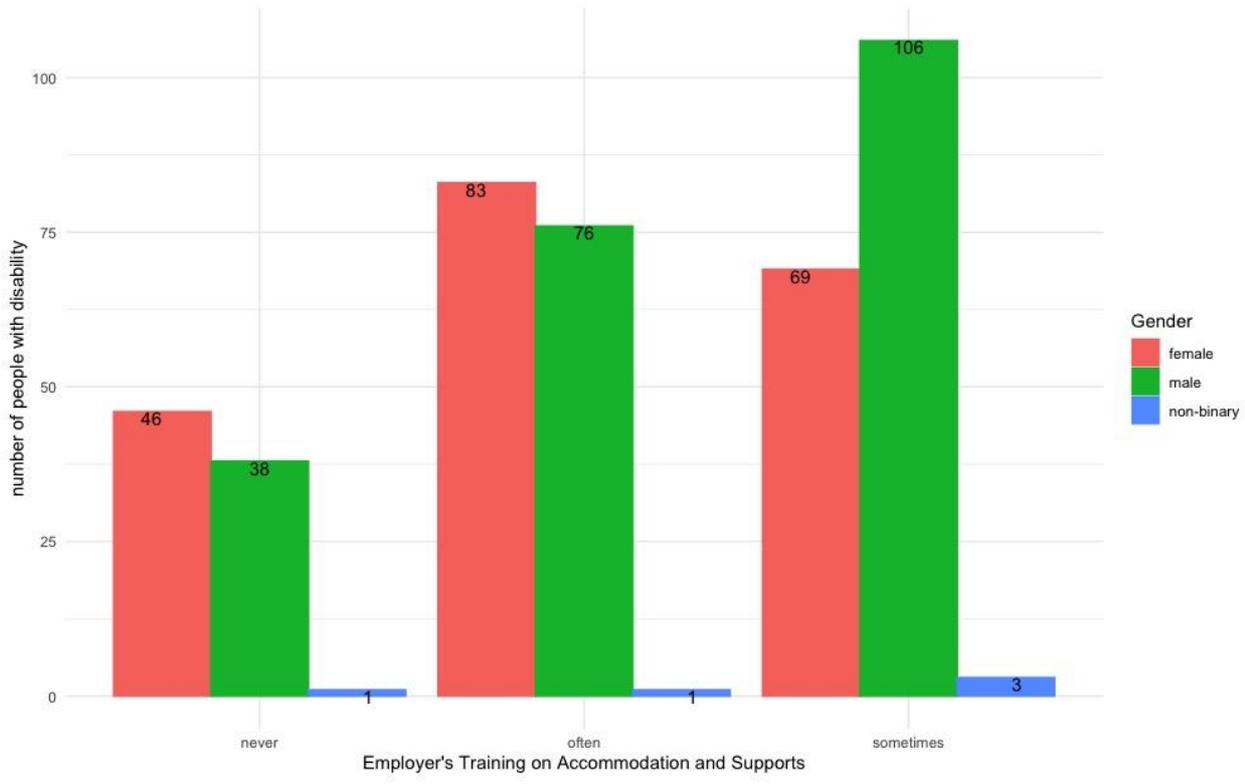
Figure 5.8 Gender x Employer's Provision of Training

5.1.5 Internal Factor x Discrimination at Workplace (Chi-Square Test) (3.21)

	Df	Asymptotic Significance (2-sided)
Age Range	8	0.098*
Gender	4	0.737
Types of Disability	24	0.043*
Caregiver	2	0.701
Education Level	4	0.745
Major of Study	18	0.218
Time Period after Graduation	10	0.470

Table 5.5 Internal factor x Discrimination at workplace

Table 5.5 shows the crosstab chi-square test results of 7 internal factors to determine whether there are significant differences in their experience of discrimination at workplace. The results show that there are indeed significant differences for different groups in age ranges and types of disability. Based on the analysis of the probability table, the types of disability that typically face discrimination at workplace is intellectual disability, multiple disability, and other physical impairments. See Figures 5.9-5.10 below for references.

- For the age range, there are significant differences between the age group 18-24 years old and the age group 30-34 years old. The age group 30-34 years old have discrimination at work more than the age group 18-24 years old peers. However, there is no significant difference among other age groups.

- For types of disability, overall, most types do not often face discrimination. However, considering on the percentage, we found that people with intellectual disability faced has the highest percentage of facing discrimination (2/3 of the respondents). On the other hand, roughly 1/3 of the respondents in other types of disability face discrimination.
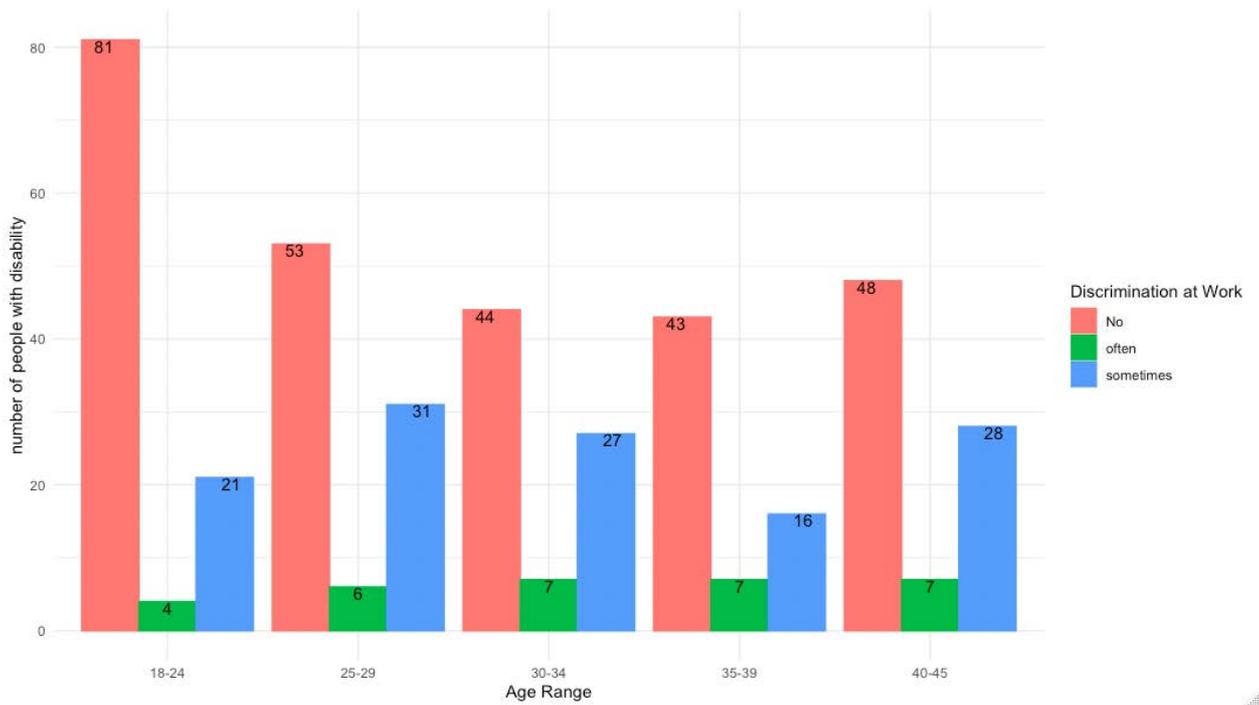
Figure 5.9 Age range x Discrimination at workplace
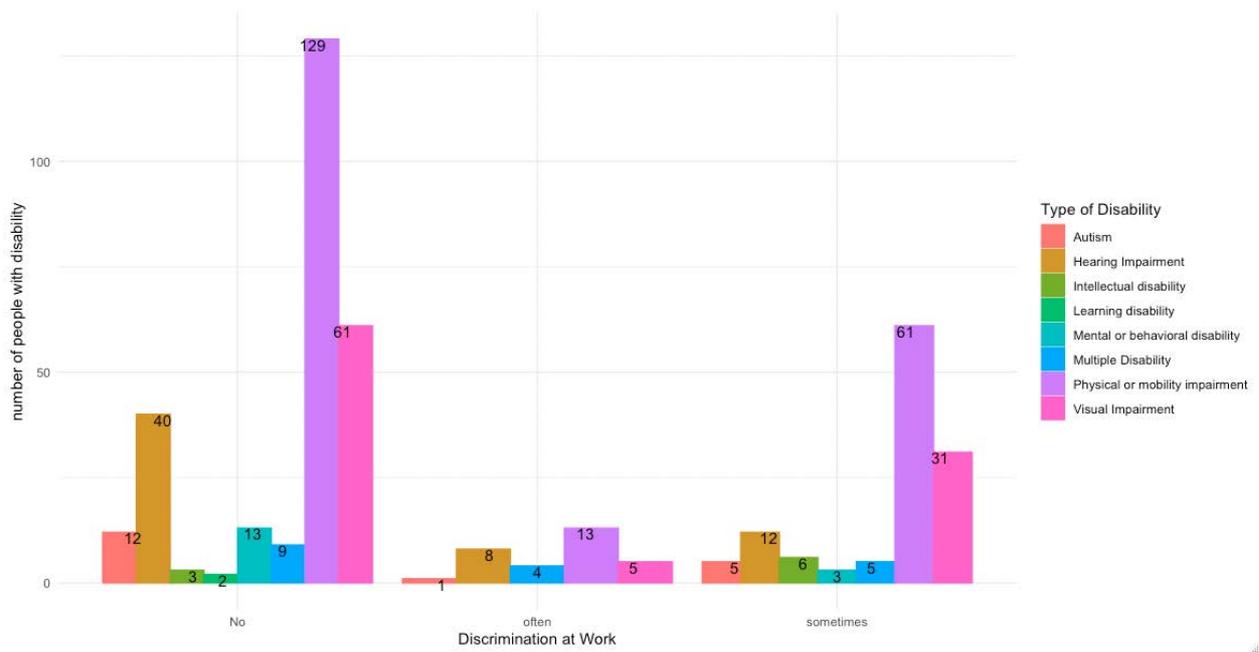
Figure 5.10 Type of Disability x Discrimination at workplace

5.1.6 Internal Factor x Job Satisfaction (ANOVA) (5.1)

	F	Sig.
Age Range	6.063	0.000*

Gender	1.176	0.309
Type of Disability	2.261	0.009*
Caregiver	1.034	0.31
Education level	4.21	0.016*
Major of study	1.815	0.064*
Time Period after graduation	4.12	0.001*

Table 5.6 Internal Factor x Job Satisfaction

Table 5.6 shows the results of one-way ANOVA of 7 internal factors to determine whether there are significant differences in the compensation satisfaction scores across different groups. The results show that there are indeed significant differences between groups for 5 internal factors, namely age range, type of disability, education level, major of study, and time period after graduation to find jobs. See Figures 5.11-5.14 below for references.

Post-hoc analyses (see Figures 8-12 in Appendix H) showing pairwise t-test comparisons (comparing the means) between a pair of groups for those 5 internal factors show the following.

- For the age range, there are significant differences between the age group 18-24 years old and the older age groups (35-39 and 40-45 years old), and the age group 25-29 and the 40-45 years old. In other words, the old and the young report different levels of job satisfaction with the older being happier at their jobs.
- For the type of disability, the pairwise comparison does not report any significant differences between any pair of groups. However, the ranking can still be useful but must be used with caution. The average job satisfaction results by group shows that people with learning disability and multiple disability are the least satisfied group, while people with low vision, autism, and mental disabilities are the most satisfied group.
- For education level, there are significant differences between master's degree and other degrees. Indeed, the average by groups show that people with master's degree are much more satisfied with their jobs than the other two groups (bachelor's degree and vocational certificate).

- There is no significant difference in the pairwise t-test among different majors of study. Therefore, the results should be approached with caution.
- Time period after graduation needed to find their first jobs relate strongly with the overall job satisfaction. The results show that people who need 1-3 months to find job are the most dissatisfied with their jobs compared to other groups.
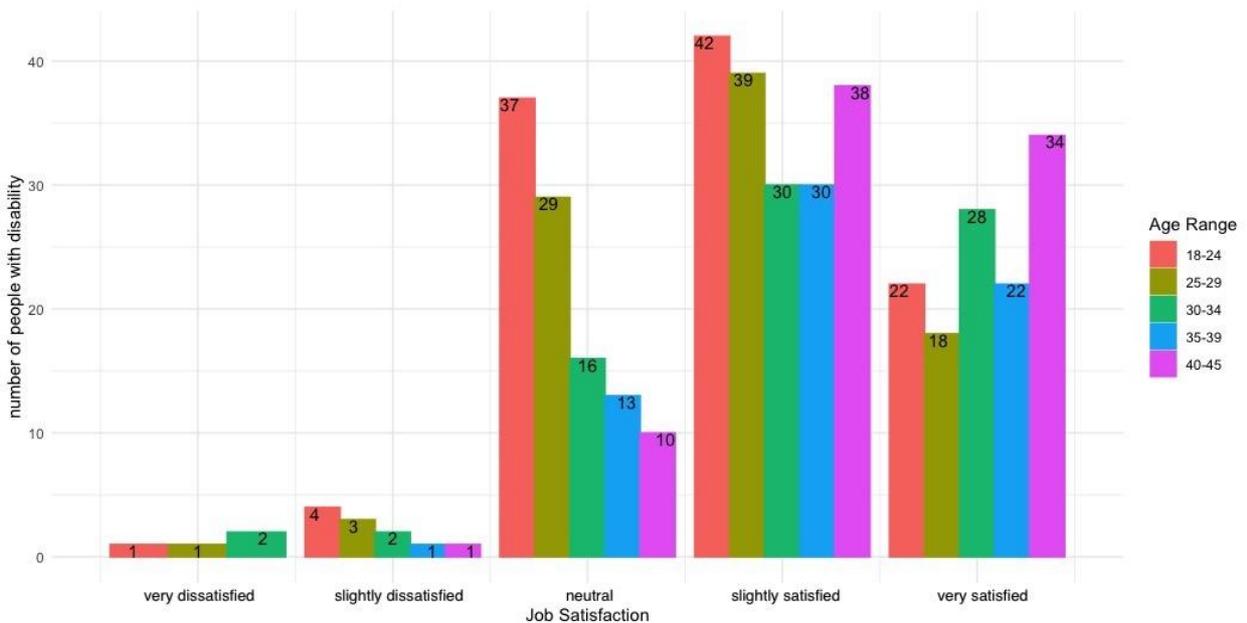
Figure 5.11 Age Range x Job Satisfaction
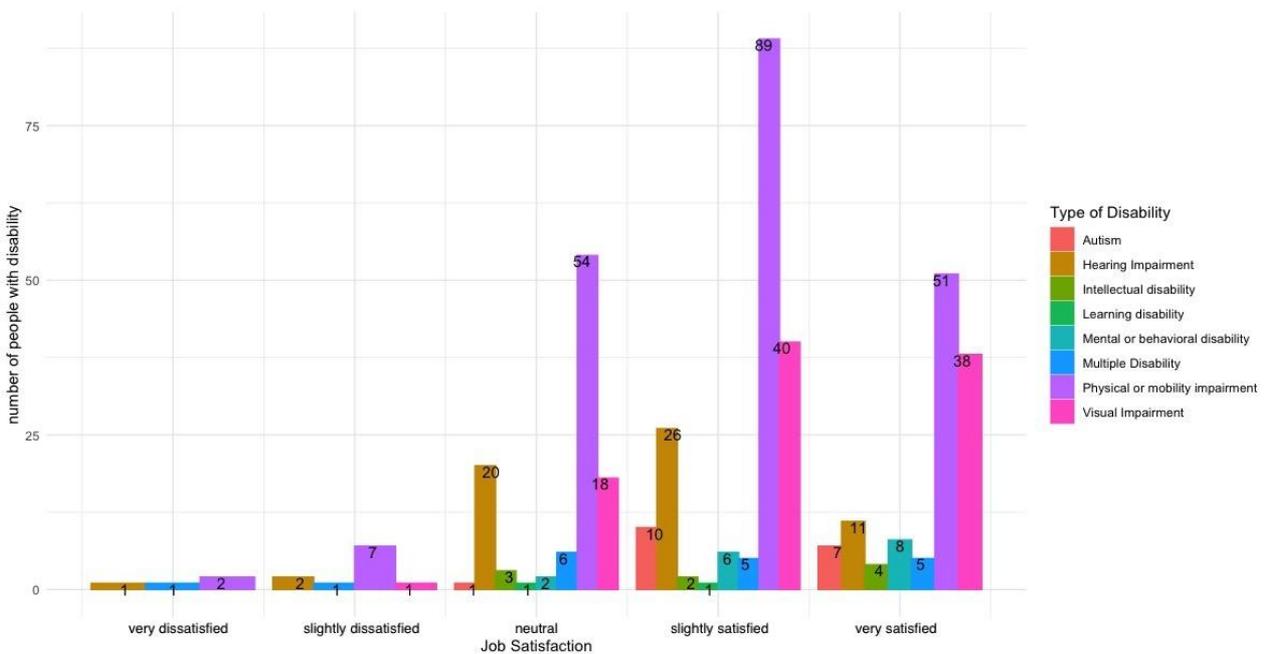
Figure 5.12 Type of Disability x Job Satisfaction
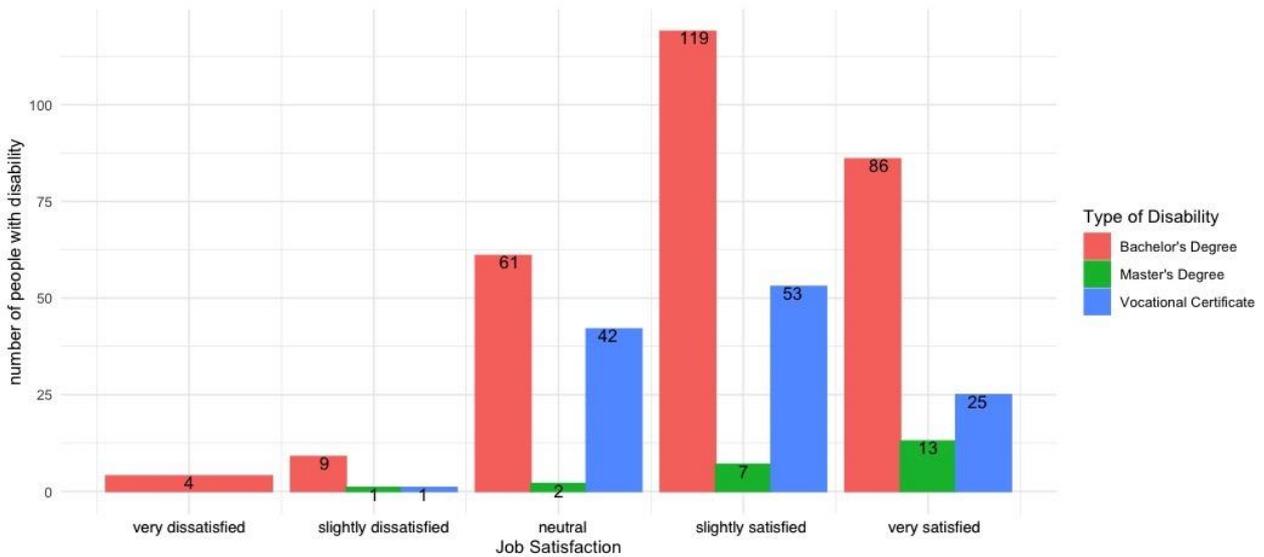
Figure 5.13 Education Level x Job Satisfaction
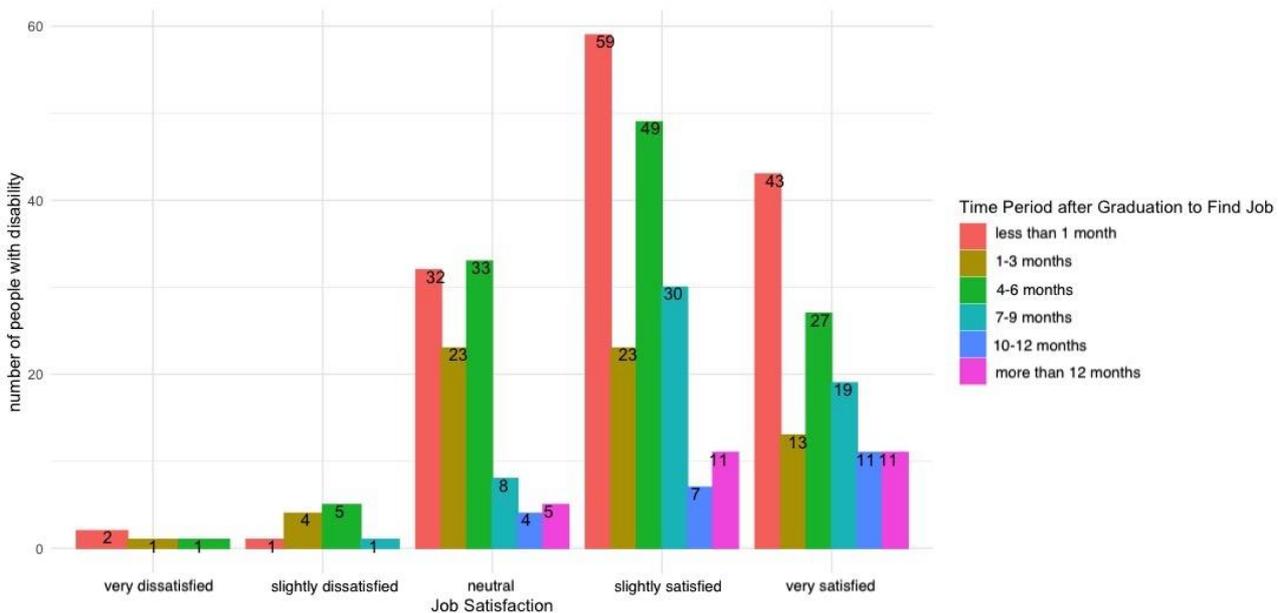
Figure 5.14 Time Period after Graduation x Job Satisfaction

5.1.7 Internal Factor x Type of Job (Chi-Square Test) (3.4)

	df	Asymptotic Significance (2-sided)
Age Range	8	0.337
Gender	4	0.776
Types of Disability	24	0.341

Caregiver	2	0.701
Education Level	4	0.041*
Major of Study	18	0.687
Time Period after Graduation	10	0.002*

Table 5.7 Internal Factor x Type of Job

Table 5.7 shows the crosstab chi-square test results of 7 internal factors to determine whether there are significant differences in the type of jobs that they found. The results show that there are indeed significant differences for different groups in education level and time period after graduation. Based on the analysis of the probability table (see Figures 13-14 in Appendix H), people with master's degree do not work as freelance, bachelor's degree has the highest level of people working as freelance. The probability table of the time period required to get a job suggests that people who cannot find a full-time job in the first year typically become freelance, rather than taking a part time job. See Figures 5.15-16 for references below.
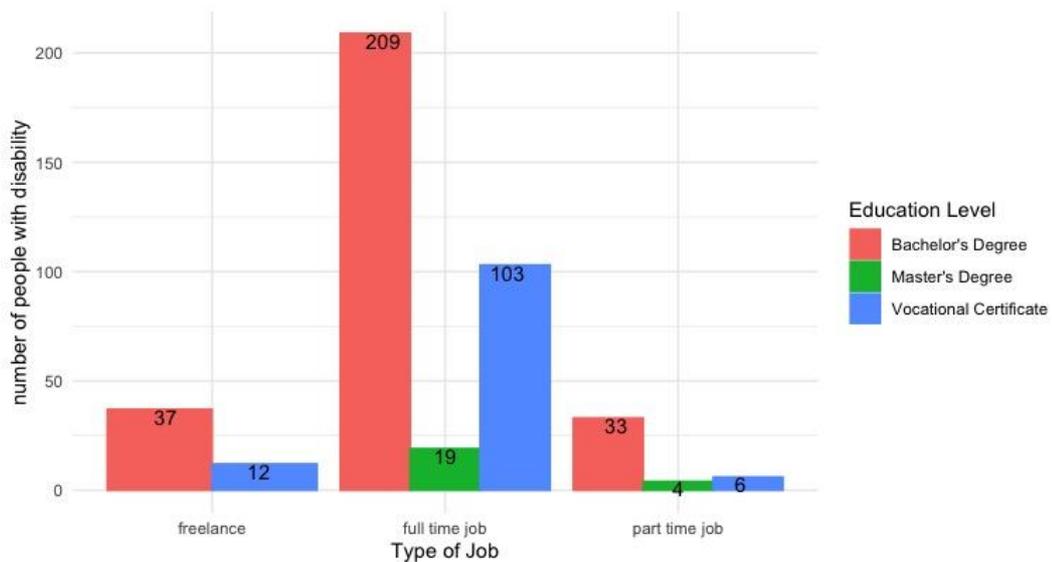
Figure 5.15 Education Level x Type of Job
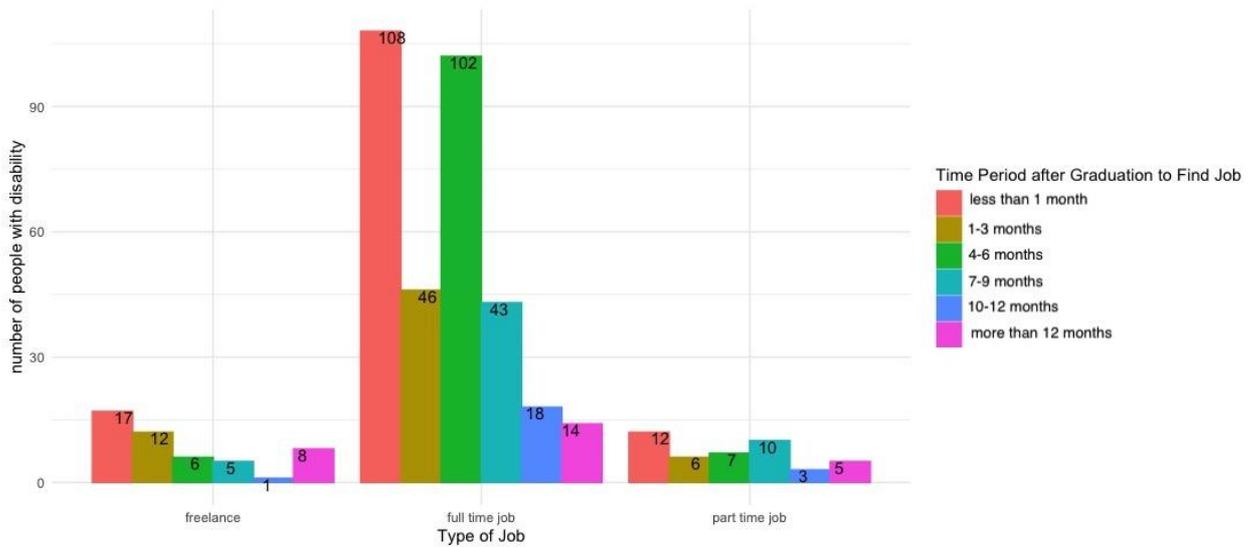
Figure 5.16 Time Period after Graduation x Type of Job

Internal Factors x Job Retention

5.1.8 Internal Factor x Current Job Duration (ANOVA) (3.4)

	F	Asymptotic Significance (2-sided)
Age Range	49.24	0.000*
Gender	0.777	0.461
Types of Disability	1.509	0.118
Caregiver	3.143	0.077*
Education Level	7.244	0.001*
Major of Study	1.642	0.101
Time Period after Graduation	3.787	0.002*

Table 5.8 Internal factor x Current Job Duration

Table 5.8 shows the results of one-way ANOVA of 7 internal factors to determine whether there are significant differences in current job duration across different groups. The results show that there are indeed significant differences between groups for 4 internal factors, namely age range, caregiver requirement, education level, and time period after graduation to find jobs. See Figures 5.17-20 for references below.

Post-hoc analyses (see Figures 15-19 in Appendix H) showing pairwise t-test comparisons (comparing the means) between a pair of groups for those 4 internal factors show the following.

- It is expected that the older people get, the longer job duration they have. This is reflected in the all-significant results for pairwise t-tests in Appendix H

- The pairwise t-test comparison of average current job duration shows that there are significant different in current job duration between those who have vocational certificates (average of 29 months), comparing to the other two groups, namely those with bachelor's degree (average of 46 months) and master's degree (average of 54 months).

- Average job durations also differ, based on whether people with disability require caregivers. In particular, people who have care takers tend to stay longer in their job (average of 52 months), which is significantly different from people who do not have caretakers (average of 40 months).

- Average job durations also differ across different groups of people depending on the time period required to get their first jobs. In particular, people who manage to find job in less than 1 month tend to stay longer in their job (average of 54 months), which is significantly different from other groups (average of 30-40 months).
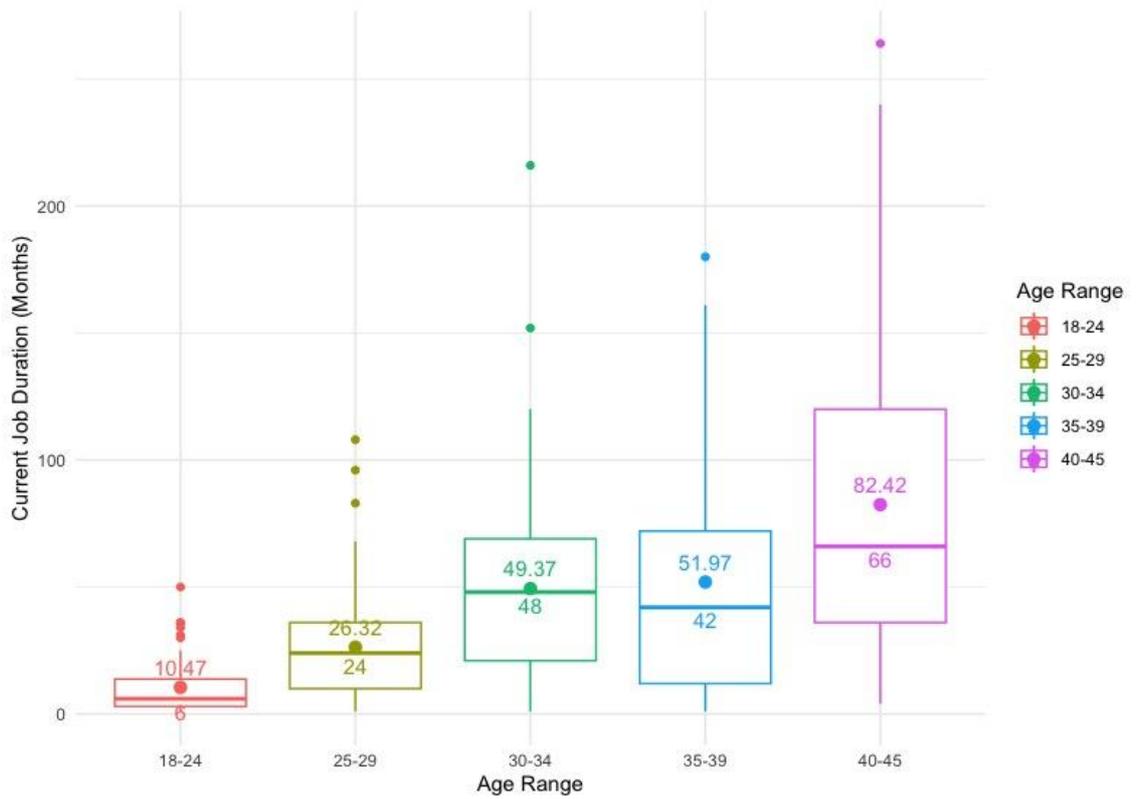
Figure 5.17 Age Range x Current Job Duration
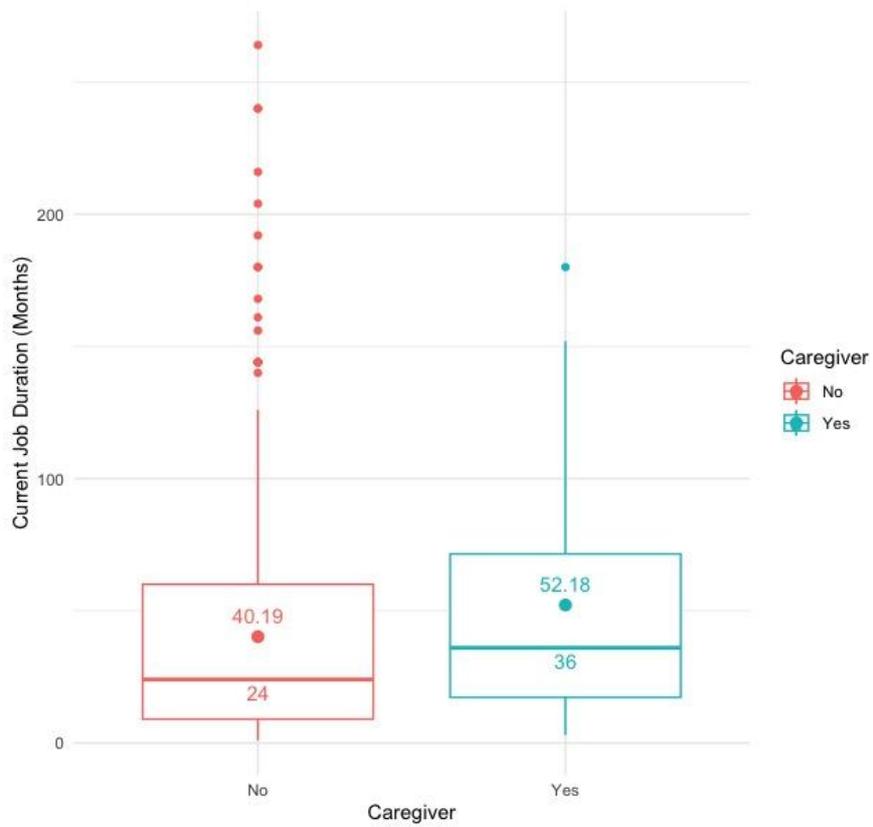
Figure 5.18 Caregiver x Current Job Duration
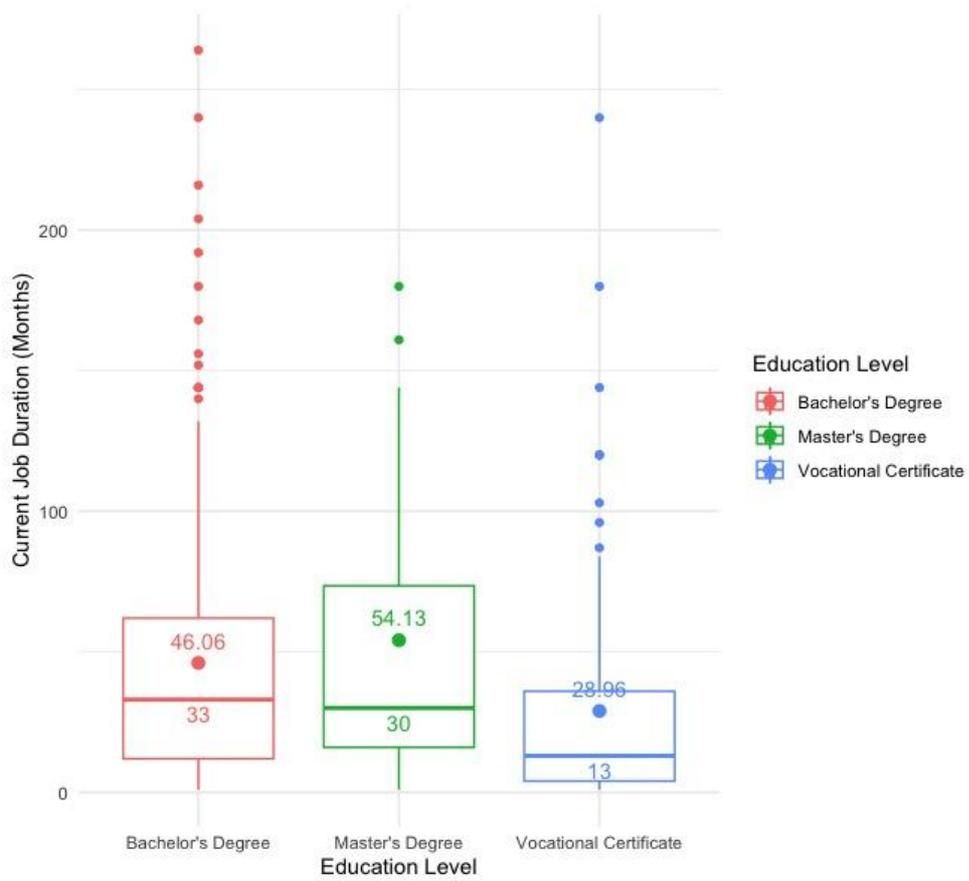
Figure 5.19 Education x Current Job Duration
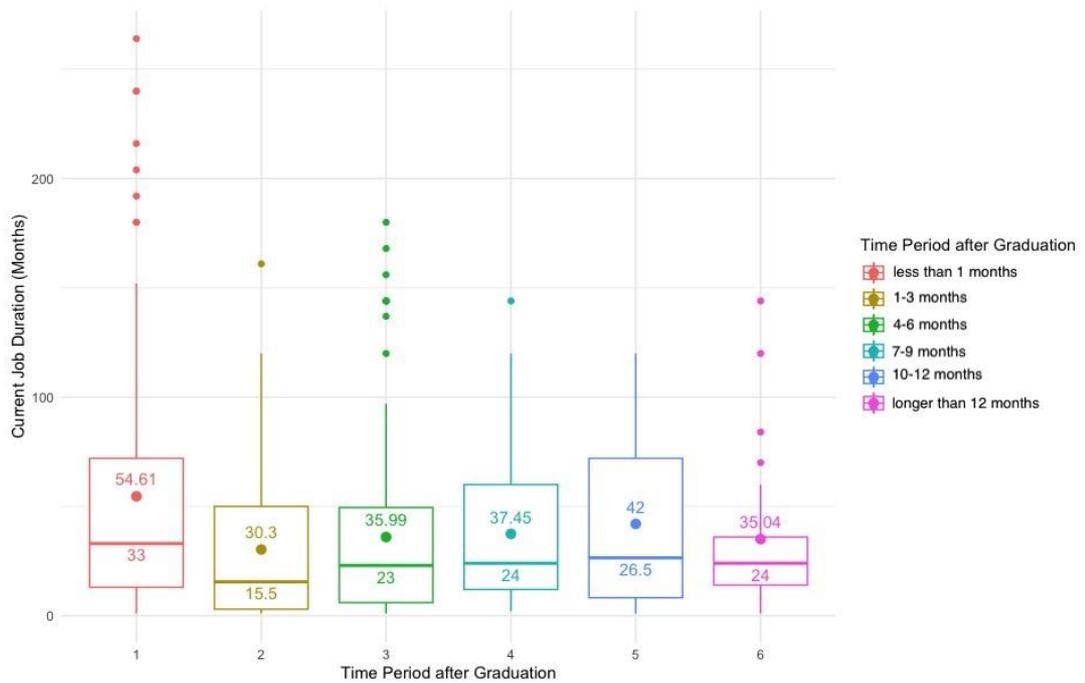
Figure 5.20 Time Period after graduation x Current Job Duration

5.1.9 Internal Factor x Previous Job duration (ANOVA) (3.5)[1]

	F	Asymptotic Significance (2-sided)
Age Range	8.769	0.000*
Gender	1.398	0.250
Types of Disability	0.998	0.452
Caregiver	0.406	0.525
Education Level	2.685	0.071*
Major of Study	0.757	0.657
Time Period after Graduation	0.696	0.627

Table 5.9 Internal factor x Previous Job duration

Table 5.9 shows the results of one-way ANOVA of 7 internal factors to determine whether there are significant differences in previous job duration across different groups. The results show that there are indeed significant differences between groups for 2 internal factors, namely age range and education level. See Figures 5.21-22 for references below.

Post-hoc analyses (see Figures 20-21 in Appendix H) showing pairwise t-test comparisons (comparing the means) between a pair of groups for those 2 internal factors show the following.

- It is expected that the older people get, the longer previous job duration they have. This is reflected in the all-significant results for pairwise T-tests (except for the age groups 30-34 and 35-39 and the age groups 35-39 and 40-45).

- The pairwise t-test comparisons among different education levels do not show any significant results. Hence, the results of previous job durations by education levels should be approached with caution.

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[1] For more accurate results, those with no previous work experience are dropped in the analysis.
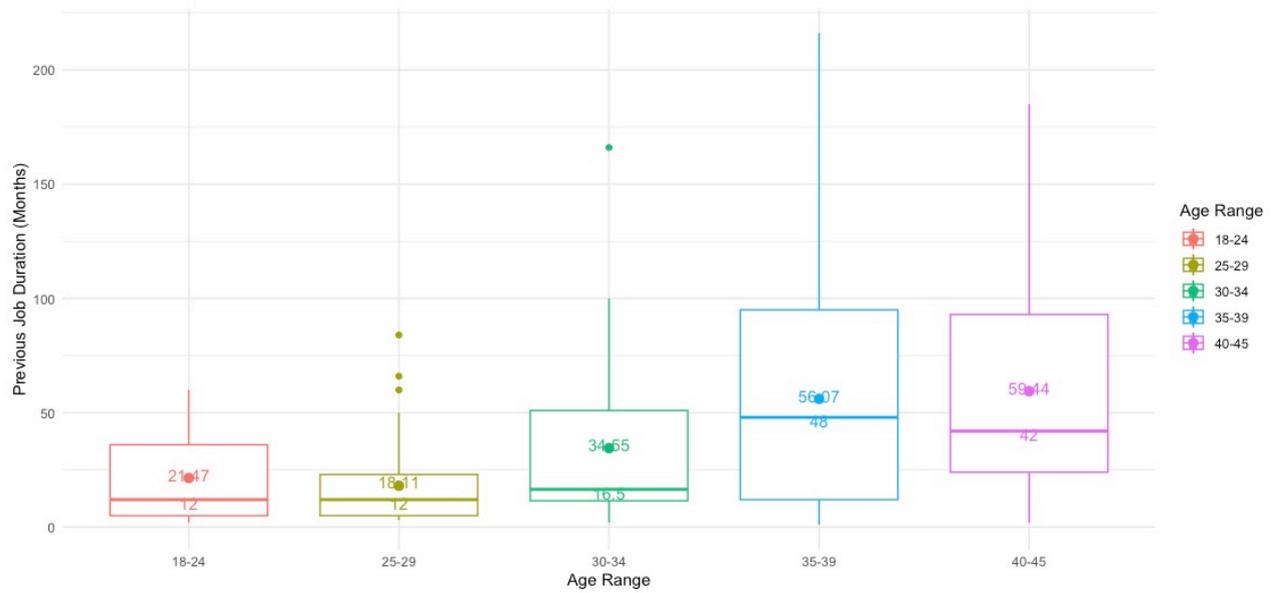
Figure 5.21 Age Range x Previous Job duration
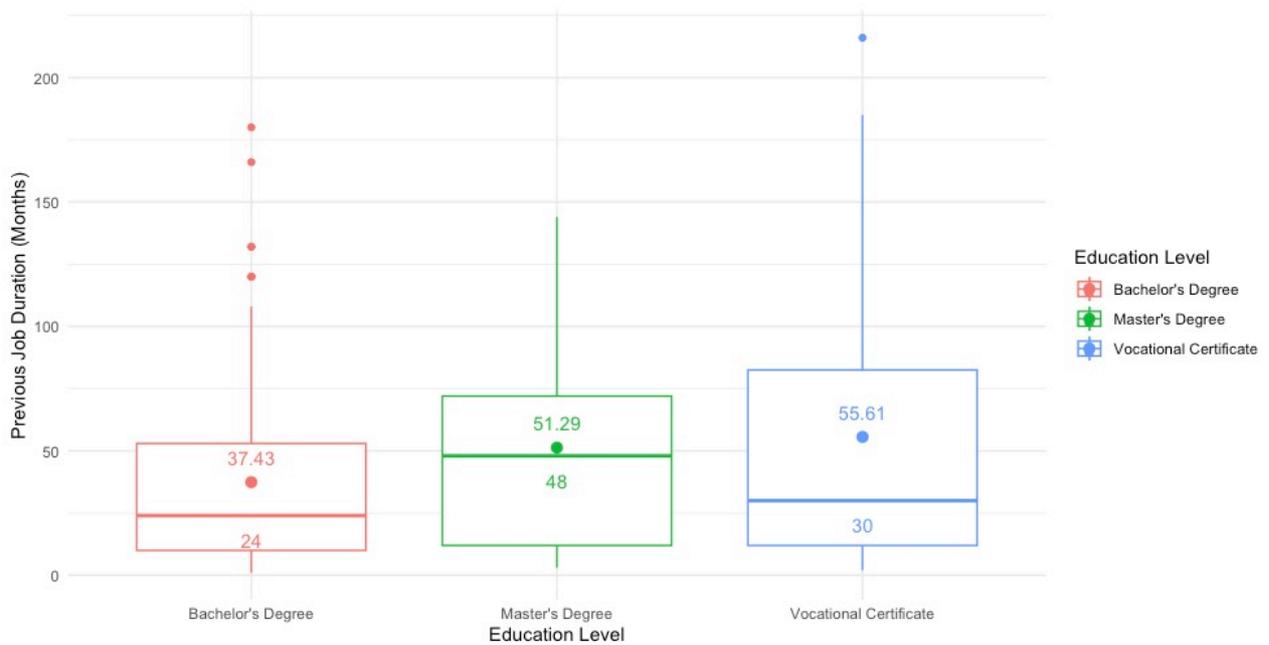
Figure 5.22 Education Level x Previous Job duration

5.1.10 Internal Factor x Job Turnover (ANOVA) (3.4 and 3.5)

	F	Asymptotic Significance (2-sided)
Age Range	45.79	0.000*
Gender	1.531	0.218

Types of Disability	1.782	0.049*
Caregiver	0.677	0.411
Education Level	4.987	0.007*
Major of Study	1.145	0.33
Time Period after Graduation	3.496	0.004*

Table 5.10 Internal Factor x Job Turnover

Table 5.10 shows the results of one-way ANOVA of 7 internal factors to determine whether there are significant differences in the average number of months per job change across different groups. The results show that there are indeed significant differences between groups for 4 internal factors, namely age range, type of disability, education level, and time period after graduation to find jobs. See Figures 5.23-26 for references below.

It is worth highlighting the following observations (see also post-hoc analysis results in Figure 22-26 in Appendix H).

- It is expected that age range should affect the job turnover rate, especially for those who are newly graduated. However, the age affect should be less so overtime. Despite this assumption, the box plots show that respondents who are older stay longer in one job.

- According to the statistical analysis, types of disability matter for job turnover as well. The boxplot below shows that those with hearing impairments, autism, learning disability, and intellectual disability (for median) share the lowest number of months per job changes.

- Similar to current job duration, respondents with different education levels hold a job differently. In particular, the results show that those with master's degree hold the longest period of time per one job, followed closely by those with bachelor's degree. Notably, those with vocational degrees hold, on average, 20 months shorter than those with master's degree.

- Time period after graduation indicates different job turnover. Those who managed to find jobs within 1 month after graduation hold the longest period in terms of job

turnover, while those who found jobs within 1-3 months after graduation have the

shortest job turnover period.
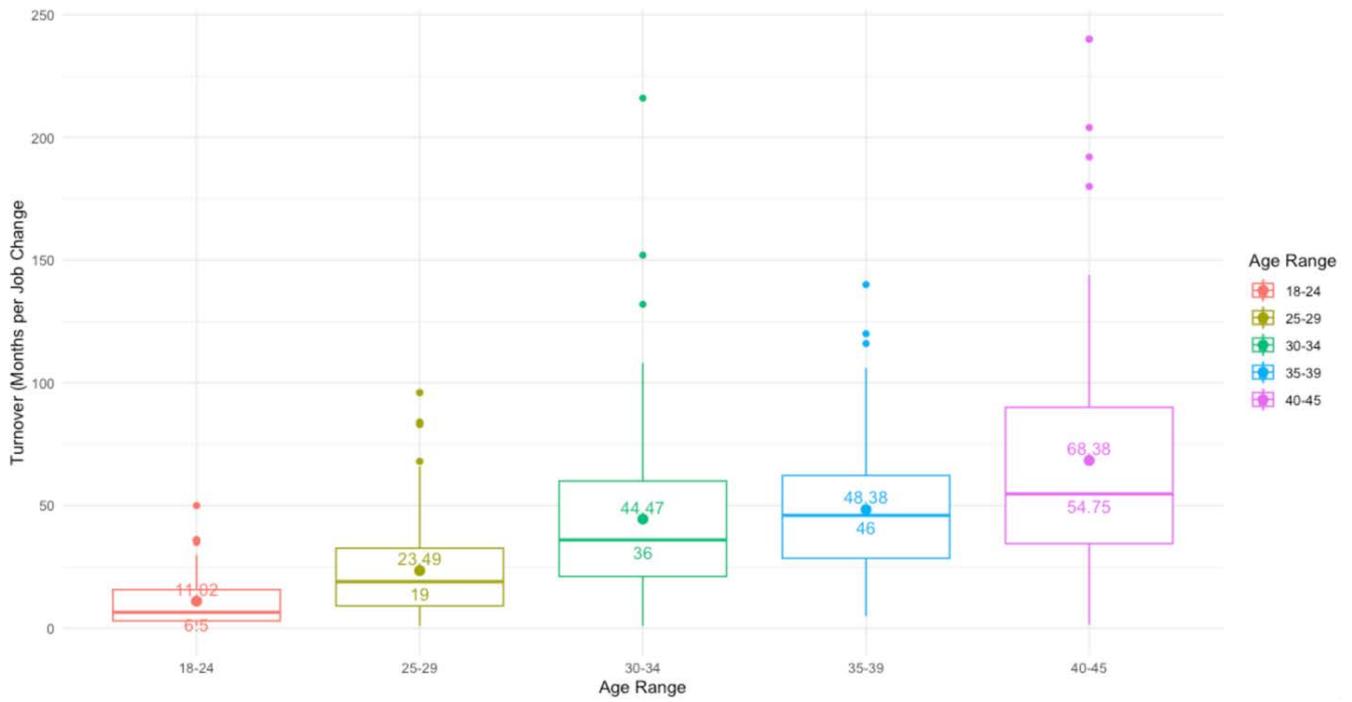
Figure 5.23 Age Range x Job Turnover
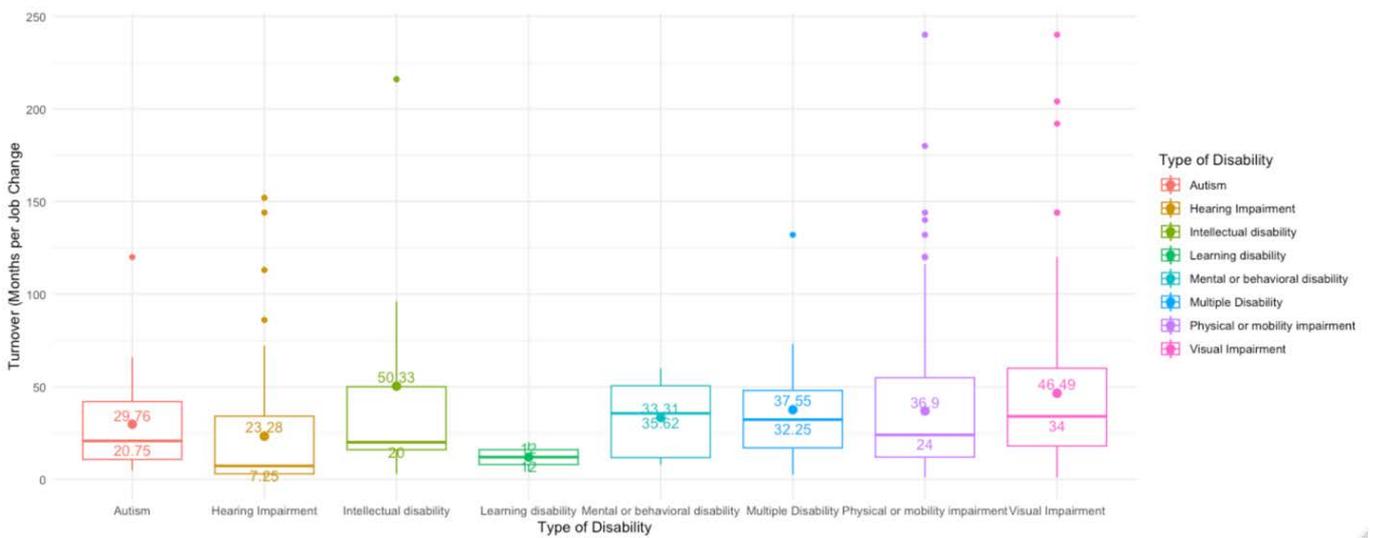
Figure 5.24 Type of Disability x Job Turnover
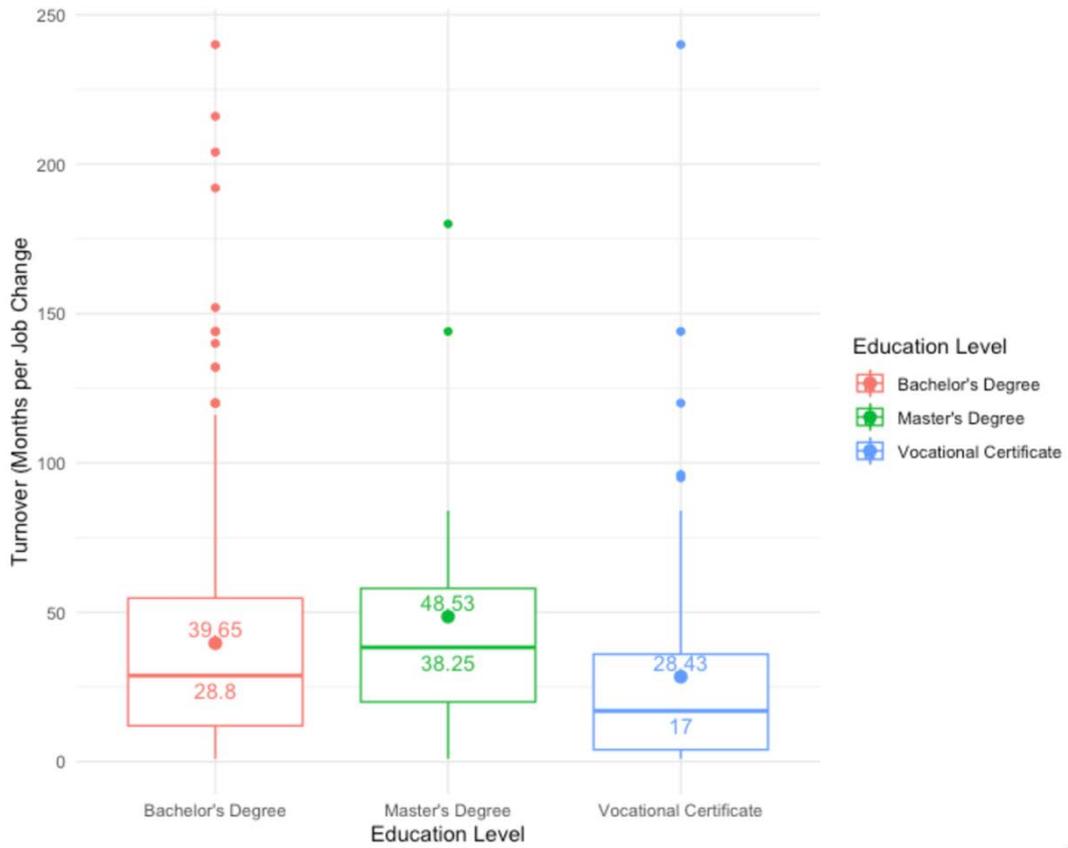
Figure 5.25 Education Level x Job Turnover
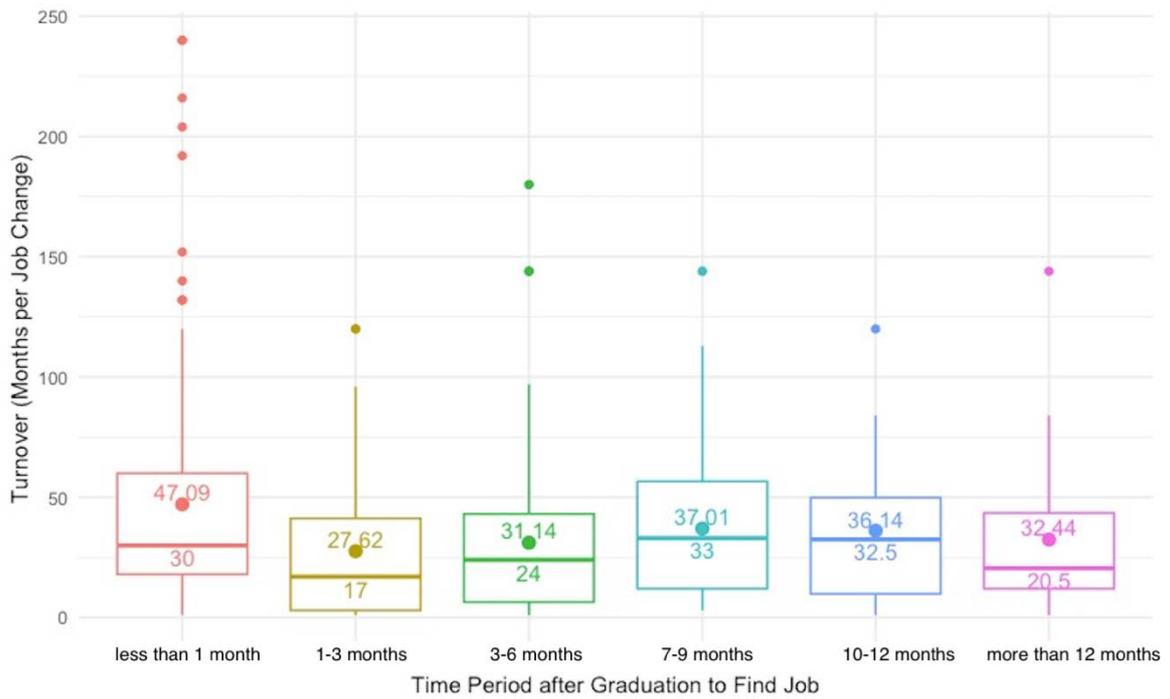
Figure 5.26 Time Period after graduation x Job Turnover

5.2 Research Question 2: External Factors x Job Quality & External Factors x Job Retention

External Factors x Job Quality

5.2.1 External Factor x Compensation Satisfaction (ANOVA) (3.3)

	F	Asymptotic Significance (2-sided)
Job Search Channel	0.941	0.489
Job Finding Assistance	4.607	0.003*
Assistance from DSS	6.115	0.002*
Job-Education Correspondence	23.85	0.000*

Table 5.11 External Factor x Compensation Satisfaction

Table 5.11 shows the results of one-way ANOVA of 4 external factors to determine whether there are significant differences in the means for compensation satisfaction score across different groups for external factors. The results show that there are indeed significant differences between groups for 3 external factors, namely job finding assistance, assistance from DSS, and job-education correspondence. See Figures 5.27-29 below for references.

Post-hoc analyses (see Figures 27-31 in Appendix H) showing pairwise t-test comparisons (comparing the means) between a pair of groups for those 3 internal factors see Figures 27-31 in show the following.

- People with disabilities who do not seek help in finding jobs are the least satisfied with their compensation, compared to other groups. In particular, those who seek help from professional networks are the most satisfied with their jobs and followed closely by assistance from organizations for PWDs.

- People who seek help from DSS are the most satisfied with their compensation, while those who do not know are the least satisfied.

- People with job-education correspondence are more satisfied with their compensation than those without correspondence between educational background and their jobs.
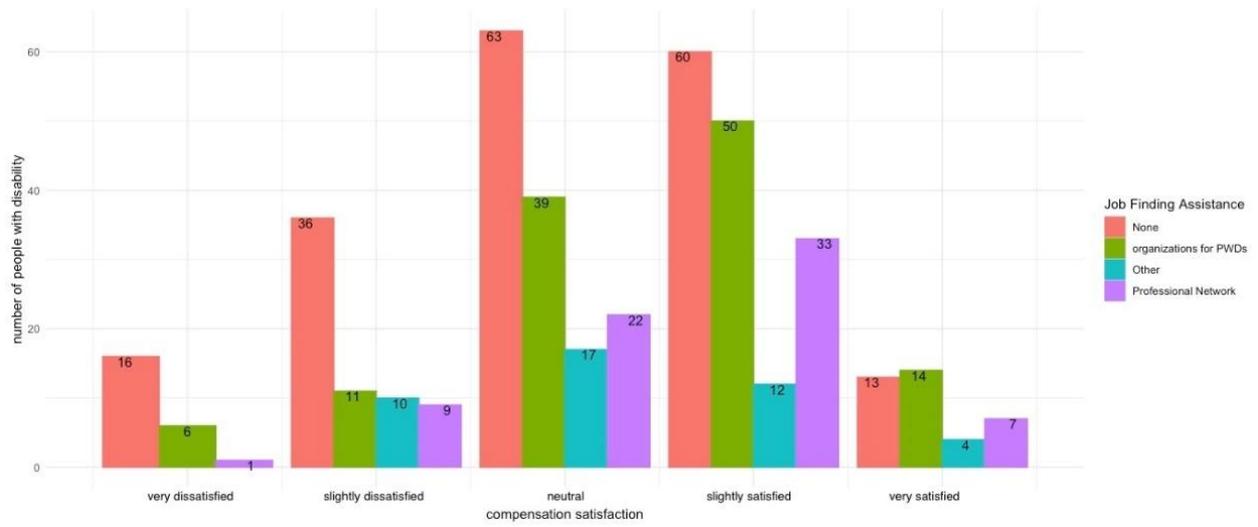
Figure 5.27 Job Finding Assistance x Compensation Satisfaction
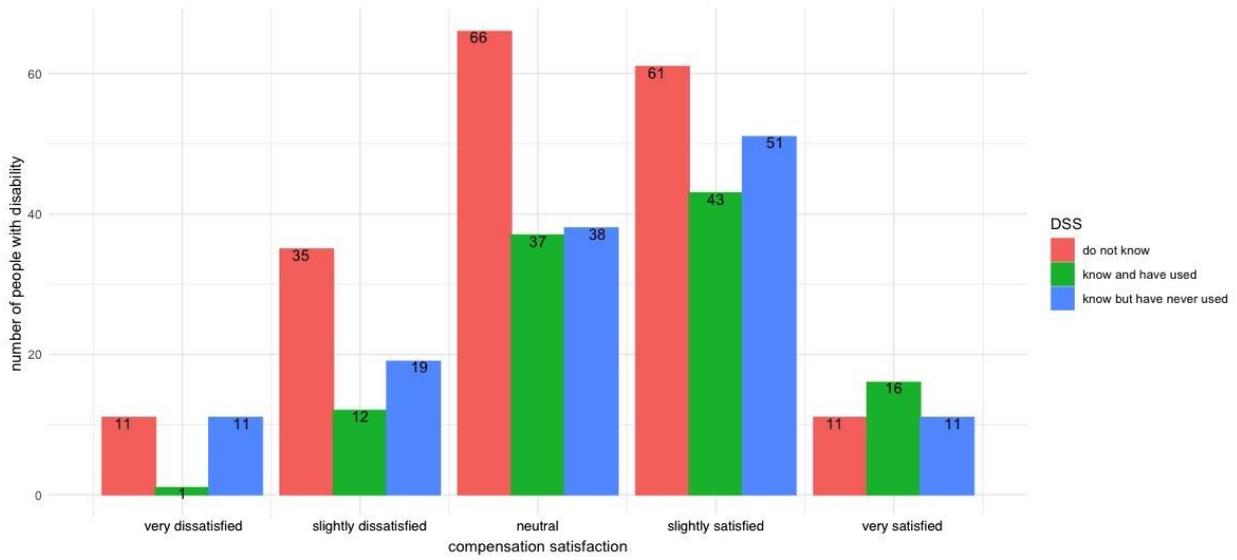
Figure 5.28 Assistance from DSS x Compensation Satisfaction
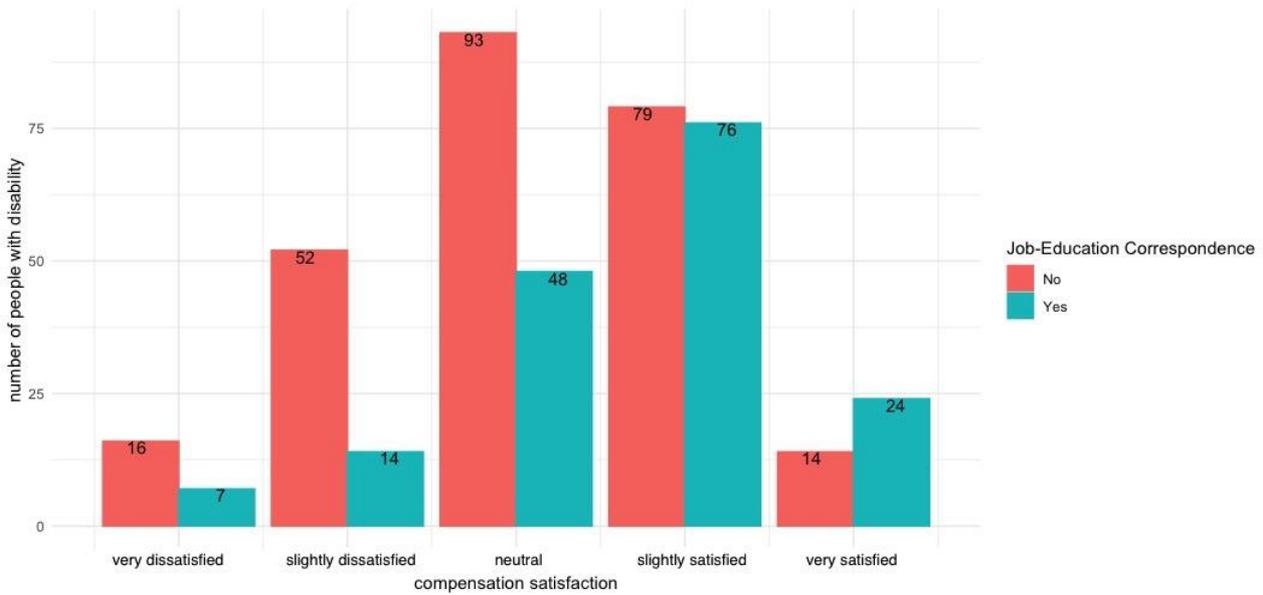
Figure 5.29 Job-Education Correspondence x Compensation Satisfaction

5.2.2 External Factor x Accommodation (Chi-Square Test) (3.13)

	df	Asymptotic Significance (2-sided)
Job Search Channel	18	0.003*
Job Finding Assistance	6	0.015*
Assistance from DSS	4	0.279
Job-Education Correspondence	2	0.183

Table 5.12 External Factor x Accommodation

Table 5.12 shows the crosstab chi-square test results of 4 external factors to determine whether there are significant differences in their experience of accommodation from employers. The results show that there are indeed significant differences for different groups in job search channel and job finding assistance. Based on the analysis of the probability table in Appendix H, surprisingly those who got their jobs via recommendations from school/university network often do not receive accommodation when required. The best performing job search channels are from recruitment agency, and career network. In terms of job finding assistance, the best performing assistance is from organizations for PWDs. See Figures 5.30-31 below for references.
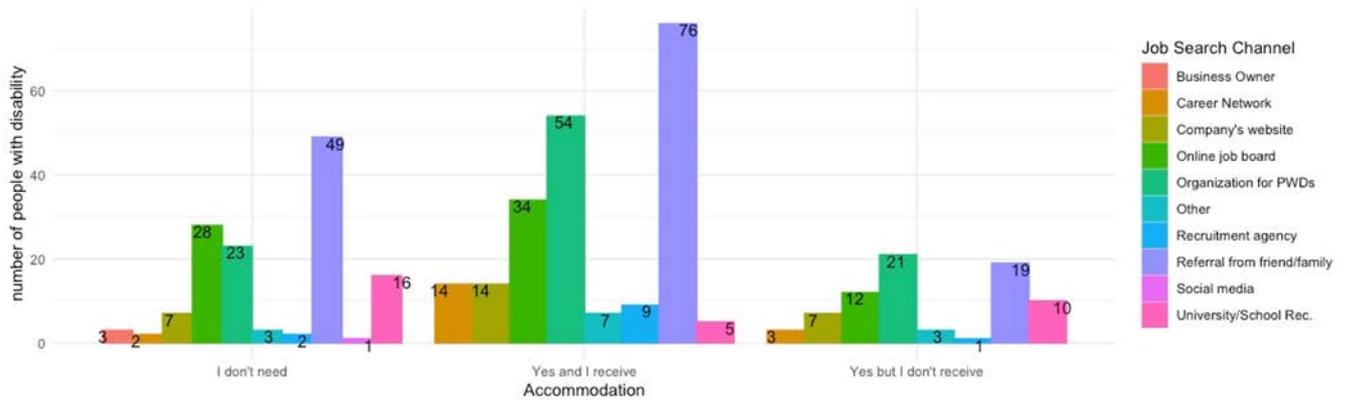
Figure 5.30 Job Search Channel x Accommodation
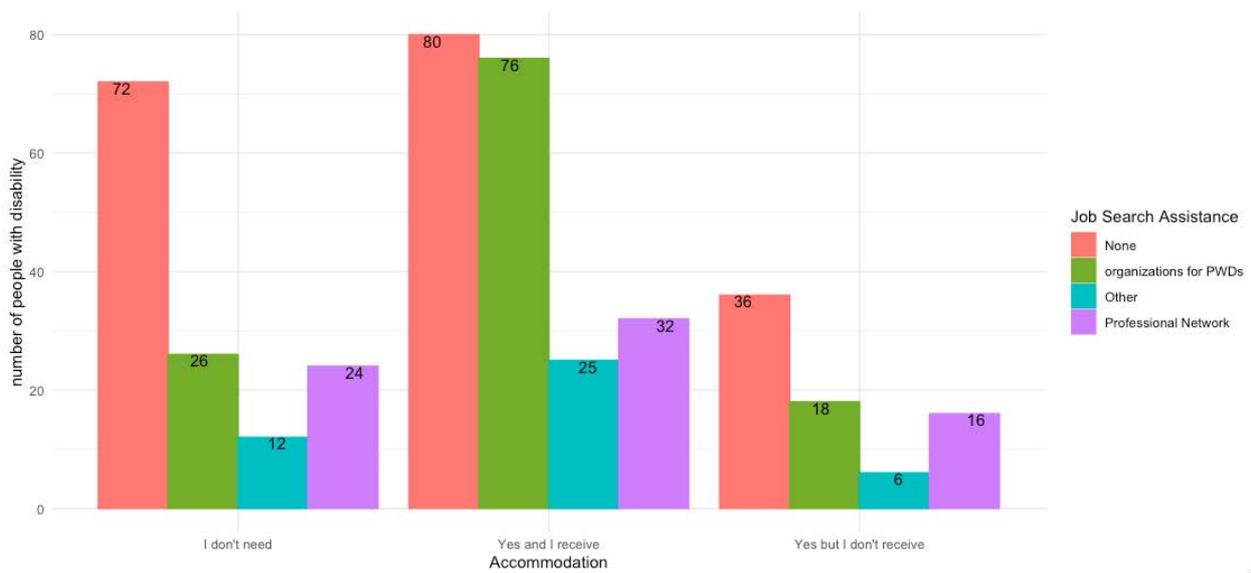
Figure 5.31 Job Finding Assistance x Accommodation

5.2.3 External Factor x Challenge/Obstacles in advancing in workplace (Chi-Square Test) (3.15)

	df	Asymptotic Significance (2-sided)
Job Search Channel	9	0.529
Job Finding Assistance	3	0.073*
Assistance from DSS	2	0.446

| Job-Education Correspondence | 1 | 0.004* |

Table 5.13 External Factor x Challenge/Obstacles in workplace

Table 5.13 shows the crosstab chi-square test results of 4 external factors to determine whether there are significant differences in their challenges in advancing in workplace due to disability. The results show that there are indeed significant differences for different groups in job-finding assistance and job-education correspondence. See Figures 5.32-33 below for references.

- For the groups in job-finding assistance, the graph shows that people who do not seek help face much more challenges and obstacles in advancing in workplace then those who seek help.

- For the groups with job-education correspondence, significant differences exist between people whose job nature do not correspond to their educational background and those whose job nature corresponds to their educational background. The graph shows that people whose natures of job do not correspond to their education background are almost two times more likely to face challenges in advancing in workplace due to their disabilities.
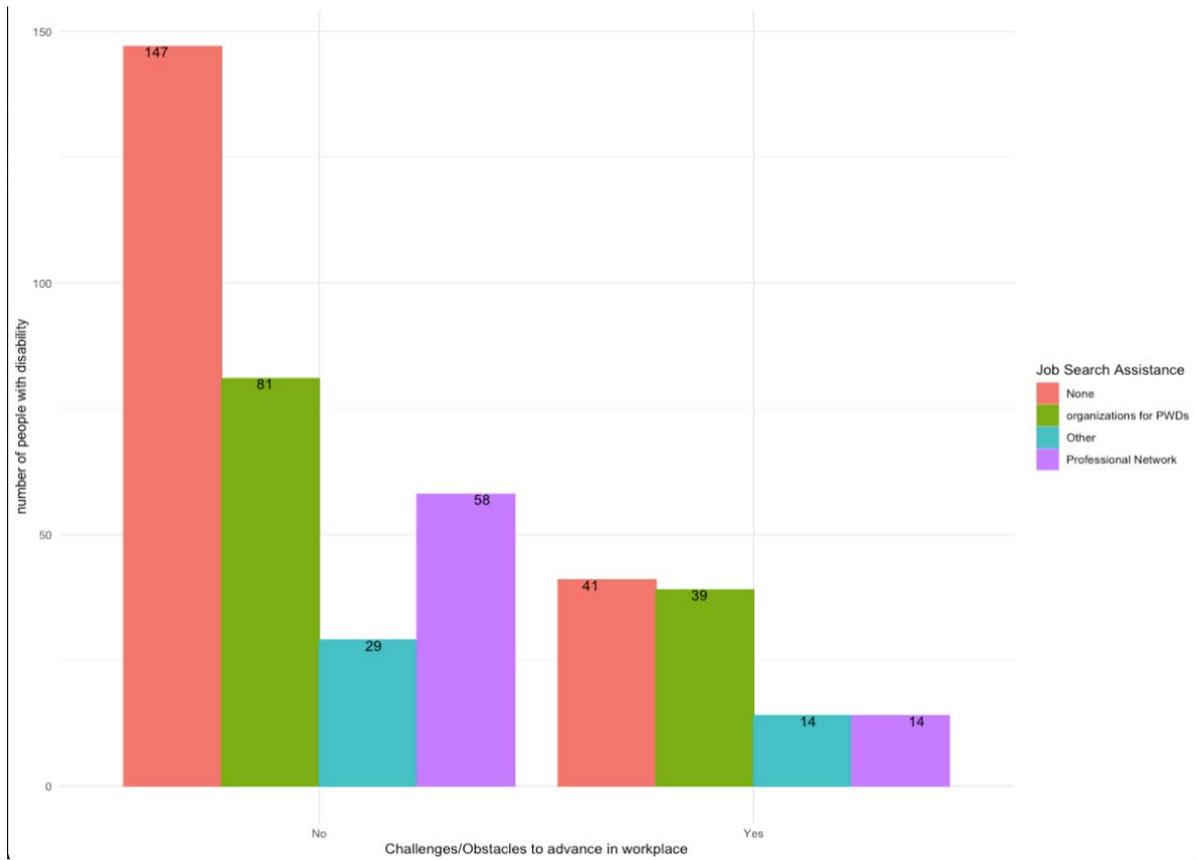
Figure 5.32 Job Finding Assistance x Challenge/Obstacles in advancing in workplace
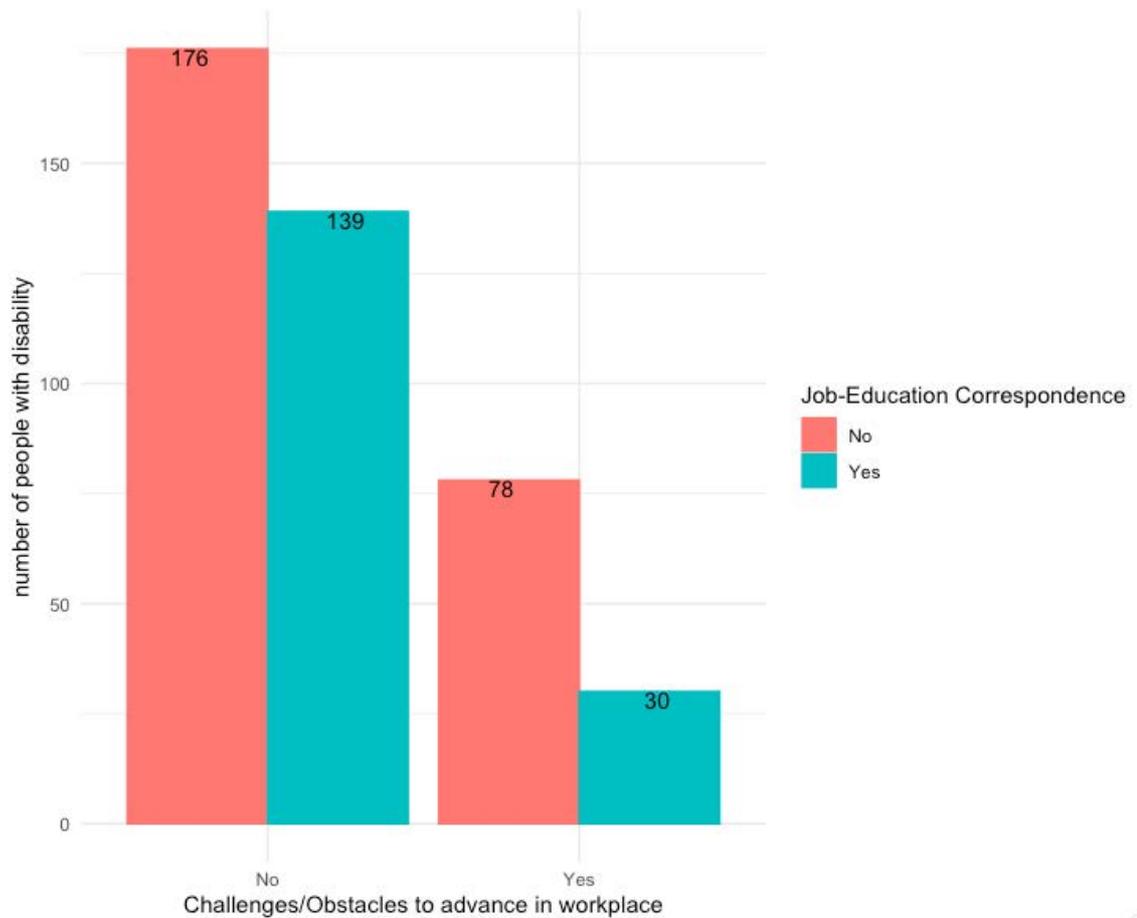
Figure 5.33 Job-Education Correspondence x Challenge/Obstacles in advancing in

workplace

5.2.4 External Factor x Employer's Provision of Training and Accommodation (Chi-Square Test) (3.20)

	df	Asymptotic Significance (2-sided)
Job Search Channel	18	0.020*
Job Finding Assistance	6	0.229
Assistance from DSS	4	0.358
Job-Education Correspondence	2	0.171

Table 5.14 External Factor x Employer's Provision of Training and Accommodation

Table 5.14 shows the crosstab chi-square test results of 4 external factors to determine whether there are significant differences in Employer's Provision of Training and Accommodation. The results show that there are indeed significant differences for different groups in Job Search Channel. Figure 5.34 shows that indeed referrals from friends and family as well as from organizations for PWDs show the highest number for people receiving trainings. However, the analysis of the probability table in Appendix H shows that finding jobs via recruitment agencies and career networks most often receive trainings and accommodation from employers percentage wise. See Figures 5.34 below for reference.
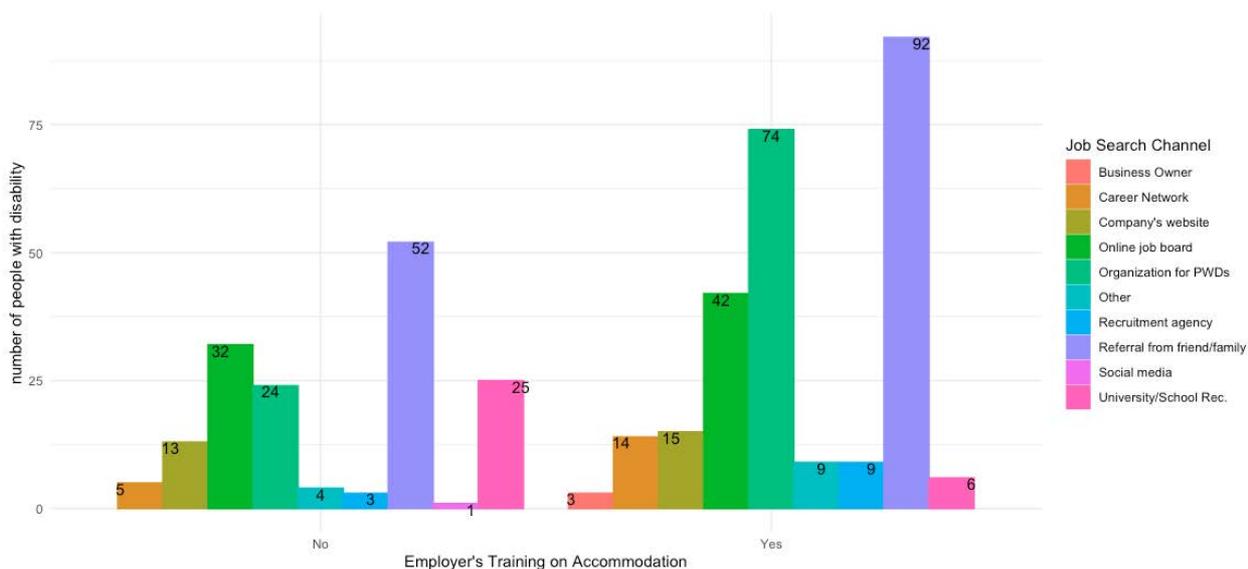
Figure 5.34 Job Search Channel x Employer's Provision of Training and Accommodation

5.2.5 External Factor x Discrimination (Chi-Square Test) (3.21)

	Df	Asymptotic Significance (2-sided)
Job Search Channel	18	0.198
Job Finding Assistance	6	0.466
Assistance from DSS	4	0.418
Job-Education Correspondence	2	0.519

Table 5.15 External Factor x Discrimination

Table 5.15 shows the crosstab chi-square test results of 4 external factors to determine whether there are significant differences in their experiences in discrimination at workplace. The results show that there are no external factors that exhibit significant differences in their experience in discrimination at workplace.

5.2.6 External Factor x Type of Job (Chi-Square Test) (3.4)

	df	Asymptotic Significance (2-sided)
Job Search Channel	18	0.013*
Job Finding Assistance	6	0.530
Assistance from DSS	4	0.248
Job-Education Correspondence	2	0.035*

Table 5.16 External Factor x Type of Job (3.4)

Table 5.16 shows the crosstab chi-square test results of 4 external factors to determine whether there are significant differences in Type of Job. The results show that there are indeed significant differences for different groups in Job Search Channel and Job-Education Correspondence. The analysis of the probability table (see Figures 37 in Appendix H) shows that using assistance from DSS is mostly likely to get a full-time job compared to not using it at all. See Figures 5.35-36 below for references.

- For the groups in the Job Search Channel, there are significant differences between them. The group that uses university/school recommendations to find a job has a higher success rate in finding employment compared to any other group (84%).
- For the groups with job-education correspondence, significant differences exist between people whose job nature does not correspond to their educational background and those whose job nature corresponds to their educational background. The group without job-education correspondence has fewer full-time jobs than the group with job-education correspondence peers. (70% and 85%)
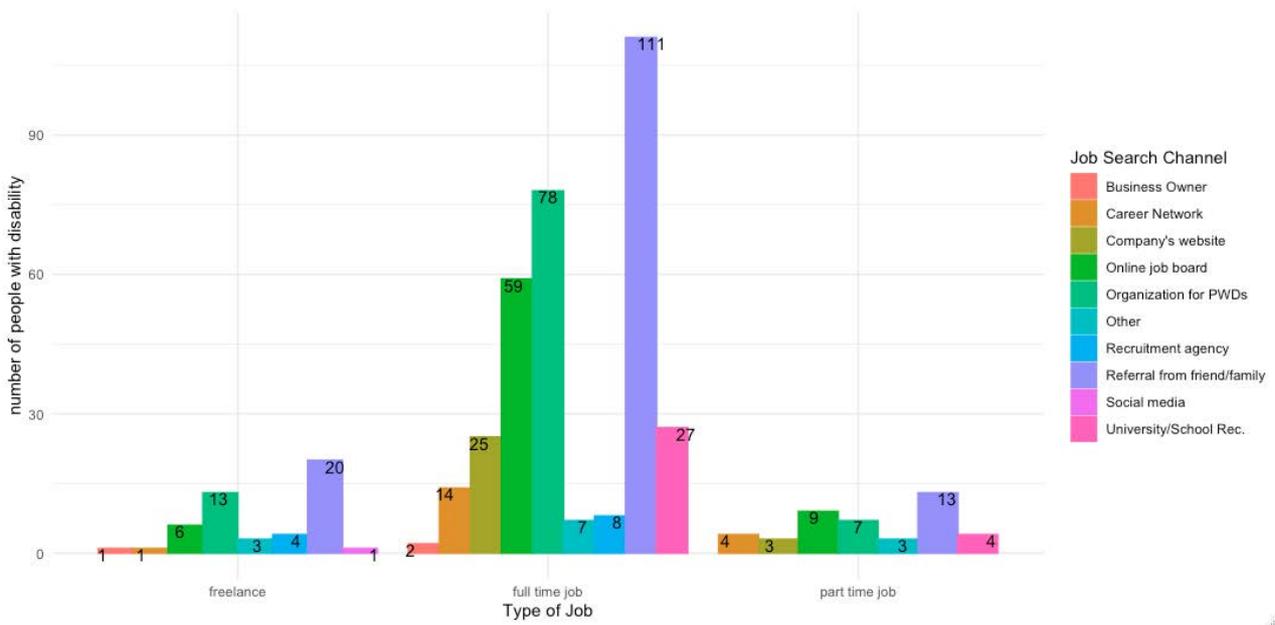
Figure 5.35 Job Search Channel x Type of Job
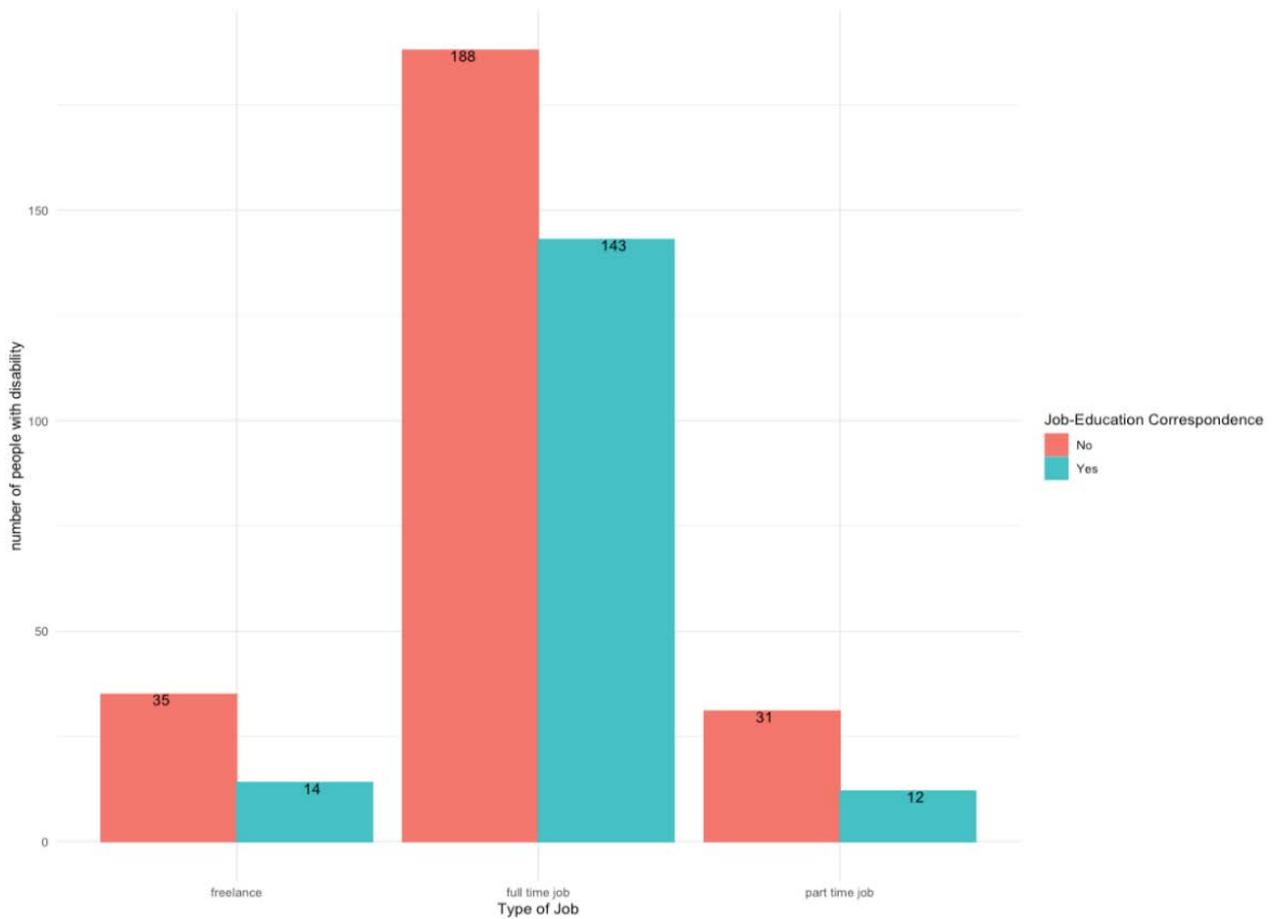
Figure 5.36 Job-Education Correspondence x Type of Job

5.2.7 External Factor x Job Satisfaction (ANOVA) (5.1)

	F	Asymptotic Significance (2-sided)
Job Search Channel	1.86	0.056*
Job Finding Assistance	1.27	0.284
Assistance from DSS	1.087	0.338
Job-Education Correspondence	1.347	0.246

Table 5.17 Job Quality x Job Satisfaction

Table 5.17 shows the results of one-way ANOVA of 7 internal factors to determine whether there are significant differences in the means for job satisfaction score across different groups for external factors. The results show that there are significant differences between groups for job search channels. The average scores grouped by different job search channels show that those who got jobs from school are the least satisfied group, as compared to other groups. See Figure 5.37 below for reference.
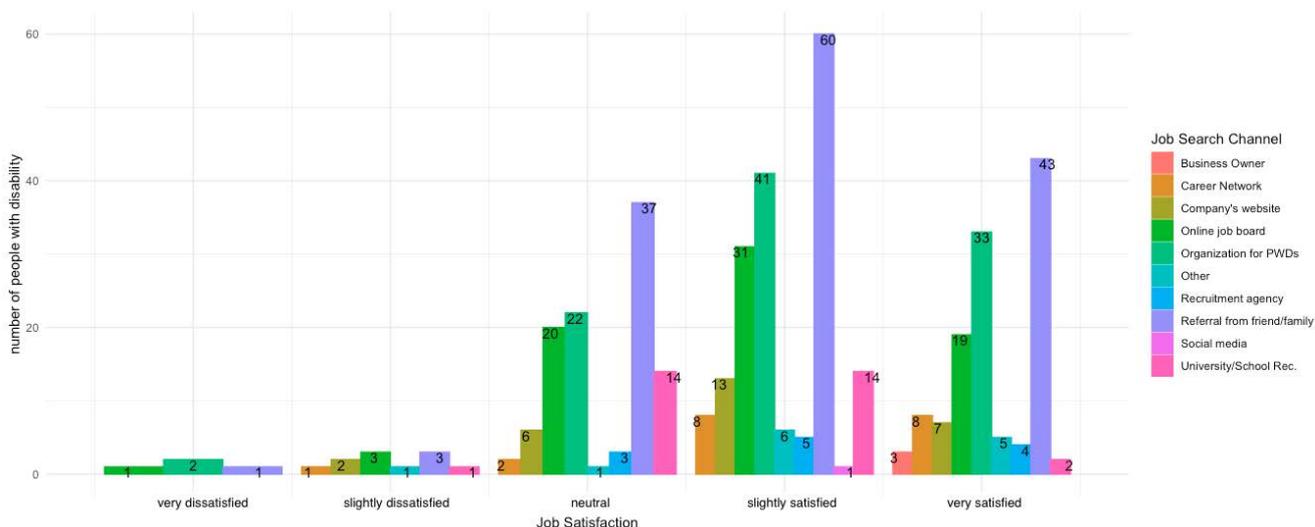
Figure 5.37 Job Search Channel x Job Satisfaction

External Factors x Job Retention

5.2.8 External Factor x Current Job Duration (ANOVA) (3.4)

	F	Asymptotic Significance (2-sided)
Job Search Channel	2.381	0.012*
Job Finding Assistance	2.312	0.076*
Assistance from DSS	1.919	0.148
Job-Education Correspondence	4.049	0.045*

Table 5.18 External Factor x Current Job duration

Table 5.18 shows the results of one-way ANOVA of 4 external factors to determine whether there are significant differences in the means for current job duration across different groups for external factors. The results show that there are significant differences between groups for 3 external factors, namely job search channel, job finding assistance, and job-education correspondence. See Figures 5.38-40 below for references.

Additional post-hic analyses show the following insights (see also Figures 38-39 in Appendix H).

- The average current job durations from recruitment agency (59 months), career network (54 months), and organizations for PWDs (47 months) lead all other groups.
- There are no significant differences in the average current job durations between those who got jobs from organizations for PWDs and from professional networks.
- Surprisingly, those whose jobs correspond to their educational backgrounds (36 months) tend to stay in their jobs shorter than those whose jobs do not correspond to their education backgrounds (45 months).
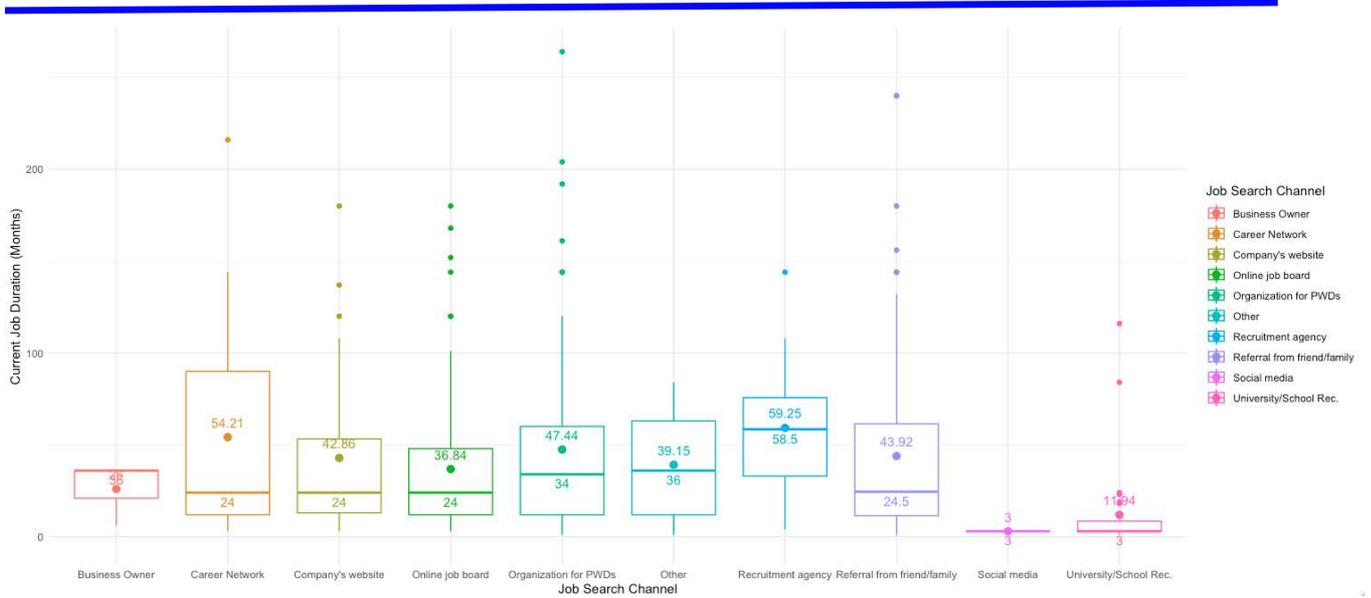
Figure 5.38 Job Search Channel x Current Job duration
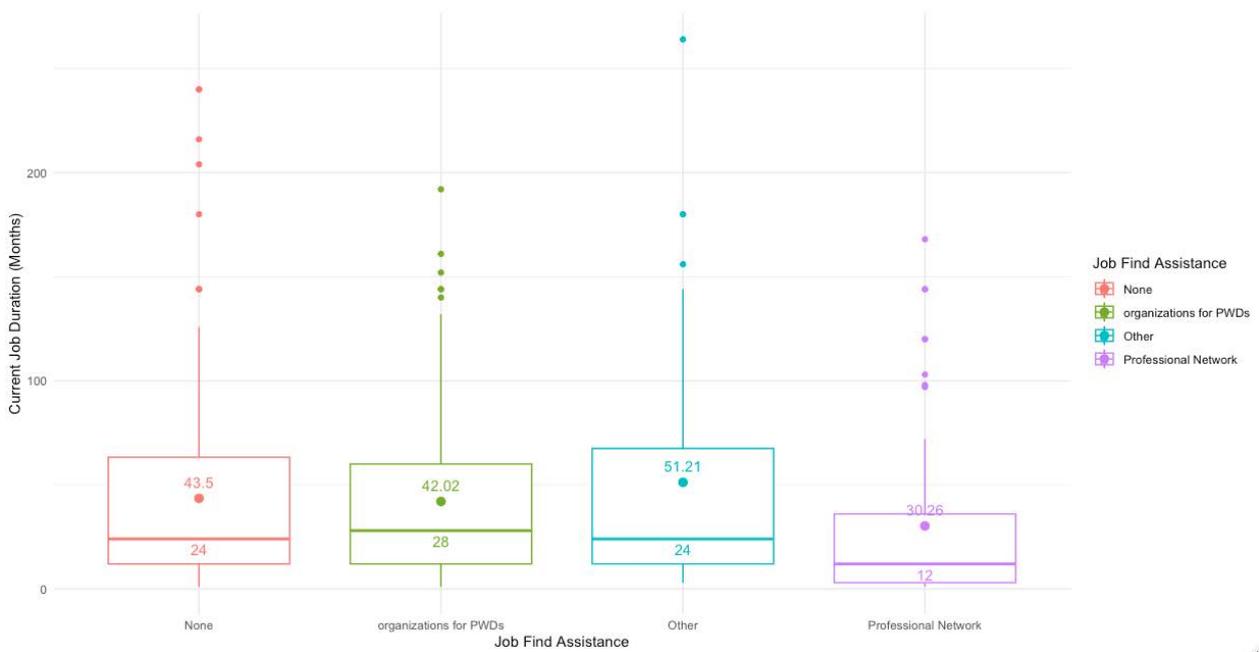
Figure 5.39 Job Finding Assistance x Current Job duration
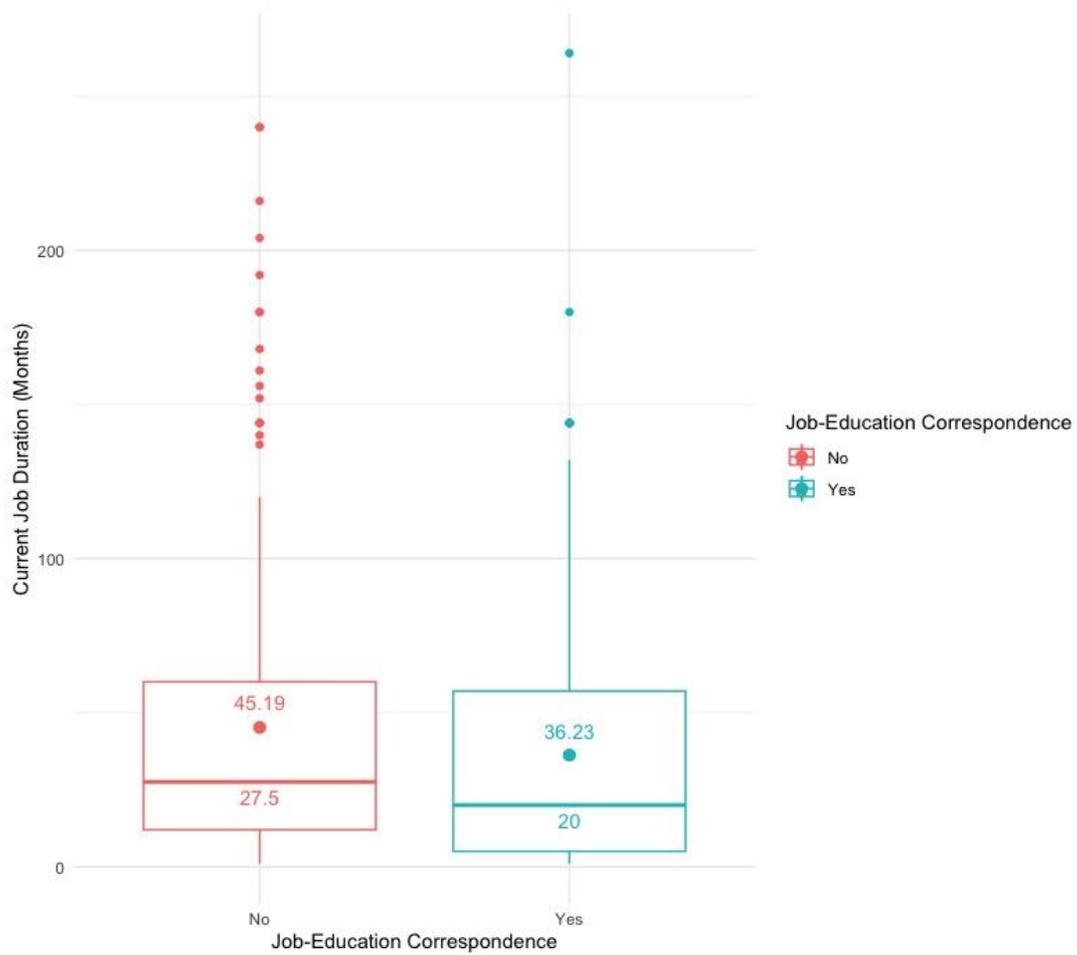
Figure 5.40 Job-Education Correspondence x Current Job duration

5.2.9 External Factor x Previous Job duration (ANOVA) (3.5)[2]

	F	Asymptotic Significance (2-sided)
Job Search Channel	0.792	0.61
Job Finding Assistance	0.28	0.84
Assistance from DSS	7.421	0.001*
Job-Education Correspondence	1.046	0.308

Table 5.19 External Factor x Previous Job duration

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[2] For more accuracy, those with no previous work experience are dropped.

Table 5.19 shows the results of one-way ANOVA of 4 external factors to determine whether there are significant differences in the means for previous job duration across different groups for external factors. The results show that only assistance from DSS shows a significant difference between groups. See Figures 5.41 below for references.

Post-hoc analyses (see Figures 40-42 in Appendix H) reveal the following insights.

- Pairwise t-tests comparing the means between different job assistances show that there are significant differences across all groups. The result shows that those who do not know DSS have the highest previous job duration, which is expected, since people who are older started working before DSS came into existence. However, comparing between those who know but never used and those who know and used DSS assistance, the results show that on average, people with disability who used DSS assistance tend to have shorter period of previous work duration.
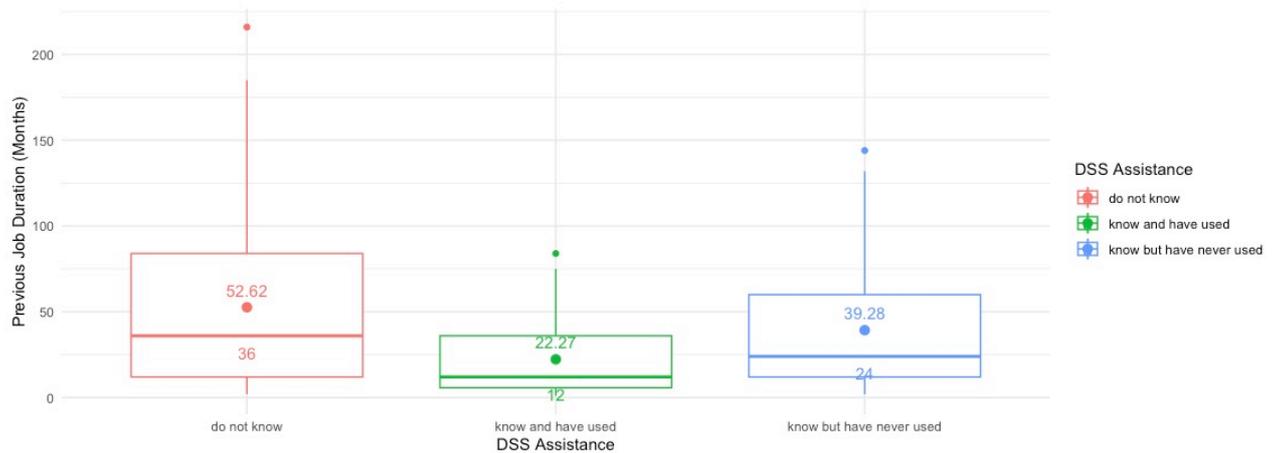
Figure 5.41 Assistance from DSS x Previous Job duration

5.2.10 External Factor x Job Turnover (ANOVA) (3.4 and 3.5)

	F	Asymptotic Significance (2-sided)
Job Search Channel	2.673	0.005*
Job Finding Assistance	3.162	0.025*
Assistance from DSS	3.548	0.030*

Job-Education Correspondence	5.25	0.022*

Table 5.20 External Factor x Job Turnover

Table 5.20 shows the results of one-way ANOVA of 4 external factors to determine whether there are significant differences in the average number of months per job change across different groups. The results show that there are indeed significant differences between groups for all factors, namely job search channel, job finding assistance, assistance from DSS, and job-education correspondence. See Figures 5.42- 45 for references below.

It is worth highlighting the following observations (see also post-hoc analysis results in Figures 43-46 in Appendix H).

- ▪ In terms of job search channels, career networks and recruitment agencies outperform other search channels for the average number of months per job change.

- ▪ Surprisingly, using DSS services results in a shorter average number of months per job change than those know did not use DSS services. This may merit further investigation as to why this is the case.

- ▪ Similar to DSS services, job-education correspondence results show that those whose jobs correspond to their educational background tend to hold shorter period for a job. This may suggest that they are more dynamic and easier to find a new job. However, it merits further investigation for the actual causes.
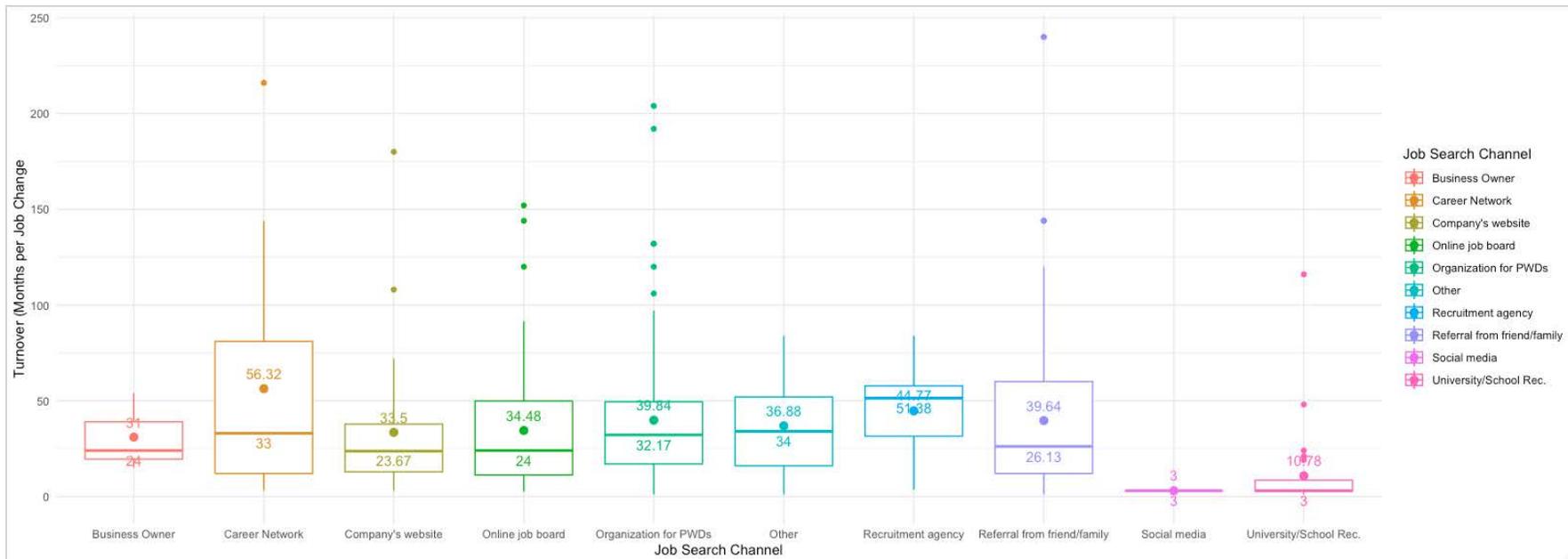
Figure 5.42 Job Search Channel x Job Turnover
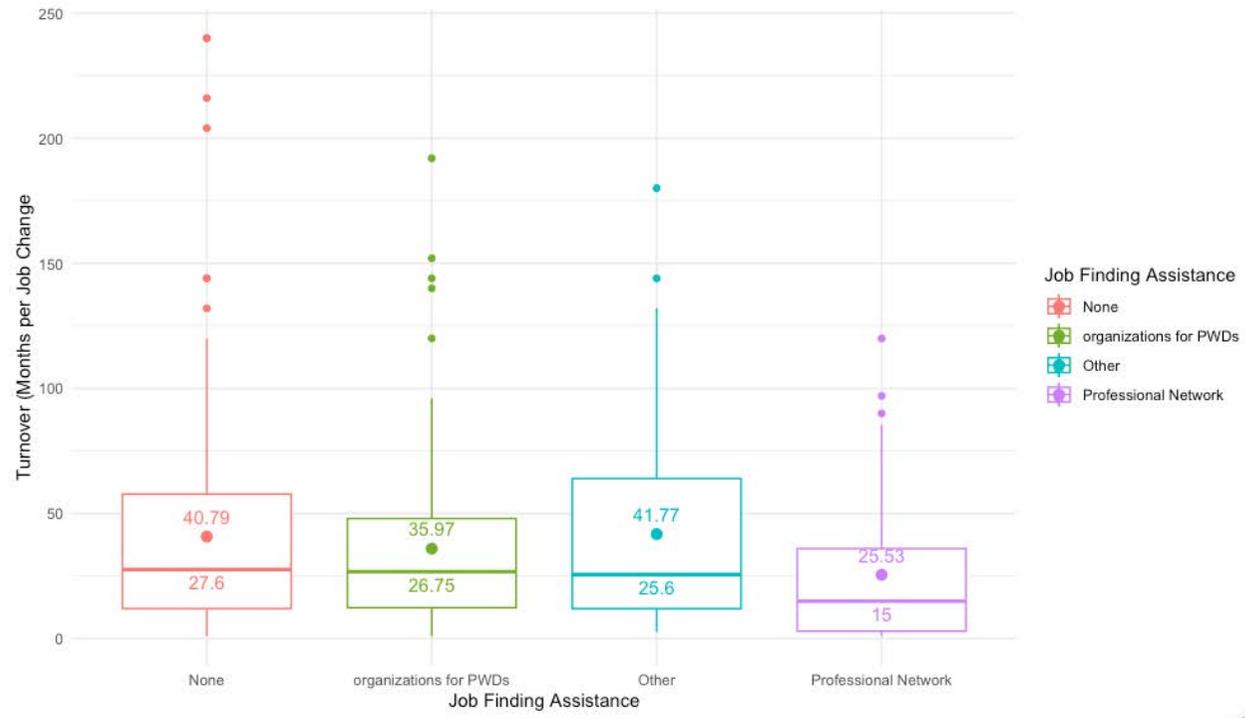
Figure 5.43 Job Finding Assistance x Job Turnover
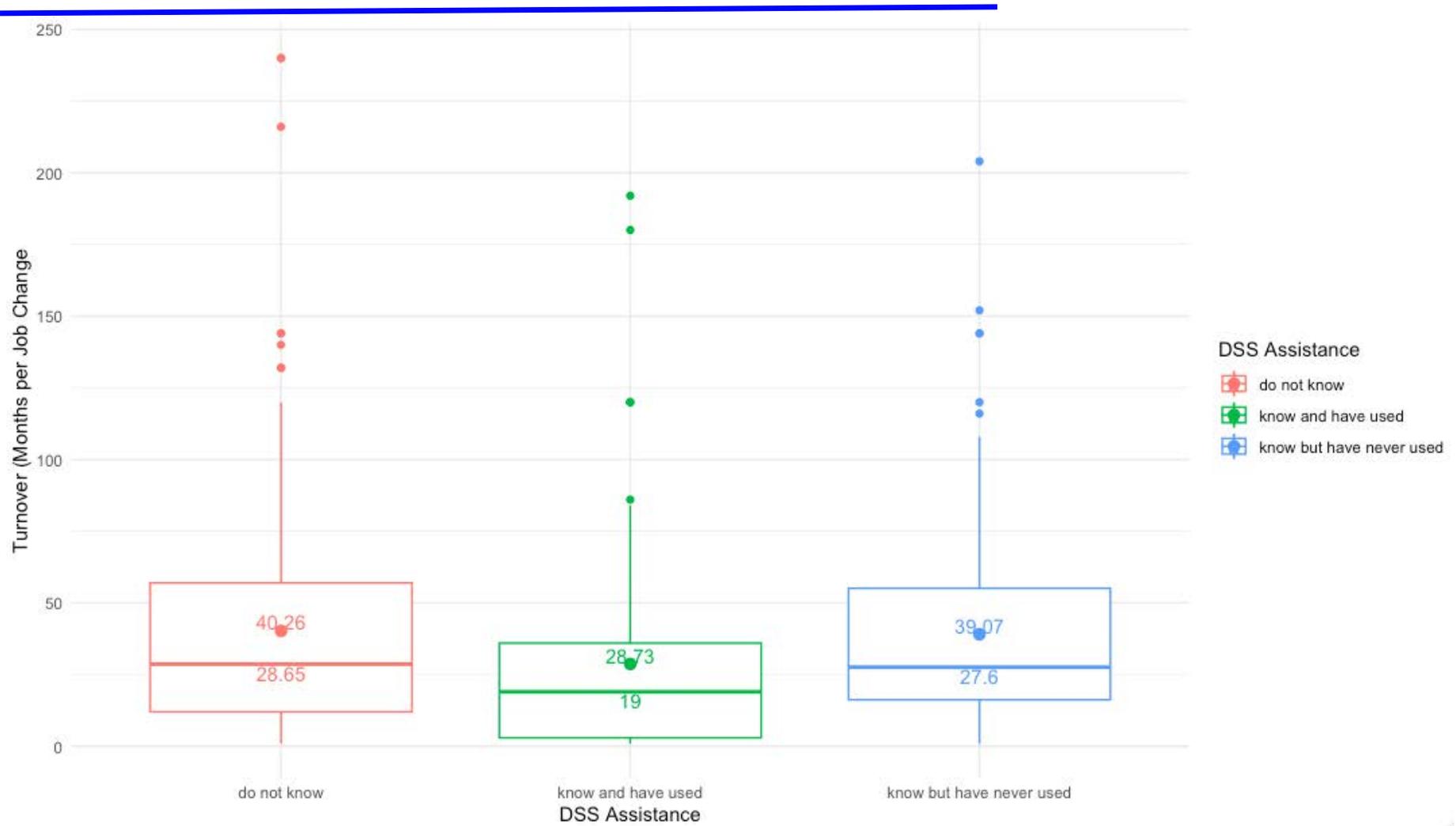
Figure 5.44 DSS Assistance x Job Turnover
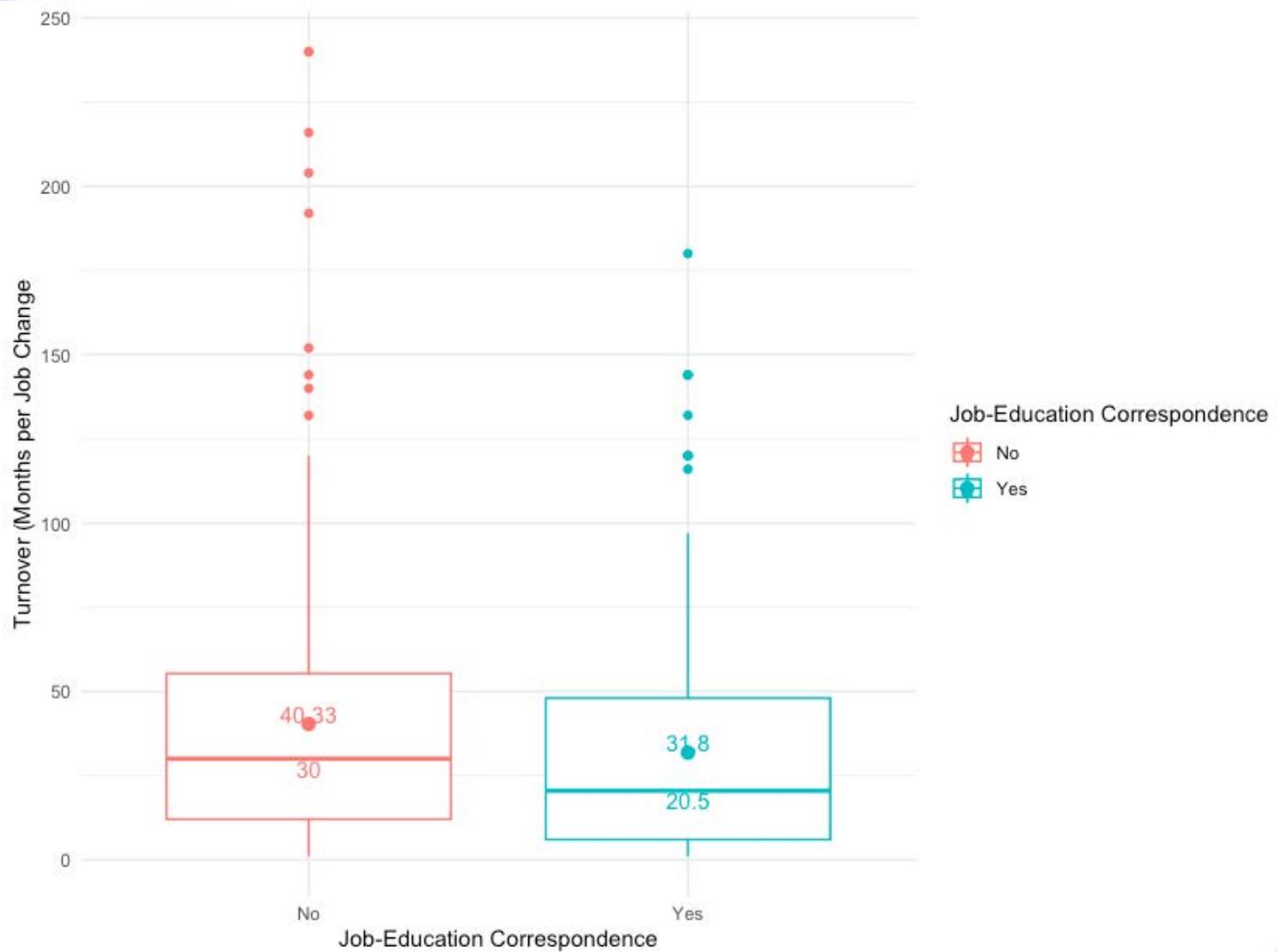
Figure 5.45 Job-Education Correspondence x Job Turnover

5.3 Research Question 3: Job Quality x Job Retention

5.3.1 Job Quality x Current Job duration (ANOVA) (3.4)

Job Quality	F	Asymptotic Significance (2-sided)
Compensation Satisfaction	4.193	0.041*
Accommodation	8.613	0.000*
Challenge/Obstacles at work	0.986	0.321
Training at work	6.976	0.009*
Discrimination at work	0.965	0.382
Type of Job	2.185	0.114
Job Satisfaction	13.4	0.000*

Table 5.21 Job Quality x Current Job duration

Table 5.21 shows the results of one-way ANOVA of 7 job quality indicators to determine whether each of them affects job duration across different groups. The results show that there are significant differences between many job quality indicators on current job duration, except for challenges in advancing in workplace, discrimination at work and type of jobs. See Figures 5.46- 49 below for references. Pairwise t-test comparisons show the following results (see Figures 47-49 in Appendix H):

- The averages of current job durations held by PWDs with different compensation satisfaction scores suggest that those who are more satisfied with their compensations stay longer in their job positions (51 months compared to 34 months for those who are the most satisfied and the least satisfied).

- In terms of accommodation, the pairwise t-test comparisons show differences in the means between all groups. Those who received accommodation had the longest job durations (50 months). Those who do not need accommodation have on average 37 months, while those who need but do not receive accommodation have

on average 27 months. Therefore, accommodation is one of the most crucial aspects in job retention.

- In terms of training at work, those who receive trainings tend to hold on average 46 months, while those who do not receive trainings hold on average 34 months. Trainings can have an effect on job retention for at least 1 year on average.
- Job satisfactions also have a direct impact on job retention. In particular, the pairwise t-tests comparing the means show that respondents who answer "not certain" are more likely to change jobs (28 months) more than those who are happy (50 months) and unhappy (36 months) with their jobs.
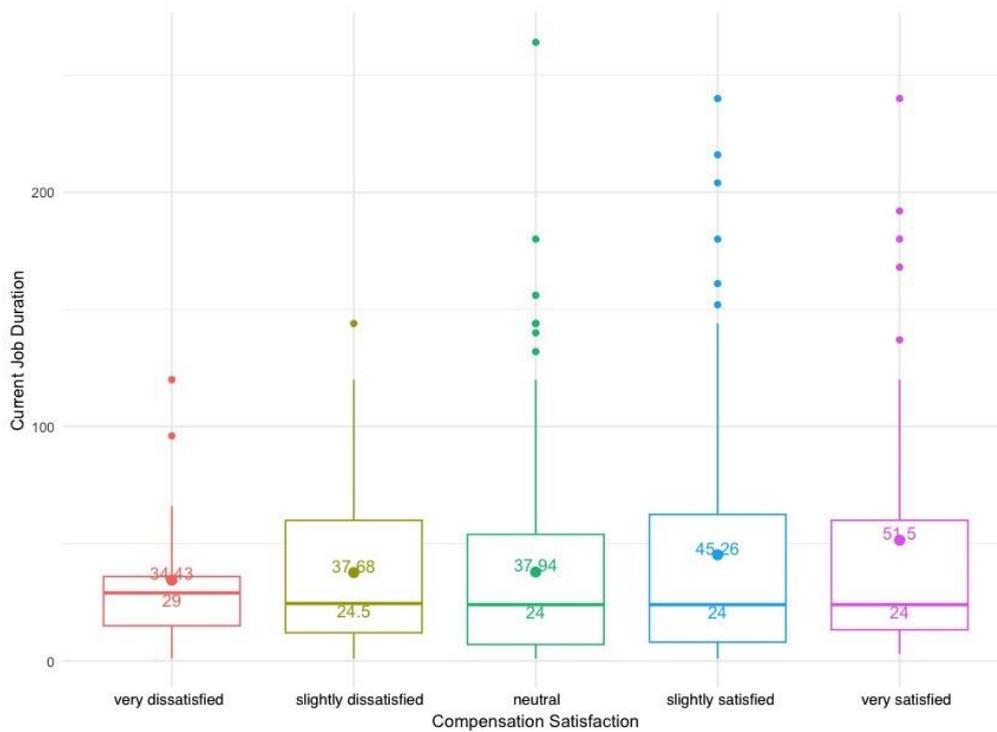
Figure 5.46 Compensation Satisfaction x Current Job duration
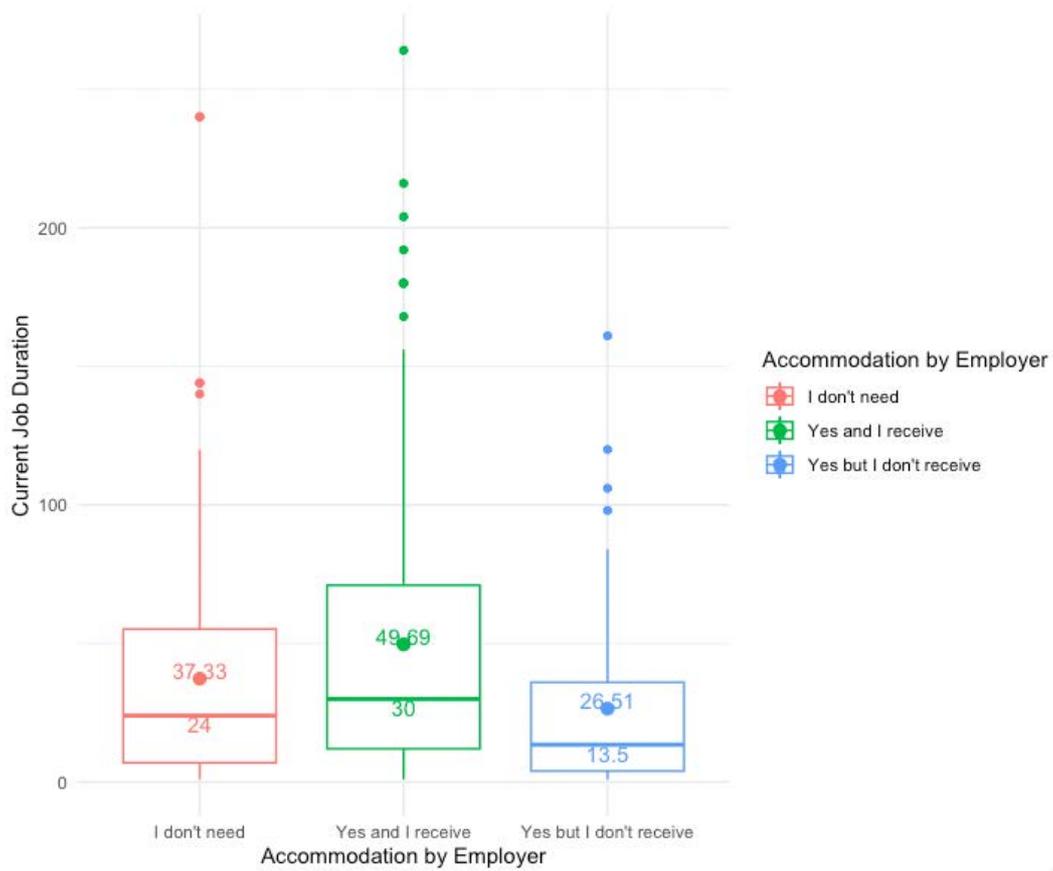
Figure 5.47 Accommodation x Current Job duration
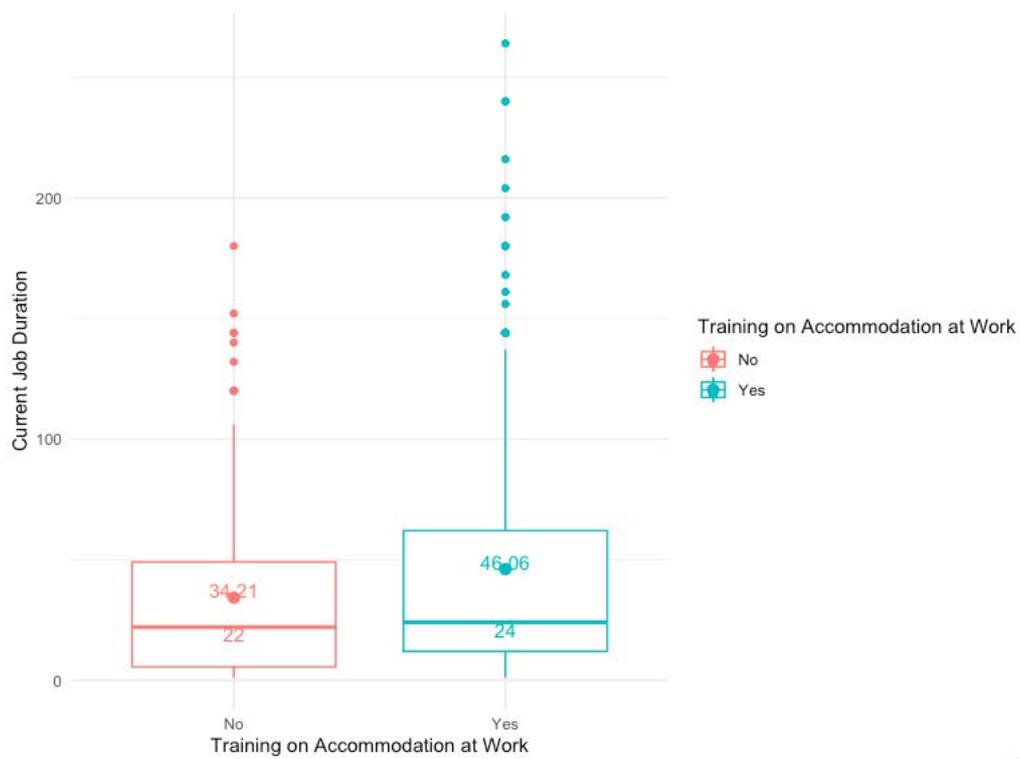
Figure 5.48 Training at Work x Current Job duration
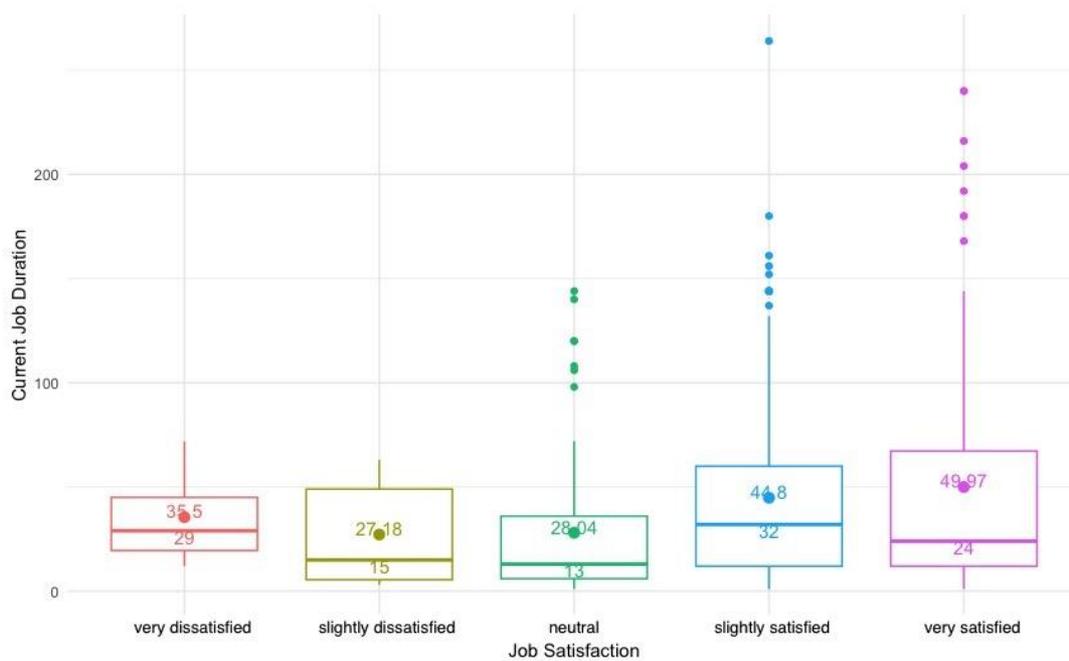
Figure 5.49 Job Satisfaction x Current Job duration

5.3.2 Job Quality x Previous Job duration (ANOVA) (3.5)

Job Quality	F	Asymptotic Significance (2-sided)
Compensation Satisfaction	1.973	0.162
Accommodation	0.68	0.508
Challenge/Obstacles at work	0.014	0.905
Training at work	0.041	0.84
Discrimination at work	1.958	0.144
Type of Job	0.362	0.697
Job Satisfaction	0.044	0.834

Table 5.22 Job Quality x Previous Job duration

Table 5.22 shows that there is no factors from job quality indicators that significantly linked to previous job durations based on ANOVA tests.

5.3.3 Job Quality x Job Turnover (ANOVA) (3.4 and 3.5)

Job Quality	F	Asymptotic Significance (2-sided)
Compensation Satisfaction	2.934	0.086*
Accommodation	5.803	0.003*
Challenge/Obstacles at work	1.883	0.171
Training at work	4.481	0.035*
Discrimination at work	1.544	0.215
Type of Job	1.555	0.213
Job Satisfaction	15.75	0.000*

Table 5.23 Job Quality x Job Turnover

Table 5.23 shows the results of one-way ANOVA of 7 job quality indicators to determine whether there are significant differences in job turnover (average number of months for job change) across different groups. The results show that there are indeed significant differences between groups for 4 job quality indicators, namely compensation satisfaction, accommodation, training at work, and job satisfaction. See Figures 5.50-53 for references below.

It is worth highlighting the following observations (see also post-hoc analysis results in Figure 52-56 in Appendix H).

- Pair-wise T-tests between compensation satisfaction and job turnover show that the main differences are between those who are very satisfied and those who are neutral. This would suggest that those who are "neutral" with their jobs are more aligned with those who are dissatisfied with their jobs in terms of job retention.

- Similar to the analysis of current job duration, accommodation and training at work by employers play a crucial role in the job turnover. By providing sufficient accommodation and training at work, people with disability are shown to have better job retention.

- Job satisfaction and job turnover show a strong link between being highly satisfied with the job, the longer job turnover is. Moreover, similar to compensation satisfaction, those who answered "neutral" with their job are more aligned with those who are dissatisfied in terms of job turnover.
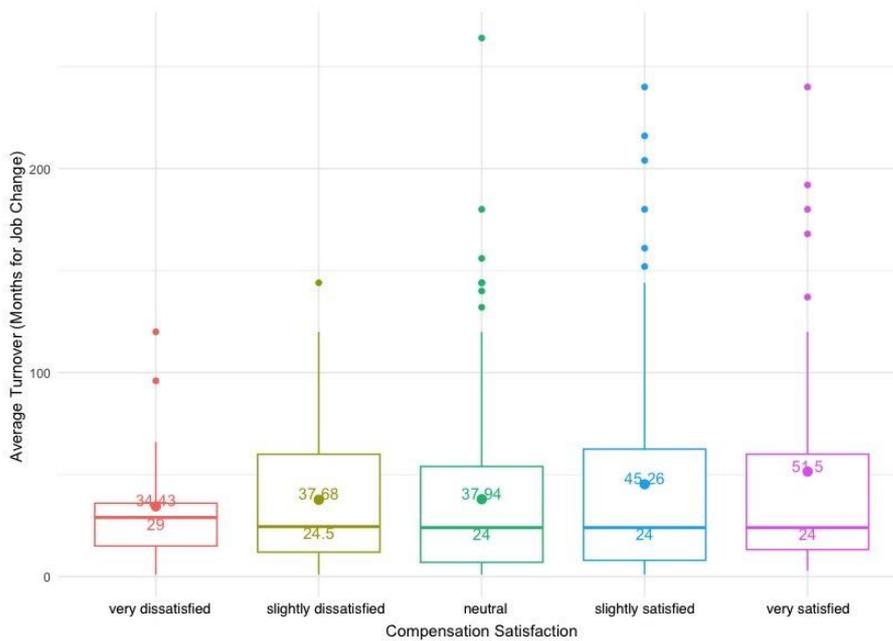
Figure 5.50 Compensation Satisfaction x Job Turnover
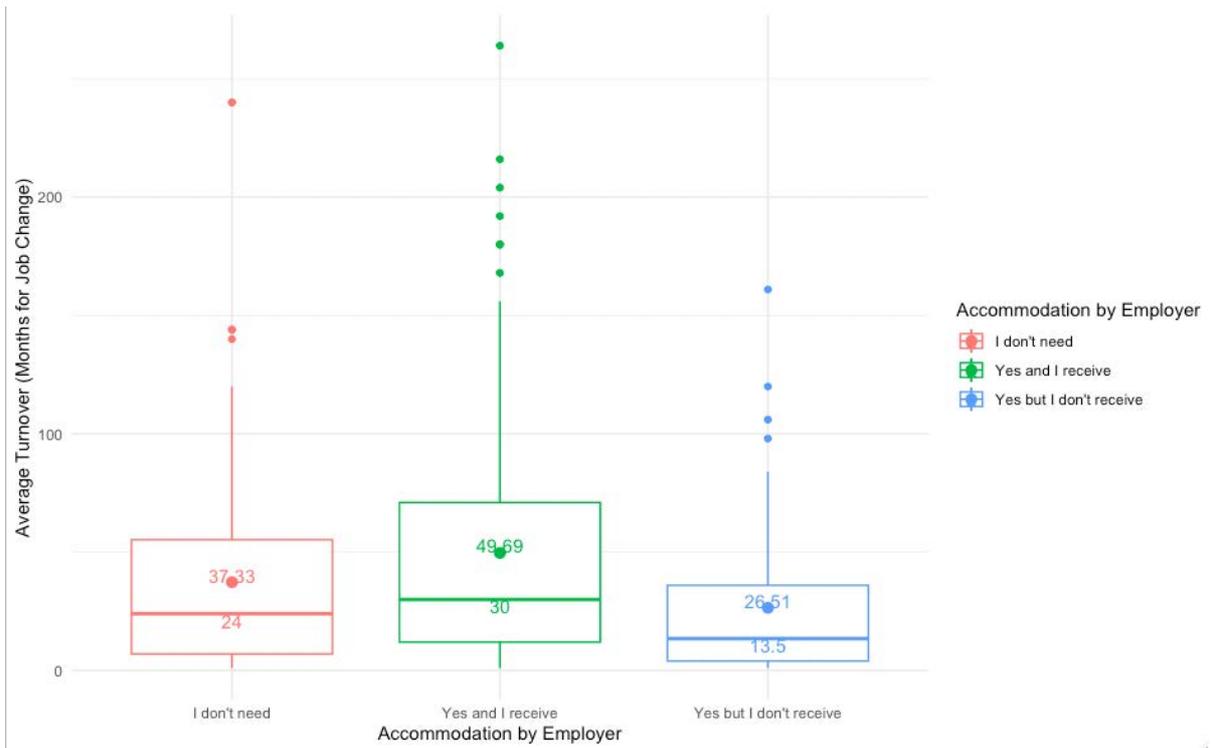
Figure 5.51 Accommodation x Job Turnover
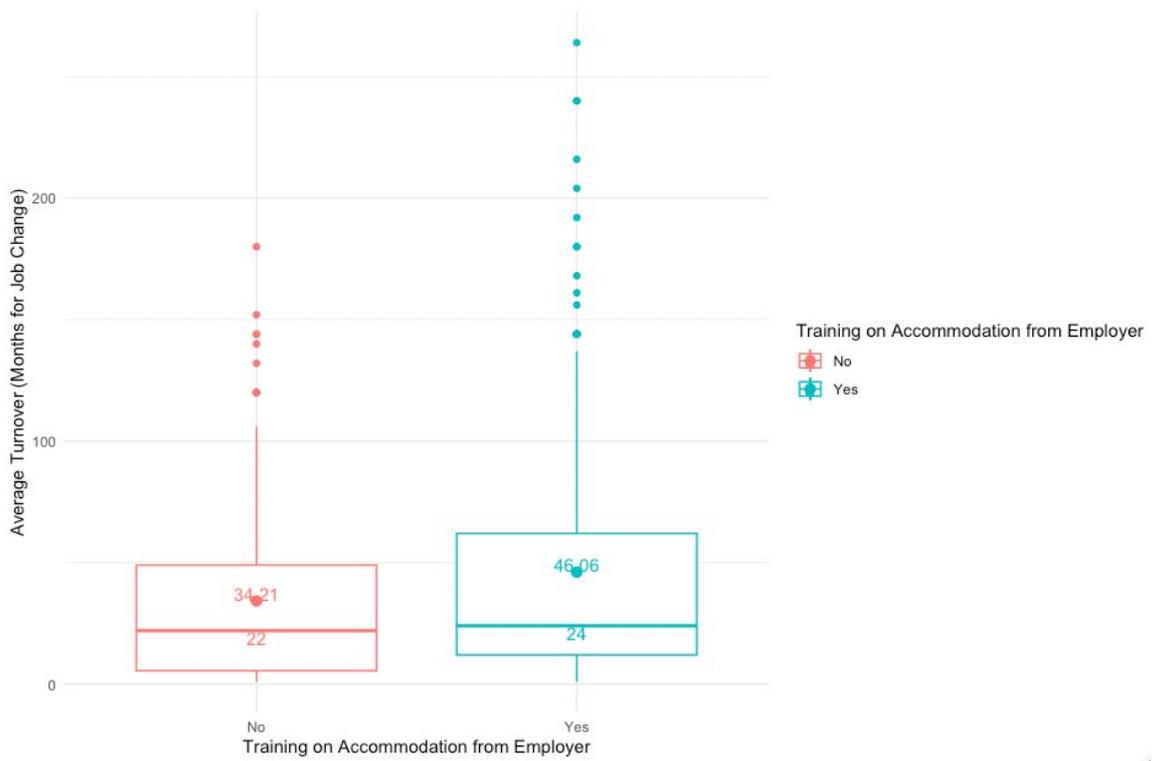
Figure 5.52 Training at work x Job Turnover
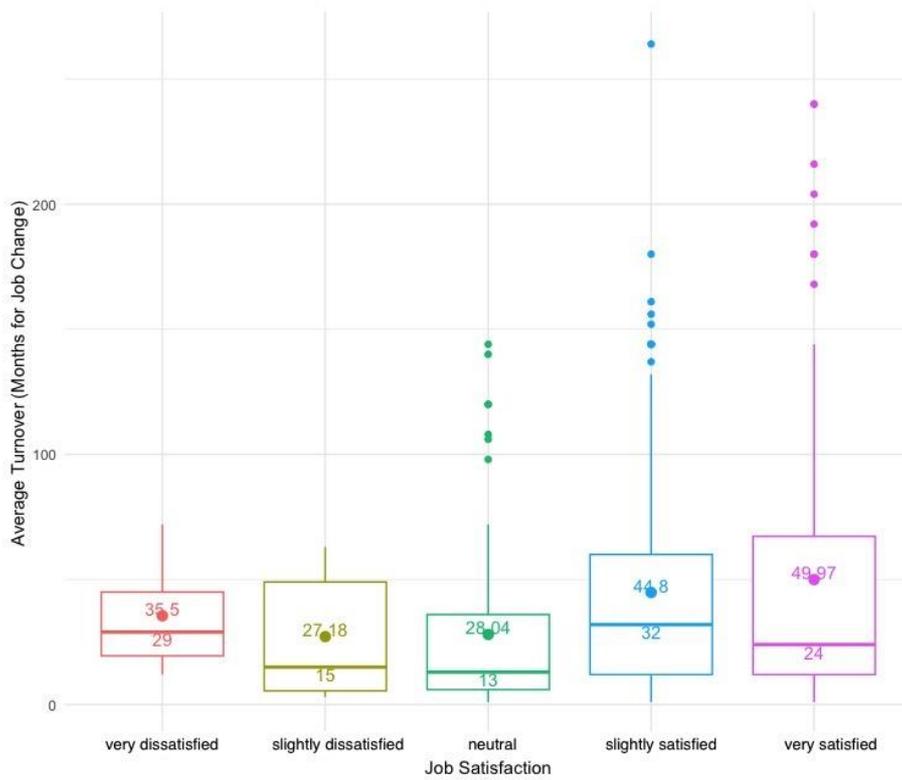
Figure 5.53 Job Satisfaction x Job Turnover

5.3.4 Job Quality x Job Satisfaction (Chi-Square Test) (5.1)

	F	Asymptotic Significance (2-sided)
Compensation Satisfaction	56.21	0.000*
Accommodation	12.04	0.000*
Challenge/Obstacles at work	1.136	0.287
Training at work	22.45	0.000*
Discrimination at work	4.157	0.016*
Type of Job	0.63	0.533

Table 5.24 Job Quality x Job Satisfaction

Table 5.24 shows the results of one-way ANOVA of 6 job quality indicators to determine whether each of them affects job satisfaction across different groups. The results show that there are significant differences between many job quality indicators on job satisfaction except for challenges in advancing in workplace and type of jobs. See Figures 5.54-57 below for references. Pairwise t-test comparisons show the following results (see also Figures 57-59 in Appendix H):

- As expected, compensation satisfaction of those who are "not certain" and unhappy with their compensation indicates a strong relationship with lower job satisfaction scores.

- Provisions of accommodation, and job training are strongly related to job satisfaction scores across all groups. Because Provisions of accommodation, and job training have satisfied and very satisfied more than other groups (See in Figure 5.54-5.55).

- Those who often face discrimination at work are much less satisfied with their job satisfaction.
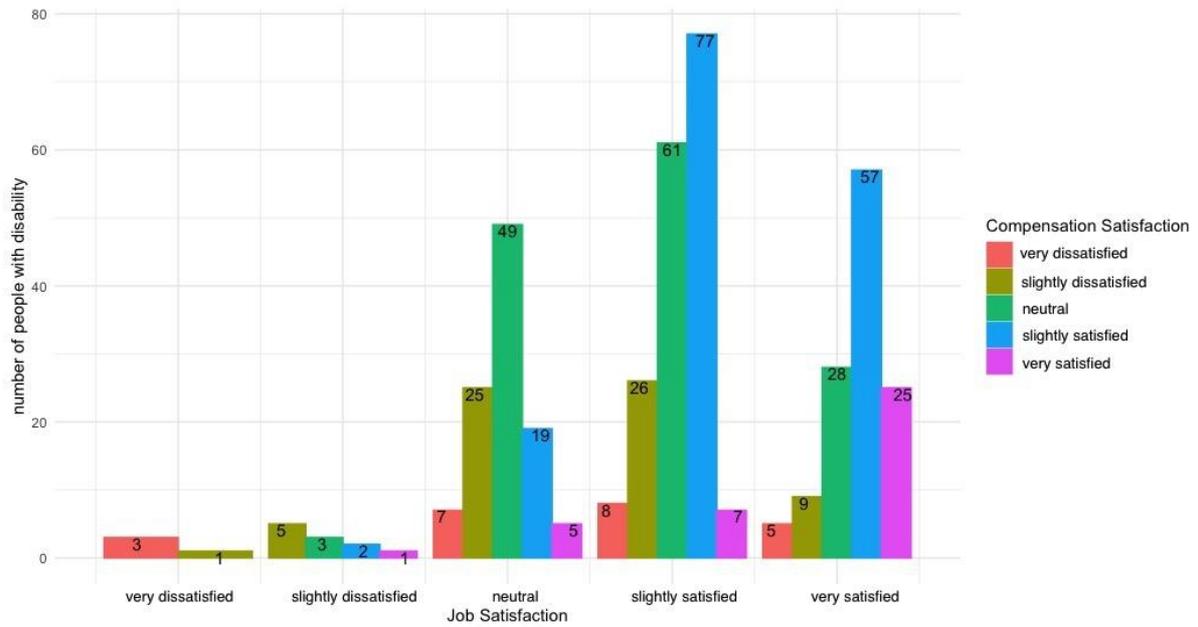
Figure 5.54 Compensation Satisfaction x Job Satisfaction
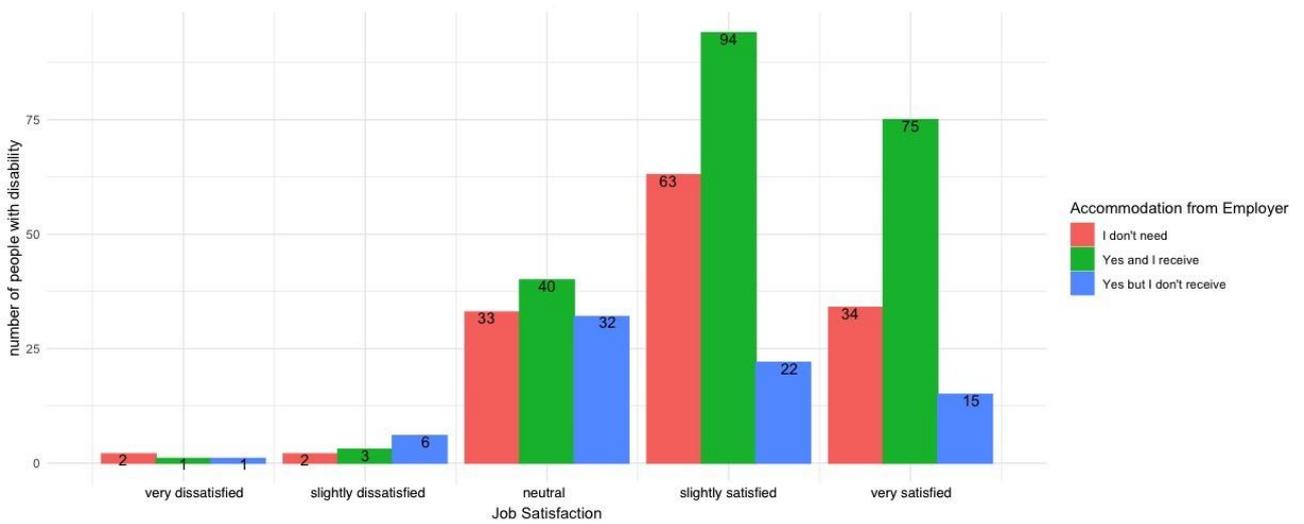
Figure 5.55 Accommodation x Job Satisfaction
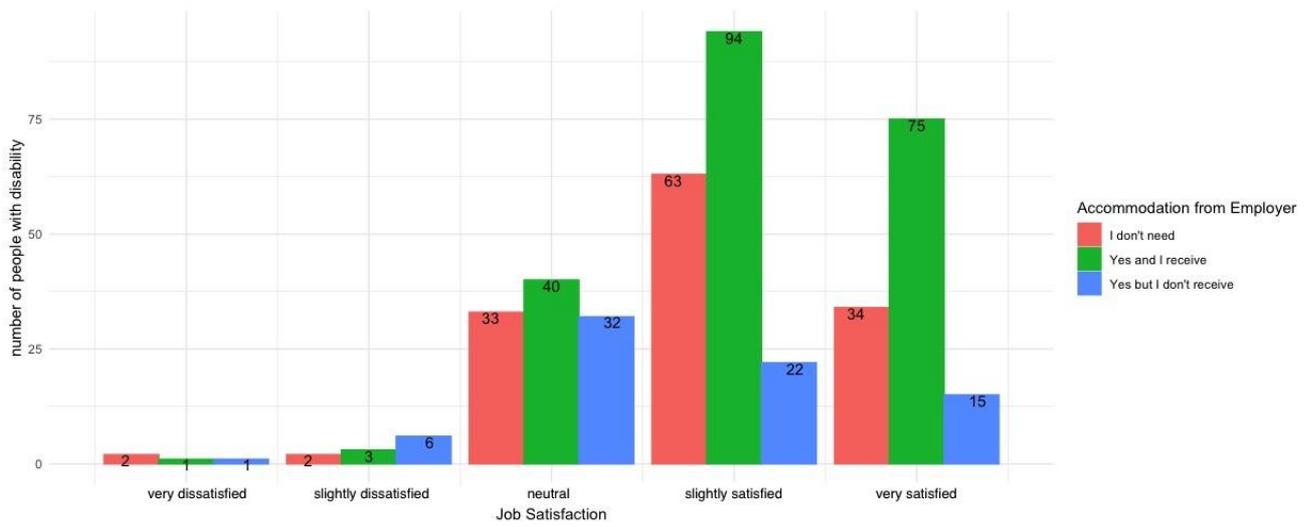
Figure 5.56 Training at work x Job Satisfaction
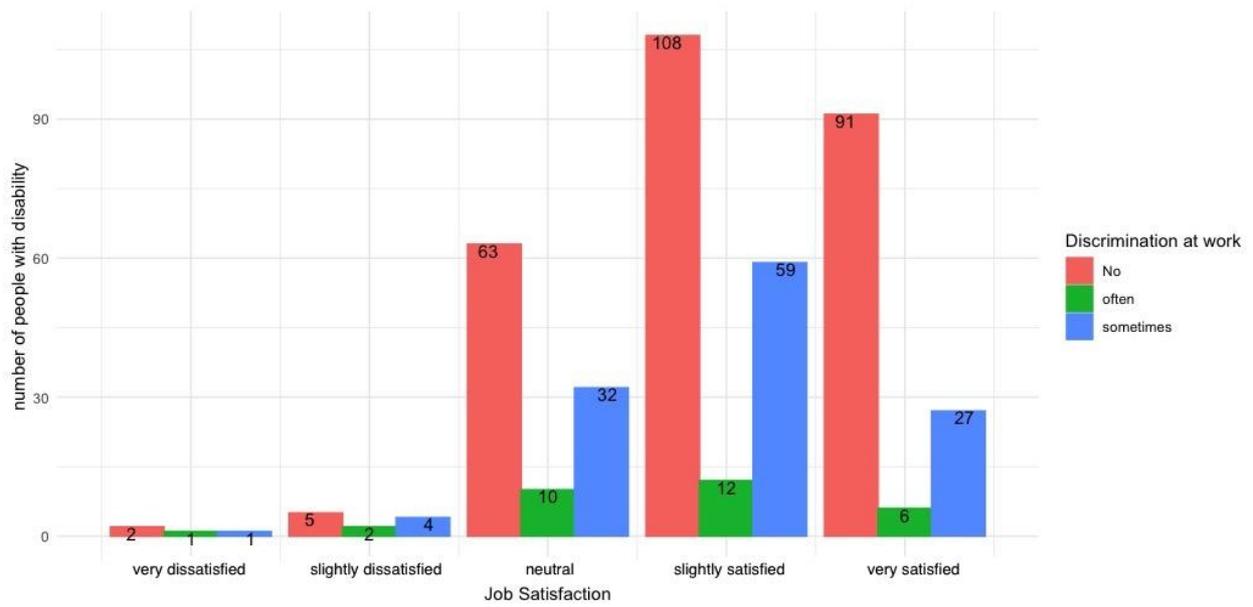
Figure 5.57 Discrimination at work x Job Satisfaction

5.4 Conclusion

This chapter presents the inferential statistics mainly by using ANOVA and crosstab chi-square tests. The insights from these statistical results reveal several important aspects relating to job finding, working environment, and job retention.

On job finding phase, the results reveal that job search channels from certain channels outperforms others on working experience and job retention. (See in section 5.2.8 – 5.2.10) In particular, one can see that getting jobs from recruitment agencies, career network, professional network, and organization with PWDs outperforms other channels (such as university network, directly from company websites, and online job boards) in terms of compensation satisfaction and job retention. Seeking help from DSS also results in a better satisfaction score for compensation. But DSS's assistance does not matter for job retention. The most important factor (in terms of job finding) for job retention is getting jobs through recruitment agency and career network, which outperform other channels.

In terms of working experience, the job quality indicators suggest that there is indeed a gender gap in terms of compensation satisfaction between males and females. Those with caregivers face more challenges in advancing in their career than those without caregivers. The types of disability that face relatively more discrimination at work are intellectual and multiple disabilities. The level of education also relates to job satisfaction. Those with master's degree are much more satisfied with their job than those without master's degree. Moreover, the statistics also suggest that those who cannot find a full-time job within the first year tend to become freelancers, rather than taking a part time job.

Job finding and work experiences also affect job retention. The results strongly indicate that those who manage to find a job in less than 1 month tend to stay longer in their jobs than other groups for approximately 1 year. Those with job-education correspondence tend to face less challenges in advancing in their career than those with no job-education correspondence. People whose nature of job does not correspond to their education background are almost two times more likely to face challenges in advancing in workplace due to their disabilities. The unexpected

finding is that those whose jobs correspond to their educational background then hold shorter job duration than those with no job-education correspondence.

Accommodation provided by employers, job training, and discrimination at work are all crucial in job retention and job satisfaction. In particular, those who received accommodation had the longest job durations (50 months). Those who do not need accommodation have on average 37 months, while those who need but do not receive accommodation have on average 27 months. Similarly, those who receive training tend to hold on average 46 months, while those who do not receive trainings hold on average 34 months. Training can have an effect on job retention for at least 1 year on average.

Chapter 6

Focus-group Discussion Data Collection and Results

The previous chapters present the quantitative analysis based on the data collected from the survey. The survey results revealed several interesting points as reported in Chapter 4 and Chapter 5. This chapter presents results from qualitative data collected from focus-group discussions. The main objective of focus group discussions is to better understand the context and confirm or refute the quantitative results. First, Section 6.1 provides a general overview of the focus group discussions, including the structure of the questions and specific questions for each focus group. Second, Section 6.2 summarizes the focus group discussions conducted during the project. Section 6.3 analyzes the insights gathered from the focus groups that adds to the quantitative analysis done in Chapter 4 and Chapter 5.

6.1 Overview of the Focus Group Discussions

As stated in Chapter 3, Research Methodology, there are 6 focus groups conducted in this project, as follows:

1) People with disability who are employed and received supports from DSS;

2) People with disability who are employed but never received supports from DSS;

3) People with disability who are currently unemployed;

4) Caretakers of people with disability;

5) Employers of people with disability; and

6) Organizations and associations that support transition to work for people with disability.

The questions are organized in the same structure as the survey questionnaire, which means they are composed of three sections: questions on job finding, working experience, and job retention (and professional development). However, for each group, questions may be adapted to

suit their roles and experiences. The lists of questions discussed during each focus group are in Appendices B-G of this report.

All the focus groups were conducted online via Zoom application. Participants, representing PWDs, are from diverse backgrounds and during the focus group discussion, there was a disability expert and a sign language interpreter present for the entire sessions.

6.2 Focus-group Discussion Summary

The insights gathered from the focus group discussions are summarized below.

6.2.1 Focus group: People with disability who had been employed and received support from DSS

This group consists of participants who are people with disabilities that graduated with a bachelor's degree, or vocational certificates. They must also be employed and have received support from DSS.

There are 6 participants in this focus group discussion. The profiles of the participants are as follows: (1) a participant of the physical (wheelchair user) disability type, who are currently in the work position of the human resource department and organizational management; (2) a participant of the hearing disability type, who are the teacher of the art institute for people with disability of hearing impairment, especially for fine arts; (3) a participant of the physical (wheelchair user) disability type, who are currently the officer of the Department of Empowerment of people with disabilities in Chiang Mai province; (4) a participant of the physical (walker user) disability type, who are currently in the work position in responsible for financial documents and other information of people with disabilities, in the social welfare department of the National Legislative Assembly; (5) a participant of the visual disability type, who graduated in major study of social psychology, and are currently in responsible for transcribing the sound and video file in the Vulcan Coalition Limited Company, and; (6) a participant of the Autism disability type, who are currently in the work

position of the food industry, especially for services, and graduated from Suan Dusit University, program in Culinary Industry.

This focus group was conducted on February 11th, 2024. For this group, researchers have provided the assistance of a sign language interpreter for a participant with hearing impairment and disability expert for observing the sensitive issues. A focus-group discussion in the group of the people with disability with support from DSS has these following key findings.

i. **Section 1: Job Finding**

The Disability Support Service (DSS) from universities provide proper services of finding employment and professional training before graduation to the people with disability. Besides, they got the opportunity to be the intern in the actual professional setting from their connection such as their professors and members of the university club in some projects. All this support has a follow-up process, making this support system to be beneficially effective. They provide self-preparation to people with disabilities, follow up on their work skills and have an evaluation for the training until they are in the workplace.

After receiving support in finding jobs and professional training, people with disability feel that their attitude toward the work setting is changed in the better way. They feel confident that they can work with their trained work skills. And, with the skill-training project, they have got more opportunities for getting employment because of their skill, experience, and connections.

Lastly, the participants stated that the training project and other support from the DSS is truly beneficial to them, in terms of gaining necessary skills to enter the work force, both soft skills and hard skills. The DSS is especially helpful with finding opportunities for the broad work field, adaptation to the work setting, and managing skills for work and challenges of it.

ii. Section 2: Work Experience

The insight from this section reveals that participants preferred normal job positions over job positions that are specifically designed for PWDs because these kinds of job give them the confidence that they are no different from other people. They insist that they can work normally in a job that is not designed just for people with disabilities. However, there might be cases when they will need specific accommodation for their jobs. These accommodations are, however, not required as a special privilege. Rather, they are to facilitate and allow PWDs to have the ability to work like others.

Some of the participants added that their disabilities are beneficials for their job positions. For example, one of the participants worked with the social benefit department for PWDs. In this case, the participant believed that his personal experiences help connect with other PWDs better. Besides, most participants got full support from their employers about the work position and work environment, so, they feel so satisfied with their job even if it is not specifically designed for them.

Regarding the adaptation to work environment and colleagues, people with disability receive the accommodation and other provisions equivalent to others in the workplace. They feel like they can work in the same environment and setting like everyone else. They do not want any special privileges that would create misunderstanding with their colleagues. In the case of people with disabilities who work from home, they arrange the environment for themselves, so, the accommodation and environment for work has no effect on them. They just require the meeting of everyone onsite or online, to keep them in touch with their colleagues.

iii. Section 3: Job Retention and Professional Development

The focus group participants indicated that the most important factors for their job retention are 1) the nature of the work and 2) attitude and understanding of both employers and colleagues. In terms of attitude and understanding from employers and colleagues, they clarify that the mental supports, correct understandings from both employers and colleagues, especially the understanding that certain accommodations are there to facilitate their jobs, not as privileges, are particularly crucial for them. They also believe that employers should assign them the job that is more responsible and skillful, as they would like to be promoted to the higher work position and

more opportunity to advance their profession. They understand that such assignment leads to better opportunities, in terms of fairer and higher compensation and job satisfaction.

Additionally, for some participants, the quality of work output and their matching potential and skill sets to achieve that are also the crucial factors that can help them in the field of work and bring them more opportunities for professional development.

6.2.2 Focus group: People with disability who had been employed and not received support from DSS

This group also consists of participants who are people with disabilities that graduated with a bachelor's degree, or vocational certificates. They must also be employed but had never received support from DSS. There are 5 participants in this focus group discussion. The profiles of the participants are as follows: (1) A participant of the physical (wheelchair user) disability type, who are currently in Vulcan Coalition Limited Company; (2) A participant of the physical (wheelchair user) disability type, who are currently in responsible for Chiang Mai Friendly Design Ambassadors work position; (3) A participant of the visual disability type, who are currently the owner of Friendly Deaf company, and previously have the work experiences in the National Science and Technology Development Agency (NSTDA) and other companies; (4) A participant of the mental disability type, who are currently the officer of Khlong San District Office, and; (5) A participant of the hearing disability type, who are currently in the work position in The National Deaf Association Thailand.

This focus group was conducted on February 18th, 2024. For this group, researchers have provided the assistance of a sign language interpreter for a participant with hearing impairment and disability expert for observing the sensitive issues. A focus-group discussion in the group of people with disability without support from DSS has these following key findings.

i. Section 1: Job Finding

From conducting the focus group in this section, the insights reveal that participants in this group received the support from other organizations other than the DSS from universities, such as the Redemptorists Foundation for People with Disability, and other agencies. However, they mostly

depend on themselves in finding jobs, especially from their friends or relatives. Furthermore, they receive much more from their connections in university life than after graduation. Many participants got referred by them and introduced to professional settings.

The participants in this group got their recent work positions due to different decisions. There are three main considerations that influence them in selecting and staying in the jobs. The first one is about the comfortability in commuting to work. Their disability is the main reason why it is difficult to travel to work; therefore, they chose safety and comfortability. The next consideration is the nature of the job that matches their abilities and the field of study they have pursued. The participants in this group have reasons for satisfaction and take pride in jobs that align with their educational background. They are satisfied with the nature of the work that they are responsible for and believe that they may gain relevant experiences to further develop themselves. The third consideration is flexibility in the job. Flexibility in work includes convenience in terms of time scheduling and the ability to manage tasks efficiently without strict working hours. This flexibility enables the participants to handle their workload effectively. It also means having the convenience of organizing responsibilities according to the workplace and time constraints. These reasons are crucial considerations in choosing the current job position.

ii. Section 2: Work Experience

The insights gathered on work experience from the participants shows that in many workplaces, there are initiatives designed for people with disabilities. However, prejudice and dissatisfaction from colleagues often inevitably arise, leading to increased pressures on the participants. Working in a conventional format, as opposed to a job position specifically designed for PWDs, is deemed preferable, as it enables the participants to discover their increased potentials and sense of pride in assuming responsibilities comparable to those without disability.

Similar to the previous focus group, the participants in this case also think that employers should provide accommodation and facilitate appropriate working conditions for people with disabilities to fully optimize work performance. It is essential to provide appropriate facilities and support tailored to each type of disability. Some of the participants also agree that the nature of their jobs can make sure of their personal experiences as PWDs. For example, one of the

participants worked as a surveyor of universal designs for buildings. In this context, the participant stated that his personal experiences as a wheelchair user are valuable for the job. More importantly, employers should foster understandings in working with PWDs among its employees for collaborative work environments. **Therefore, providing facilities for people with disabilities, choosing appropriate jobs, and fostering employee understanding of disabilities are crucial in the overall PWD job design process.**

The participants also reported obstacles and challenges primarily in two areas: 1) prejudice and 2) non-acceptance stemming from their disabilities from colleagues and employers**. Non-acceptance of their potentials results in underutilization of their capabilities**. Like the participants in the previous focus group, the participants stated that attitudes from colleagues impact their work performance. A related issue is the case when PWDs' job positions are under disability quotas, but the organization lacks appropriate understanding and structure to support them. One of the participants reported that he was accepted as a researcher at one of the national research institutes under a quota to work on a PWD-related project. However, he lacked a direct supervisor who he could work with on a regular basis. The participant felt that he can work normally and should be treated as such, not only limited to PWD-related projects. While limitations due to disabilities may have some impact on the nature of work, they are not significant issues.

iii. Section 3: Job Retention and Professional Development

For the job retention and professional development section, the insight of this issue shows that there are three main factors keeping them in the same job for a longer period. The first consideration pertains to colleagues. **Colleagues play a significant role in fostering longevity in one's tenure at the workplace, owing to their assistance in overcoming various limitations and fostering a friendly working environment**. The next factor is compensation. The participants emphasized the importance of fair compensation commensurate with the job position and responsibilities undertaken. It is imperative not to reduce wages simply on the assumption that disabilities may limit their productivity and warrant lower compensation. The third factor lies in a job that offers flexible schedules and adaptability tailored to individual needs. Job characteristics also encompass suitable workplace environments conducive to daily living.

The participants in this group mentioned the support and recommendation contributing to assisting them in many aspects. The assistance required in the initial phase primarily involves providing mental support and preparing other colleagues for the right attitude of working with PWDs. **Psychological preparation for PWDs, if sufficiently provided, facilitates a smooth transition into the workforce**. This is because of the significant differences between academic life and actual employment. At the same time, general guidance for all employees in the company should also include an understanding of the limitations associated with disabilities. The participants stated that employers' understanding typically coincides with appropriate welfare benefits or support services for PWDs. For example, sign language interpreters for people with hearing impairments are provided to ensure smooth functioning in some workplace.

6.2.3 Focus group: Employers

This group also consists of participants who are employers of people with disabilities who graduated with a bachelor's degree, or vocational certificates. Most of them are the HR staff or those who are directly responsible for hiring PWDs.

This group was conducted on December 12th, 2023. There are 5 participants joining the session, representing 5 companies, as follows: (1) Home Product Center Public Company Limited (2) Ngern Tid Lor Public Company Limited (3) Minor International Public Company Limited (4) Vulcan Coalition Company Limited, and one organization that did not consent to expose their name. The focus group discussion has these following key findings.

i. **Section 1: Job Finding**

The participating employers have two formats of hiring people with disabilities. **The first is hiring PWDs from general hiring channels, and the second one is hiring PWDs based on specifically designed job openings for PWDs**. The difference between the two approaches lies in how job descriptions are created. In general hiring, job descriptions do not differ from other job descriptions. On the other hand, specifically designed job openings provide specific job descriptions for PWDs.

All the employers confirmed that based on their experiences, the best job search channel in terms of finding the right employees with longer job retention is through referral from other PWD employees. They stated that referrals typically provide the pre-screening of potential employees' qualifications from their existing employees. Another challenging aspect in hiring PWDs is the issue of commuting to the workplace. They found that distance affects job retention directly.

Furthermore, the participants stated that **they typically hire PWDs with the types of disability of which they understand the nature**. They are more confident in hiring PWDs with which they are familiar of the nature and their specific needs. Hence, employers' better understanding of the nature of PWDs of each type can potentially help boost the hiring of PWDs of different types.

ii. Section 2: Work Experience

A generation gap among people with disabilities in the workplace does not influence the challenges in the workplace. **What creates more challenges in the workplace is the attitude of PWD employees**. Adapting to a professional setting is the most challenging part, especially for the new hire in every workplace. People with disabilities after graduating must adapt to the work environment and working with other colleagues outside of the university. One of the most common solutions is to provide orientations for the new PWDs hirings on the working culture of the company. Vulcan also suggested a one-on-one individual check-up, which they found effective for developing professional attitudes toward their work and responsibility.

There are typically both equality and non-discrimination policies for their organizations, as well as making them feel ownership on their jobs. **Letting the employees who are people with disabilities join every activity and skill training will make job retention rates higher than before. Making them feel participating is the key to the success rate for job retention for the employer experiences.**

iii. Section 3: Job Retention and Professional Development

Longer job retention and professional development starts with the understanding of employers to create enabling environments for PWDs, including equal career opportunities and inclusive work environment for PWDs, and acknowledgement of their contributions to the

company. According to the participants, all these factors are the key matters to job retention and professional development. Moreover, opportunities from employers to let the PWDs work in their field and to their full potential is the best practice for supporting them and make them feel confident of their own contribution equal to their peers without disability.

6.2.4 Focus group: People with disability who are recently unemployed

This group is a group consisting of participants who are people with disabilities who are unemployed but previously had work experience and have graduated with at least a bachelor's degree or with vocational certificates.

There are 4 participants in this focus group discussion. The profiles of the participants are as follows: (1) A participant of the Autism disability type, who had work experiences from 2 different companies, and are currently not hired; (2) A participant of the visual disability type, who are currently a freelancer, but have the experience of full-time hiring; (3) a participant of the visual disability type, who had the experience in the Provincial- Administrative Organization of Nonthaburi previously. This participant is the acquired type of disability, and (4) a participant of the visual disability type.

This focus group was conducted on February 26th, 2024. The only relevant section of this group is on Job Finding only. The summary of the results is shown below.

i. **Section 1: Job Finding**

From the experiences of job seeking among the participants in this group, there are several factors that hinder success in obtaining and retaining employment. Most participants stated that they have limitations associated with their disabilities, leading to difficulties in working and maintaining their employment. They also mentioned **the lack of understanding from their supervisors and colleagues, leading to inappropriate behaviors towards them** in the workplace, such as biased treatment and inappropriate remarks. Another obstacle is the employer's misunderstanding regarding limitations associated with PWDs, which affects the employment acceptance rate in the first place. For example, one of the participants stated that people with hearing and physical impairments often have higher employment rates than those with visual

impairments because organizations are uncertain about their ability to accommodate people with visual disabilities.

When discussing experiences during job interviews, the participants reported that they did not encounter significant obstacles during the interview process for employment. One participant with autistic conditions stated that there may be some issues regarding communication among people with mental, intellectual, or autistic conditions that require additional understanding from the interviewers.

The participants stated that the main problems tend to arise during employment. During this phase, assistance from colleagues in areas where full responsibility cannot yet be assumed is often required, which sometimes creates dissatisfactions from their colleagues. Additionally, employers often express concerns regarding accessibility and transportation as additional costs more than they care about the increased efficiency of their work performance.

In terms of job seeking channels, the participants would **prefer to have specific job search avenues tailored to their respective types of disabilities**. This entails the need to specify which positions accommodate people with disabilities and of what types and providing means of contact. Furthermore, while these specialized job search channels may already exist, feedback from people with disabilities in this demographic indicates a lack of consistent follow-up and deficiency in responsiveness. Better screening and identification processes would enhance opportunities for people with disabilities of each type to secure employment that match their natures and conditions. The establishment of **additional specialized channels for all types of disabilities**, including websites and hotlines that categorize disabilities in detail and serve as accessible sources of information for employers to review, is advocated following preliminary screening.

The characteristics of work and the types of workplaces desired by the participants are diverse. However, one common ground is that they seek employment environments that foster understanding, leading to the provision of adequate accommodations and conducive working conditions. Given the varying limitations among people with disabilities, understanding the nature of different types of disabilities is crucial for appropriately accommodating services within the workplace.

People with disabilities do not perceive themselves as encountering any challenges or obstacles in a specific field or industry. However, they do possess their own limitations stemming from both their inherent abilities and their disability types. For instance, one participant with visual disability indicated that people with visual disabilities may not utilize computers to their fullest potential **but excel in communication through voice and providing comprehensive information**, including **assistance in braille transcription**.

The ultimate concern lies in the assistance provided in preparing people before entering actual employment. They knew of support from the university, both in terms of internships and networking connections, by leaving their contact information. However, they mostly prepare themselves for the workforce independently. Whether it is searching for outside programs to prepare for employment or applying for jobs. The participants recommended universities and vocational schools to prepare their students with regards to employment in two main areas before completing university studies. These include preparing for communication and socialization skills, especially for people with mental, intellectual, and autistic conditions, which necessitates these skills to interact with others in society without being overly pressured and preparing for the work environment. People with disabilities in this group need to understand the differences in all aspects of work from learning, to mentally preparing. They believe that receiving such assistance will lead them to find suitable jobs, and the gap between completing education and obtaining employment will decrease.

6.2.5 Focus group: Caregivers of People with Disability

This group is a group consisting of participants who are caretakers of people with disabilities who are employed and graduated with at least a bachelor's degree or with vocational certificates. There are 6 participants in this focus group discussion. The profiles of participants are as follows: (1) a participant who are the caregiver of PWDs in the mental disability type; (2) a participant who are the caregiver of PWDs in the intellectual disability type; (3) a participant who are the caregiver of PWDs in the intellectual disability type; (4) a participant who are the caregiver of PWDs in the autism disability type; (5) a participant who are the caregiver of PWDs in the autism disability type,

and; (6) a participant who are the caregiver of PWDs in the hearing disability type. Considerations of researchers are that people with disabilities who have a requirement for caregivers is the group of 4-7 (intellectual type, etc.) type of disabilities. Hence, the participants are almost always the caregivers of those types.

This focus group was conducted on January 30th, 2024. The sections of this group consist of various questions categorized by the journey of jobs. The summary result is shown below. The insight we got suggests the different accommodation in the workplaces and work experiences based on the types of disability. The summary of the results is shown below.

i. Section 1: Job Finding

The participants suggest that specific job search channels are best for people with disabilities, especially for learning disability and autism. The specific job search channel and work design from employers ensure a good matching and a good working environment for them. Misunderstanding and mistreatment of people with disabilities, **particularly for learning, intellectual disabilities, and autism, are prevalent**. Also, the specific job design typically offers more proper job training and compensation.

Types of disabilities affect the adaptation of people with disabilities to the professional setting differently. Participating caretakers of intellectual, behavioral, autism disability types insist there are enormous challenges in the workplace. This contrasts with a participating caretaker of a person with hearing disability who stated that there are no disability-specific challenges in her case. Types of disability further affect other aspects of finding jobs, that is, **employers' hiring people with disability depends on their understanding of the nature of each disability type**. Moreover, employers tend to hire the visible types of disability rather than the non-physical types such as intellectual, or mental, autistic, and learning disabilities. Therefore, the attitude and understanding of the employers is crucial to the hiring process.

ii. Section 2: Work Experience

The insight in this section reveals that commuting to work is a big challenge for people with disabilities due to safety issues. **Their caretakers fear that they may face various kinds of dangers if they commute long distance to work**. Someone may exploit or deceive them. This is a particular concern for PWDs with learning, intellectual disabilities, and autism. Moreover, according to the participants, most employers have a perception that hiring people with disabilities incurs higher costs. Based on their personal experience, they shared that employers consider the provision of accommodation and traveling-to-work welfare for people with disabilities are extra costs for them.

Some participants who have worked with employers with inclusive attitude, such as APCD stated that job training and skill training for people with disability, especially for learning, mental, and autistic disabilities, make a big difference for their future careers. They are more confident and become exposed to the working environment in real settings.

iii. Section 3: Job Retention and Professional Development

The insights from this section reveal that the work environment, especially for colleagues, has a great impact on job retention. Understanding employers and colleagues leads to better accommodation provision and a good attitude towards them, which, in turn, make people with disabilities feel encouraged and more satisfied with their job. Still, for better job retention, employers must provide better organization management, such as **welfare, salary adjustment, professional advancement, personal mentors, and policies for people with disabilities in** the organization. These provisions affect retention directly.

Further, good intentions with no understanding can lead to disaster in the job environment for people with disability because hiring people with disability requires orientation for all employees to create the right environment. Insufficient attitude training for colleagues of people with disability results in bad experiences for them, especially for people with disability in the intellectual, learning, mental, and autism types. Additionally, working according to their skills, provision of job coach, support from family, and social acceptance are crucial for their job retention and success.

6.2.6 Focus group: Organizations for People with Disability

This group is a group consisting of participants who represent many organizations supporting people with disability to find jobs or have the policy focusing on assisting people with disability in general.

There are 5 participants in this focus group discussion. The focus group was conducted on December 19th, 2023. The group includes representatives from the following organizations: the Disability Support Service (DSS) of Chiang Mai University; DSS of Nakhon Ratchasima Rajabhat University; Disabilities Thailand (DTH); the Pattaya Redemptorist Technological College for People with disabilities (PRTC); and Asia-Pacific Development Center on Disability (APCD). Researchers also interviewed a participant from Social Innovation Foundation (SIF), who has direct experience in project contributing to well-being of people with disability to discuss on similar questions. The summary of the focus group discussion and in-depth interview is shown below.

i. **Section 1: Job Finding**

Different approaches to support PWDs to find jobs should be prepared depending on the types and severity of the disability. Preparation before their graduation should introduce them to professional settings. **This type of disability significantly influences different approaches for preparation and other aspects in the work setting**, including the job finding process. The success rate of getting a job of people with disabilities depends also on the types and severity of disabilities.

One participant shared an experience of its incubation and training program designed to prepare people with disabilities entering the job market. This program has been implemented for over 5 years, focusing on preparing candidates in all aspects before entering the workforce, including dress etiquette, interview skills, and professional setting introductions. Additionally, they establish connections with organizations willing to hire people with disabilities. The organization representatives attribute their job placement success to these training programs. The challenge of people with disabilities who have completed their education lies mainly in the lack of linkage to the job market. **They are prepared and capable of working but lack confidence in job**

applications. Overall, programs from various organizations or agencies that **provide assistance act as a bridge to create better employment opportunities for people with disabilities**.

Many participants agree that accommodation and commuting to work have a significant impact on finding a job for people with disabilities. Setting the workplace to be more supportive to people with disabilities is the best practice for them in the view of the participants.

ii. Section 2: Work Experience

Regarding the work experience with people with disabilities, the attitude toward people with disabilities themselves is the most important aspect in the workplace. Employers and colleagues should provide a comfortable environment and inclusive setting of work for people with disabilities, including general training for everyone in the workplace on how to provide inclusive environments for PWDs.

Discussions on the nature of different types of disability, their capacity and potential for the job position, and obstacles potentially caused by the disability should be discussed together with the employers and colleagues to create more inclusive environment of the workplace. **Welfare and compensation for PWDs should at least be equivalent to the people without disability**, including making more proper workplace and specific job design for the people with disability. Furthermore, during the hiring process, employers and coworkers should adjust their understanding of the specific needs of people with disabilities, which vary according to the type of disability, and should prioritize each of these needs equally. No issue should be overlooked, as doing so would help facilitate improvements and enhancements in the effectiveness of policies and practices towards people with disabilities.

Adapting to remote work environments away from one's domicile can significantly impact work experiences and job retention. Based on one of the participants' direct experiences from disability-inclusive incubation projects and employment creation for people with disabilities, appropriate accommodations and suitable environments are proven to be a key factor in job retention. However, individual assessments of people with disabilities on a merit-based basis remain crucial. Furthermore, emphasis is placed on workplace adjustments for people with disabilities based on the type and severity of disabilities. Direct experiences in working with people with

disabilities reveals variations in abilities and lifestyle management among different disability types. Hence, there should be tailored adjustments to optimize work performance.

iii. Section 3: Job Retention and Professional Development

The participants seem to agree with PWDs who are employed that a general job position, rather than a specifically designed job position for PWDs, is preferred. **Knowing that they can work alongside others in a normal setting boosts their self-esteem** because they feel that they can work to the full potential and equivalent to the others in the workplace. This also leads to better job satisfaction and hence job retention.

Promoting employment opportunities for people with disabilities through extensive communication is one of the crucial factors contributing to job retention. This communication effort aims to facilitate assistance by fostering networking connections among various entities, including governmental and non-governmental sectors, to enhance connectivity and streamline communication. Furthermore, it serves to promote awareness and understanding of people with disabilities, thereby fostering improved inclusivity and comprehension within society. Other contributing factors include the skills and potential of people with disabilities themselves, as well as the provision of appropriate accommodations by employers. **This provision is influenced by employers' understanding and attitudes towards people with disabilities**, considering their full potential and opportunities for professional advancement.

Fostering collaboration among organizations to disseminate information regarding people with disabilities and integrating them seamlessly into the workforce represents a pivotal factor in enhancing the efficacy of employing people with disabilities. The establishment of a comprehensive database within this collaborative framework can facilitate seamless connectivity between employers and people with disabilities, thereby optimizing the transition-to-work process for graduates with disabilities.

Moreover, one participant shared that **a correct understanding of hiring people with disabilities can lead to effective allocation of work for people with disabilities and enable them to retain jobs efficiently without requiring substantial investments**. Additionally, this understanding can also facilitate the integration of people with disabilities into the labor market

beyond factory work. People with disabilities can work in corporate environments on par with the general population when employers recognize their potential to produce work in line with business requirements.

6.3 Focus-group Discussion: Summary Results with Research Questions

After reviewing the summary results of the focus groups, we further analyzed the summary by comparing the results of the focus groups to the research questions to additional insights that can provide contexts for the results of statistical tests and other aspects before this chapter. The results compared to the research questions can be shown in detail below.

6.3.1 Summary Results to the Research Question 1

The first research question is "How do internal factors affect job quality and job retention of people with disabilities?". From the findings of the focus groups above, it is suggested that the most crucial internal factor which has the covering impact on **job quality in terms of accommodation is the type of disability**. The factors related to the type of disabilities have an impact on the quality of job changes. This is particularly evident in the provision of facilities for people with disabilities of any type. For instance, people with physical disabilities require amenities such as ramps, lifts, and other aids to facilitate mobility. However, for people with disabilities in types 4-7, it is suggested that accessibility may not always pertain to physical facilities or environmental arrangements. Individuals in these categories should receive assistance and supervision for accessibility from caregivers or support personnel. Therefore, **workplace accommodations for people with disabilities vary according to the type of disability**. This provides additional context to the statistical results, which show that the type of disability does affect the accommodation provided by employers (see Section 5.1.2)

The type of disability factors into the challenges and barriers faced in employment. Limitations arising from disabilities lead to adaptations to varying workplace challenges, impacting work efficiency if it lacks adequate support for adaptation. For instance, **people with hearing**

impairments **require sign language interpreters for effective communication**; without such support, work processes may be slower. Additionally, interviews reveal that people with hearing impairments may struggle in restaurant work due to difficulties in sign language communication, affecting their job performance. Another group facing challenges are wheelchair users, who must adapt to mobility challenges at work, finding commuting more challenging compared to colleagues. Furthermore, disparities exist in employment practices and workplace inclusivity, particularly for intellectual, learning, and autistic disabilities, resulting in unequal treatment in communication access and other aspects affecting work and perspectives. These results confirm the discrimination at workplace results which show that learning disability and multiple disability types tend to face higher rate of discrimination at workplace (see Section 5.1.5).

Another main factor affected by the type of disability is overall job satisfaction. People who have disabilities that are not visibly apparent often experience poorer treatment compared to those with physical or hearing impairments. This is due to **biases and misunderstandings about disabilities**, resulting in discriminatory practices such as inappropriate language use, teasing, and other issues that may arise from negative attitudes. These actions consequently lead to decreased job satisfaction, ultimately resulting in the inability to remain in the same position for an extended period. Section 5.1.6 also reports significant differences in the level of job satisfaction across different types of disability.

The major of study continues to influence various factors in the quality of work. Firstly, job satisfaction in terms of compensation is affected. Findings from focus-group discussions indicate that people with disabilities who **graduate in fields relevant to their jobs tend to be more satisfied with their compensation** (see also Section 5.2.1 for corresponding statistical results). Additionally, the study field also impacts on-the-job training (comparing to non-significant results in Section 5.2.5). Additional training is often necessary for those whose education does not directly align with their job responsibilities. Furthermore, graduating in a relevant field positively affects overall job satisfaction for people with disabilities in the workplace (but the statistical results for Job-Education Correspondence are not significant for Job Satisfaction, see Section 5.2.7 for the

statistical results). This is because they have confidence in their abilities and possess the necessary skills for their responsibilities in the field they studied.

One of the interesting internal factors is the age and gender group. Survey data reveals differences in the age groups concerning employment. However, insights from focus-group discussions yielded in-depth information from both employers and people with disabilities that age does not affect work experience significantly. **Attitudes toward work, on the other hand, have a greater impact on work adaptation**. Gender factors did not show significant differences in work experiences when compared to the issues related to types of disabilities. However, the statistical results in Section 5.1.1 report that gender affect the compensation satisfaction score with females are less satisfied with their compensation than their male peers.

When considering internal factors from the first research question, in comparison with the job retention variable, age range notably influences job retention. Older age significantly correlates with longer job tenure. This phenomenon is attributed to increased experience, self-awareness of capabilities, and skills, which in turn contribute to longer job tenure from initial employment to the present. Conversely, younger age experiences more uncertainty in job positions and duration due to ongoing skill development and potential abilities to perform tasks, as identified through assessments.

This type of disability affects job retention similarly. The resulting implications indicate that job retention depends on the type of disability, particularly physical disabilities. Examples demonstrate that physical disabilities pose obstacles to work, such as difficulty working in certain areas. People with disabilities who use wheelchairs may have **difficulty traveling, among other limitations, ultimately resulting in decreased job retention rates**. Inability to retain jobs for extended periods is due to disability-related constraints when considering the duration of work from the outset. Additionally, people with disabilities in the categories of mental, intellectual, and autistic disabilities also face challenges in understanding disability-related limitations, which impact their work. This creates pressure in the workplace and ultimately leads to job loss. Section 5.1.8, however, only reports that types of disability do not matter.

The caregiving factors for people with disabilities also affect job retention, as obstacles and challenges in the workplace can be mitigated by these caregivers, **leading to sustained work performance for people with disabilities (see also Section 5.1.8)**. Job retention for people with disabilities who have caregivers, especially in the group of those with mental and intellectual disabilities, tends to be longer compared to those without efficient mental health caregiving support. This underscores the critical role that caregivers play in providing psychological support, thereby facilitating continuous work engagement for people with disabilities.

In conclusion, the findings from all 6 focus-group discussions, compared with Research Question 1, indicate that factors internal to people with disabilities, such as the type of disability, have the most significant impact on jobs. This impact is evident in various aspects of job experiences, including accessibility arrangements, challenges faced, overall job satisfaction, and other factors reflecting job quality. Additionally, the type of disability also indicates the duration of job retention for people with disabilities, as different limitations arising from disabilities affect their ability to search for and adapt to jobs that best suit them. Furthermore, the comparison of survey data reveals significant differences in the age range of people with disabilities in terms of encountering barriers and challenges in job roles. However, the findings from the focus-group discussions suggest that age alone cannot adequately explain the differences in work experiences, as attitudes and adaptability towards work play equally crucial roles.

6.3.2 Summary Results to the Research Question 2

The second research question is "How do external factors affect job quality and job retention of people with disabilities?". From the findings of the focus groups above, it is suggested that external factors that contribute to the job quality have the various findings in each focus-group discussion. The primary external factors regarding job finding are the job search channels. From the summary results of the focus-group discussions, it was found that these job search channels significantly impact job satisfaction among people with disabilities. This corresponds to the statistical results in Section 5.2.8. **The satisfaction with their job's overall is greatly influenced by the job search channels**, which ultimately lead to their latest job placements. Based on the

focus group, the primary job-seeking method that contributes to job satisfaction includes direct applications to job positions and recommendations from acquaintances and close contacts. Furthermore, these job-seeking channels also facilitate communication to employers regarding accessibility accommodations for employees with disabilities, as well as ongoing job training and skill development during employment periods.

Assistance in job placement is another significant factor affecting job quality (see also Section 5.2.4). Findings from a focus-group discussion on the topic of job placement assistance revealed that **workplace training to develop job-ready skills is a result of continuous support from job placement agencies** and appropriate job matching based on the abilities and skills of people with disabilities. This assistance thus becomes another external factor of interest influencing job quality.

External factors within the scope of assistance from DSS are notably crucial. The research team gathered in-depth data through focus-group discussions, including participants who directly received assistance from DSS and personnel working within the DSS organization. The findings confirm that DSS assistance significantly impacts job quality-related variables (see Section 5.2.1 for compensation satisfaction). Although the primary responsibility of this unit does not include job placement and contacting employers for people with disabilities, **this assistance encourages job retention aligned with the individual's capabilities**. This is because the assistance aids in contacting various departments within organizations across different sectors to open internship positions and facilitate employment. Moreover, it includes closely monitoring the outcomes of these efforts. However, the statistical results do not suggest any significant differences between the type of jobs (Section 5.2.7), job satisfaction (Section 5.2.8), and job retention (Section 5.2.9).

The assistance provided by the DSS has resulted in people with disabilities obtaining quality jobs from various perspectives. Findings from the focus-group discussions indicate that this assistance has impacted job quality variables, particularly in terms of workplace accessibility and the conducive working environment for people with disabilities. **Support and follow-up from the DSS unit regarding suitable job placements for people with disabilities can facilitate work environments** that are conducive to their needs and foster inclusion within a supportive coworker

community that understands the limitations faced by people with disabilities. However, this does not correspond to the statistical results (see Section 5.2.2 to Section 5.2.7).

Moreover, assistance from DSS also promotes mitigating potential impacts arising from barriers and challenges associated with disabilities (but in statistical result DSS assistance" are not a significant factor compare to Section 5.2.3 and Section 5.2.6). Support stemming from organizational understanding aids in providing adaptive strategies for job tasks and enables coworkers to adjust and collaborate effectively. At the very least, biases and discriminatory practices in the workplace are likely to decrease due to enhanced organizational awareness.

An interesting external factor that deserves attention is the alignment between employment and education, meaning working in a field related to one's academic major. This factor significantly impacts job quality from various perspectives. Specifically, it influences overall job satisfaction and compensation because **obtaining employment aligned with one's academic major affects the confidence in the capabilities of people with disabilities**, both from their own perspective and that of employers. This confidence in turn leads to more effective job performance, allowing people with disabilities to receive equal compensation compared to their colleagues in the same workplace. This is reflected in higher compensation satisfaction scores in Section 5.2.1 and lower challenges and obstacles in advancing in their careers in Section 5.2.3. Overall job satisfaction thus stems from the ability to pursue a career directly related to one's academic major, contributing to effective job retention among people with disabilities.

Furthermore, the alignment between work and education factors also indicates the provision of on-the-job training, which is facilitated by the employer. Positions requiring employees with relevant educational backgrounds are allocated training to further enhance existing skills. This includes training in adaptation-to-job skills and attitudes towards work. However, for people who may not have graduated in a specific field, it may be challenging to participate in training. Hence, training needs to be tailored to individual potentials. The alignment between educational attainment and job requirements thus impacts the quality of work from various perspectives, as discussed.

In conclusion, external factors overall impact job quality in terms of job satisfaction, compensation satisfaction, and assistance in job placement from other agencies, which, if effective based on the received information, will result in the allocation of appropriate facilities and environments for people with disabilities in each category. Furthermore, based on the focus group discussion, it has been shown that **assistance from DSS is also a significant part of promoting job retention and overall job quality satisfaction** for people with disabilities. However, the statistical results on assistance from DSS do not show positive significant difference in terms of job retention but corresponds for significant for job satisfaction (see Section 5.2.9 and 5.2.10 and significant factor for job satisfaction see in section 5.2.7)

External factors, when compared to job retention, present several intriguing points. Firstly, the pathways to employment that lead to current job placements are significant indicators of job retention regarding how long people with disabilities stay in their current positions, from their initial employment to their most recent tenure. Findings from focus-group discussions indicate that the employment pathways significantly impact job retention. For instance, recommendations and initial screenings by organizational personnel prove effective as they pre-screen potential candidates for their actual capabilities. Moreover, organizational awareness and attitudes towards people with disabilities also play a crucial role. Direct pathways for job referrals and preliminary interviews can extend job retention periods. Conversely, experiences from individuals who applied for jobs through various channels like websites or social media job groups often result in errors in attitude screening and compatibility assessments between new employees with disabilities and existing staff, leading to work deficiencies, reduced job satisfaction, and overall job dissatisfaction. Ultimately, job retention rates are lower compared to self-directed job search pathways. This also strongly reflects in job satisfaction based on different job search channels, which indicate that finding job from websites and online are not as effective as other channels, particularly from recruitment agency and career network (see Sections 5.2.7 and 5.2.8)

Assistance in job placement from various organizations and support from DSS are prominent factors when considering job retention for people with disabilities (see Section 5.2.8 and Section 5.2.9 for statistical result about DSS support is a significant factor for previous job duration). These

forms of assistance result in people with disabilities obtaining quality and satisfactory employment. In other words, finding joy in work is greater with any form of assistance than without. Overall job satisfaction consequently leads to people with disabilities receiving support from the start of vocational training, through education completion, **actual employment, and job performance follow-ups, resulting in satisfaction with receiving suitable job assistance**. This enables them to retain their positions longer. Another consequential outcome of this assistance is the preparation provided to people with disabilities before entering the workforce, enhancing readiness and confidence in their capabilities, which positively impacts job performance and prolongs job retention.

Another important factor is the alignment between jobs and education, which impacts job retention in terms of obtaining a job that aligns with interests and abilities (but Job-Education Correspondence is not a significant factor for "Previous Job Duration" see Section 5.2.9). This is a result of education in related fields that instills confidence in one's potential and readiness to take on job responsibilities assigned by employers. Findings from focus-group discussions emphasize high levels of satisfaction when people with disabilities find employment directly related to their field of study, leading to a high level of happiness and job satisfaction. Examples from interviews include cases where individuals secure positions aligned with their educational background but are on yearly contracts, **causing concerns about job retention and career advancement** in their current roles. Therefore, the alignment between education and work can imply that if people with disabilities work in fields related to their studies and hold permanent positions, job retention rates will undoubtedly increase.

On the contrary, in the case of people with disabilities whose jobs are not directly related to their studied field, they often need an extended period to explore their abilities and preferences in various positions. Each position may not be retained for long, leading to frequent job changes for people with disabilities in this group. It can be inferred that in this group, the academic field of study must align closely with tangible job opportunities for job retention rates to be stable. This directly contrasts the statistical results, however (the statistical result of Job-Education Correspondence is not a significant factor for "Previous Job Duration" see Section 5.2.9). Focus-

group discussions can provide valuable insights into the challenges and strategies for job retention among people with disabilities in diverse job sectors.

In conclusion, based on the summary of focus-group discussions from all 6 groups, it was possible to demonstrate the findings that addressed Research Question 2. This indicates that external factors can indeed influence job retention both positively and negatively. **Support and assistance from various organizations and the DSS can lead to a sustained job retention outcome**. Monitoring the process from inception to outcome evaluation and follow-up showed that screening and assisting in adjusting the attitudes of people with disabilities in the workplace can improve the work environment significantly. Ultimately, these diverse factors can either increase or decrease job retention rates. Another crucial point is that the alignment of education with work can generate overall job satisfaction for people with disabilities, including satisfaction with job content and compensation. This stems from confidence in abilities and fulfilling job responsibilities well, enabling them to remain in their positions for extended periods.

6.3.3 Summary Results to the Research Question 3

The last research question is "How does job quality in turn affect job retention of people with disabilities?". From the findings of the focus groups above, it is suggested that job quality actually affect job retention. Based on the summarized results of the focus-group discussions conducted thus far, the combined factors related to job quality have varied impacts on job retention, highlighting different areas of interest. The results of quantitative analyses are strongly aligned with the focus group results in this section in terms of current job duration and the average month per job change but not for previous job duration (see Sections 5.3.1 and Section 5.3.2). The first aspect is satisfaction with compensation, which indicates improved job retention stemming from direct work experience and feedback from people with disabilities. They express that better compensation and benefits enable them to retain jobs longer. This is true for all job retention indicators except previous job duration (see section 5.3.1 and 5.3.2). This is facilitated by employers providing suitable opportunities for people with disabilities in various capacities relevant to their job roles, **enabling them to effectively handle increasingly complex tasks**. This, in turn, leads

to justified compensation and equal benefits for everyone within the workplace. Employers with experience working with people with disabilities also find that those **individuals can work happily and satisfactorily when provided with appropriate compensation and benefits**, resulting in longer job retention, often extending beyond several years since their employment commencement. Therefore, compensation factors significantly promote job retention among people with disabilities.

The provision of workplace accommodations for people with disabilities is a key factor that impacts job retention positively in all indicators except previous job duration (see Sections 5.3.1 and Section 5.3.2). Allocating assistance according to the type of disability can improve job retention rates. For example, individuals with hearing impairments may require employers to have a sign language interpreter on site to reduce communication barriers for people with disabilities. This helps ensure that the work of individuals with disabilities in these areas can be carried out efficiently.

Another aspect of accommodations is the provision of support beyond physical accommodations or environmental adjustments, such as coaching and training. This includes assigning job coaches who can provide job-related guidance or offer mental health support in case of disruptive incidents that may affect work. Such human resource support contributes to longer job retention. Furthermore, supporting and pushing for the placement of capable individuals with disabilities into suitable positions also contributes significantly to job retention. This is another consequential outcome of providing appropriate accommodation for people with disabilities.

The following factors pertain to obstacles and challenges arising from disabilities. Insights from the focus-group discussion revealed that a significant and prominent obstacle among several mentioned is **the challenge posed by commuting distances between residential areas and workplaces**. This factor significantly influences the decision-making process of people with disabilities regarding how long they can retain a job position. The considerable commuting distance, without employer-provided transportation assistance or travel subsidies, greatly inconveniences work activities. **This inconvenience subsequently leads to a considerable decrease in job satisfaction**. The impact of long commuting distances on work also intersects significantly with the

type of disability. For instance, individuals with physical disabilities, particularly wheelchair users, have a critical need to work within close and accessible distances. Failing to address this issue may result in people with disabilities being unable to sustain employment in their current workplaces for extended periods. Consequently, individuals with physical disabilities may need to seek online job formats that allow them to work from home if adjustments cannot be made in this regard.

The issue of obstacles and challenges still involves specific sub-issues that also impact job retention. One such issue is the attitudes from employers and other personnel responsible for hiring regarding employment. Attitudes include acceptance or non-acceptance of people with disabilities' identities. **Blocking opportunities due to the misconception that they lack capabilities, stemming from misinterpretations of disabilities** and pity, makes job retention difficult without necessary improvements. This is evident from focus-group discussions reflecting both experienced perspectives in the workplace and cases unaffected by opportunity blockages. All groups of respondents suggest that opening opportunities and accepting people with disabilities' identities and true capabilities, without pity, leads to increased trust, allocation of more complex tasks, higher responsibilities, and ultimately, better rewards and additional opportunities. Therefore, **improving attitudes from employers leads to prolonged job retention for people with disabilities in their current positions**.

Based on the issues of coworkers' attitudes, it can be further argued that discriminatory practices stemming from a lack of understanding of disabilities significantly impact job retention for people with disabilities. A case example illustrates that the treatment of people with disabilities, especially those with mental, intellectual, or autistic disabilities, can be unfavorable. Instances such as using harsh language or bullying in the workplace can shorten the duration that people with disabilities can remain employed in the same environment. This is because their ability to integrate into the social dynamics of the workplace is hindered, including various pressures that may arise from both supervisors and colleagues. Attitudes towards people with disabilities in the workplace reflect both the challenges posed by disabilities and the practices within the workplace itself, ultimately affecting job retention rates.

Next in line are the factors related to training during employment. These training programs aim to enhance the capabilities of people with disabilities, specifically for work-related tasks. Such training may involve adapting to roles that are increasingly demanding and complex. People with disabilities who possess the required skills to navigate beyond their current positions and are ready to seize opportunities presented by these training programs are more likely to retain their jobs for longer periods. The job retention rate increases as a result of undergoing these training programs. Furthermore, these training programs contribute to expanding the knowledge and skills of people with disabilities, enabling them to pursue desired career paths. This is particularly beneficial if the company offers positions that allow for continuous growth within the same career trajectory. **Confidence in holding these supportive positions, coupled with on-the-job training, prepares people with disabilities to excel in their roles, thus facilitating successful job retention**.

In the final point, one of the external factors significantly impacting job retention is overall job satisfaction. From the results of the focus-group discussions, it is evident that there are clear cases of overall job satisfaction being good and remaining in the same job position for a long time. This satisfaction is observed both during the current work period and at the end of the work tenure until now. This overall job satisfaction is akin to various factors mentioned earlier, indicating that it may arise from multiple causes. **A crucial aspect of job satisfaction that cannot be avoided is income and reasonable benefits**, which result in smooth work processes and a sense of equality with other coworkers, including those with disabilities. These coworkers are vital in fostering job satisfaction and ensuring continued job retention. **Good coworkers, who understand the limitations of disabilities and practice equal treatment, contribute to the continuous job satisfaction of people with disabilities.** Additionally, overall job satisfaction also stems from employers' understanding of structuring work environments suitable for people with disabilities based on their genuine needs.

In summary, based on in-depth data from focus-group discussions, it can be demonstrated that factors indicating job quality from various perspectives almost universally impact job retention. The prominent and comprehensive factors, stemming from the interconnectedness across all issues, are those related to overall job satisfaction. This is because job satisfaction can arise from

job design and specification, as well as from creating work environments suitable for people with disabilities to work collaboratively with colleagues and perform tasks in appropriate workspaces. Therefore, diverse factors such as fair compensation aligned with job duties, providing opportunities for people with disabilities to work to their full potential and receive corresponding remuneration, positive attitudes from employers and colleagues towards people with disabilities, and appropriately allocated amenities, among others, can collectively determine the job retention rates of people with disabilities. These descriptions from the summarized results of focus-group discussions and additional qualitative data can effectively address Research Question 3 as previously discussed.

6.4 Conclusion

In conclusion, the findings from the focus-group discussions can demonstrate the relationships between various factors and the predetermined variables set by the research team almost entirely. Most of the insights gathered strongly correspond to the statistical results, while a few points do not confirm or actually contradicts the quantitative results. This adds nuances and enriches the contexts for better understanding of the situation.

Research Question 1 can be answered using qualitative data from focus-group discussions to identify internal factors that impact job quality, particularly factors related to the type of disability and factors influencing job retention regarding limitations faced by people with disabilities. Both employers and people with disabilities are well-aware of the issues relating to types of disabilities, albeit from different perspectives. Employers tend to stick to the types that they understand or are comfortable with for fear of mistreatment. People with disabilities, on the other hand, would like to encourage more diverse hiring.

Research Question 2 can be answered using qualitative data from focus-group discussions on how external factors can affect job quality. External support from organizations aiming to bridge missing links can impact job quality due to potentially insufficient provisions or accommodations in other job-seeking avenues, such as online job boards and directly from companies' websites.

Support from different agencies can lead to better job quality and also impact job retention for people with disabilities by helping them secure suitable jobs that align with their capabilities, thus potentially increasing job retention rates.

Finally, **Research Question 3** can be addressed using qualitative data from focus-group discussions, which can reveal how job quality factors can indeed impact job retention, especially crucial aspects such as job satisfaction, and satisfaction derived from compensation and working conditions. These directly affect people with disabilities' ability to retain their jobs in their current positions for an extended period.

The qualitative data presented here offers an in-depth exploration that can be broadly described and intricately detailed in each specific case. Such data can corroborate both the overall picture and detailed information, which can be further validated through comparative analyses of relationships as seen in the previous quantitative data analysis conducted. This information is vital in understanding job retention among people with disabilities and can inform policy and practice initiatives. Additionally, insights from focus-group discussions with this population can enrich our understanding and guide interventions aimed at improving their job retention rates.

Chapter 7

Conclusion

This chapter first summarizes important factors that, based on our data collected and the analysis in the previous chapters, influence different aspects of job quality and job retention in Section 7.1. These factors are grouped under the categories of internal factors, external factors, and job quality indicators, respectively. The discussion, in other words, reflects the answers to the three research questions proposed in the beginning of this report. Thereafter, the chapter proposes key policy recommendations based on the finding for developing guidelines for the Transition to Work Program for people with disability in Section 7.2. Finally, the report concludes in Section 7.3 with certain limitations of the study that readers should be aware of and how to improve the next research iteration on the subject.

7.1 Key insights from Data Analyses

This section summarizes the impact of key internal and external factors, as well as job quality indicators in affecting job retention of people with disabilities. The discussion structures by the research questions described in Chapter 3. More specifically. Section 7.1.1 discusses the key internal factors that affect job quality and job retention of people with disabilities, based on the quantitative and qualitative analyses in Chapters 4-6. Likewise, Section 7.1.2 discusses the key external factors that affect job quality and job retention of people with disabilities. Finally, Section 7.1.3 delves into the relationship between key job quality indicators, such as accommodation and training, and job retention of people with disabilities.

7.1.1 The Relationship of Internal Factors on Job Quality and Job Retention

Based on both quantitative data analyses and focus group discussion, the research finds that there are 4 groups of key internal factors that need to be highlighted. First, we find a gender gap between male and female in their compensation satisfaction. Second, types of disability, as well as whether people with disability require caregivers, affect certain aspects of their working

experiences. Third, the educational backgrounds of people with disabilities do matter in their job quality and job retention. Lastly, we find there are critical periods for job finding after graduation that matter for their job satisfaction.

Gender

There is a statistically significant gap between male and female in their compensation satisfaction. This, however, is the only aspect that differs between genders. In particular, the data suggests that males are more satisfied with their compensations than their female peers. During the focus group discussion, this issue was not raised, however. Yet, it is worth emphasizing the issues with potential employers in the guideline in how they treat the two groups.

Types of Disability and Caregiver

In terms of accommodation, the data suggests that different types of disability require and actually receive accommodation from employers at different levels. This statement is confirmed during the focus group discussion where participants mentioned that employers still consider providing accommodation as adding to their costs and hence would prefer to hire the same types of disability who they are more familiar with and/or already have accommodation established. Employers' consideration of familiarity with certain types of disability is also confirmed during focus group discussion with the employers. The explanation provided by the employers is that because they are not familiar with other types of disability, they are afraid that they might fail to provide adequate accessibility for them.

Different types of disability also report different levels of discrimination faced at work and their job satisfaction level. In particular, participants in the caregivers focus group, majority of them are caretakers for intellectual and multiple disability, reported that they encounter more discrimination at work. This is confirmed in other focus groups with participants with autism disability and intellectual disability themselves mentioned that their colleagues and customers usually do not understand their learning and working styles and typically feel frustrated with them when working together.

During the focus group discussion, participants with physical, visual, and hearing disabilities also express different preferences than participants with learning, intellectual and autistic disabilities. Participants with physical, visual, and hearing disabilities stated that they would prefer a job that provides them with the same function as any other job position in the company, provided that they have sufficient accommodations to suit their working conditions. On the other hand, participants with learning, intellectual, and autistic disabilities, and their caregivers express that in finding jobs they would prefer working in an environment that is conducive for their working requirements. Specific job designs, and job coaches should be available to foster a better understand the nature of their working styles.

In short, the issue of creating better understanding of different types of disability is key to provide more equitable opportunities for all types of disability. The employers confirmed that if they understand different types of disability better, they would be more willing to more diverse hirings. Moreover, there may be a need for different approaches to supporting people with different types of disability.

Education Level and Majors of Study

Educational backgrounds, both in terms of education level and majors of study, do affect the working experiences, as reflected in statistically different levels of job satisfaction. People with higher education (master's degree) are reported to be much more satisfied with their jobs than those with bachelor's degree and those with vocational certificates. They also have a much longer job retention (average of 48.5 months per job change) than those with bachelor's degree (average 39.6 months per job change) and those with vocational certificates (average 28.4 months per job change). Majors of study also affect the compensation satisfaction level.

Period of Job Finding

Based on the data analysis, there seems to have a critical period for effective job findings. Those who need less than 1 month to find their jobs outperform others in terms of job retention (average of 47 months per job change versus 27-37 months per job change for other groups).

Moreover, those who accepted job offers within 1-3 months after graduation period perform worse than other groups in terms of job retention (average of 27.6 months per job change) and job satisfaction. This strongly suggests that the period between 1-3 months after graduation may be a critical period for organizations for people with disability to effectively intervene with the target group.

7.1.2 The Relationship of External Factors on Job Quality and Job Retention

Based on both quantitative data analyses and focus group discussion, the research finds that there are 3 key external factors that need to be highlighted. First, we find the idea of working in the same field of study greatly impacts the job quality and job retention of people with disabilities. Second, the data and focus group discussion provides insights into the role of DSS, especially where they are effective and where they can improve. Third, effective job search channels and job search assistance can be identified by way of data analysis.

Working in the Same Field of Study

The data analysis strongly suggests that working in the same field as the educational background is crucial for compensation satisfaction and getting full-time jobs (see the statistical results in 5.2.6 and 5.2.7) Focus group participants also confirmed this finding, stating that they feel more confident and more prepared for their roles. In particular, there is a larger percentage of those working in the same field as their educational background than those who are not. They are also a lot more satisfied with their compensation. Surprisingly, they tend to have shorter job retention periods than those who work in different fields from their education (average of 31.8 months versus average of 40.3 months). This might be interpreted as those working in the same field as their educational background are more dynamic in their job seeking endeavor than those who are working in different fields.

Many participants in the focus group discussion with positive working experiences also suggests that finding a job that requires insights from their personal experiences as people with disability help improve their confidence. For example, working as a surveyor to inspect the universal

designs of buildings, becoming a sign language instructor, or working as a social worker for people with disability are reported to provide additional positive working experiences for them.

The Role of DSS

Based on the data analysis, DSS has greatly helped people with disability to feel more satisfied with their compensation than other groups. Surprisingly, however, it was found that those seeking assistance from DSS in getting their jobs do report shorter job turnover (average of 28.7 months versus 39-40 months). There is no report, however, on the impact of DSS's help with positive working experiences in terms of job quality, such as better accommodation, discrimination, or employer's training. Along the same line as the discussion on the field of study, one can also interpret that those seeking help from DSS in finding jobs are more dynamic in their job changes than those who do not.

The focus group discussions of people with disability reported that DSS have been a great help, especially in finding internship and job placement for people with disability who were about to graduate from university.

Job Search Channels and Job Search Assistance

The data analysis suggests that career network, and recruitment agencies outperform the other channels and assistance in terms of job retention (average of 56.3 and 44 months versus a bit more than 30 months for other channels). Moreover, they also outperform others in providing positive working experiences for people with disabilities, such as accommodation received, and job satisfaction. However, there are no significant differences between compensation satisfaction and discrimination faced at work.

The information from employers during the focus group discussion, however, provides a different picture. Employers prefer finding new hires based on referrals to other types of job search channels, stating that referrals are more reliable and acts as an additional screening process.

7.1.3 The Relationship of Job Quality on Job Retention

In general, there are strong relationships between almost all job quality indicators on job retention. In particular, three key indicators that have impact on job retention are: **compensation satisfaction, accommodation received, and training received**. These three indicators are also mentioned and confirmed in focus group discussions.

Compensation satisfaction level reported to have different job retention level. In particular, those who are highly satisfied with their compensation stay in one job for approximately 40-43 months, while those who are neutral or not satisfied with their compensation stay on average 32-35 months.(See in Figure 5.50) It should be noted that there is no significant difference between those who are very dissatisfied and neutral with their compensation. During the focus group discussion, many participants stated that they think people with disabilities should at least receive a fair compensation at the same level as their colleagues. Often, employers reduce their wages on the assumption that their disabilities may limit their productivity, and thus reflected in the compensation they receive.

Likewise, accommodation received significantly matters for job retention. Indeed, accommodation is one of the first factors mentioned by many focus group discussions with people with disabilities. Those who receive accommodation tend to stay longer at one job than those who do not receive (average of 42.5 months versus 26.4 months, see in Figure 5.51). As mentioned earlier, this is also confirmed during the focus group discussions with various groups of people with disabilities. According to the participants, getting sufficient accommodation means to allow them to work at the same level as their colleagues and thereby would create a positive relationship with them. In other words, they feel that they are utilizing their full capacity in their jobs. They emphasize that getting a job where there is sufficient accommodation for them to perform their tasks, including flexibility in working styles and hours, as well as commuting to work is paramount for their job retention.

On the guidance to workplace accommodation on the job is another key factor that impacts on job retention of people with disabilities. Based on the data, it is reported that people who receive sufficient on-the-job training stay longer in a job (average of 40 months) than those who do

not (average of 32 months) (see in Figure 5.52). This fact is confirmed during the focus group discussion where participants reported that in the context of DSS's assistance, it is very helpful when DSS provides opportunities for them to train more in the form of internship or short-term training sessions. Training gives them more confidence in applying for jobs and working in general. During the focus group discussion with those who are currently unemployed, they reported that they feel that their universities did not provide enough training for applying for jobs or working in professional settings. Some of them stated that they have to seek outside classes to train more.

Continuing from the issue of receiving training, both skills acquisition and training have significant implications for employability. Based on the survey results, the top three skills considered most important by people with disabilities are communication skills (53 percent of respondents), problem-solving abilities (44 percent of respondents), and responsibility-taking skills (38 percent of respondents). The issue of successfully delegating responsibility in the workplace is another point emphasized in focus-group discussions, beyond possessing communication skills and problem-solving abilities. Participants believe that the capacity to effectively shoulder responsibilities until completion fosters the mindset of continuous employment opportunities. Besides, the specific technical training program is also needed for job retention. More specifically, trainings that are considered important by respondents are: **technical or job-specific training**. Following this are **professional development and career advancement training**, and **communication and teamwork training.** The issue of training can also be confirmed through focus-group discussions, indicating that people with disabilities may require specialized training tailored to their respective professions, and may also need pre-employment training.

7.2 Recommendations for Transition to Work Guidelines

This section provides specific recommendations to develop "Transition to Work Guidelines" for people with disability based on the insights discussed in Section 7.1. The recommendations made in this section are divided into three target groups: people with disability, employers and

colleagues of people with disability, and DSS as well as other organizations working on job placement for people with disability.

Job Finding, Upskill and Reskill for People with Disability

First, the data suggests that finding a job that fits with their educational background will give them the advantages and confidence. Particularly, jobs that can make use of their experiences as people with disability will provide them with additional insights in their jobs. Moreover, on the job training can also boost their confidence. Based on these findings, a transition to work program should:

1. Categorize job positions that are suitable for different fields of study and, based on that categorization, provide different guidelines, upskilling, and reskilling programs for people with disability from different educational backgrounds. Overall, there are opportunities in collaborating with universities in developing extra-curriculum programs to meet the market demand.

2. Profile job positions where the experiences of people with disability can be an advantage and make a database of employers who would be interested in hiring people with disability, not only because they need to meet the quota requirements, but also because their experiences will be helpful for the job positions.

Second, based on the job finding period, the research finds that the most critical period for people with disability to find a job that they are satisfied with and retain a longer employment is when they need less than 1 month to find a job. Moreover, the critical period that they will end up being the most dissatisfied with is between 1-3 months. Based on these critical periods, DSS and universities can do the followings:

1. They can better prepare their graduating students to find a job within the first month of graduation, such as internship (with opportunities of hiring afterward) before the graduation and training for job applications and interviews, at least 6 months before they are graduating. So that they have enough time to transition from school to work.

2. Organizations helping people with disabilities should intervene with those who are trying to find jobs during the first 1-3 months. This could be done by providing 3 months internships or training sessions so that they are better prepared for job applications, rather than letting them rush into job finding right away.

3. The research also suggests that on the job training is crucial for the success of people with disability at their jobs. Building on these insights, DSS and organizations supporting people with disability can, in collaboration with various employers, identify important skills required to be successful at the jobs and subsequently provide on the job trainings for different types of work for people with disability, including reskilling and upskilling them. This will be particularly important in place of their educational backgrounds that might not be in the same fields of work they want to apply for a job.

Working with Employers and Potential Colleagues: Fostering More Understanding in the Work Environment

Based on the analyses, fostering better understanding between employers, colleagues, and people with disabilities is the most crucial factor to create better working environments and can potentially lead to better accommodations and recruitment schemes. The following recommendations are based on the analyses of this research:

1. The guideline should design a series of workshops that help providing more understanding attitudes for employers and colleagues towards people with disability, including various issues such as the nature of different types of disability, and gender issues, for example.

2. The guideline should also contain basic understandings and comprehensive contexts of different types of disability and how to provide sufficient accommodation and potentially a series of workshop for employers to become more familiar with people with disability.

3. The guideline should mention the importance of on-the-job training and accommodation provided for people with disabilities. This should not be perceived as adding additional costs to the employers, rather it should be viewed as supporting their employees to reach their full potential.

DSS, Career/Professional Network, and Recruitment Agencies

In addition to designing training sessions and preparing graduating students for job applications, as discussed earlier in this section. The summary in Section 7.1 suggests that recruitment agencies and professional network provide positive working experiences for people with disability. This could potentially be a learning experience for organizations for people with disabilities and DSS. In developing a guideline, sharing sessions between DSS, organizations for people with disability, and profession network, as well as recruitment agencies can be done to facilitate different experiences in helping people with disability to find job placements.

7.3 Limitations of this Research Project

The followings are limitations of this research project that one should be aware of:

1. Data collection of this project is limited to 423 data points, which was done, not as a truly random sampling but by getting contacts from organizations working for people with disability, companies, and DSS.

2. Stratified samplings by types of disability also suggest that some types of disability are only collected for very low numbers. A more comprehensive study of certain types of disability could be done further to confirm the results here.

3. Focus group discussions sometimes do not contain many types of disability as participants, due to time and resources limitations. For better insights, one could further conduct in-depth interviews for each type of disability.

4. The target groups only include those who are currently employed and with vocation certifications or university degrees. Therefore, the results may lack the experiences of those who are currently unemployed or those who have only high school diploma and lower, which potential constitute a significant portion of people with disability.

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Appendix A: The Questionnaires Used for the Data Collection

Introduction

      This is a guideline for data collection of the Transition to Work (TW) for People with disabilities Project. The objective is to gather research data on both hiring and job retention to establish a database on the transition to employment for People with disabilities. The collected research data will be analyzed to develop guidelines for the transition to work for People with disabilities. This questionnaire is estimated to take approximately 30 – 45 minutes to complete. The data collected will remain confidential and will only be used for educational purposes within this project.

Section 1: General Information

1.1)   Do you have a Person with Disability ID Card?

    ☐ Yes

    ☐ No

1.2)   What age range do you belong to?

    ☐ 18 – 24

    ☐ 25 – 29

    ☐ 30 – 34

    ☐ 35 – 39

    ☐ 40 – 45

1.3)   What is your gender?

    ☐ Male

    ☐ Female

    ☐ Non-Binary

1.4) Where is your place of birth?

Province_____

District _____

1.5) What is your current residential address?

Province_____

District _____

1.6) Which type(s) of disability do you identify with and qualify for? (You may choose multiple options)

☐ Visual Impairment

    ☐ Low Vision

    ☐ Blindness

☐ Hearing Impairment

    ☐ Deafness

    ☐ Hard of Hearing

☐ Physical or mobility impairment

    ☐ Wheelchair user

    ☐ Walker user

    ☐ Weakness in limbs

    ☐ Other (please specify) _____

☐ Mental or behavioral disability

☐ Intellectual disability

☐ Learning disability

☐ Autism

1.7) When did your disability begin or when did you first experience symptoms related to your disability?

☐ Congenital disability

☐ Acquired disability

1.8) Do you have the ability to independently take care of yourself or do you rely on the support of a caregiver/parent for your daily care?

☐ Capable of taking care of myself.

☐ Have assistance, please specify: _____

1.9) Are you currently enrolled in any educational or training programs? If yes, please specify.

☐ Yes,

    ☐ In a regular school

    ☐ In a specialized college

    ☐ In a university

    ☐ In an online/virtual school

    ☐ In a vocational or trade school

    ☐ Other, please specify_____

☐ No, I am not currently enrolled in a school or training program.

1.10) What is the highest level of education you have completed? Please provide the information according to the following table.

Education Level	Name of School	Major	Year of Graduation
Senior High School			
Vocational Certificate			
High Vocational Certificate			
Bachelor's Degree			
Master's Degree:			
Doctoral Degree			
Higher than Doctoral Degree			

Section 2: Characteristics of Career Search

2.1) How did you find your most recent job?

    ☐ Online job boards

    ☐ Company website

    ☐ Referral from a friend/family member

    ☐ Referral from a professional network, please specify: _____

☐ Recruitment agency, please specify: _____

☐ Organization specializing in/for individuals with disabilities,

please specify: _____

☐ Other, please specify: _____

2.2) What specific difficulties did you encounter while seeking employment as a result of your disability? Please select all relevant options and provide further details if possible.

☐ Discrimination based on disability

☐ Limited professional opportunities due to my disability

☐ Lack of relevant work experience

☐ Lack of education/training opportunities

☐ Lack of information/access to job-related information

☐ No, I did not encounter any difficulties

☐ Other, please specify: _____

Please provide further explanation if applicable.

_____

_____

_____

(If you don't have any work experience, please skip to question 2.7)

2.3) Have you ever experienced any instances of bias or discrimination during the recruitment process?

☐ Yes, please specify: _____

☐ No, I have not.

(If you don't have any work experience, please skip to question 2.7)

2.4) Have you ever received any assistance or support during your job search? If yes, please select the type of assistance/support you have received.

☐ Yes, assistance in job search from organizations focusing on helping People with disabilities

☐ Yes, advisory or guidance support from professional networks.

☐ Yes, other type of assistance/support, please specify: _____

☐ No, I have not received any assistance or support during my job search.

(If you don't have any work experience, please skip to question 2.7)

2.5) Have you ever received any support or assistance from government agencies or organizations in your job search? If so, please describe your experience.

☐ Yes, from_____

and it was helpful. Please specify_____

☐ Yes, from_____

but it was not helpful. Please specify_____

☐ No, I have never received any support or assistance from government agencies or organizations in my job search.

Please specify why not? _____

_____

2.6) Have you ever experienced instances where job opportunities were denied to you based on your disability? If so, please provide additional details.

☐ Yes, multiple times

☐ Yes, but not very often_____

☐ No

Please provide additional details if applicable _____

2.7) Are you familiar with Disability Support Services (DSS) and have you ever used their job finding services?

☐ Yes, I am familiar with DSS and have used their services.

☐ Yes, I am familiar with DSS, but I have not used their services.

☐ No, I am not familiar with DSS and have not used their services.

2.8) If you have used the job finding services of Disability Support Services (DSS), what kind of service do you believe they excel in providing support for People with disabilities?

_____

_____

Section 3: Work Experience

(If you don't have any work experience, please skip to question 3.8)

3.1) Please describe your current employer, position, and major responsibilities.

Name of company/employing organization _____

Position_____

Nature of work/responsibilities_____

_____

(If you don't have any work experience, please skip to question 3.8)

    3.2) Do you work in a field that is directly related to your education?

        ☐ Yes

        ☐ No

(If you don't have any work experience, please skip to question 3.8)

    3.3) Does your compensation align with your education and your job responsibilities?

        ☐ Absolutely yes

        ☐ Slightly yes

        ☐ Not certain

        ☐ Slightly no

        ☐ Not at all

(If you don't have any work experience, please skip to question 3.8)

    3.4) What is your current or most recent job, and how long have you been working in that position?

        ☐ Full-time job

        ☐ Part-time job

        ☐ Self-employment

        Please specify your period (_____year_____month)

(If you don't have any work experience, please skip to question 3.8)

    3.5) Have you had any previous jobs before your current one? If yes, please provide additional details.

No.	Employer		Position	Main responsibilities	Period
1)					
2)					
3)					
4)					
5)					

(If you don't have any work experience, please skip to question 3.8)

    3.6)   What were your roles and responsibilities in your job positions? Please specify the details of the tasks you have been responsible for.

_____

_____

_____

(If you don't have any work experience, please skip to question 3.8)

    3.7)   How did you find the previous jobs you mentioned in 3.5? (You can select multiple answers)

☐ Online job search websites

☐ Personal networking

☐ Company websites

☐ Employment agencies

☐ Newspaper advertisements

☐ Organizations specifically for People with disabilities

☐ Other, please specify: _____

3.8) In your most recent job, what do you consider to be the three most important skills or abilities that you have contributed to the team? Please rank your answers from 1 to 3, with 1 being the most important.

☐ Communication skills

☐ Teamwork

☐ Problem-solving

☐ Time management

☐ Technical skills

☐ Creativity

☐ Adaptability

☐ Attention to detail

☐ Responsibility

☐ Honesty

☐ Punctuality

☐ Other, please specify: _____

3.9) Are there any other support systems that you think could be beneficial or provide more opportunities for People with disabilities in their job search? Please select no more than two most relevant answers.

☐ Job fairs specifically for People with disabilities

☐ Job placement services

☐ Online resources for job seekers with disabilities

☐ Government-supported assistance programs

☐ Initiatives to increase employer accessibility

☐ Other, please specify: _____

3.10) Which factors contribute to an increased likelihood of hiring People with disabilities ?

☐ Motivation or directives from the government to hire People with disabilities according to the law

☐ Employer commitment to diversity and inclusion

☐ Relevant skills, abilities, and experiences of the applicants

☐ Networks or organizations related to disability issues associated with the applicants

☐ Disability status of the applicants to meet diversity quotas

☐ No specific factors

☐ Other, please specify: _____

3.11) How do you communicate or disclose your disability to your employers?

☐ I disclose my disability in my resume/CV and other documents.

☐ I disclose my disability during the job interview process.

☐ I disclose my disability after accepting a job offer.

☐ I do not disclose my disability to employers.

What difficulties or obstacles do you encounter when sharing information about your disability?

☐ I do not face challenges in disclosing my disability.

☐ I face challenges in disclosing my disability.

Please specify: _____

3.12) In your opinion, do you think that disclosing your disability to employers has a positive or negative impact on your job prospects?

☐ It is beneficial.

☐ It is detrimental.

☐ It depends on the situation.

Please specify: _____

3.13) Do you have any specific needs for accommodations or supports in the workplace? If yes, have you received accommodations that enable you to perform your job efficiently? Please specify the type of supports or accommodations you have received.

☐ Yes, I require and have received accommodations.

Please specify: _____

☐ Yes, I require accommodations but have not received them yet.

☐ No, I do not require accommodations.

(If you don't have any work experience, please skip to question 3.16)

3.14) How do you effectively navigate and manage your disability in the workplace? Have you developed any specific strategies or techniques that have proven successful for you? (You may choose multiple options)

☐ Regular breaks

☐ Assistive device/technology (own expenses)

☐ Assistive device/technology (company's expenses)

☐ Flexible work schedule

☐ Work from home options

☐ Physical accommodations provided by the employer (install elevators or ramps, computer screen magnifiers, etc.)

☐ Other, please specify: _____

(If you don't have any work experience, please skip to question 3.16)

3.15) Do you encounter challenges in advancing within the company you work for due to your disability? If so, please provide the reasons behind your response.

☐ Yes

☐ No

Please specify: _____

3.16) Which specific supports or resources do you need to maintain employment? (You may choose multiple options)

☐ Additional accommodations

☐ Training or educational opportunities

☐ Career advancement opportunities

☐ Support from colleagues or management

☐ Job coaching or mentoring

☐ Performance feedback and guidance

☐ Other, please specify: _____

3.17) Have you been given opportunities for training or development in your workplace to help you grow professionally?

☐ Yes

☐ No

Please specify: _____

3.18) Do you feel that your employer understands the needs and capabilities of People with disabilities ?

☐ Yes

☐ No

Please specify: _____

3.19) Do you feel that your employer has a responsibility to provide appropriate accommodation for employees with disabilities?

☐ Strongly agree

☐ Somewhat agree

☐ Somewhat disagree

☐ Strongly disagree

3.20) Have you received sufficient training or support from your employer in terms of guidance to workplace accommodations or overcoming barriers?

☐ Yes, consistently

☐ Yes, occasionally

☐ No, never

Please specify: _____

3.21) Have you ever encountered instances of discrimination or faced negative attitudes from colleagues or supervisors in the workplace based on your disability? If so, could you please share an example to further illustrate your experience?

☐ Yes, frequently. Please specify: _____

☐ Yes, occasionally. Please specify: _____

☐ No.

Section 4: Job Position Retention

4.1) What was the reason for changing jobs in the past? (You can select more than one answer.)

☐ Lack of career growth opportunities

☐ Low salary or compensation

☐ Lack of motivation

☐ Unfavorable work environment

☐ Challenges arising from disability

☐ Difficult or long commute

☐ Other (please specify): _____

(If you don't have any work experience, please skip to question 4.3)

4.2) Have you encountered difficulties related to your disability that have caused you to contemplate leaving a job?

☐ Yes, I have faced challenges that have led me to consider leaving a job.

☐ No, I have not faced challenges that have led me to consider leaving a job.

If yes, please specify _____

_____

4.3) Which factors contribute to your current job retention? (You can select more than one answer)

☐ Competitive salary and benefits

☐ Positive work culture

☐ Flexibility in working hours and schedule

☐ Clear career opportunities

☐ Other, please specify: _____

4.4) Which additional support systems do you believe would be beneficial for People with disabilities in gaining and maintaining employment? Please provide further explanation.

☐ Training mentors or job coaches

☐ Appropriate welfare for People with disabilities

☐ Workplace accommodations

☐ Education and training programs

☐ Clear career opportunities

☐ Others, please specify_____

Please provide further explanation: _____

4.5) Have you faced any obstacles or barriers in securing employment as a result of your disability? Please specify.

☐ Lack of access and accommodations in the workplace

☐ Negative attitudes or discriminatory practices from employers or coworkers

☐ Misunderstandings about People with disabilities in the workplace

☐ Challenges related to health that impact job performance

☐ Other, please specify:

_____

4.6) Which skills or abilities in People with disabilities that employers should be aware of?

☐ Problem-solving

☐ Critical thinking skills

☐ Adaptability and flexibility

☐ Interpersonal communication and relationship-building skills

☐ Attention to detail

☐ Other, please specify: _____

_____

4.7) Which type of training or support would be most beneficial for you in maintaining employment?

☐ Technical or job-specific training

☐ Training on accommodations in the workplace

☐ Communication and teamwork training

☐ Mental health support and stress management

☐ Professional development and career advancement training

☐ Other, please specify: _____

_____

Section 5: Aspirations and Career Goals

(If you don't have any work experience, please skip to question 5.2)

5.1) How satisfied are you with your current job? Please let us know the reasons.

☐ Very satisfied

☐ Satisfied

☐ Neutral

☐ Dissatisfied

☐ Very dissatisfied

Reason: _____

5.2) Which type of job do you hope to have in the future?

☐ The same type of job as my current one

☐ A job with higher compensation in the same field

☐ A job in a different field, please specify: _____

☐ Self-employment/entrepreneurship

☐ Other, please specify: _____

_____

_____

5.3) What is your career goal in the next five years?

☐ Advancement in my current job

☐ A new job in the same field

☐ A new job in the different field

☐ Starting my own business

☐ Other, please specify: _____

_____

_____

5.4) Which skills or experiences do you need to achieve your career goals? Please select no more than three answers.

☐ Technical skills in a specific field or industry

☐ Interpersonal and communication skills

☐ Leadership and management skills

☐ Problem-solving skills

☐ Analytical thinking

☐ Time management skills

☐ Specific certifications

☐ Sales or marketing skills

☐ Language proficiency

☐ Creative thinking skills

☐ Artistic skills

☐ Project management skills

☐ Adaptability and flexibility skills

☐ Other, please specify: _____

Section 6: Additional Suggestions

6.1) Could you provide advice about finding a job and working for other People with disabilities who are looking for work?

_____

_____

_____

_____

6.2) How can employers better support employees with disabilities during the recruitment process and job retention?

_____

_____

_____

_____

6.3) What suggestions do you have for Disability Support Services (DSS), universities and other supporting organizations to enhance their support for People with disabilities in their employment and job retention?

_____

_____

_____

_____

6.4) Other suggestions:

_____

_____

_____

_____

(1) Participants: People with disabilities who have previously been employed and are currently still in employment, either in the same job they were previously hired for or in a new job. **The participant received support from the Disability Support Services (DSS).**

Objectives:

The Nippon Foundation and the Social Innovation Foundation have forged a collaborative partnership to initiate a project centered on advancing the vocational prospects of People with disabilities. Specifically, the project aims to establish a comprehensive framework known as "Transition to Work" (TW) that facilitates the seamless integration of People with disabilities into the workforce. The overarching objective of the project is to engender meaningful employment opportunities and enhance the overall quality of life for People with disabilities by fostering efficacious pathways to work. In pursuit of this objective, it becomes imperative to undertake a comprehensive exploration of the prevailing circumstances and ascertain the specific requirements of People with disabilities who have yet to secure employment. To achieve this, a meticulous data collection exercise will be conducted through the facilitation of focus group interviews, targeting this particular cohort.

Agenda: 2 hours each group

Self-introduction	5	minutes
Project Introduction	5	minutes
Discussion	45	minutes
Break	5	minutes
Discussion and Recap	50	minutes
Final thoughts or additional comments	10	minutes

Introduction:

- ○ Welcome and introductions.

- ○ Explanation of the purpose and objectives of the focus group

- ○ Assurance of confidentiality, participant rights and consent form

Section 1: Job Finding

1.1) From which organization did you receive preparation before entering the workforce? And what activities did you consider useful before actual work?

1.2) How effective was the job search support system you received from DSS in terms of getting a job?

Section 2: Work Experience

2.1) Is the format or content of the work you are responsible for designed to be more specific than the general body of work? Please explain in detail.

2.2) Do you have experiences of disability facilities in educational institutions being different from those in the workplace?

Section 3: Job Retention and Professional Development

3.1) In your view, what are the factors that result in staying in the same job for a long time and receiving good career advancement opportunities?

3.2) From your personal experience, what strategies or advice would you like to share to improve, or help graduates with disabilities have the most effective employment opportunities, either for yourself or others?

Conclusion:

- ○ Recap of key discussion points

- ○ Is there anything else you would like to add or discuss regarding this topic?

- ○ Closing

(2) Participants: People with disabilities who have previously been employed and are currently still in employment, either in the same job they were previously hired for or in a new job. **The participant does not receive support from the Disability Support Services (DSS).**

Objectives:

The Nippon Foundation and the Social Innovation Foundation have forged a collaborative partnership to initiate a project centered on advancing the vocational prospects of People with disabilities. Specifically, the project aims to establish a comprehensive framework known as "Transition to Work" (TW) that facilitates the seamless integration of People with disabilities into the workforce. The overarching objective of the project is to engender meaningful employment opportunities and enhance the overall quality of life for People with disabilities by fostering efficacious pathways to work. In pursuit of this objective, it becomes imperative to undertake a comprehensive exploration of the prevailing circumstances and ascertain the specific requirements of People with disabilities who have yet to secure employment. To achieve this, a meticulous data collection exercise will be conducted through the facilitation of focus group interviews, targeting this particular cohort.

Agenda: 2 hours each group

Self-introduction		5	minutes
Project Introduction	5	minutes	
Discussion	45	minutes	
Break	5	minutes	
Discussion and			
Recap of key discussion points		50	minutes
Final thoughts or additional comments		10	minutes

Introduction:

- Welcome and introductions
- Explanation of the purpose and objectives of the focus group
- Assurance of confidentiality, participant rights and consent form

Section 1: Job Finding

1) Did you get help from any agencies or other avenues to find your current career? If you get help, how effective are those channels? Please explain.

2) Why did you choose to apply to work at your current company, establishment, or the most recent workplace? Please explain.

Section 2: Work Experience

1) Is the format or content of the work you are responsible for designed to be more specific than the general body of work? Please explain this.

2) What challenges have you encountered during your work, and how do you adapt to those challenges? Is there any method or help channel?

3) What is your experience with access facilities for People with disabilities ? (there needs to be adjustment with co-workers and supervisors? including working environment)

Section 3: Job Retention and Professional Development

1) In your view, what are the factors that result in staying in the same job for a long time and receiving good career advancement opportunities?

2) From your personal experience, what strategies or advice would you like to share to improve, or help graduates with disabilities have the most effective employment opportunities, either yourself or others?

Conclusion:

- Recap of key discussion points
- Is there anything else you would like to add or discuss regarding this topic?
- Closing

(3) Participants: Employers

Objectives:

The Nippon Foundation and the Social Innovation Foundation have forged a collaborative partnership to initiate a project centered on advancing the vocational prospects of People with disabilities. Specifically, the project aims to establish a comprehensive framework known as "Transition to Work" (TW) that facilitates the seamless integration of People with disabilities into the workforce. The overarching objective of the project is to engender meaningful employment opportunities and enhance the overall quality of life for People with disabilities by fostering efficacious pathways to work. In pursuit of this objective, it becomes imperative to undertake a comprehensive exploration of the prevailing circumstances and ascertain the specific requirements of People with disabilities who have yet to secure employment. To achieve this, a meticulous data collection exercise will be conducted through the facilitation of focus group interviews, targeting this particular cohort.

Agenda: 1 hour and 30 minutes each group

Self-introduction and project introduction	10	minutes
Discussion	60	minutes
Recap of key discussion points	5	minutes
Final thoughts or additional comments	10	minutes
Closing	5	minutes

Introduction:

○ Welcome and introductions

○ Explanation of the purpose and objectives of the focus group

○ Assurance of confidentiality, participant rights and consent form

Section 1: Job Finding

1) What is your process in hiring People with disabilities? Do you have specific channels you rely on? Do you find it effective? Do you tend to hire certain types of People with disabilities? And why?

2) Based on your experience, do you hire people with different types of disabilities? Are there different adjustments needed? Do you feel that you understand the specific nature and culture of certain types of disabilities in job settings, (e.g., autistic people tend to like repetitive work, deaf people tend to like working with other deaf people)?

Section 2: Work Experience with People with Disability

1) How do you create an inclusive work environment for People with disabilities? Do you see people with different types of disabilities are proficient with certain tasks? Do you then keep adjusting to find the fit for the employee and do you see any improvement in outcome?

2) Do you face different challenges from working with different generations?

3) Based on your experience, what are the main challenges or obstacles working with People with disabilities? And what are your solutions?

Section 3: Job Retention and Professional Development

1) Do you see the relationship between the job retention and/or career advancement among People with disabilities and your on-the-job training program?

2) Can you share any success stories or examples of employees with disabilities who have made significant contributions to your organization? What is the main success factor in this story in your opinion?

3) What best practices (policy) have you implemented to enhance the job retention and career development of People with disabilities?

Conclusion:

○ Recap of key discussion points

○ Is there anything else you would like to add or discuss regarding this topic?

○ Closing

(4) Participants: People with disabilities who are unemployed

Objectives:

The Nippon Foundation and the Social Innovation Foundation have forged a collaborative partnership to initiate a project centered on advancing the vocational prospects of People with disabilities. Specifically, the project aims to establish a comprehensive framework known as "Transition to Work" (TW) that facilitates the seamless integration of People with disabilities into the workforce. The overarching objective of the project is to engender meaningful employment opportunities and enhance the overall quality of life for People with disabilities by fostering efficacious pathways to work. In pursuit of this objective, it becomes imperative to undertake a comprehensive exploration of the prevailing circumstances and ascertain the specific requirements of People with disabilities who have yet to secure employment. To achieve this, a meticulous data collection exercise will be conducted through the facilitation of focus group interviews, targeting this particular cohort.

Agenda: 2 hours each group

Self-introduction	5	minutes
Project Introduction	5	minutes
Discussion	45	minutes
Break	5	minutes
Discussion and		
Recap of key discussion points	50	minutes
Final thoughts or additional comments	10	minutes

Introduction:

- ○ Welcome and introductions!
- ○ Explanation of the purpose and objectives of the focus group
- ○ Assurance of confidentiality, participant rights and consent form

Section 1: Job Finding

1) What obstacles or challenges did you face in your job search? Please explain.

2) Do you have experience applying and interviewing for jobs?

3) In your view on finding a job, to what extent do you think there is a need for specific channels for finding employment for People with disabilities?

4) What kind of establishment or company are you looking for?

5) From which agencies did you receive pre-employment services or other career support before graduation? Please share your experience.

6) What additional resources or initiatives do you think would be helpful to support People with disabilities who have never worked before?

7) What accommodation or welfare do you expect in different organizations?

8) Are there any industries or sectors where you believe People with disabilities face greater challenges than others in gaining employment?

Conclusion:

- ○ Recap of key discussion points
- ○ Final thoughts or additional comments
- ○ Closing

(5) Participants: Caregivers of People with disabilities

Objectives:

       The Nippon Foundation and the Social Innovation Foundation have forged a collaborative partnership to initiate a project centered on advancing the vocational prospects of People with disabilities. Specifically, the project aims to establish a comprehensive framework known as "Transition to Work" (TW) that facilitates the seamless integration of People with disabilities into the workforce. The overarching objective of the project is to engender meaningful employment opportunities and enhance the overall quality of life for People with disabilities by fostering efficacious pathways to work. In pursuit of this objective, it becomes imperative to undertake a comprehensive exploration of the prevailing circumstances and ascertain the specific requirements of People with disabilities who have yet to secure employment. To achieve this, a meticulous data collection exercise will be conducted through the facilitation of focus group interviews, targeting this particular cohort.

Agenda: 1 hour and 30 minutes each group

Self-introduction	5	minutes
Project Introduction	5	minutes
Discussion	30	minutes
Break	5	minutes
Discussion	30	minutes
Recap of key discussion points	5	minutes
Final thoughts or additional comments	10	minutes

Introduction:

- ⭘ Welcome and introductions.

- ⭘ Explanation of the purpose and objectives of the focus group

- ⭘ Assurance of confidentiality, participant rights and consent form

Section 1: Job Finding

1) From experience supporting your family members, is it necessary to have specific job opportunities for People with disabilities? Please explain.

2)) What are your main concerns or challenges during the transition? And how do you manage?

Section 2: Work Experience

1) What obstacles or challenges do your family members encounter in their work?

2) What forms of support do your family members need, in order to make the work as efficient as possible?

Section 3: Job Retention and Professional Development

1) In your view, what factors play an important role in securing employment and promoting the career advancement of your family members?

2) Have any members of your family experienced discrimination at work? Please explain.

Conclusion:

o Recap of key discussion points

o Final thoughts or additional comments

o Closing

(6) Participants: Organizations that support People with disabilities, including the DSS from universities

Objectives:

The Nippon Foundation and the Social Innovation Foundation have forged a collaborative partnership to initiate a project centered on advancing the vocational prospects of People with disabilities. Specifically, the project aims to establish a comprehensive framework known as "Transition to Work" (TW) that facilitates the seamless integration of People with disabilities into the workforce. The overarching objective of the project is to engender meaningful employment opportunities and enhance the overall quality of life for People with disabilities by fostering efficacious pathways to work. In pursuit of this objective, it becomes imperative to undertake a comprehensive exploration of the prevailing circumstances and ascertain the specific requirements of People with disabilities who have yet to secure employment. To achieve this, a meticulous data collection exercise will be conducted through the facilitation of focus group interviews, targeting this particular cohort.

Agenda: 2 hours each group

Self and project introduction	10	minutes
Discussion	90	minutes
Recap of key discussion points	5	minutes
Final thoughts or additional comments	10	minutes
Closing	5	minutes

Introduction:

- Welcome and introductions

- Explanation of the purpose and objectives of the focus group

- Assurance of confidentiality, participant rights and consent form

Section 1: Job Finding

1) Does your organization's recruitment process for People with disabilities adapt to different types of disabilities? Please explain in detail.

2) What other strategies or methods does your organization use to raise awareness, or even change perceptions about hiring People with disabilities in your organization?

Section 2: Work Experience with People with Disability

1) From your experience working with companies that employ People with disabilities , what do you think are the current problems and obstacles in the company's hiring of People with disabilities ?

2) What do you think is the most important factor in working with People with disabilities to be able to work to their full potential?

Section 3: Job Retention and Achievements

1) What do you think is an important factor in enabling People with disabilities to have good employment?

2) Does your organization provide professional skills training? Please explain the format for organizing professional training. And have you followed up on the results of the said professional training or not? Please explain.

3) Please share stories about best practices that have led to successful employment and retention of People with disabilities in your organization.

Conclusion:

- Recap of key discussion points

- Final thoughts or additional comments

- Closing

```
> pairwise.t.test(work_exp_dat$compensation_satisfaction, internal_factor$age_range)

        Pairwise comparisons using t tests with pooled SD

data:  work_exp_dat$compensation_satisfaction and internal_factor$age_range

      18-24 25-29 30-34 35-39
25-29 0.377 -     -     -
30-34 0.029 1.000 -     -
35-39 0.244 1.000 1.000 -
40-45 1.000 1.000 0.280 0.946

P value adjustment method: holm
```

Figure-Appendix-H.1 Pairwise t-test Comparisons: Age Range x Compensation Satisfaction Score

```
> pairwise.t.test(work_exp_dat$compensation_satisfaction, internal_factor$gender)

        Pairwise comparisons using t tests with pooled SD

data:  work_exp_dat$compensation_satisfaction and internal_factor$gender

           female male
male       0.0041 -
non-binary 0.5625 0.7029

P value adjustment method: holm
```

Figure-Appendix-H.2 Pairwise t-test Comparisons: Gender x Compensation Satisfaction Score

```
> aggregate(x = work_exp_dat$compensation_satisfaction, by = list(internal_factor$gender), FUN = mean)
    Group.1        x
1    female 3.111111
2      male 3.427273
3 non-binary 3.600000
```

Figure-Appendix-H.3 The Averages of Compensation Satisfaction Score by Gender

```
> pairwise.t.test(work_exp_dat$compensation_satisfaction, internal_factor$major)

        Pairwise comparisons using t tests with pooled SD

data:  work_exp_dat$compensation_satisfaction and internal_factor$major

   1    10   11   2    3    4    6    7    8
10 1.00 -    -    -    -    -    -    -    -
11 1.00 1.00 -    -    -    -    -    -    -
2  1.00 1.00 1.00 -    -    -    -    -    -
3  1.00 0.39 1.00 0.46 -    -    -    -    -
4  1.00 1.00 1.00 1.00 0.42 -    -    -    -
6  1.00 1.00 1.00 1.00 0.39 1.00 -    -    -
7  1.00 0.39 1.00 1.00 1.00 0.42 0.39 -    -
8  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 -
9  1.00 1.00 1.00 1.00 0.17 1.00 1.00 0.26 1.00
```

Figure-Appendix-H.4 Pairwise t-test Comparisons: Major of study x Compensation Satisfaction Score

```
prop.table(table(gen_profiles$caregiver, work_exp_dat$disability_careerPath), margin = 1)

          No      Yes
No  0.769437 0.230563
Yes 0.560000 0.440000
```

Figure-Appendix-H.5 Probability Distribution Table: Caregiver x Challenge/Obstacles

```
> prop.table(table(internal_factor$gender, work_exp_dat$employer_accommodation), margin = 1)

               never     often sometimes
  female     0.2323232 0.4191919 0.3484848
  male       0.1727273 0.3454545 0.4818182
  non-binary 0.2000000 0.2000000 0.6000000
```

Figure-Appendix-H.6 Probability Distribution Table: Gender x Employer's Provision of Training

```
> prop.table(table(internal_factor$type_dis_details, work_exp_dat$discrimination_at_work), margin = 1)

                                           No        often    sometimes
Autism                                 0.66666667 0.05555556 0.27777778
Blindness                              0.62295082 0.03278689 0.34426230
Deafness                               0.67441860 0.11627907 0.20930233
Heard of Hearing                       0.64705882 0.17647059 0.17647059
Intellectual disability                0.33333333 0.00000000 0.66666667
Learning disability                    1.00000000 0.00000000 0.00000000
Low Vision                             0.63888889 0.08333333 0.27777778
Mental or behavioral disability        0.81250000 0.00000000 0.18750000
Multiple Disability                    0.50000000 0.22222222 0.27777778
Other physical impairment              0.42105263 0.07894737 0.50000000
Walker User                            0.57894737 0.15789474 0.26315789
Weakness in limbs                      0.71794872 0.05128205 0.23076923
Wheelchair User                        0.69158879 0.04672897 0.26168224
```

Figure-Appendix-H.7 Probability Distribution Table: Types of Disability x Discrimination at Workplace

```
> pairwise.t.test(job_satis_dat$job_satisfaction, internal_factor$age_range)

        Pairwise comparisons using t tests with pooled SD

data:  job_satis_dat$job_satisfaction and internal_factor$age_range

      18-24   25-29   30-34   35-39
25-29 1.00000 -       -       -
30-34 0.18135 0.27866 -       -
35-39 0.06069 0.10996 1.00000 -
40-45 0.00037 0.00131 0.27920 0.74703

P value adjustment method: holm
```

Figure-Appendix-H.8 Pairwise t-test Comparisons: Age Range x Job Satisfaction Score

```
> pairwise.t.test(job_satis_dat$job_satisfaction, internal_factor$type_dis_details)

        Pairwise comparisons using t tests with pooled SD

data:  job_satis_dat$job_satisfaction and internal_factor$type_dis_details

                                Autism Blindness Deafness Heard of Hearing Intellectual disability Learning disability
Blindness                       1.00   -         -        -                -                       -
Deafness                        0.95   1.00      -        -                -                       -
Heard of Hearing                1.00   1.00      1.00     -                -                       -
Intellectual disability         1.00   1.00      1.00     1.00             -                       -
Learning disability             1.00   1.00      1.00     1.00             1.00                    -
Low Vision                      1.00   1.00      0.62     1.00             1.00                    1.00
Mental or behavioral disability 1.00   1.00      0.81     1.00             1.00                    1.00
Multiple Disability             1.00   1.00      1.00     1.00             1.00                    1.00
Other physical impairment       0.98   1.00      1.00     1.00             1.00                    1.00
Walker User                     1.00   1.00      1.00     1.00             1.00                    1.00
Weakness in limbs               1.00   1.00      1.00     1.00             1.00                    1.00
Wheelchair User                 1.00   1.00      1.00     1.00             1.00                    1.00
                                Low Vision Mental or behavioral disability Multiple Disability Other physical impairment
Blindness                       -          -                               -                   -
Deafness                        -          -                               -                   -
Heard of Hearing                -          -                               -                   -
Intellectual disability         -          -                               -                   -
Learning disability             -          -                               -                   -
Low Vision                      -          -                               -                   -
Mental or behavioral disability 1.00       -                               -                   -
Multiple Disability             1.00       1.00                            -                   -
Other physical impairment       0.69       0.84                            1.00                -
Walker User                     1.00       1.00                            1.00                1.00
Weakness in limbs               0.98       1.00                            1.00                1.00
Wheelchair User                 1.00       1.00                            1.00                1.00
                                Walker User Weakness in limbs
Blindness                       -           -
Deafness                        -           -
Heard of Hearing                -           -
Intellectual disability         -           -
Learning disability             -           -
Low Vision                      -           -
Mental or behavioral disability -           -
Multiple Disability             -           -
Other physical impairment       -           -
Walker User                     -           -
Weakness in limbs               1.00        -
Wheelchair User                 1.00        1.00

P value adjustment method: holm
```

Figure-Appendix-H.9 Pairwise t-test Comparisons: Type of Disability x Job Satisfaction Score

```
P value adjustment method: holm
> pairwise.t.test(job_satis_dat$job_satisfaction, internal_factor$edu_level)

        Pairwise comparisons using t tests with pooled SD

data:  job_satis_dat$job_satisfaction and internal_factor$edu_level

                      Bachelor's Degree Master's Degree
Master's Degree          0.053               -
Vocational Certificate 0.133               0.014

P value adjustment method: holm
```

Figure-Appendix-H.10 Pairwise t-test Comparisons: Education Level x Job Satisfaction Score

```
> pairwise.t.test(job_satis_dat$job_satisfaction, internal_factor$major)

        Pairwise comparisons using t tests with pooled SD

data:  job_satis_dat$job_satisfaction and internal_factor$major

   1    10   11   2    3    4    6    7    8
10 1.00 -    -    -    -    -    -    -    -
11 1.00 1.00 -    -    -    -    -    -    -
2  1.00 1.00 1.00 -    -    -    -    -    -
3  1.00 1.00 1.00 1.00 -    -    -    -    -
4  1.00 1.00 1.00 1.00 1.00 -    -    -    -
6  1.00 1.00 1.00 1.00 1.00 0.90 -    -    -
7  1.00 1.00 1.00 1.00 1.00 0.92 1.00 -    -
8  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 -
9  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

P value adjustment method: holm
```

Figure-Appendix-H.11 Pairwise t-test Comparisons: Major of Study x Job Satisfaction Score

```
> pairwise.t.test(job_satis_dat$job_satisfaction, internal_factor$time_period)

        Pairwise comparisons using t tests with pooled SD

data:  job_satis_dat$job_satisfaction and internal_factor$time_period

  1     2     3     4     5
2 0.074 -     -     -     -
3 0.630 1.000 -     -     -
4 1.000 0.024 0.183 -     -
5 0.876 0.028 0.151 1.000 -
6 1.000 0.058 0.284 1.000 1.000

P value adjustment method: holm
```

Figure-Appendix-H.12 Pairwise t-test Comparisons: Time Period after Graduation x Job Satisfaction Score

```
> prop.table(table(internal_factor$edu_level, work_exp_dat$type_of_job), margin = 1)

                        freelance full time job part time job
  Bachelor's Degree     0.13261649   0.74910394   0.11827957
  Master's Degree       0.00000000   0.82608696   0.17391304
  Vocational Certificate 0.09917355   0.85123967   0.04958678
```

Figure-Appendix-H.13 Probability Distribution Table: Education Level x Type of Job

```
  0 0.70170170 0.03703707 0.70170170
> prop.table(table(internal_factor$time_period, work_exp_dat$type_of_job), margin = 1)

    freelance full time job part time job
1 0.12408759    0.78832117    0.08759124
2 0.18750000    0.71875000    0.09375000
3 0.05217391    0.88695652    0.06086957
4 0.08620690    0.74137931    0.17241379
5 0.04545455    0.81818182    0.13636364
6 0.29629630    0.51851852    0.18518519
```

Figure-Appendix-H.14 Probability Distribution Table: Time Period after Graduation x Type of Job

```
> pairwise.t.test(work_exp_dat$job_duration, internal_factor$age_range)

        Pairwise comparisons using t tests with pooled SD

data:  work_exp_dat$job_duration and internal_factor$age_range

      18-24    25-29    30-34    35-39
25-29 0.00638 -        -        -
30-34 7.5e-11 0.00023  -        -
35-39 4.4e-11 0.00011  0.67718  -
40-45 < 2e-16 < 2e-16  2.1e-07  5.3e-06

P value adjustment method: holm
```

Figure-Appendix-H.15 Pairwise t-test Comparisons: Age Range x Current Job Duration

```
> pairwise.t.test(work_exp_dat$job_duration, internal_factor$edu_level)

        Pairwise comparisons using t tests with pooled SD

data:  work_exp_dat$job_duration and internal_factor$edu_level

                      Bachelor's Degree Master's Degree
Master's Degree       0.4024            -
Vocational Certificate 0.0013           0.0260

P value adjustment method: holm
```

Figure-Appendix-H.16 Pairwise t-test Comparisons: Education Level x Current Job Duration

```
> aggregate(x = work_exp_dat$job_duration, by = list(internal_factor$edu_level), FUN = mean)
                Group.1        x
1      Bachelor's Degree 46.06452
2        Master's Degree 54.13043
3 Vocational Certificate 28.95868
```

Figure-Appendix-H.17 The Averages of Current Job Duration by Education Level

```
> pairwise.t.test(work_exp_dat$job_duration, internal_factor$time_period)

        Pairwise comparisons using t tests with pooled SD

data:  work_exp_dat$job_duration and internal_factor$time_period

  1      2      3      4      5
2 0.0049 -      -      -      -
3 0.0135 1.0000 -      -      -
4 0.1793 1.0000 1.0000 -      -
5 1.0000 1.0000 1.0000 1.0000 -
6 0.4374 1.0000 1.0000 1.0000 1.0000

P value adjustment method: holm
```

Figure-Appendix-H.18 Pairwise t-test Comparisons: Time Period after Graduation x Current Job Duration

```
> aggregate(x = work_exp_dat$job_duration, by = list(internal_factor$time_period), FUN = mean)
  Group.1        x
1       1 54.60584
2       2 30.29688
3       3 35.99130
4       4 37.44828
5       5 42.00000
6       6 35.03704
```

Figure-Appendix-H.19 The Averages of Current Job Duration by Time Period after Graduation

```
> pairwise.t.test(work_exp_dat$previous_work_duration, internal_factor$age_range)

        Pairwise comparisons using t tests with pooled SD

data:  work_exp_dat$previous_work_duration and internal_factor$age_range

      18-24    25-29  30-34  35-39
25-29 0.0373  -       -      -
30-34 0.0065  0.5958 -      -
35-39 1.5e-05 0.0811 0.3388 -
40-45 4.7e-09 0.0027 0.0347 0.5958

P value adjustment method: holm
```

Figure-Appendix-H.20 Pairwise t-test Comparisons: Age Range x Previous Job Duration

```
> pairwise.t.test(work_exp_dat$previous_work_duration, internal_factor$time_period)

        Pairwise comparisons using t tests with pooled SD

data:  work_exp_dat$previous_work_duration and internal_factor$time_period

  1      2      3      4      5
2 <2e-16 -      -      -      -
3 <2e-16 <2e-16 -      -      -
4 <2e-16 <2e-16 <2e-16 -      -
5 <2e-16 <2e-16 <2e-16 <2e-16 -
6 <2e-16 <2e-16 <2e-16 <2e-16 <2e-16

P value adjustment method: holm
```

Figure-Appendix-H.21 Pairwise t-test Comparisons: Time Period after Graduation x Previous Job

Duration

```
> pairwise.t.test(job_turnover_dat$ave_job_change, internal_factor$age_range)

        Pairwise comparisons using t tests with pooled SD

data:  job_turnover_dat$ave_job_change and internal_factor$age_range

      18-24    25-29    30-34    35-39
25-29 0.01222  -        -        -
30-34 3.7e-11  8.7e-05  -        -
35-39 2.3e-12  9.8e-06  0.45987  -
40-45 < 2e-16  < 2e-16  1.1e-05  0.00042

P value adjustment method: holm
```

Figure-Appendix-H.22 Pairwise t-test Comparisons: Age Range x Job Turnover

```
> pairwise.t.test(job_turnover_dat$ave_job_change, internal_factor$type_dis_details)

        Pairwise comparisons using t tests with pooled SD

data:  job_turnover_dat$ave_job_change and internal_factor$type_dis_details

                               Autism Blindness Deafness Heard of Hearing Intellectual disability Learning disability Low Vision
Blindness                      1.000  -         -        -                -                       -                   -
Deafness                       1.000  0.082     -        -                -                       -                   -
Heard of Hearing               1.000  1.000     1.000    -                -                       -                   -
Intellectual disability        1.000  1.000     1.000    1.000            -                       -                   -
Learning disability            1.000  1.000     1.000    1.000            1.000                   -                   -
Low Vision                     1.000  1.000     0.216    1.000            1.000                   1.000               -
Mental or behavioral disability 1.000 1.000     1.000    1.000            1.000                   1.000               1.000
Multiple Disability            1.000  1.000     1.000    1.000            1.000                   1.000               1.000
Other physical impairment      1.000  1.000     1.000    1.000            1.000                   1.000               1.000
Walker User                    1.000  1.000     0.628    1.000            1.000                   1.000               1.000
Weakness in limbs              1.000  1.000     1.000    1.000            1.000                   1.000               1.000
Wheelchair User                1.000  1.000     1.000    1.000            1.000                   1.000               1.000
```

Figure-Appendix-H.23 Pairwise t-test Comparisons: Type of disability x Job Turnover

```
> pairwise.t.test(job_turnover_dat$ave_job_change, internal_factor$edu_level)

        Pairwise comparisons using t tests with pooled SD

data:  job_turnover_dat$ave_job_change and internal_factor$edu_level

                       Bachelor's Degree Master's Degree
Master's Degree        0.274             -
Vocational Certificate 0.018             0.037

P value adjustment method: holm
```

Figure-Appendix-H.24 Pairwise t-test Comparisons: Education Level x Job Turnover

```
> pairwise.t.test(job_turnover_dat$ave_job_change, internal_factor$time_period)

        Pairwise comparisons using t tests with pooled SD

data:  job_turnover_dat$ave_job_change and internal_factor$time_period

  1      2      3      4      5
2 0.0088 -      -      -      -
3 0.0105 1.0000 -      -      -
4 1.0000 1.0000 1.0000 -      -
5 1.0000 1.0000 1.0000 1.0000 -
6 0.8025 1.0000 1.0000 1.0000 1.0000

P value adjustment method: holm
```

Figure-Appendix-H.25 Pairwise t-test Comparisons: Time Period after Graduation x Job Turnover

```
P value adjustment method: holm
> aggregate(x = job_turnover_dat$ave_job_change, by = list(internal_factor$time_period), FUN = mean)
  Group.1        x
1       1 47.09381
2       2 27.61719
3       3 31.14290
4       4 37.01379
5       5 36.14394
6       6 32.44444
```

Figure-Appendix-H. 26 The Averages of Job Turnover by Time Period after Graduation

```
> pairwise.t.test(work_exp_dat$compensation_satisfaction, external_factor$job_find_assist)

        Pairwise comparisons using t tests with pooled SD

data:  work_exp_dat$compensation_satisfaction and external_factor$job_find_assist

                       None  organizations for PWDs Other
organizations for PWDs 0.012 -                      -
Other                  0.836 0.661                  -
Professional Network   0.018 0.836                  0.661

P value adjustment method: holm
```

Figure-Appendix-H.27 Pairwise t-test Comparisons: Job Finding Assistance x

Compensation Satisfaction Score

```
> aggregate(x = work_exp_dat$compensation_satisfaction, by = list(external_factor$job_find_assist), FUN = mean)
                Group.1        x
1                  None 3.095745
2 organizations for PWDs 3.458333
3                 Other 3.232558
4   Professional Network 3.500000
```

Figure-Appendix-H.28 The Averages of Compensation Satisfaction Score by

Job Finding Assistance

```
> pairwise.t.test(work_exp_dat$compensation_satisfaction, external_factor$DSS_assist)

        Pairwise comparisons using t tests with pooled SD

data:  work_exp_dat$compensation_satisfaction and external_factor$DSS_assist

                        do not know know and have used
know and have used      0.0018      -
know but have never used 0.3603      0.0323

P value adjustment method: holm
```

Figure-Appendix-H.29 Pairwise t-test Comparisons: Assistance from DSS x

Compensation Satisfaction Score

```
> aggregate(x = work_exp_dat$compensation_satisfaction, by = list(external_factor$DSS_assist), FUN = mean)
                Group.1        x
1           do not know 3.141304
2      know and have used 3.559633
3 know but have never used 3.246154
```

Figure-Appendix-H.30 The Averages of Compensation Satisfaction Score by Assistance from DSS

```
> aggregate(x = work_exp_dat$compensation_satisfaction, by = list(external_factor$job_edu_corr), FUN = mean)
  Group.1        x
1      No 3.090551
2     Yes 3.568047
```

Figure-Appendix-H.31 The Averages of Compensation Satisfaction Score by Job-education

Correspondence

```
> prop.table(table(external_factor$job_search_channel, work_exp_dat$accomodation_provision), margin = 1)

                        I don't need Yes and I receive Yes but I don't receive
Business Owner            1.00000000      0.00000000          0.00000000
Career Network           0.10526316      0.73684211          0.15789474
Company's website        0.25000000      0.50000000          0.25000000
Online job board         0.37837838      0.45945946          0.16216216
Organization for PWDs    0.23469388      0.55102041          0.21428571
Other                    0.23076923      0.53846154          0.23076923
Recruitment agency       0.16666667      0.75000000          0.08333333
Referral from friend/family 0.34027778   0.52777778          0.13194444
Social media             1.00000000      0.00000000          0.00000000
University/School Rec.    0.51612903      0.16129032          0.32258065
```

Figure-Appendix-H.32 Probability Distribution Table: Job Search Channel x Accommodation

```
> prop.table(table(external_factor$job_find_assist, work_exp_dat$accomodation_provision), margin = 1)

                        I don't need Yes and I receive Yes but I don't receive
None                     0.3829787      0.4255319          0.1914894
organizations for PWDs   0.2166667      0.6333333          0.1500000
Other                    0.2790698      0.5813953          0.1395349
Professional Network     0.3333333      0.4444444          0.2222222
```

Figure-Appendix-H.33 Probability Distribution Table: Job Finding Assistance x Accommodation

```
> prop.table(table(external_factor$job_search_channel, work_exp_dat$disability_careerPath), margin = 1)

                                   No         Yes
Business Owner             0.66666667 0.33333333
Career Network             0.73684211 0.26315789
Company's website          0.64285714 0.35714286
Online job board           0.79729730 0.20270270
Organization for PWDs      0.72448980 0.27551020
Other                      0.76923077 0.23076923
Recruitment agency         0.75000000 0.25000000
Referral from friend/family 0.71527778 0.28472222
Social media               1.00000000 0.00000000
University/School Rec.      0.90322581 0.09677419
```

Figure-Appendix-H.34 Probability Distribution Table: Job Search Channe x Challenge/Obstacles in advancing in workplace

```
> prop.table(table(external_factor$job_edu_corr, work_exp_dat$disability_careerPath), margin = 1)

           No        Yes
No  0.6929134 0.3070866
Yes 0.8224852 0.1775148
```

Figure-Appendix-H.35 Probability Distribution Table: Job-education Correspondence x Challenge/Obstacles in Advancing in Workplace

```
> prop.table(table(external_factor$job_search_channel, work_exp_dat$employer_accommodation), margin = 1)

                                never      often   sometimes
Business Owner             0.66666667 0.33333333 0.00000000
Career Network             0.15789474 0.47368421 0.36842105
Company's website          0.25000000 0.32142857 0.42857143
Online job board           0.21621622 0.43243243 0.35135135
Organization for PWDs      0.15306122 0.39795918 0.44897959
Other                      0.30769231 0.30769231 0.38461538
Recruitment agency         0.08333333 0.66666667 0.25000000
Referral from friend/family 0.15972222 0.37500000 0.46527778
Social media               1.00000000 0.00000000 0.00000000
University/School Rec.      0.41935484 0.12903226 0.45161290
```

Figure-Appendix-H.36 Probability Distribution Table: Job Search Channel x Employer's Provision of Training and Accommodation

```
> prop.table(table(external_factor$DSS_assist, work_exp_dat$type_of_job), margin = 1)

                            freelance full time job part time job
  do not know                0.11413043    0.77717391    0.10869565
  know and have used         0.08256881    0.85321101    0.06422018
  know but have never used   0.14615385    0.73076923    0.12307692
```

Figure-Appendix-H.37 Probability Distribution Table: Assistance from DSS x Type of Job

```
> aggregate(x = work_exp_dat$job_duration, by = list(external_factor$job_search_channel), FUN = mean)
                   Group.1        x
1            Business Owner 26.00000
2            Career Network 54.21053
3         Company's website 42.85714
4          Online job board 36.83784
5      Organization for PWDs 47.43878
6                     Other 39.15385
7        Recruitment agency 59.25000
8   Referral from friend/family 43.92361
9              Social media  3.00000
10     University/School Rec. 11.93548
```

Figure-Appendix-H.38 The Averages of Current Job Duration by Job Search Channel

```
> pairwise.t.test(work_exp_dat$job_duration, external_factor$job_find_assist)

        Pairwise comparisons using t tests with pooled SD

data:  work_exp_dat$job_duration and external_factor$job_find_assist

                       None  organizations for PWDs Other
organizations for PWDs 0.777 -                      -
Other                  0.747 0.747                  -
Professional Network   0.168 0.317                  0.094

P value adjustment method: holm
```

Figure-Appendix-H.39 Pairwise t-test Comparisons: Job Finding Assistance x Current Job Duration

Figure-Appendix-H.40 Pairwise t-test Comparisons: Job Finding Assistance x

Previous Job Duration

Figure-Appendix-H. 41 Pairwise t-test Comparisons: Assistance from DSS x Previous Job Duration

Figure-Appendix-H.42 The Averages of Previous Job Duration by Assistance from DSS

```
> pairwise.t.test(job_turnover_dat$ave_job_change, external_factor$DSS_assist)

        Pairwise comparisons using t tests with pooled SD

data:  job_turnover_dat$ave_job_change and external_factor$DSS_assist

                          do not know know and have used
know and have used         0.034       -
know but have never used   0.782       0.068

P value adjustment method: holm
```

Figure-Appendix-H.43 Pairwise t-test Comparisons: Job Search Channel x Job Turnover

```
> pairwise.t.test(job_turnover_dat$ave_job_change, external_factor$job_find_assist)

        Pairwise comparisons using t tests with pooled SD

data:  job_turnover_dat$ave_job_change and external_factor$job_find_assist

                          None  organizations for PWDs Other
organizations for PWDs 0.814 -                        -
Other                  0.876 0.814                    -
Professional Network   0.021 0.247                    0.124

P value adjustment method: holm
```

Figure-Appendix-H.44 Pairwise t-test Comparisons: Job Finding Assistance x Job Turnover

```
> aggregate(x = job_turnover_dat$ave_job_change, by = list(external_factor$DSS_assist), FUN = mean)
                Group.1        x
1           do not know 40.25814
2     know and have used 28.73307
3 know but have never used 39.07192
```

Figure-Appendix-H.45 The Averages of Job Turnover by Assistance from DSS

```
> aggregate(x = job_turnover_dat$ave_job_change, by = list(external_factor$job_edu_corr), FUN = mean)
  Group.1        x
1      No 40.33129
2     Yes 31.80240
```

Figure-Appendix-H.46 The Averages of Job Turnover by Job-Education Correspondence

```
> aggregate(x = work_exp_dat$job_duration, by = list(work_exp_dat$compensation_satisfaction), FUN = mean)
  Group.1       x
1       1 34.43478
2       2 37.68182
3       3 37.93617
4       4 45.26452
5       5 51.50000
```

Figure-Appendix-H.47 The Averages of Current Job Duration by Compensation Satisfaction

```
> pairwise.t.test(work_exp_dat$job_duration, work_exp_dat$accomodation_provision)

        Pairwise comparisons using t tests with pooled SD

data:   work_exp_dat$job_duration and work_exp_dat$accomodation_provision

                      I don't need Yes and I receive
Yes and I receive        0.02319      -
Yes but I don't receive  0.08927      0.00031

P value adjustment method: holm
```

Figure-Appendix-H.48 Pairwise t-test Comparisons: Accommodation x Current Job Duration

```
> pairwise.t.test(work_exp_dat$job_duration, job_satis_dat$job_satisfaction)

        Pairwise comparisons using t tests with pooled SD

data:   work_exp_dat$job_duration and job_satis_dat$job_satisfaction

   1      2      3      4
2 1.0000 -      -      -
3 1.0000 1.0000 -      -
4 1.0000 1.0000 0.0202 -
5 1.0000 0.8264 0.0022 1.0000

P value adjustment method: holm
```

Figure-Appendix-H.49 Pairwise t-test Comparisons: Job Satisfaction x Current Job Duration

```
> pairwise.t.test(work_exp_dat$previous_work_duration, work_exp_dat$type_of_job)

        Pairwise comparisons using t tests with pooled SD

data:  work_exp_dat$previous_work_duration and work_exp_dat$type_of_job

              freelance full time job
full time job 0.619       -
part time job 0.619       0.072

P value adjustment method: holm
```

Figure-Appendix-H.50 Pairwise t-test Comparisons: Type of Job x Previous Job Duration

```
> pairwise.t.test(work_exp_dat$previous_work_duration, job_satis_dat$job_satisfaction)

        Pairwise comparisons using t tests with pooled SD

data:  work_exp_dat$previous_work_duration and job_satis_dat$job_satisfaction

   1    2    3    4
2 1.00 -    -    -
3 1.00 1.00 -    -
4 1.00 1.00 1.00 -
5 1.00 1.00 0.66 1.00

P value adjustment method: holm
```

Figure-Appendix-H.51 Pairwise t-test Comparisons: Job Satisfaction x Previous Job Duration

```
> pairwise.t.test(job_turnover_dat$ave_job_change, work_exp_dat$accomodation_provision)

        Pairwise comparisons using t tests with pooled SD

data:  job_turnover_dat$ave_job_change and work_exp_dat$accomodation_provision

                     I don't need Yes and I receive
Yes and I receive        0.0842       -
Yes but I don't receive  0.1488       0.0039

P value adjustment method: holm
```

Figure-Appendix-H.52 Pairwise t-test Comparisons: Assistance Accommodation x Job Turnover

```
> aggregate(x = job_turnover_dat$ave_job_change, by = list(work_exp_dat$accomodation_provision), FUN = mean)
                  Group.1       x
1            I don't need 34.09655
2       Yes and I receive 42.47277
3 Yes but I don't receive 26.35677
```

Figure-Appendix-H.53 The Averages of Job Turnover by Accommodation

```
> aggregate(x = job_turnover_dat$ave_job_change, by = list(work_exp_dat$job_training), FUN = mean)
  Group.1       x
1      No 31.94621
2     Yes 39.92161
```

Figure-Appendix-H.54 The Averages of Job Turnover by Training at work

```
> pairwise.t.test(job_turnover_dat$ave_job_change, job_satis_dat$job_satisfaction)

        Pairwise comparisons using t tests with pooled SD

data:  job_turnover_dat$ave_job_change and job_satis_dat$job_satisfaction

  1      2      3      4
2 1.0000 -      -      -
3 1.0000 1.0000 -      -
4 0.9196 1.0000 0.1671 -
5 0.5918 0.9104 0.0019 0.5918

P value adjustment method: holm
```

Figure-Appendix-H.55 Pairwise t-test Comparisons: Job Satisfaction Score x Job Turnover

```
> aggregate(x = job_turnover_dat$ave_job_change, by = list(job_satis_dat$job_satisfaction), FUN = mean)
  Group.1       x
1       1 12.80357
2       2 28.78788
3       3 27.00429
4       4 37.79407
5       5 45.56680
```

Figure-Appendix-H.56 The Averages of Job Turnover by Job Satisfaction Score

```
        Pairwise comparisons using t tests with pooled SD

data:  job_satis_dat$job_satisfaction and work_exp_dat$compensation_satisfaction

  1       2       3       4
2 0.84175 -       -       -
3 0.24324 0.15672 -       -
4 0.00059 4.3e-07 8.5e-05 -
5 6.6e-05 4.3e-07 6.2e-05 0.24324

P value adjustment method: holm
```

Figure-Appendix-H.57 Pairwise t-test Comparisons: Compensation Satisfaction x Job Satisfaction
Score

Figure-Appendix-H.58 Pairwise t-test Comparisons: Accommodation x Job Satisfaction Score

Figure-Appendix-H.59 Pairwise t-test Comparisons: Discrimination at Work x Job Satisfaction Score

Below are the charts in the form of pie charts and bar charts showing all the overall survey data results collected by researchers. The charts will be shown with the percentage numbers and categories of the responses. Detailed descriptive data of this survey result, see Chapter 4.

1.2)   What age range do you belong to?
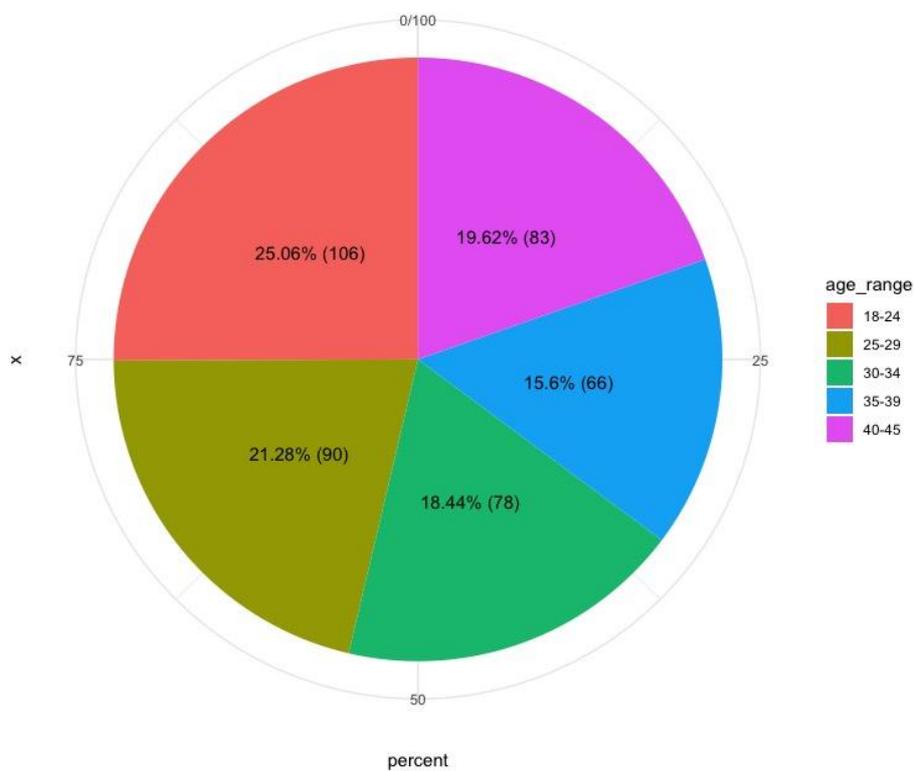
Figure-Appendix-I.1 Respondents Age Range

1.3)   What is your gender?
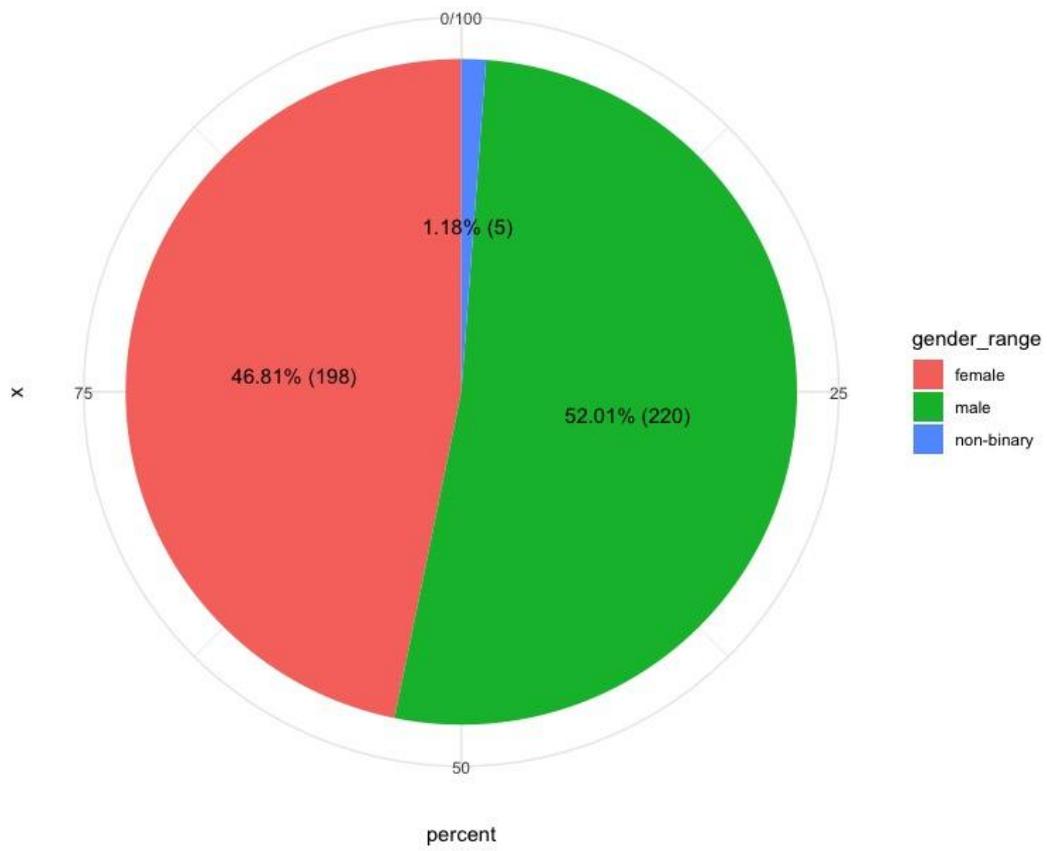
Figure-Appendix-I.2 Respondents Gender Range

1.6) Which type(s) of disability do you identify with and qualify for? (You may choose multiple options)
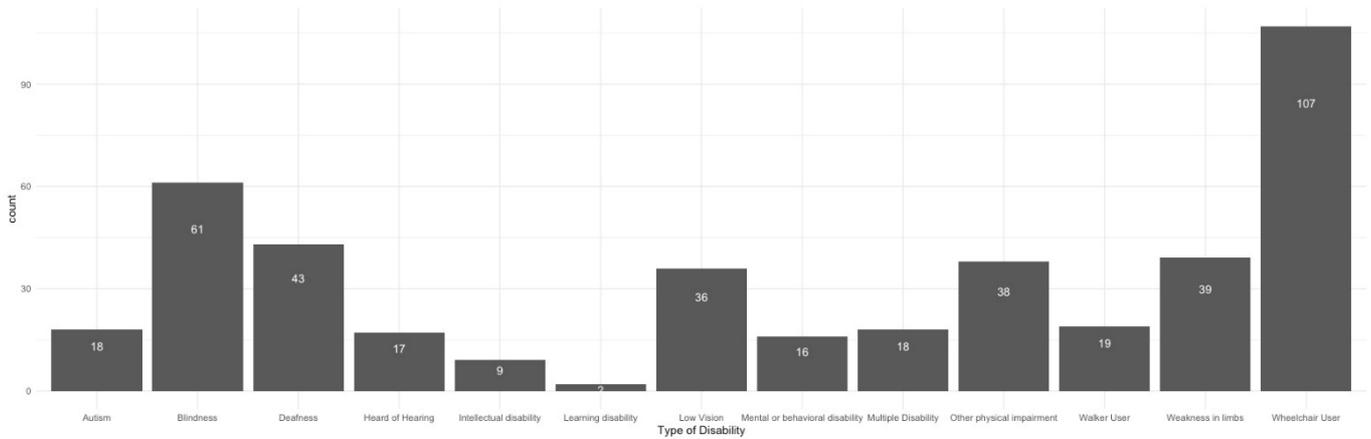
Figure-Appendix-I.3 Respondents Type of Disability

1.7) When did your disability begin or when did you first experience symptoms related to your disability?
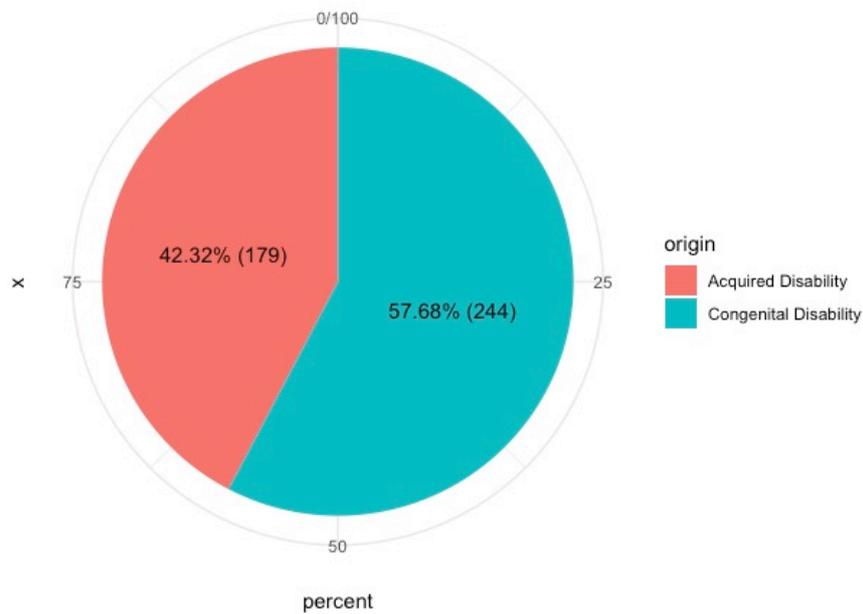
Figure-Appendix-I.4 When did your disability begin or when did you first experience symptoms related to your disability?

1.8)   Do you have the ability to independently take care of yourself or do you rely on the support of a caregiver/parent for your daily care?
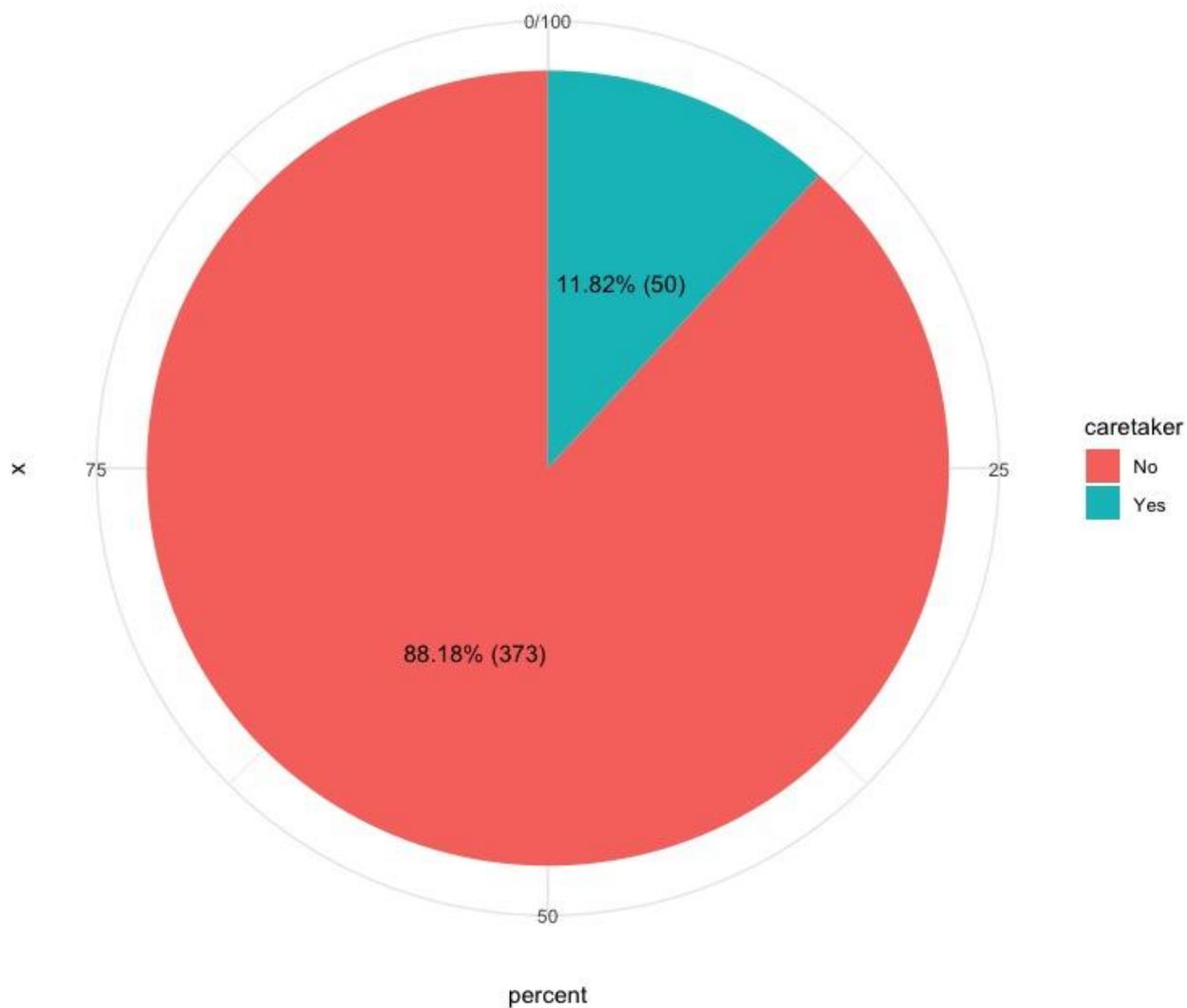
Figure-Appendix-I.5 Respondents Take Care of Yourself or Have a Caregiver

1.9)   Are you currently enrolled in any educational or training programs? If yes, please specify.
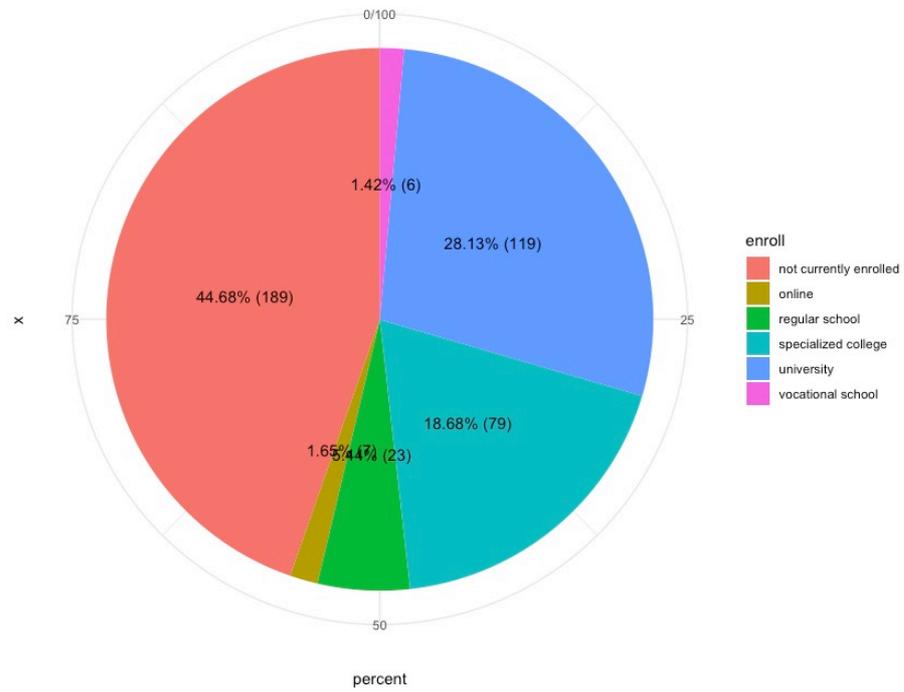
Figure-Appendix-I.6 Are respondents currently enrolled in any educational or training programs?

2.1) How did you find your most recent job?
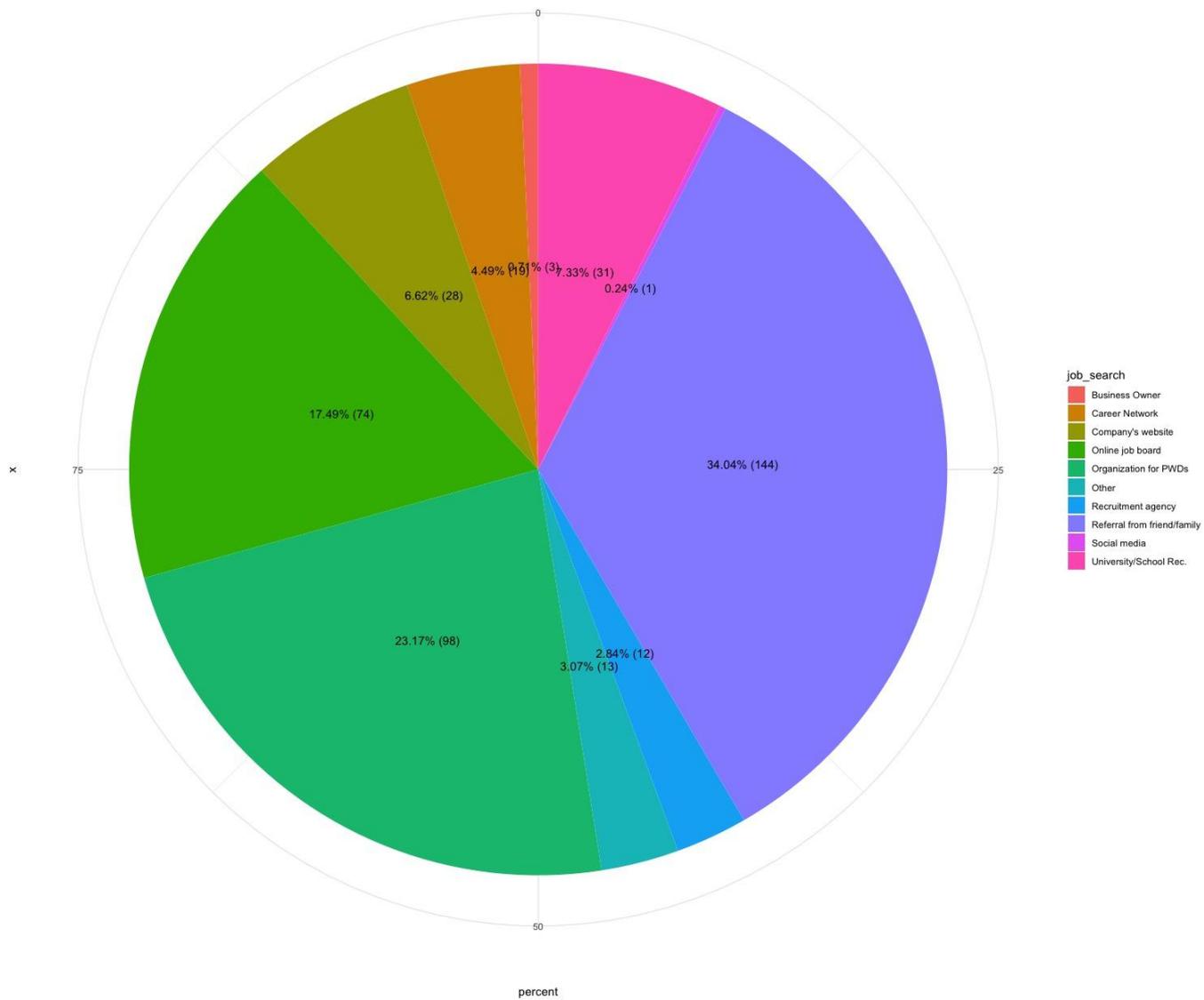
Figure-Appendix-I.7 The Job Search Respondent's Most Recent Job

2.2) What specific difficulties did you encounter while seeking employment as a result of your disability? Please select all relevant options and provide further details if possible.
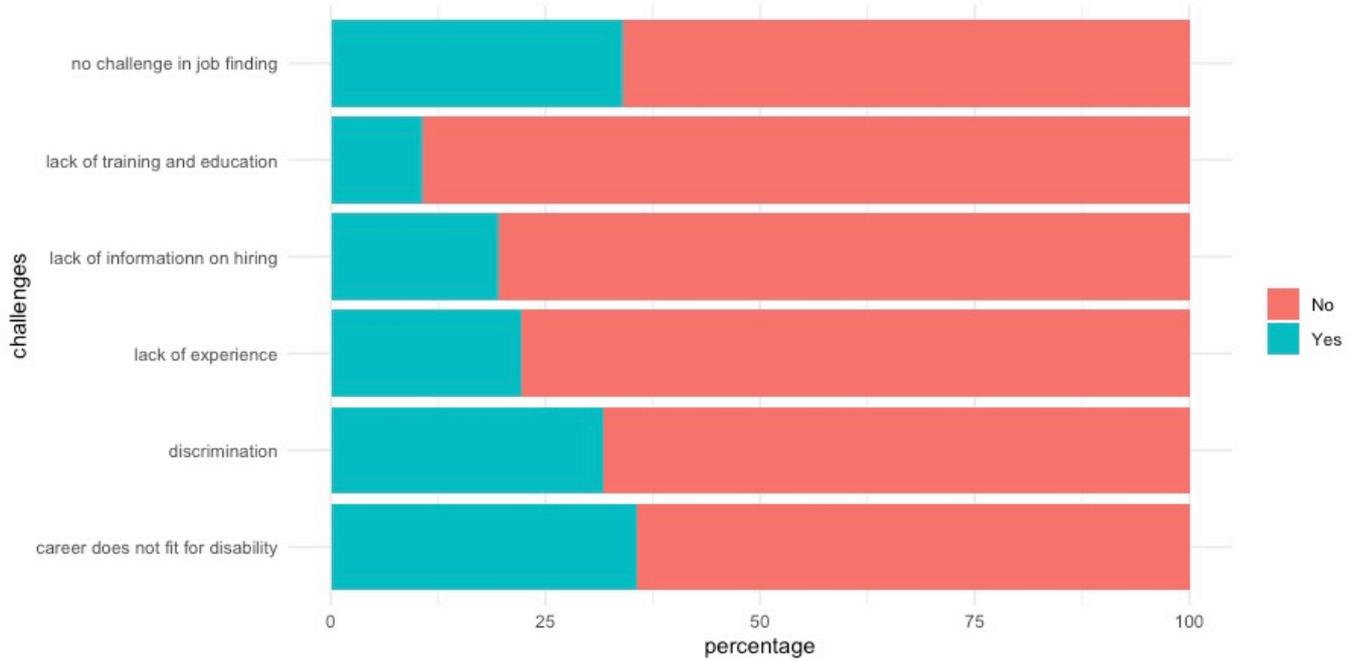
Figure-Appendix-I.8 Respondents encounter specific difficulties while seeking employment as a result of their disability.

2.3)   Have you ever experienced any instances of bias or discrimination during the recruitment process?
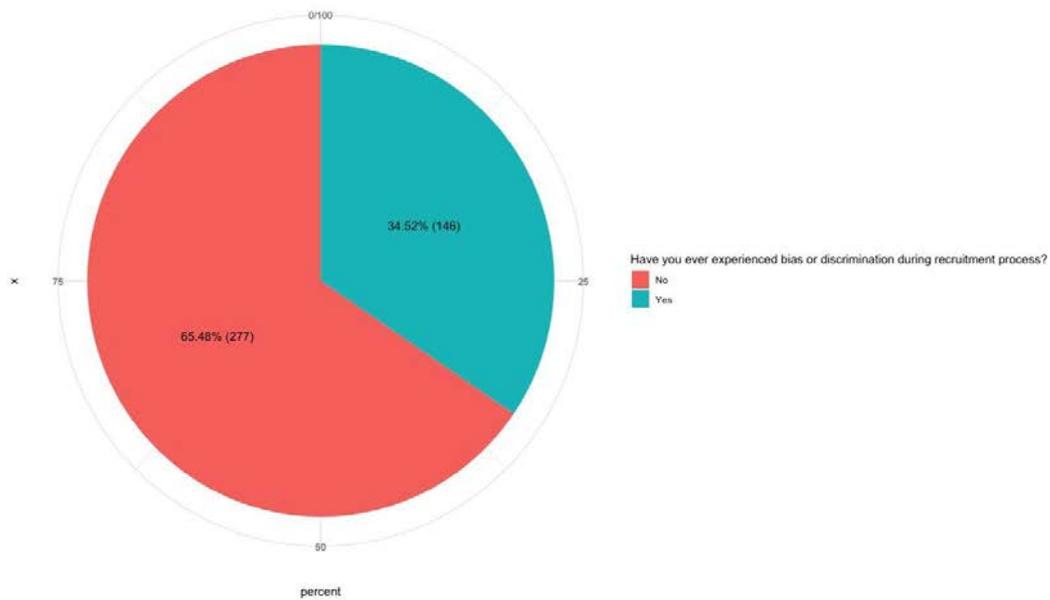
Figure-Appendix-I.9 Have respondents ever experienced any instances of bias or discrimination during the recruitment process?

2.4)   Have you ever received any assistance or support during your job search? If yes, please select the type of assistance/support you have received.
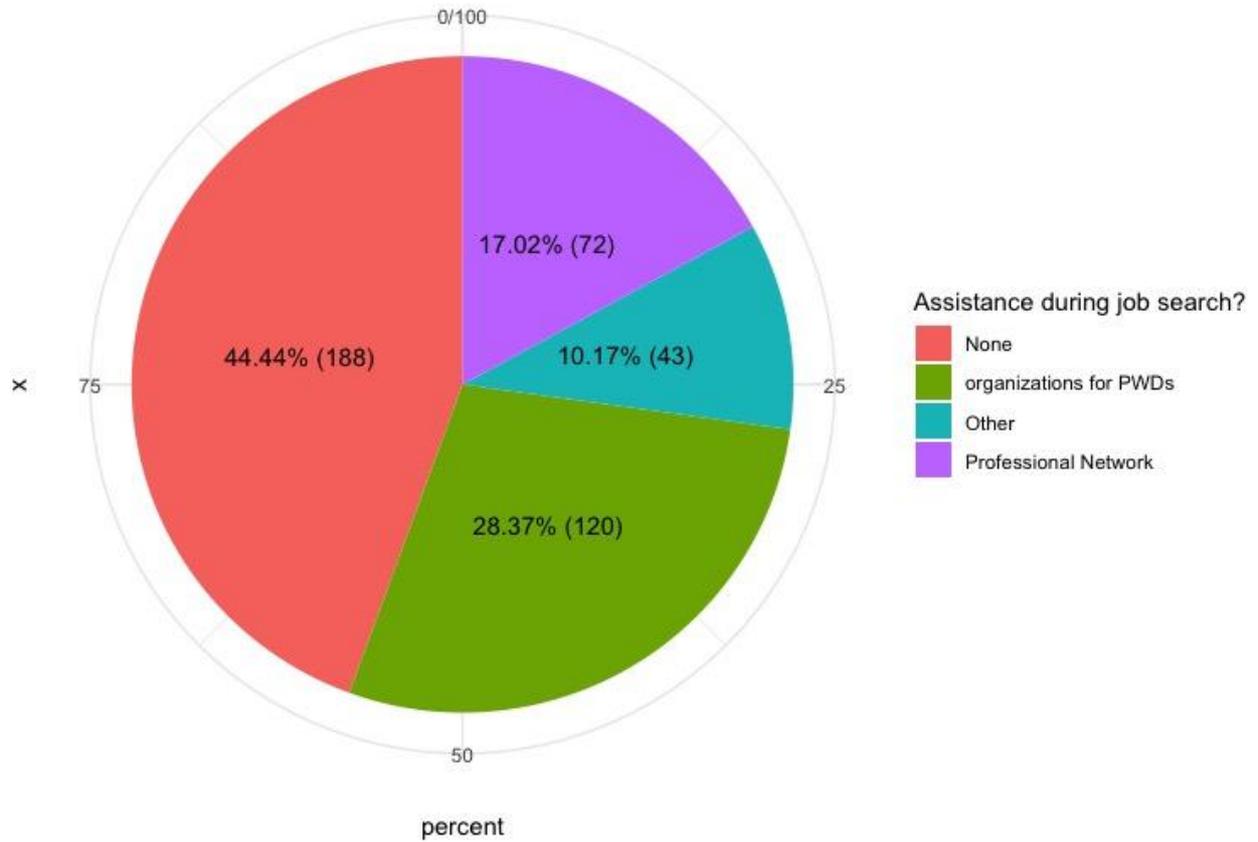
Figure-Appendix-I.10 Have respondents ever received any assistance or support during their job search?

2.5)   Have you ever received any support or assistance from government agencies or organizations in your job search? If so, please describe your experience.
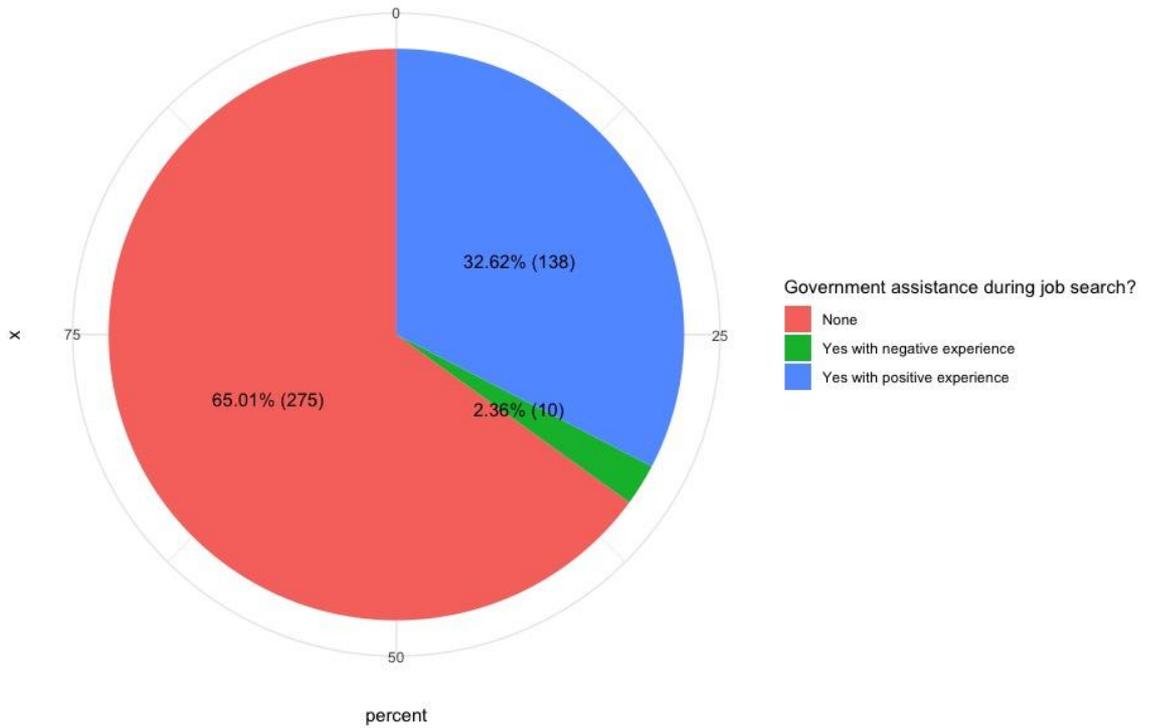
Figure-Appendix-I.11 Have respondents ever received any support or assistance from government agencies or organizations in your job search?

2.6)   Have you ever experienced instances where job opportunities were denied to you based on your disability? If so, please provide additional details.
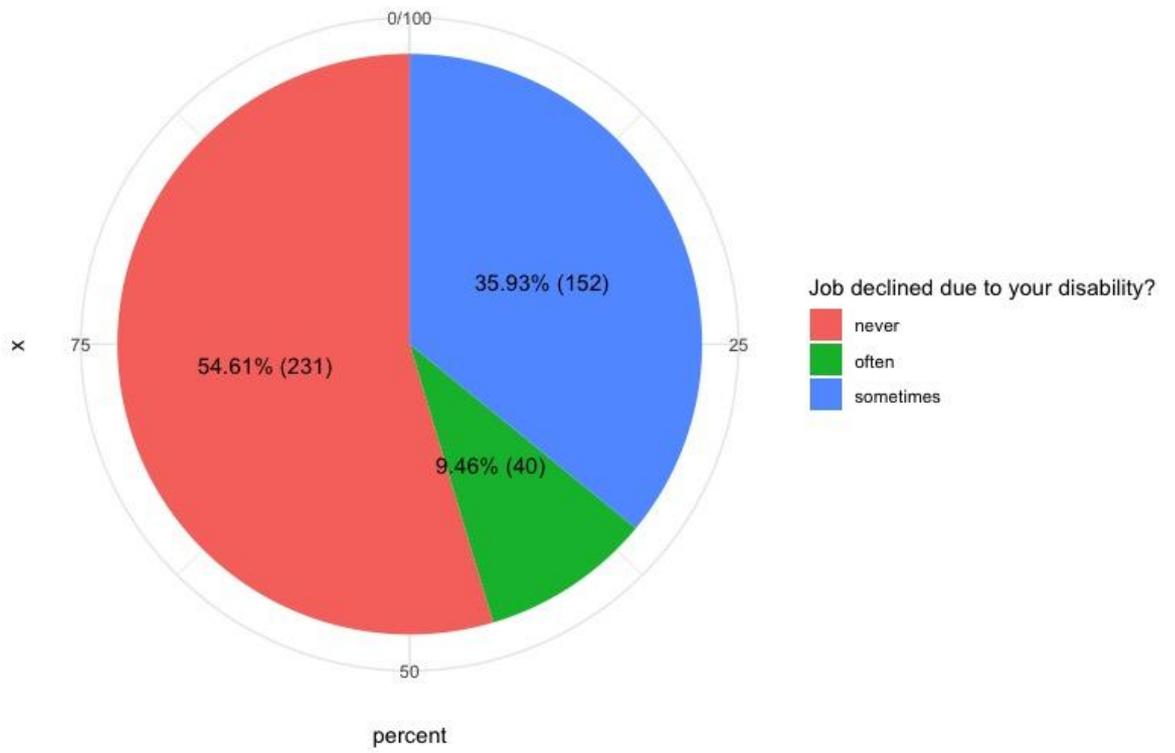
Figure-Appendix-I.12 Have respondents ever experienced instances where job opportunities were denied to you based on your disability?

2.7) Are you familiar with Disability Support Services (DSS) and have you ever used their job finding services?
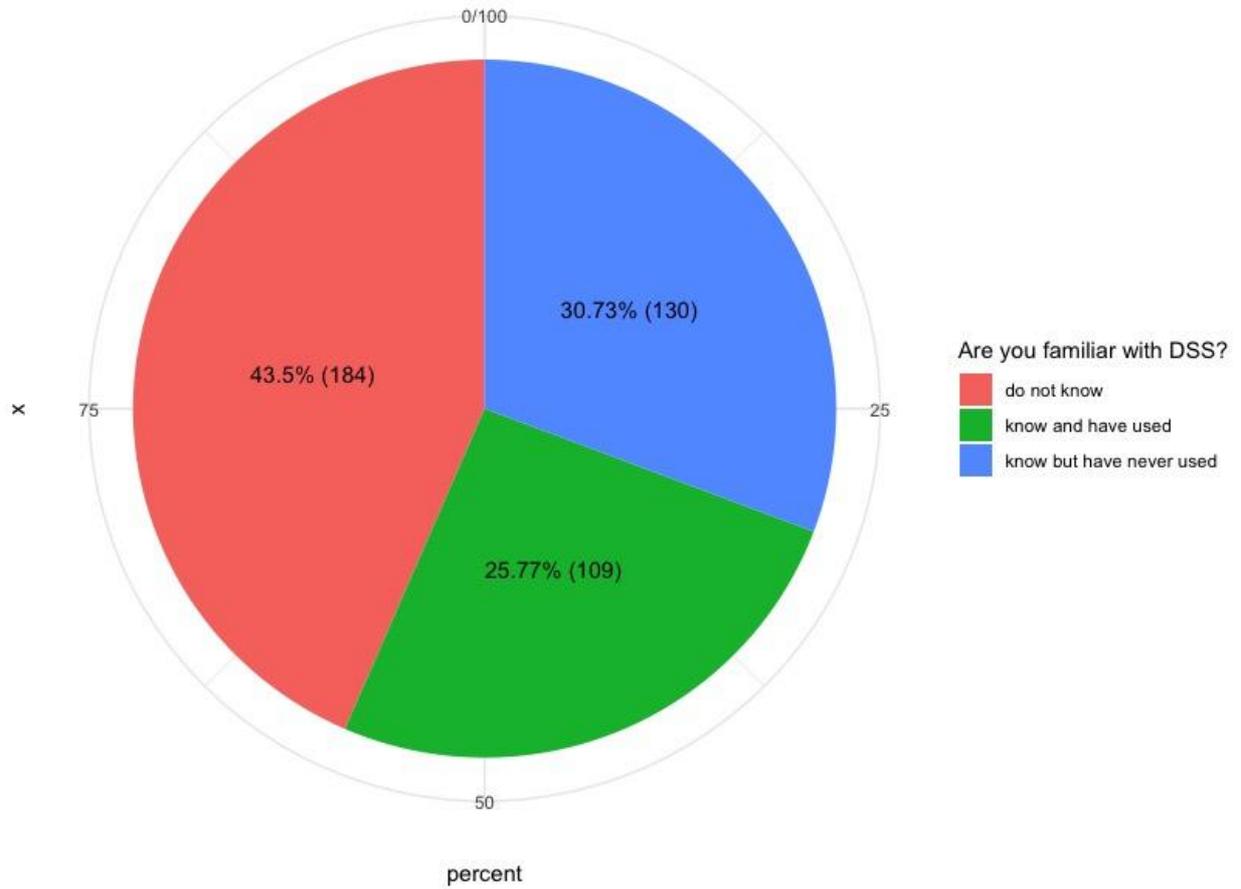
Figure-Appendix-I.13 Have respondents heard of DSS and have they ever used its services?

3.2) Do you work in the field that is directly related to your education?
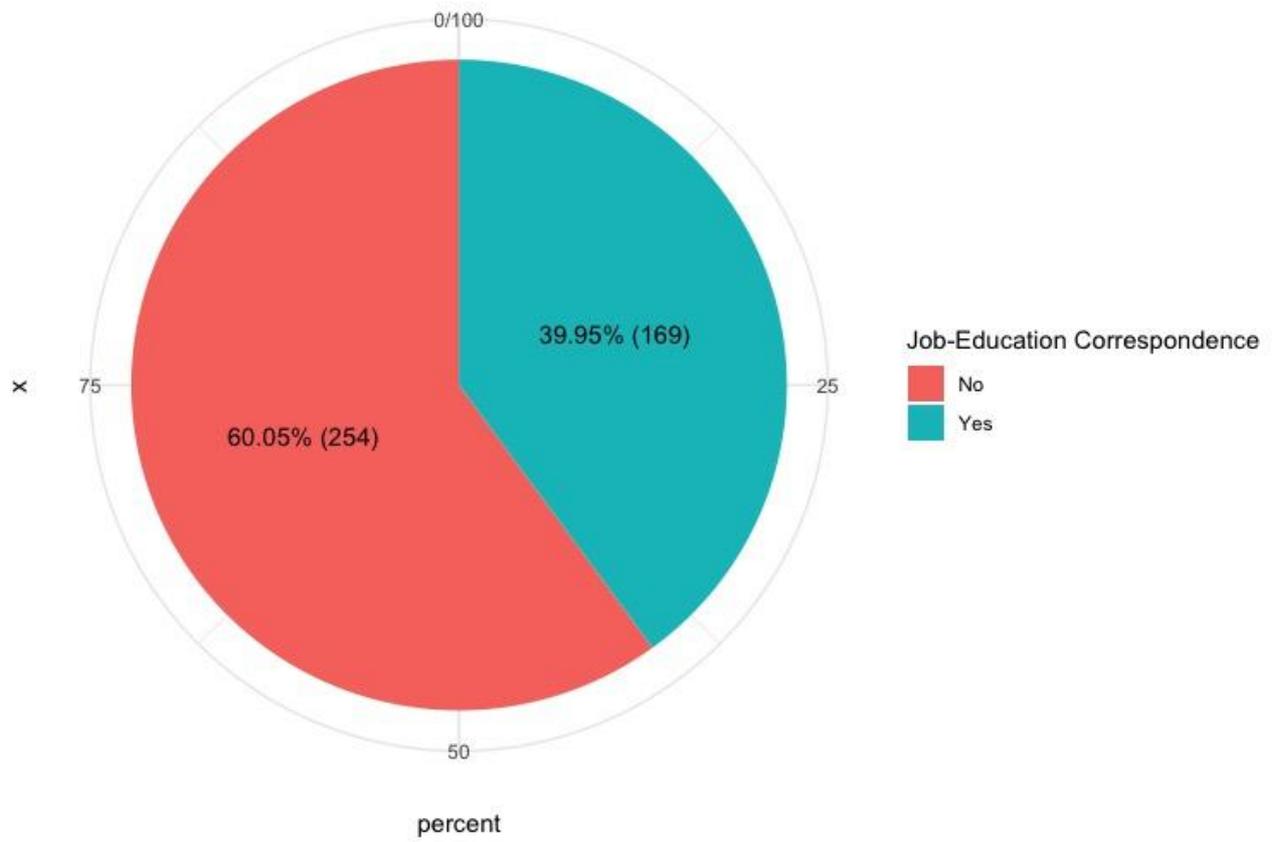
Figure-Appendix-I.14 Respondents Job-Education Correspondence

3.3)   Does your compensation align with your education and your job responsibilities?
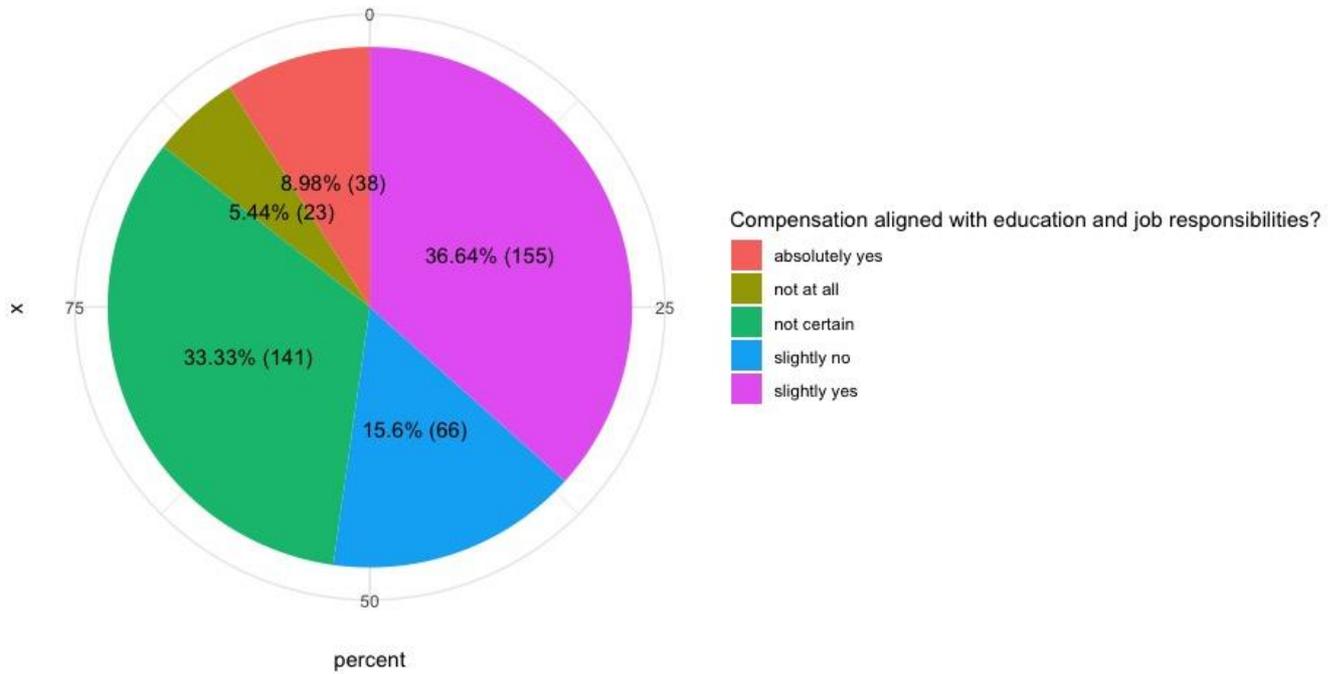
Figure-Appendix-I.15 Respondents Compensation Aligned with Education and Their Job
Responsibilities

3.4)   What is your current or most recent job, and how long have you been working in that position? (histogram)
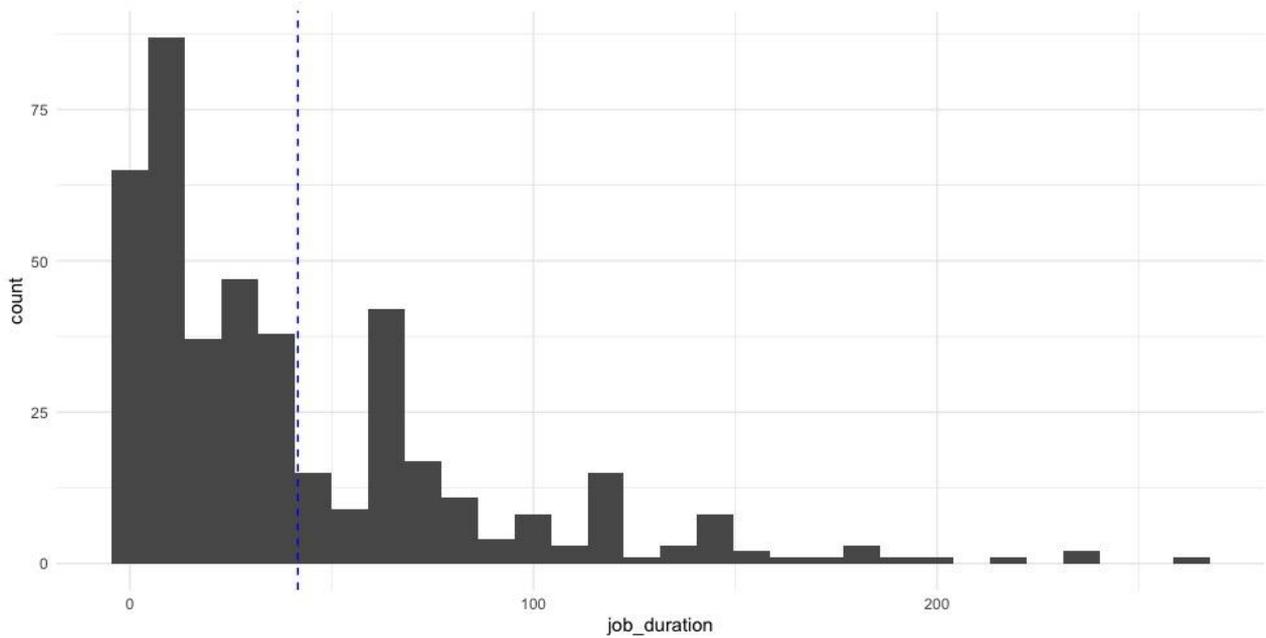
Figure-Appendix-I.16 Respondents Job Duration Current Job

3.4)   What is your current or most recent job, and how long have you been working in that position? (pie chart)
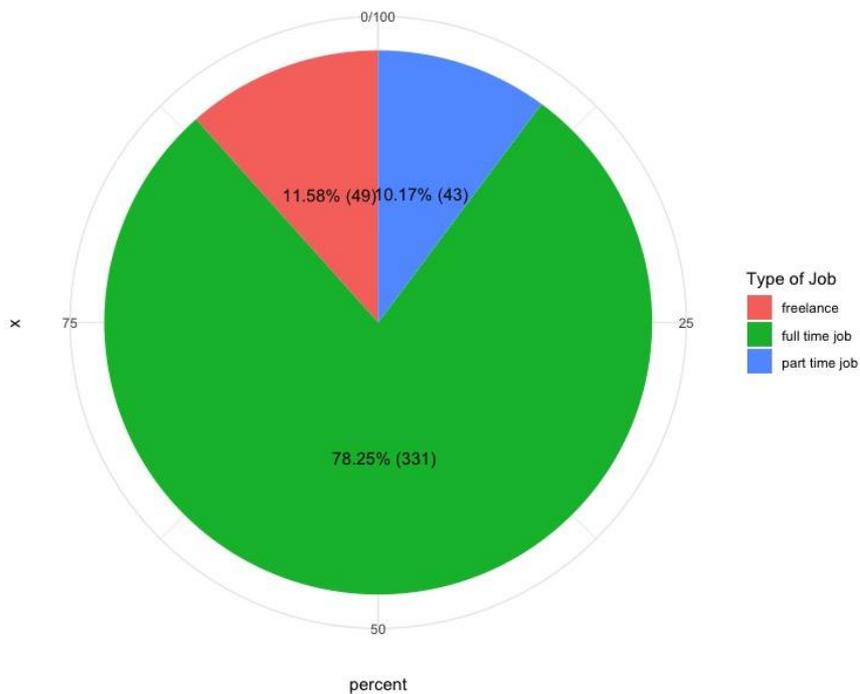
Figure-Appendix-I.17 Respondents' Current Job Type

3.7)   How did you find the previous jobs you mentioned in 3.5? (You can select multiple answers)
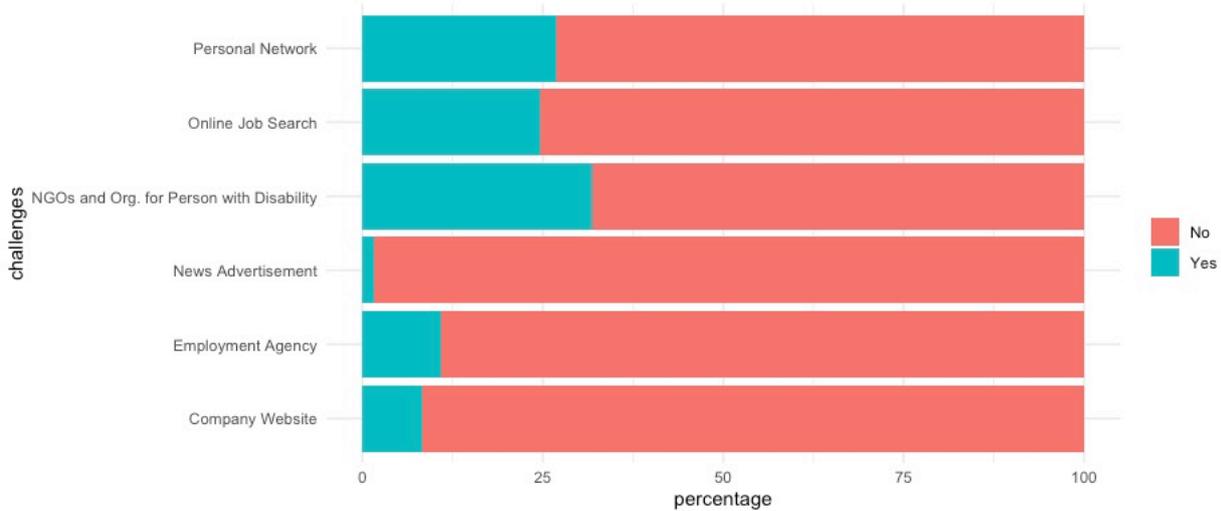
Figure-Appendix-I.18 Respondents find the previous jobs they mentioned in 3.5.

3.8)   In your most recent job, what do you consider to be the three most important skills or abilities that you have contributed to the team? Please rank your answers from 1 to 3, with 1 being the most important.
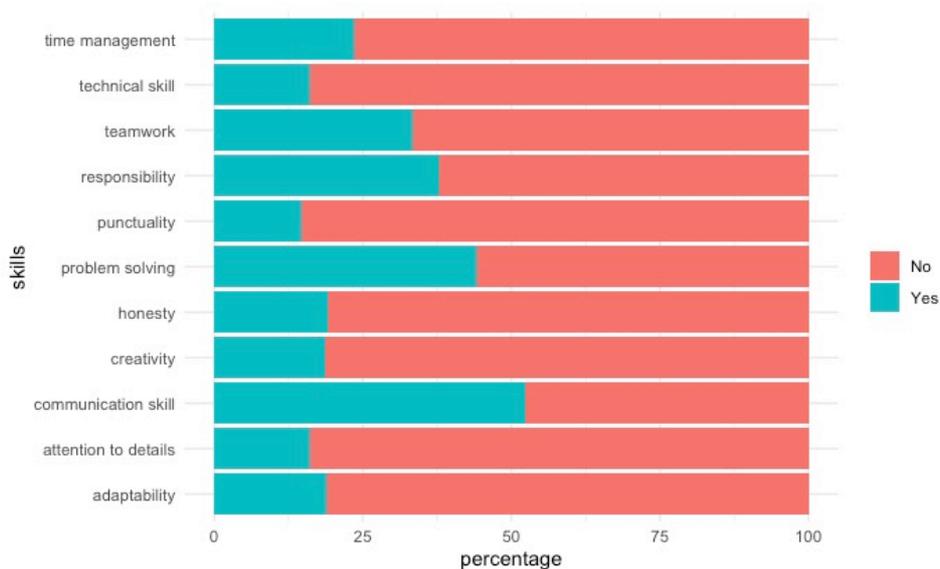
Figure-Appendix-I.19 Respondents consider the important skills or abilities that they have contributed to the team.

3.9)   Are there any other support systems that you think could be beneficial or provide more opportunities for people with disabilities in their job search? Please select no more than two most relevant answers.
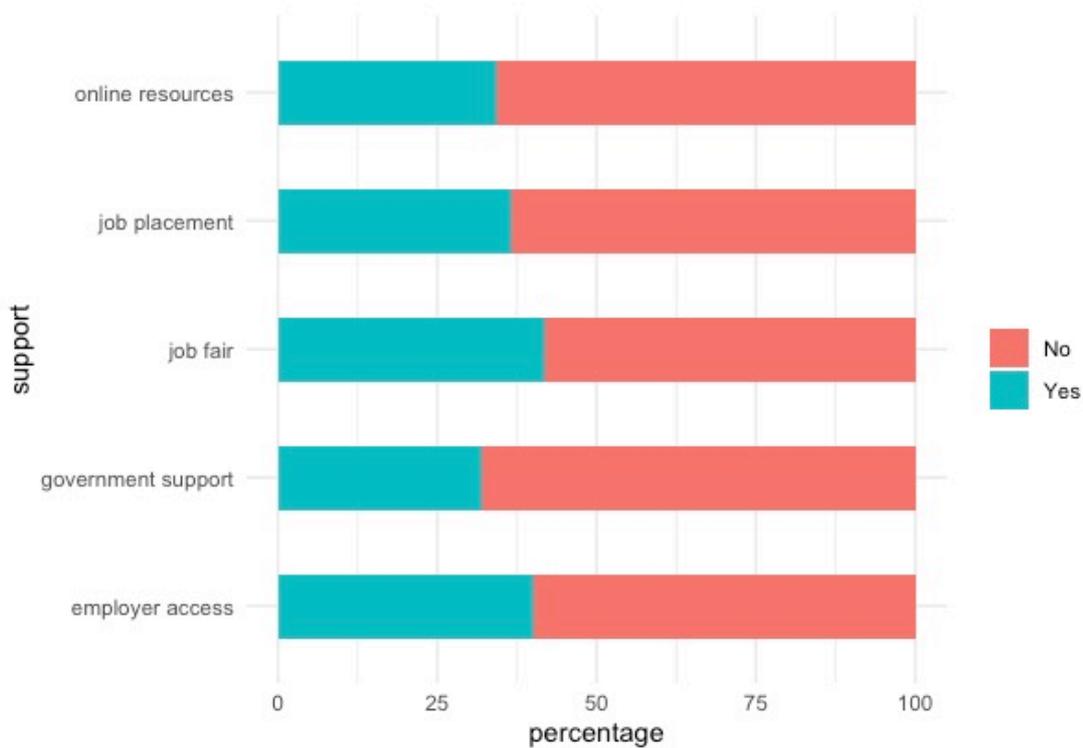
Figure-Appendix-I.20. Are respondents finding the support system beneficial in their job search?

3.10) Which factors contribute to an increased likelihood of hiring People with disabilities?
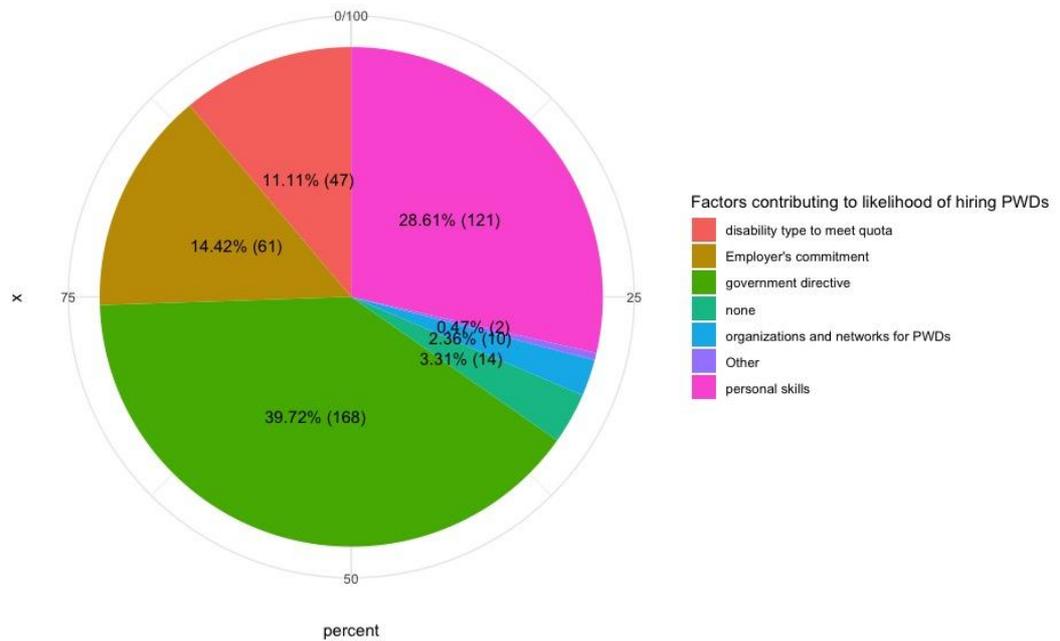
Figure-Appendix-I.21. Factor Contributing to Likelihood of Hiring PWDs

3.11) How do you communicate or disclose your disability to your employers?
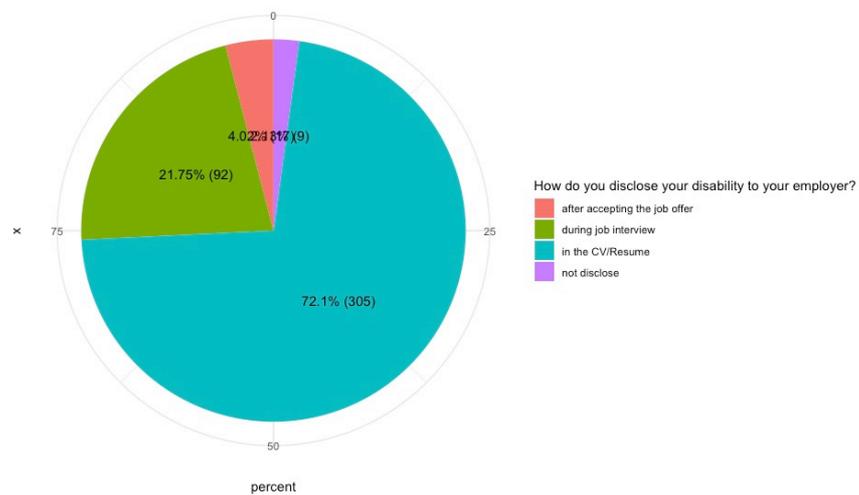
Figure-Appendix-I.22. Respondents communicate or disclose their disability to their employers.

3.12) In your opinion, do you think that disclosing your disability to employers has a positive or negative impact on your job prospects?
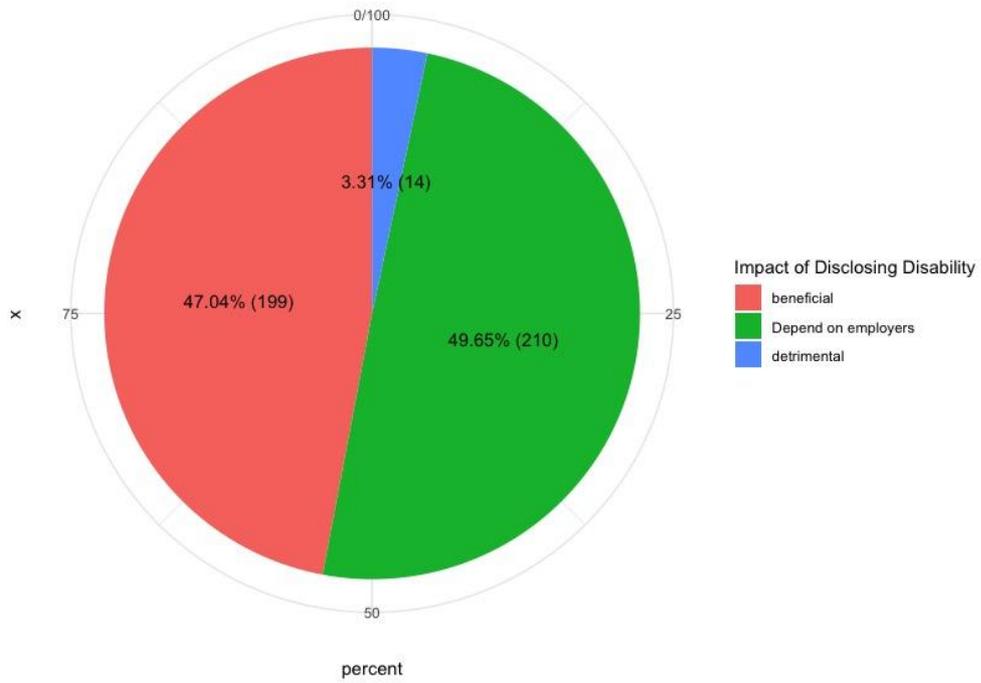
Figure-Appendix-I.23 Respondents' Opinions on the Impact of Disclosing Their Disability

3.13)   Do you have any specific needs for accommodation or support in the workplace? If yes, have you received accommodations that enable you to perform your job efficiently? Please specify the type of support or accommodation you have received.
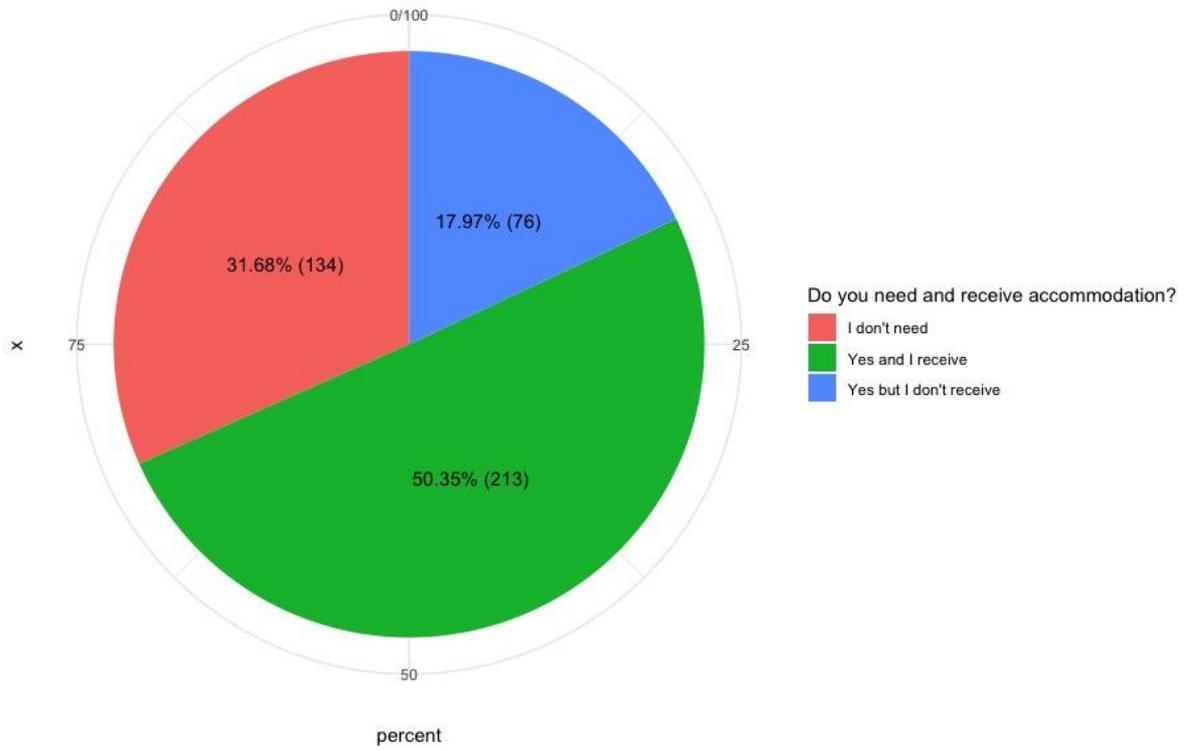
Figure-Appendix-I.24 Do respondents have any specific needs for accommodation or support in the workplace?

3.14) How do you effectively navigate and manage your disability in the workplace? Have you developed any specific strategies or techniques that have proven successful for you? (You may choose multiple options)
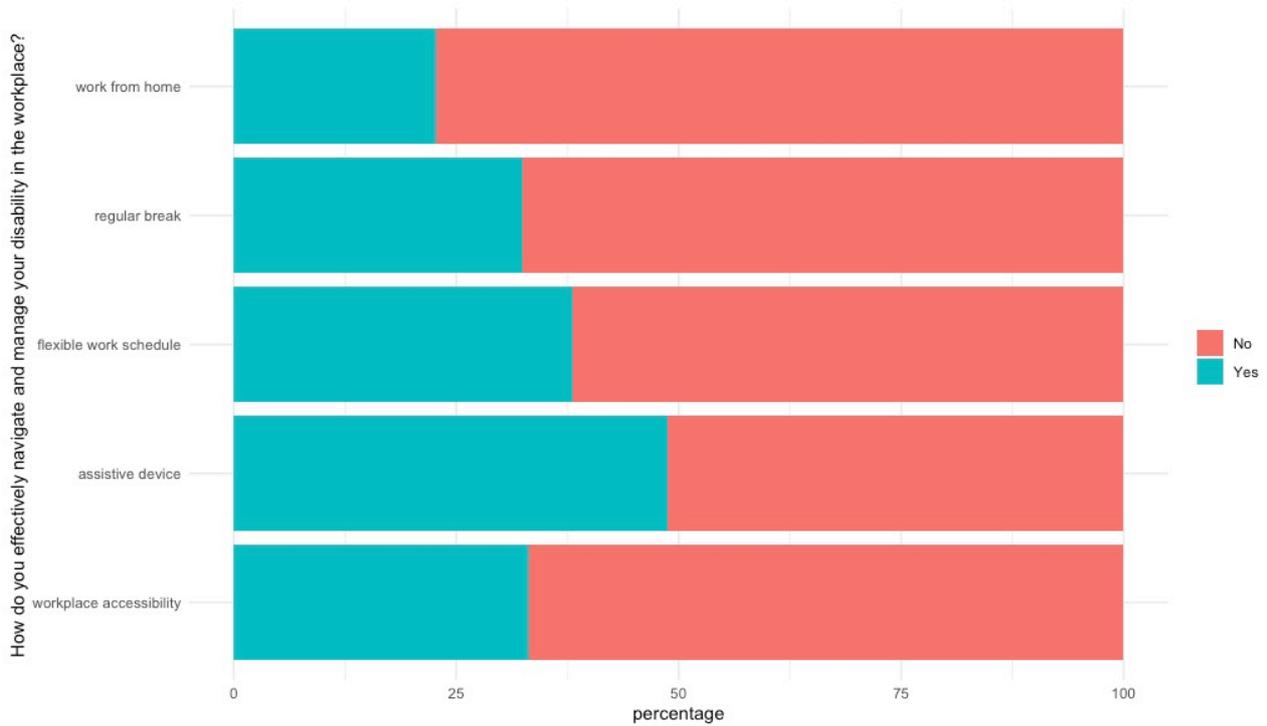
Figure-Appendix-I.25 Respondents developed any specific strategies or techniques that have proven successful.

3.15) Do you encounter challenges in advancing within the company you work for due to your disability? If so, please provide the reasons behind your response.
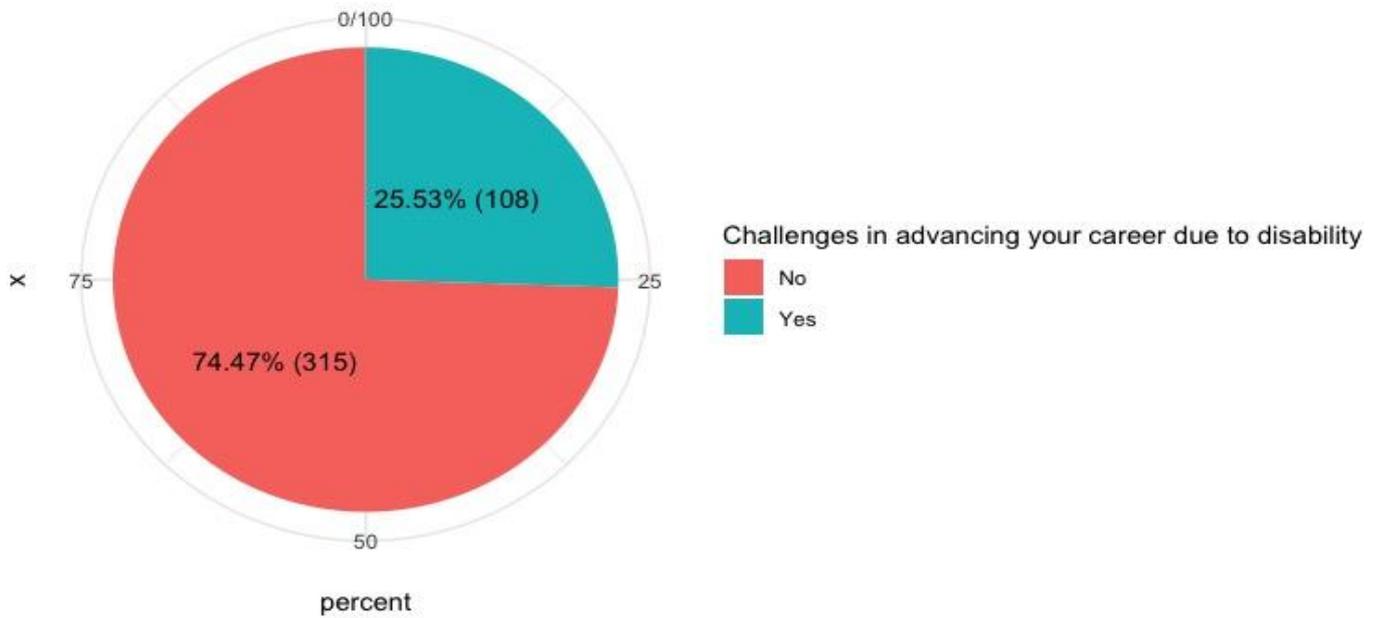
Figure-Appendix-I.26 Respondents' challenges in advancing their careers due to disability.

3.16) Which specific supports or resources do you need to maintain employment? (You may choose multiple options)
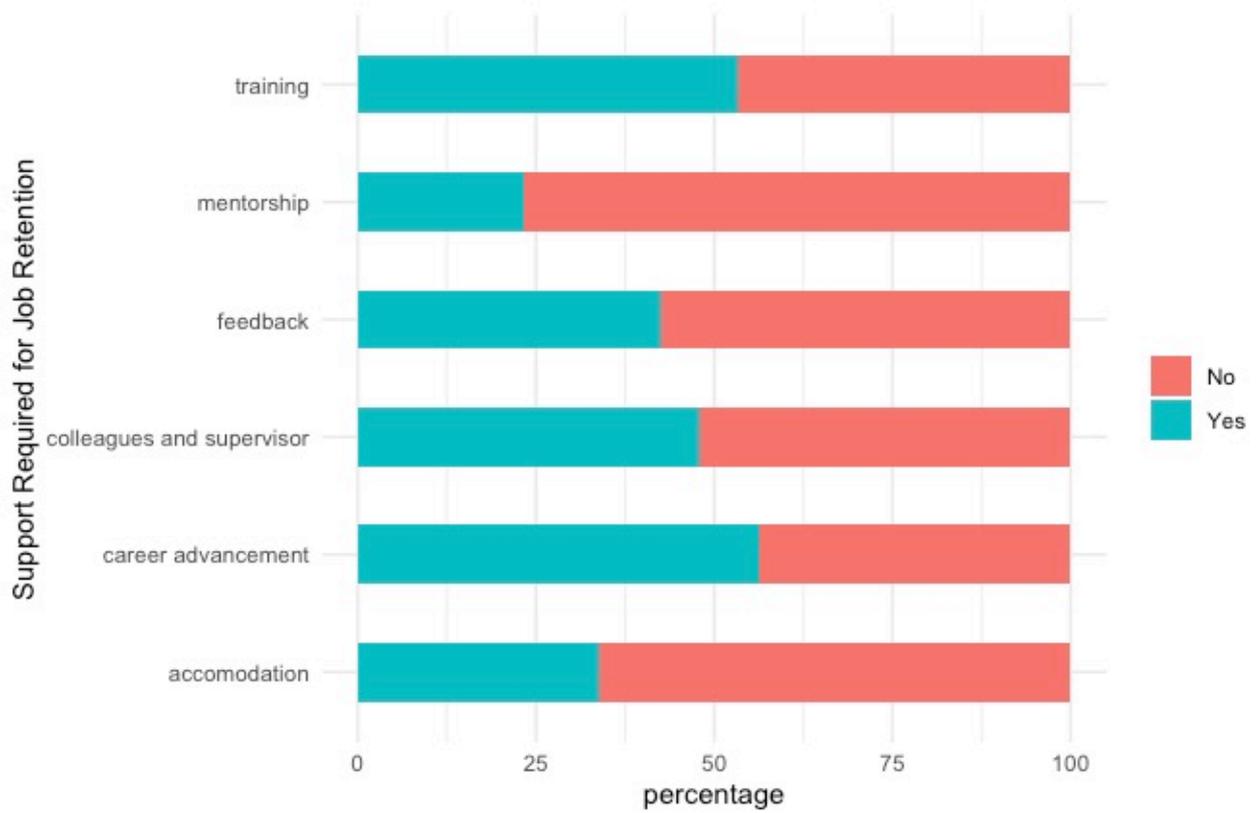
Figure-Appendix-I.27 Respondents need support or resources to maintain employment.

3.17) Have you been given opportunities for training or development in your workplace to help you grow professionally?
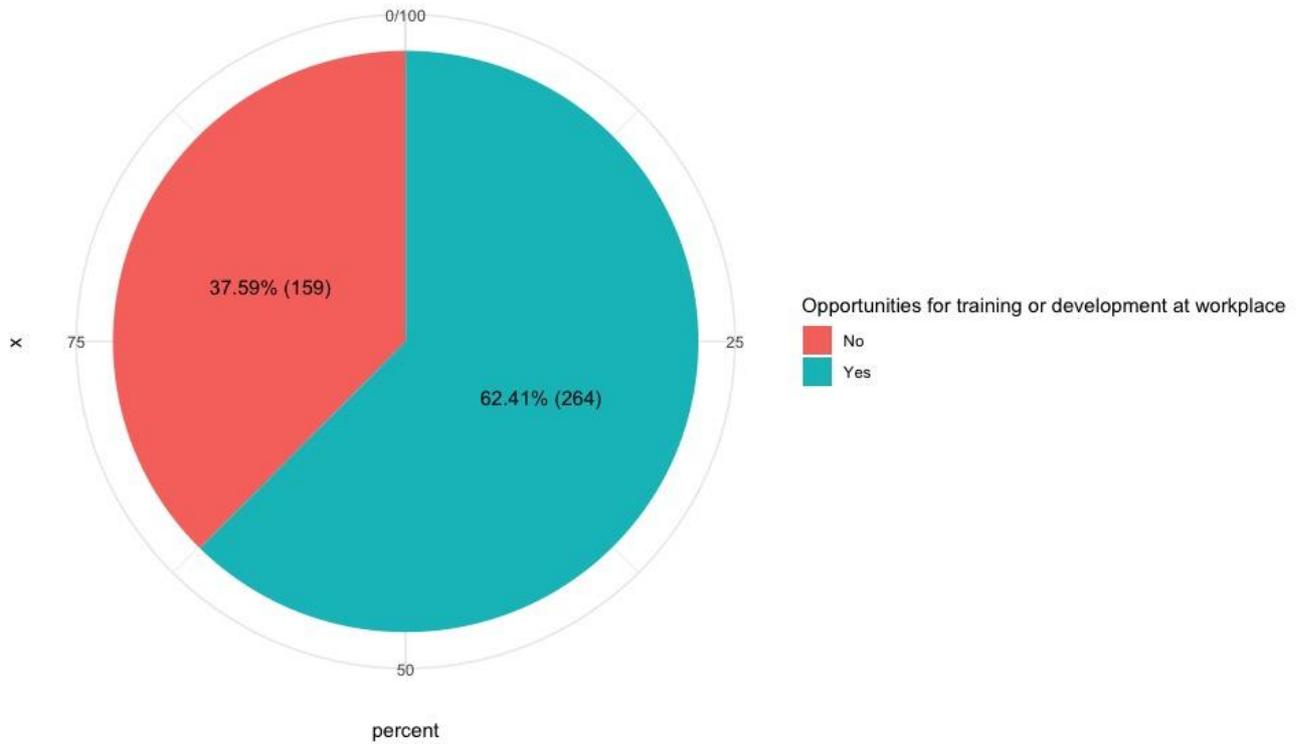
Figure-Appendix-I.28 Have respondents been given opportunities for training or development in your workplace to help them grow professionally?

3.18) Do you feel that your employer understands the needs and capabilities of People with disabilities?
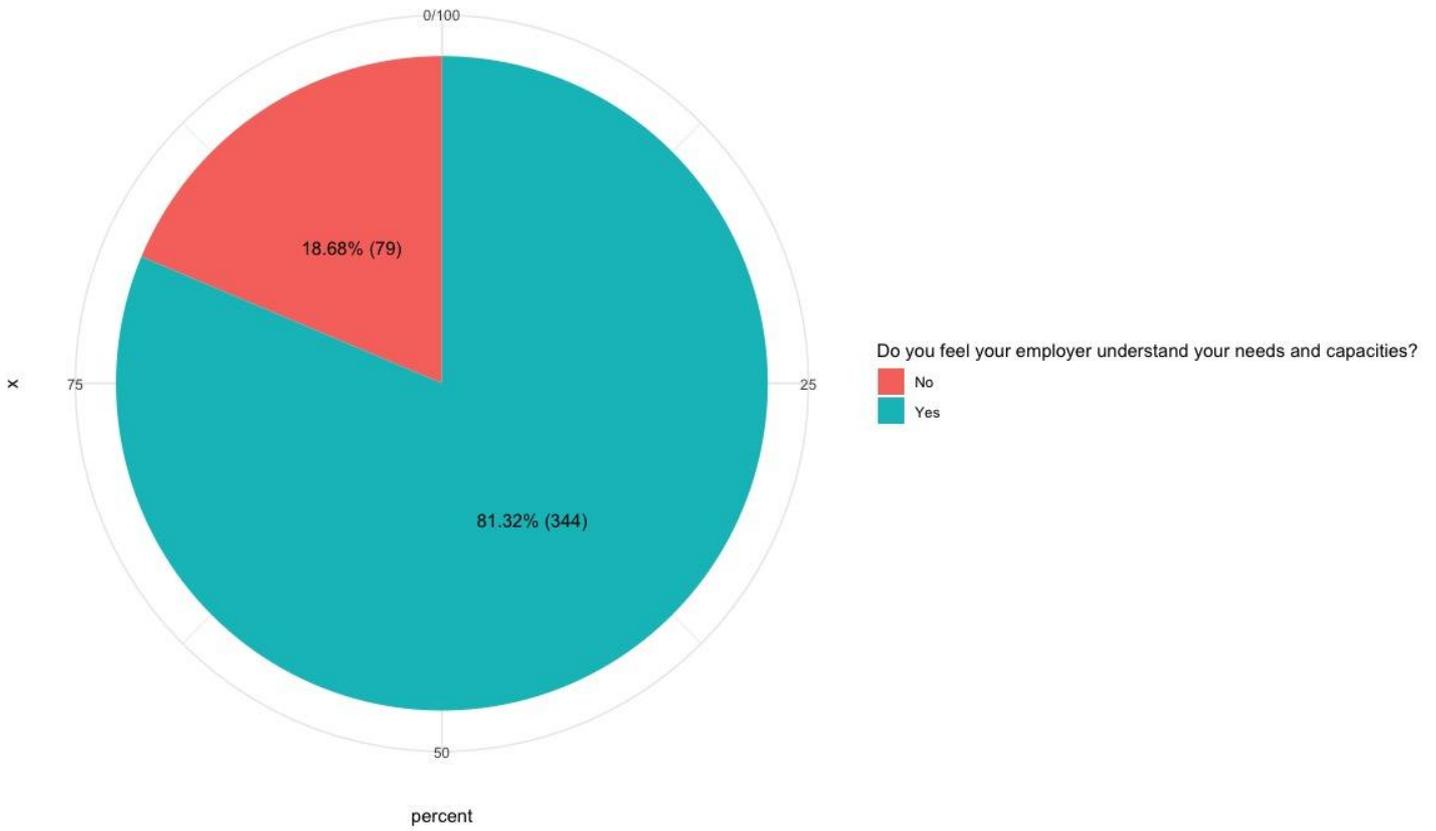
Figure-Appendix-I.29 Respondents feel their employer understand their needs and capacities of people with disability.

3.19) Do you feel that your employer has a responsibility to provide appropriate accommodations for employees with disabilities?
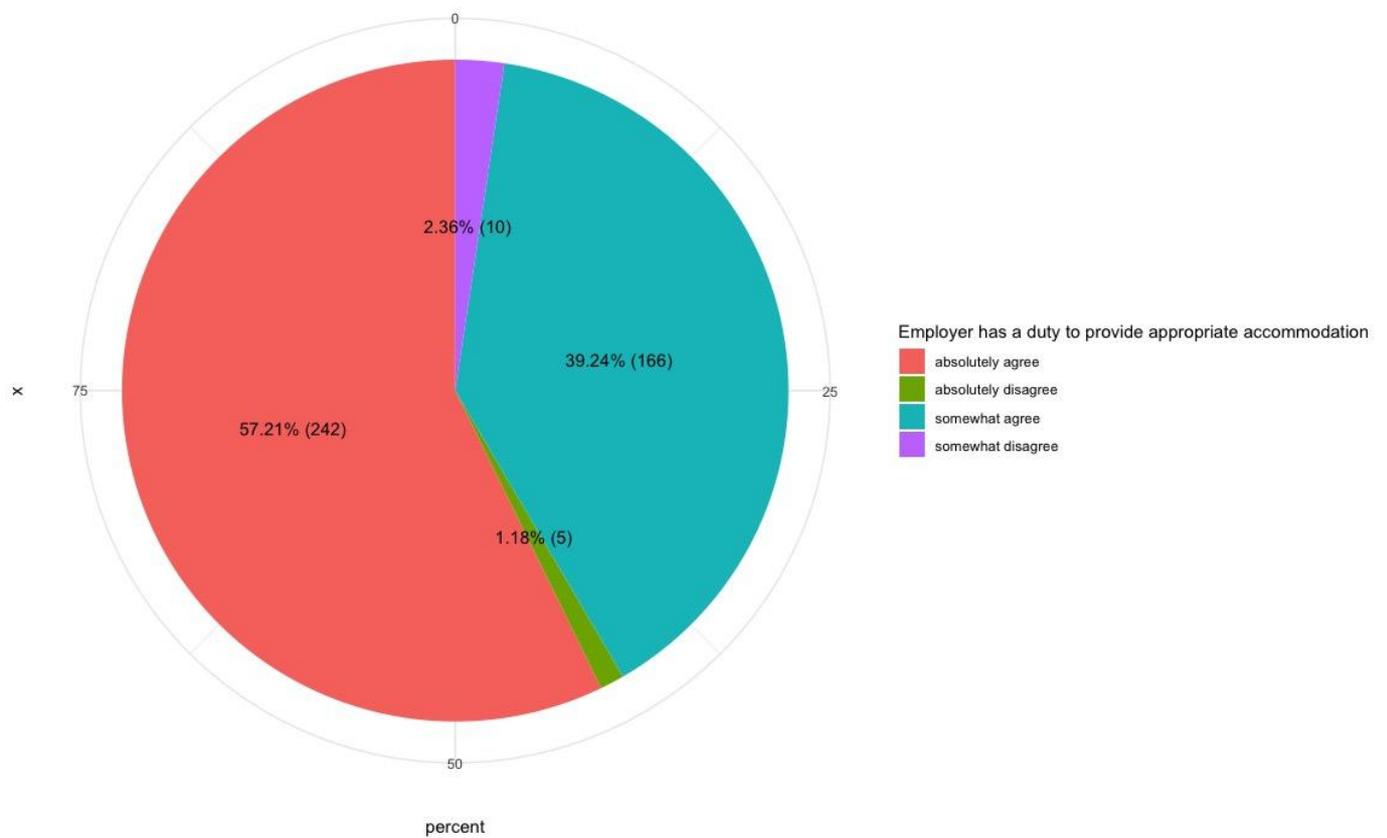
Figure-Appendix-I.30 Respondents feel a responsibility to provide appropriate accommodations for employees with disabilities.

3.20)   Have you received sufficient training or support from your employer in terms of guidance to workplace accommodation or overcoming barriers?
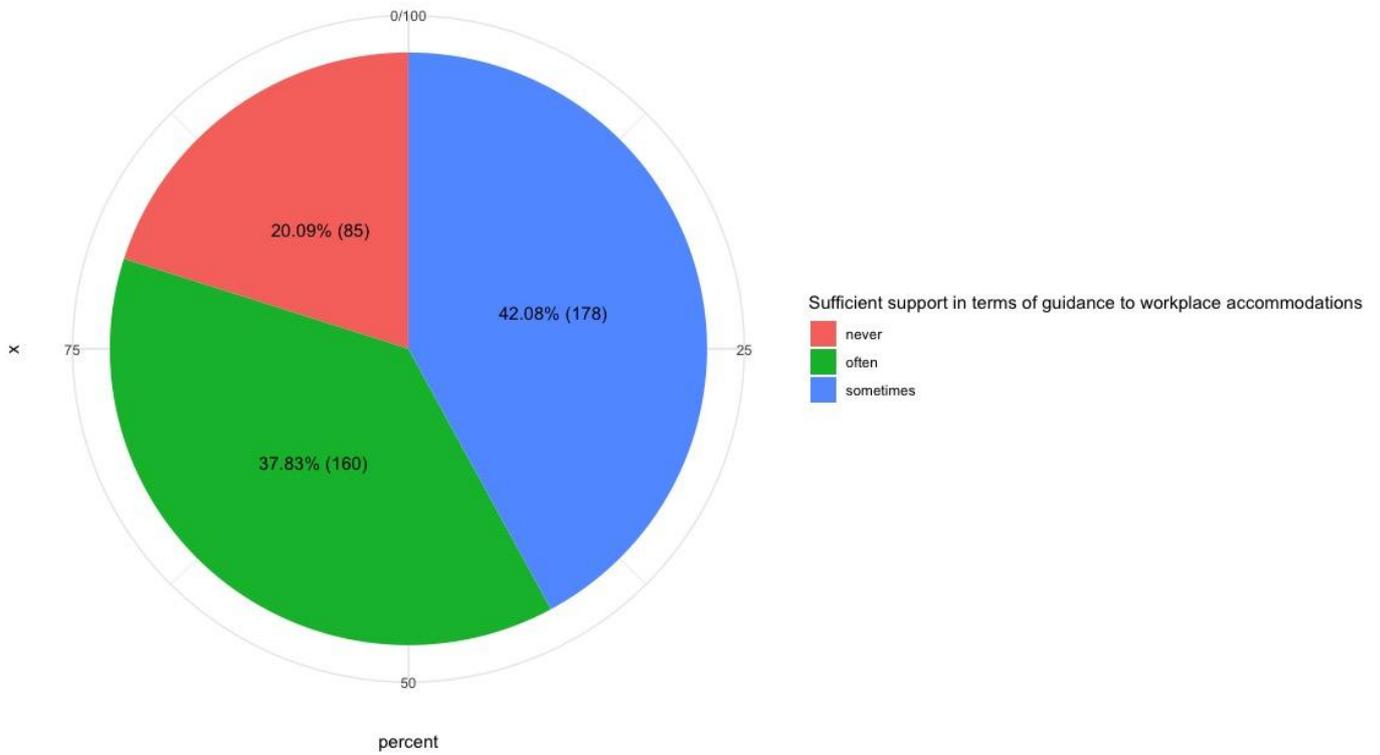
Figure-Appendix-I.31 Have respondents received sufficient training or support from their employer regarding guidance on workplace accommodations or overcoming barriers?

3.21) Have you ever encountered instances of discrimination or faced negative attitudes from colleagues or supervisors in the workplace based on your disability? If so, could you please share an example to further illustrate your experience?
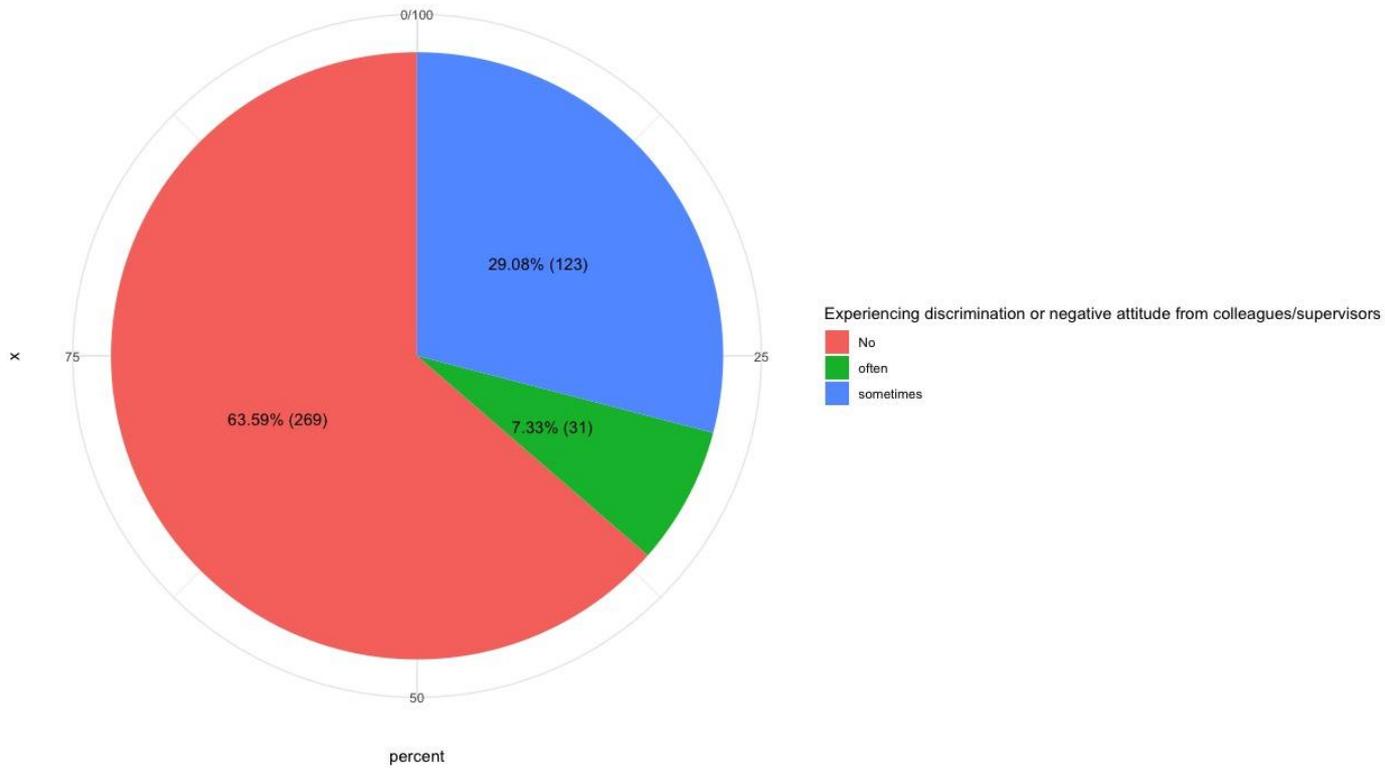
Figure-Appendix-I.32 Have respondents encountered instances of discrimination or faced negative attitudes from colleagues or supervisors in the workplace based on your disability?

4.1) What was the reason for changing jobs in the past? (You can select more than one answer.)
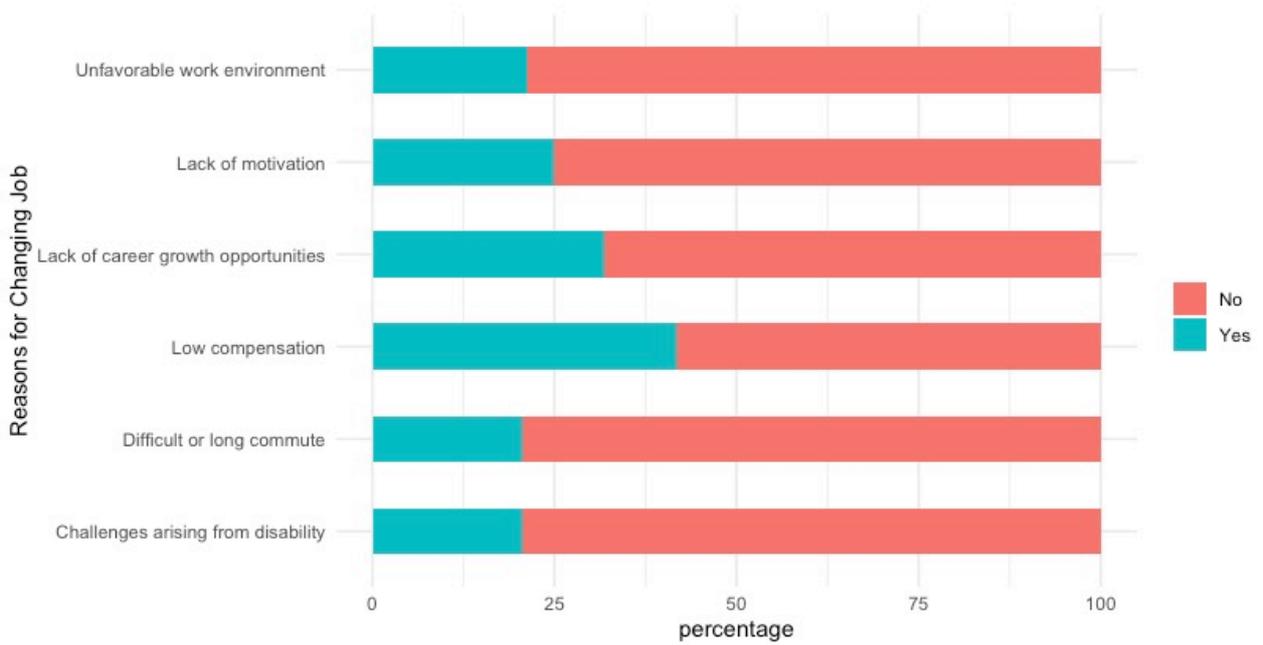
Figure-Appendix-I.33 The reason respondents changed jobs in the past.

4.2) Have you encountered difficulties related to your disability that have caused you to contemplate leaving a job?
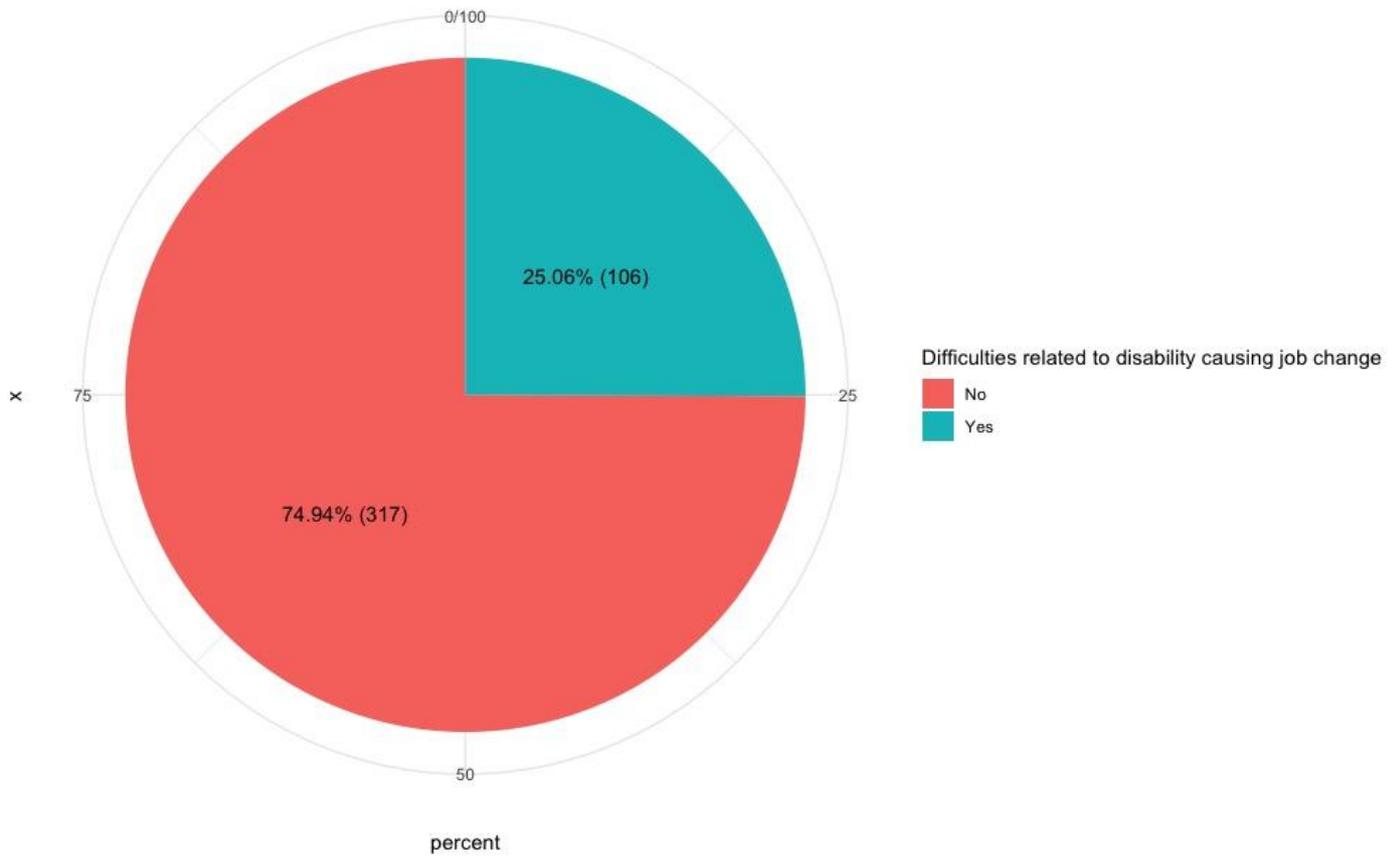
Figure-Appendix-I.34 Have respondents difficulties related to your disability that have caused you to contemplate leaving a job?

4.3)   Which factors contribute to your current job retention? (You can select more than one answer)
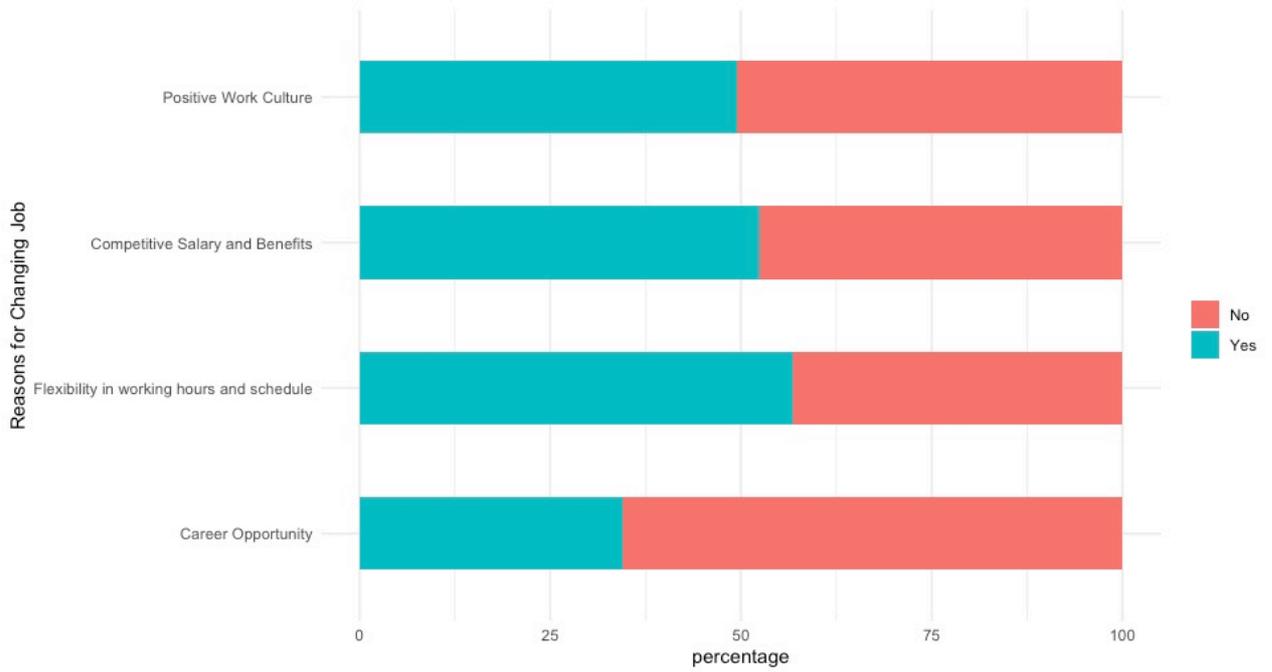
Figure-Appendix-I.35 Which factors contribute to respondents' current job retention?

4.4) Which additional support systems do you believe would be beneficial for People with disabilities in gaining and maintaining employment? Please provide further explanation.
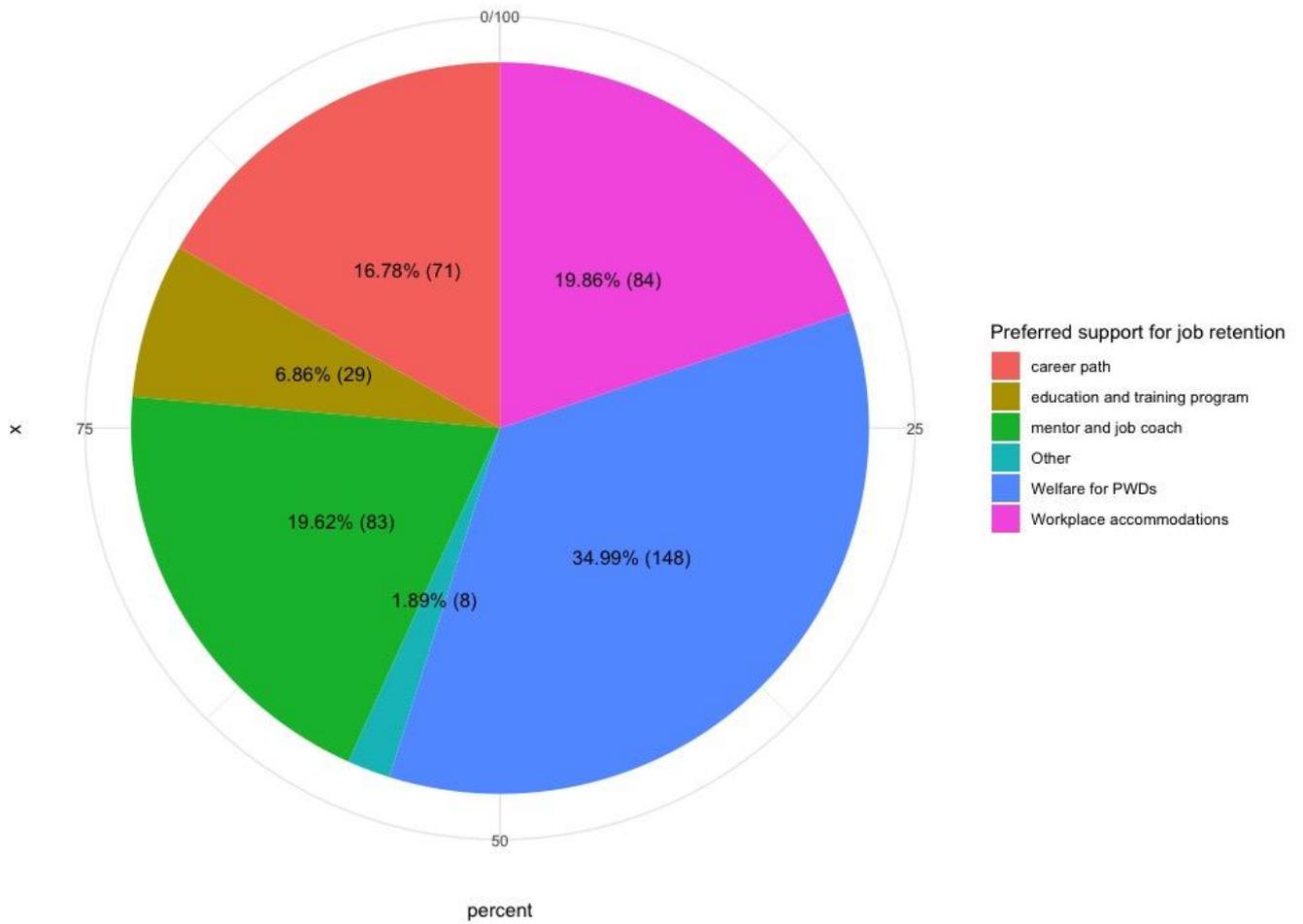
Figure-Appendix-I.36 Respondents' Preferred Support for Job Retention.

4.5)   Have you faced any obstacles or barriers in securing employment as a result of your disability? Please specify.
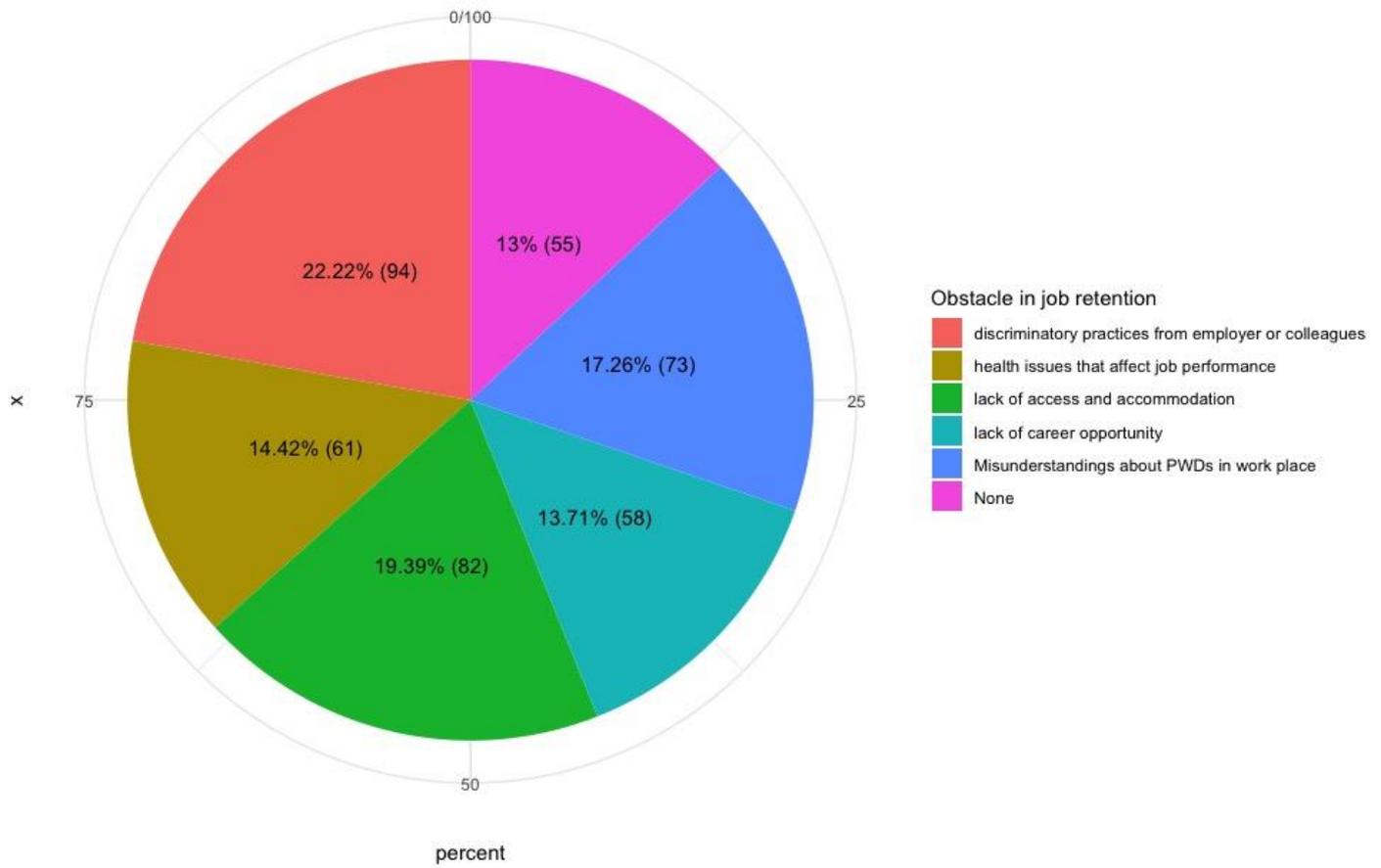
Figure-Appendix-I.37 Respondents' obstacles in job retention.

4.6)   Which skills or abilities in people with disabilities that employers should be aware of?
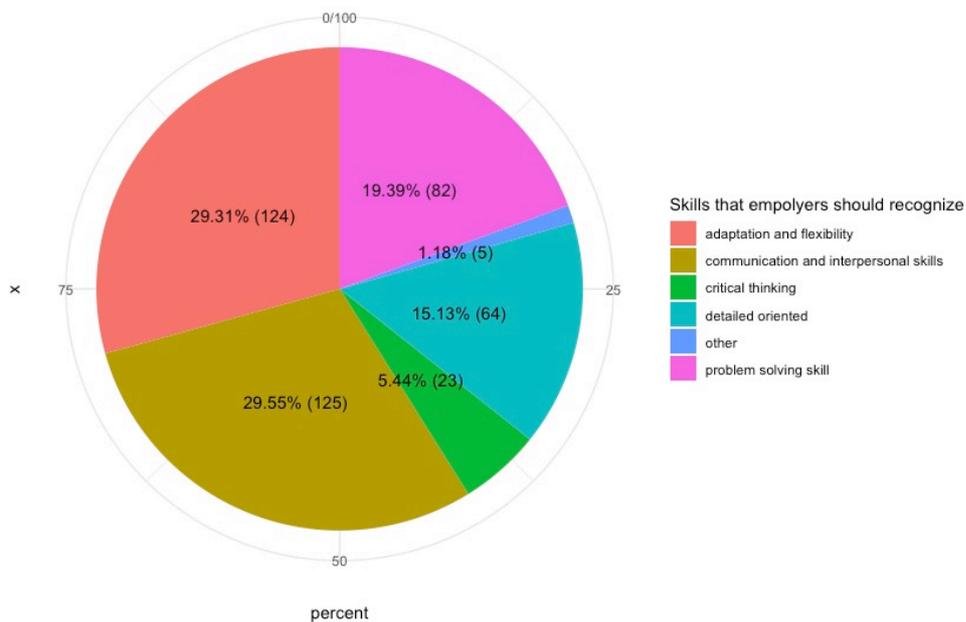
Figure-Appendix-I.38 Which skills or abilities in people with disabilities that employers should be aware of?

4.7)   Which type of training or support would be most beneficial for you in maintaining employment?
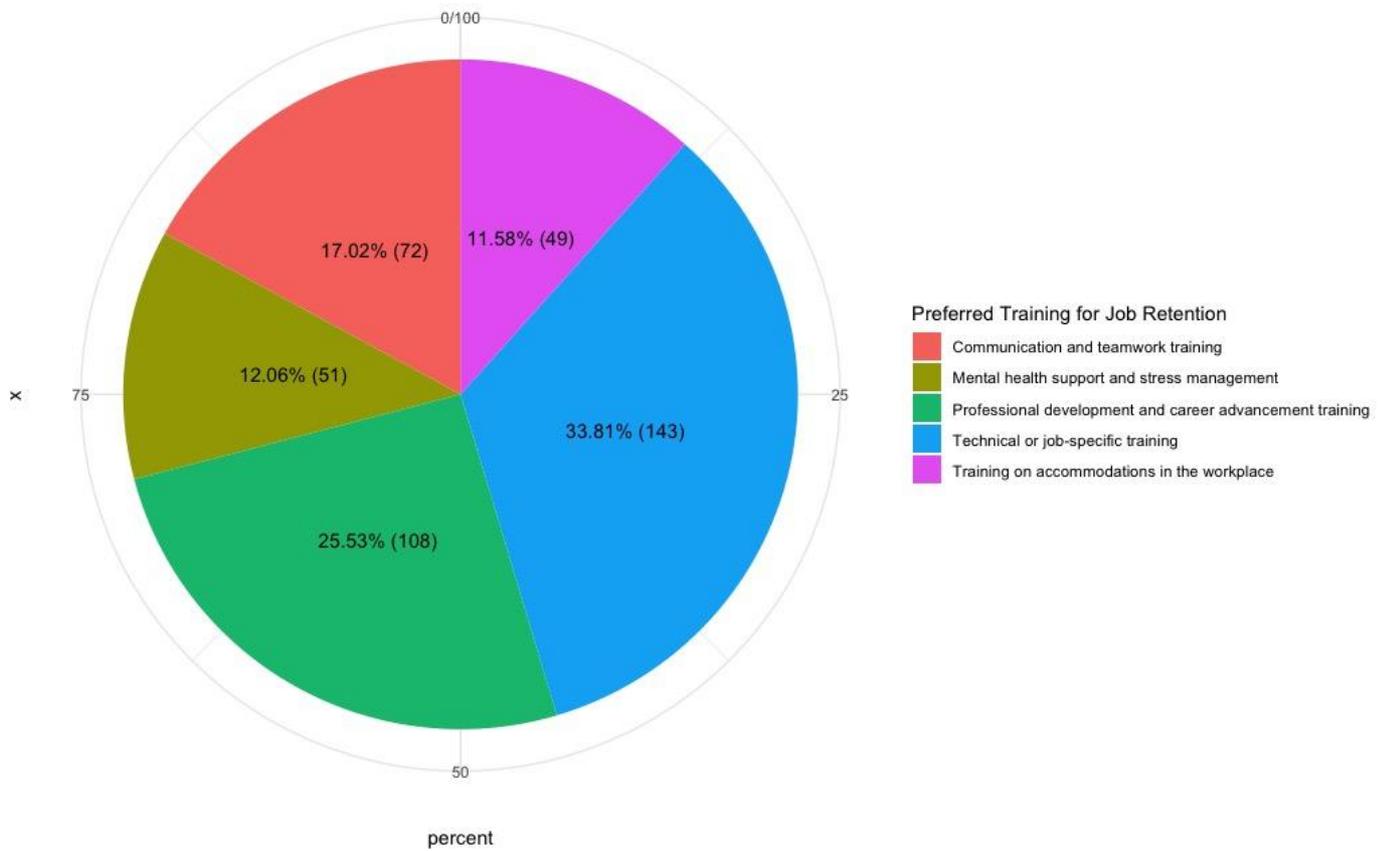
Figure-Appendix-I.39 Respondents' Preferred Training for Job Retention

5.1) How satisfied are you with your current job? Please let us know the reasons.
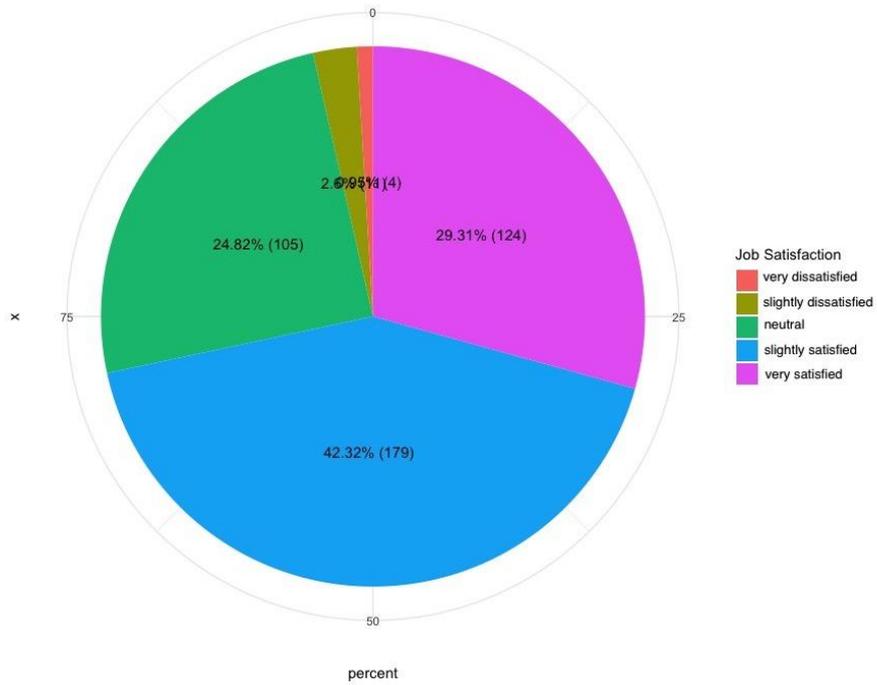
Figure-Appendix-I.40 Respondents' Job Satisfaction

5.2) Which type of job do you hope to have in the future?
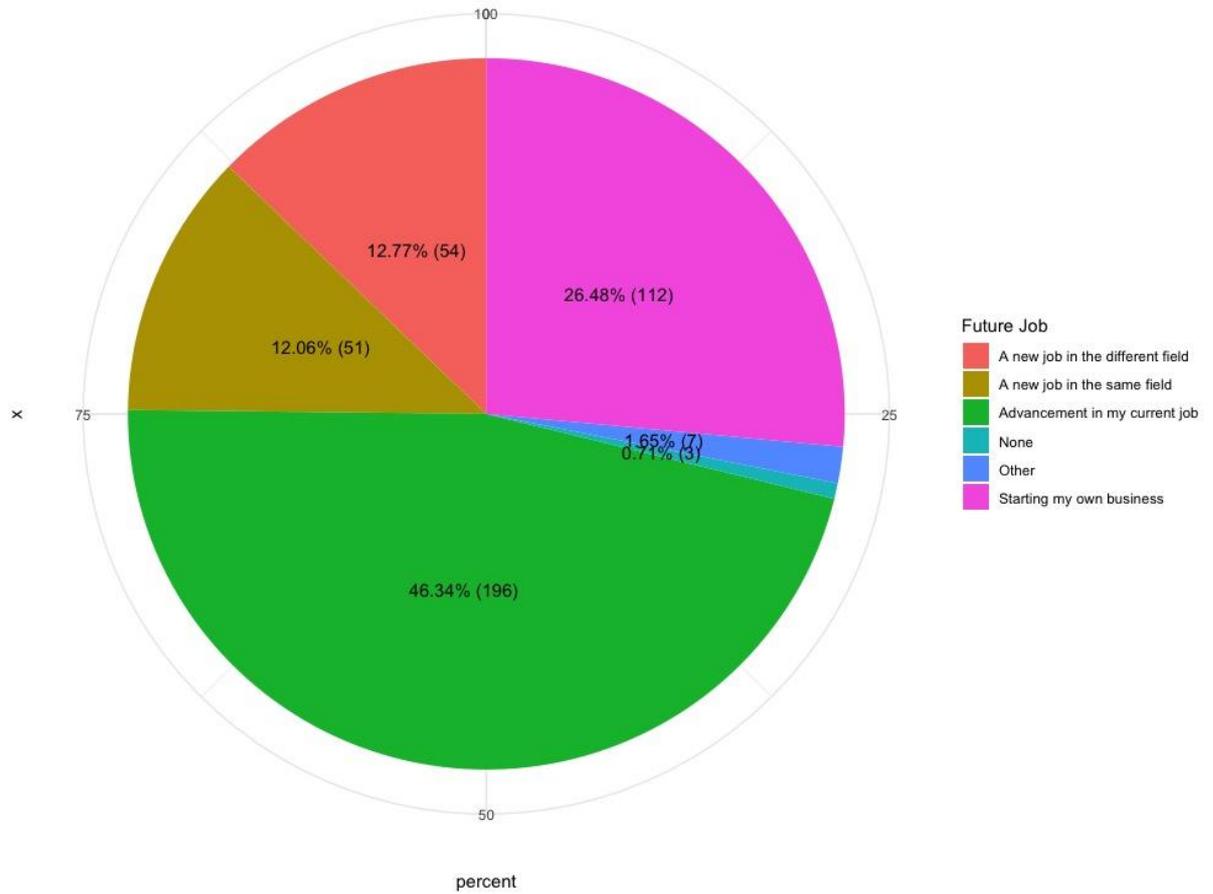
Figure-Appendix-I.41 Respondents Hope to Have a Certain Type of Job in the Future.

5.3) What is your career goal in the next five years?
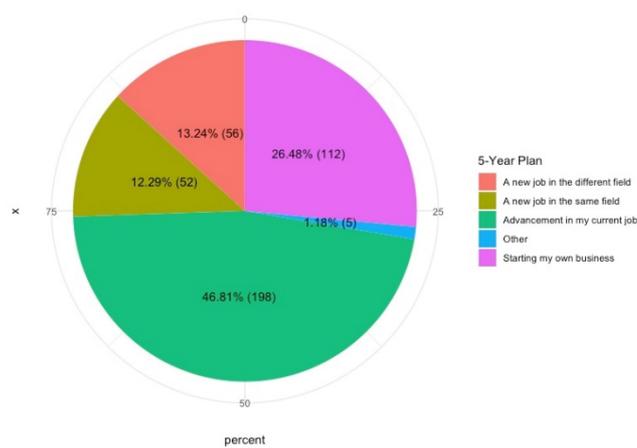
Figure-Appendix-I.42 Respondents career goal in the next five years

5.4) Which skills or experiences do you need to achieve your career goals? Please select no more than three answers.
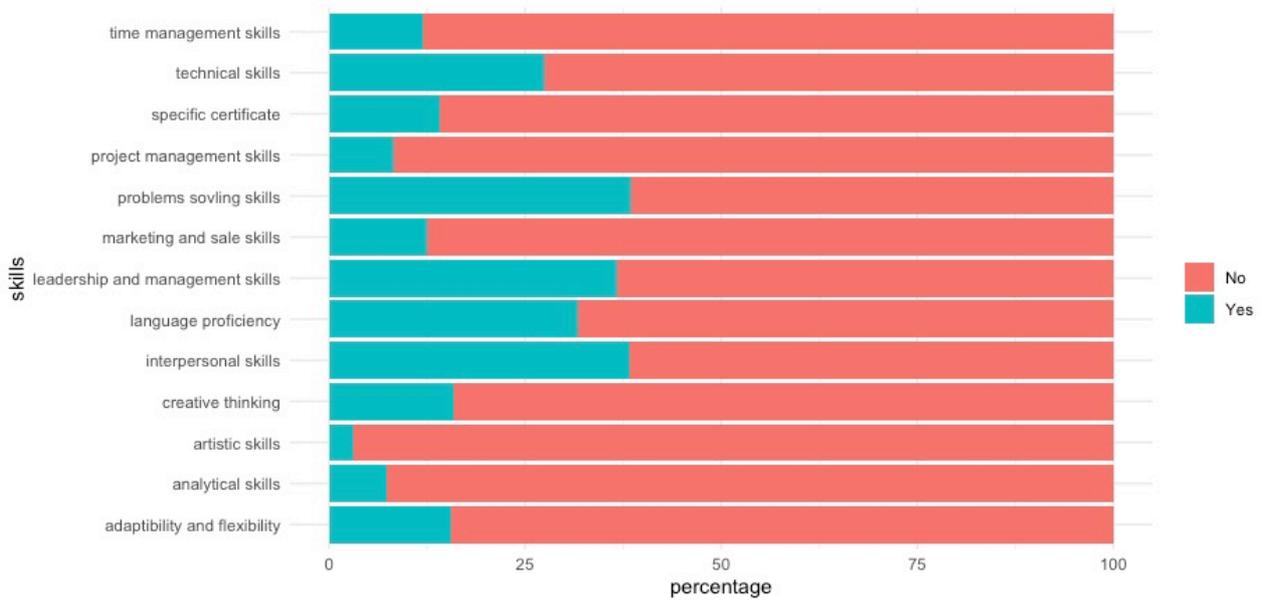
Figure-Appendix-I.43 Respondents require skills or experiences to achieve their career goals

Appendix J:

The Outline of Evaluation of Index of Item-objective Congruence (IOC) between Questionnaires and Objectives

Direction: Please consider the questions in this questionnaire. Consider the consistency of the questions with the objectives and write the marks (✓) into the box that corresponds to your opinion. The target group of this questionnaire is people with disabilities who have had work experience or are currently working. The criteria for consideration are as follows:

+ 1   means the questions are consistent with the research objective or framework.

0   means Not sure if the questions align with the research objectives or framework?

- 1   means the questions are not consistent with the research objectives or framework.

In case you have any comments or suggestions for improving each question, please write your suggestions in the suggestion box.

Objectives	Questions	Score			Comments
		-1	0	+1	
1. To collect both quantitative and qualitative research data in area of employment and retention to create the Transition-to-Work baseline data.	1. Do you have a Person with Disability ID Card? ☐ Yes ☐ No				
	2. What age range do you belong to? ☐ 18-24 ☐ 25-29 ☐ 30-34 ☐ 35-39 ☐ 40-45				
	3. What is your gender? ☐ Male ☐ Female ☐ Non-Binary				
	4. Where is your place of birth?				

Objectives	Questions	Score			Comments
		-1	**0**	**+1**	
	Province _____ District _____				
	5. What is your current residential address? Province _____ District _____				
	6. Which type(s) of disability do you identify with and qualify for? (You may choose multiple options) □ Visual Impairment □ Hearing Impairment □ Physical or mobility impairment □ Mental or behavioral disability □ Intellectual disability □ Learning disability □ Autism				
	7. When did your disability begin or when did you first experience symptoms related to your disability? □ Congenital disability □ Acquired disability				
	8. Do you have the ability to independently take care of yourself or do you rely on the support of a caregiver/parent for your daily care? □ Capable of taking care of myself □ Have assistance, please specify:				
2. To analyze research data and provide recommendati ons for the	9. Are you currently enrolled in any educational or training programs? If yes, please specify □ Yes, In a regular school □ Yes, In a specialized college				

Objectives	Questions	Score			Comments
		-1	0	+1	
Transition-to-Work guideline project.	☐ Yes, In a university ☐ Yes, In an online/virtual school ☐ Yes, In a vocational or trade school ☐ No, I am not currently enrolled in a school or training program.				
	10. What is the highest level of education you have completed? Please provide the information according to the following table.				
	11. How did you find your most recent job? ☐ Online job boards ☐ Company website ☐ Referral from a friend/family member ☐ Referral from a professional network ☐ Recruitment agency ☐ Organization specializing in/for individuals with disabilities ☐ Other, please specify:				
	12. What specific difficulties did you encounter while seeking employment as a result of your disability? Please select all relevant options and provide further details if possible. ☐ Discrimination based on disability ☐ Limited professional opportunities due to my disability ☐ Lack of relevant work experience ☐ Lack of education/training opportunities ☐ Lack of information/access to job-related information				

Objectives	Questions	Score			Comments
		-1	0	+1	
	□ No, I did not encounter any difficulties □ Other, please specify:				
	13. Have you ever experienced any instances of bias or discrimination during the recruitment process? □ Yes, please specify: □ No, I have not.				
	14. Have you ever received any assistance or support during your job search? If yes, please select the type of assistance/support you have received. □ Yes, assistance in job search from organizations focusing on helping persons with disabilities. □ Yes, advisory or guidance support from professional networks. □ Yes, other type of assistance/support, please specify: □ No, I have not received any assistance or support during my job search.				
	15. Have you ever received any support or assistance from government agencies or organizations in your job search? If so, please describe your experience. □ Yes, from… and it was helpful. Please specify □ Yes, from… but it was not helpful. Please specify				

Objectives	Questions	Score			Comments
		-1	0	+1	
	□ No, I have never received any support or assistance from government agencies or organizations in my job search.				
	16. Have you ever experienced instances where job opportunities were denied to you based on your disability? If so, please provide additional details. 　　□ Yes, multiple times 　　□ Yes, but not very often 　　□ No 　　Please provide additional details if applicable				
	17. Are you familiar with Disability Support Services (DSS) and have you ever used their job finding services? 　　□ Yes, I am familiar with DSS and have used their services. 　　□ Yes, I am familiar with DSS, but I have not used their services. 　　□ No, I am not familiar with DSS and have not used their services.				
	18. If you have used the job finding services of Disability Support Services (DSS), what kind of service do you believe they excel in providing support for people with disabilities?				
	19.　　Please describe your current employer, position, and major responsibilities. 　　Name of company/employing organization				

Objectives	Questions	Score			Comments
		-1	0	+1	
	Position Nature of work/responsibilities				
	20. Do you work in a field that is directly related to your education? □ Yes □ No				
	21. Does your compensation align with your education and your job responsibilities? □ Absolutely yes □ Slightly yes □ Not certain □ Slightly no □ Not at all				
	22. What is your current or most recent job, and how long have you been working in that position? □ Full-time job □ Part-time job □ Self-employment Please specify your period (_____year_____month)				
	23. Have you had any previous jobs before your current one? If yes, please provide additional details.				
	24. What were your roles and responsibilities in your job positions? Please specify the details of the tasks you have been responsible for.				

Objectives	Questions	Score			Comments
		-1	0	+1	
	25. How did you find the previous jobs you mentioned in 3.5? (You can select multiple answers) □ Online job search websites □ Personal networking □ Company websites □ Employment agencies □ Newspaper advertisements □ Organizations specifically for people with disabilities □ Other, please specify:				
	26. In your most recent job, what do you consider to be the three most important skills or abilities that you have contributed to the team? Please rank your answers from 1 to 3, with 1 being the most important. □ Communication skills □ Teamwork □ Problem-solving □ Time management □ Technical skills □ Creativity □ Adaptability □ Attention to detail □ Responsibility □ Honesty □ Punctuality □ Other, please specify:				

Objectives	Questions	Score			Comments
		-1	0	+1	
	27. Are there any other support systems that you think could be beneficial or provide more opportunities for people with disabilities in their job search? Please select no more than two most relevant answers. □ Job fairs specifically for people with disabilities □ Job placement services □ Online resources for job seekers with disabilities □ Government-supported assistance programs □ Initiatives to increase employer accessibility □ Other, please specify:				
	28. Which factors contribute to an increased likelihood of hiring people with disabilities? □ Motivation or directives from the government to hire people with disabilities according to the law □ Employer commitment to diversity and inclusion □ Relevant skills, abilities, and experiences of the applicants □ Networks or organizations related to disability issues associated with the applicants				

Objectives	Questions	Score			Comments
		-1	0	+1	
	□ Disability status of the applicants to meet diversity quotas □ No specific factors □ Other, please specify:				
	29. How do you communicate or disclose your disability to your employers? □ I disclose my disability in my resume/CV and other documents. □ I disclose my disability during the job interview process. □ I disclose my disability after accepting a job offer. □ I do not disclose my disability to employers. What difficulties or obstacles do you encounter when sharing information about your disability? □ I do not face challenges in disclosing my disability. □ I face challenges in disclosing my disability. Please specify:				
	30. In your opinion, do you think that disclosing your disability to employers has a positive or negative impact on your job prospects? □ It is beneficial. □ It is detrimental. □ It depends on the situation. Please specify:				

Objectives	Questions	Score			Comments
		-1	0	+1	
	31. Do you have any specific needs for accommodations or supports in the workplace? If yes, have you received accommodations that enable you to perform your job efficiently? Please specify the type of supports or accommodations you have received. □ Yes, I require and have received accommodations. □ Yes, I require accommodations but have not received them yet. □ No, I do not require accommodations.				
	32. How do you effectively navigate and manage your disability in the workplace? Have you developed any specific strategies or techniques that have proven successful for you? (You may choose multiple options) □ Regular breaks □ Assistive device/technology (own expenses) □ Assistive device/technology (company's expenses) □ Flexible work schedule □ Work from home options □ Physical accommodations provided by the employer (install elevators or ramps, computer screen magnifiers, etc.) □ Other, please specify:				

Objectives	Questions	Score			Comments
		-1	0	+1	
	33. Do you encounter challenges in advancing within the company you work for due to your disability? If so, please provide the reasons behind your response. □ Yes □ No Please specify:				
	34. Which specific supports or resources do you need to maintain employment? (You may choose multiple options) □ Additional accommodations □ Training or educational opportunities □ Career advancement opportunities □ Support from colleagues or management □ Job coaching or mentoring □ Performance feedback and guidance Performance feedback and guidance □ Other, please specify:				
	35. Have you been given opportunities for training or development in your workplace to help you grow professionally? □ Yes □ No Please specify:				

Objectives	Questions	Score			Comments
		-1	0	+1	
	36. Do you feel that your employer understands the needs and capabilities of people with disabilities? □ Yes □ No Please specify:				
	37. Do you feel that your employer has a responsibility to provide appropriate accommodation for employees with disabilities? □ Strongly agree □ Somewhat agree □ Somewhat disagree □ Strongly disagree				
	38. Have you received sufficient training or support from your employer in terms of guidance to workplace accommodations or overcoming barriers? □ Yes, consistently □ Yes, occasionally □ No, never Please specify:				
	39. Have you ever encountered instances of discrimination or faced negative attitudes from colleagues or supervisors in the workplace based on your disability? If so,				

Objectives	Questions	Score			Comments
		-1	0	+1	
	could you please share an example to further illustrate your experience? □ Yes, frequently. Please specify: □ Yes, occasionally. Please specify: □ No.				
	40. What was the reason for changing jobs in the past? (You can select more than one answer.) □ Lack of career growth opportunities □ Low salary or compensation □ Lack of motivation □ Unfavorable work environment □ Challenges arising from disability □ Difficult or long commute □ Other (please specify):				
	41. Have you encountered difficulties related to your disability that have caused you to contemplate leaving a job? □ Yes, I have faced challenges that have led me to consider leaving a job. □ No, I have not faced challenges that have led me to consider leaving a job. If yes, please specify				
	42. Which factors contribute to your current job retention? (You can select more than one answer) □ Competitive salary and benefits □ Positive work culture				

Objectives	Questions	Score			Comments
		-1	0	+1	
	□ Flexibility in working hours and schedule □ Clear career opportunities □ Other, please specify:				
	43. Which additional support systems do you believe would be beneficial for people with disabilities in gaining and maintaining employment? Please provide further explanation. □ Training mentors or job coaches □ Appropriate welfare for people with disabilities □ Workplace accommodations □ Education and training programs □ Clear career opportunities □ Others, please specify Please provide further explanation:				
	44. Have you faced any obstacles or barriers in securing employment as a result of your disability? Please specify. □ Lack of access and accommodations in the workplace □ Negative attitudes or discriminatory practices from employers or coworkers □ Misunderstandings about people with disabilities in the workplace □ Challenges related to health that impact job performance				

Objectives	Questions	Score			Comments
		-1	0	+1	
	□ Other, please specify:				
	45. Which skills or abilities in people with disabilities that employers should be aware of? □ Problem-solving □ Critical thinking skills □ Adaptability and flexibility □ Interpersonal communication and relationship-building skills □ Attention to detail □ Other, please specify:				
	46. Which type of training or support would be most beneficial for you in maintaining employment? □ Technical or job-specific training □ Training on accommodations in the workplace □ Communication and teamwork training □ Mental health support and stress management □ Professional development and career advancement training □ Other, please specify:				
	47. How satisfied are you with your current job? Please let us know the reasons. □ Very satisfied □ Satisfied				

Objectives	Questions	Score			Comments
		-1	0	+1	
	□ Neutral □ Dissatisfied □ Very dissatisfied				
	48. Which type of job do you hope to have in the future? □ The same type of job as my current one □ A job with higher compensation in the same field □ A job in a different field, please specify: □ Self-employment/entrepreneurship □ Other, please specify:				
	49. What is your career goal in the next five years? □ Advancement in my current job □ A new job in the same field □ A new job in the different field □ Starting my own business □ Other, please specify:				
	50. Which skills or experiences do you need to achieve your career goals? Please select no more than three answers. ☐ Technical skills in a specific field or industry ☐ Interpersonal and communication skills ☐ Leadership and management skills				

Objectives	Questions	Score			Comments
		-1	0	+1	
	☐ Problem-solving skills ☐ Analytical thinking ☐ Time management skills ☐ Specific certifications ☐ Sales or marketing skills ☐ Language proficiency ☐ Creative thinking skills ☐ Artistic skills ☐ Project management skills ☐ Adaptability and flexibility skills ☐ Other, please specify:				
	51. Could you provide advice about finding a job and working for other people with disabilities who are looking for work?				
	52. How can employers better support employees with disabilities during the recruitment process and job retention?				
	53. What suggestions do you have for Disability Support Services (DSS), universities and other supporting organizations to enhance their support for people with disabilities in their employment and job retention?				

Other suggestions

_____

_____

_____

_____