YANGON UNIVERSITY OF ECONOMICS
DEPARTMENT OF STATISTICS
MASTER OF APPLIED STATISTICS PROGRAMME

FACTORS AFFECTING LABOR FORCE PARTICIPATION OF DISABLE YOUTH IN MYANMAR

ZIN ZIN MYINT MAUNG
MAS – 3
MAS 5th BATCH

MAY, 2025

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ABSTRACT

This study aims at investigating the demographic and socioeconomic determinants of labor force participation of disable youths in Myanmar using the data from the 2019 Myanmar Inter- censal Survey (MICS). Descriptive statistics, Pearson's chi-square test and binary logistic regression model were used in this study. The results of descriptive statistics found that the labor force participation of disable youth is only 19.4% and this percentage is very small contribution on labor force participation. The disable youth aged 21–24 years had the highest participation rate, followed by those aged 18–21 years, while the 15–18 years had the lowest. According to the results of chi-square test, age, gender, marital status, having parents, disability status, place of residence, education level, get any support, participated in any community and health status are significantly related to labor force participation of disable youth at 1% significance level. The results of binary logistic model indicated that the age group, gender, marital status, disability status and place of residence, education level, participation in any community and health status are influencing factors of labor force participation.

ACKNOWLEDGEMENTS

First and foremost, I would like to express my profound gratitude to Professor Dr. Tin Tin Htwe, Rector of the Yangon University of Economics, and the committee members of the Master of Applied Statistics (MAS) for allowing me permission to conduct this study and for their generous support.

My Sincere gratitude is extended to Dr Kyaw Tun Naing, the pro-rector of Yangon University of Economics for her insightful suggestions. Her valuable insights and expertise have been instrumental in the completion of this work.

Furthermore, I would like to express my deepest appreciation to Professor Dr. Aye Thida, the program director and head of the Statistics Departments at Yangon University of Economics for my thesis committee for her essential knowledge, advice, and guidance have greatly contributed to my academic journey.

My sincere appreciation goes to Associate Professor Daw Win Win Nu (Retd.), Department of Economics, University of Distance Education, for her inputs as external examiner during final defense.

I am sincerely grateful to Professor Dr. Hlaing Hlaing Moe, Head of Department of Applied Statistics, Yangon University of Economics and my supervisor for her continuous guidance, patience and encouragement throughout my research process Her mentorship has been pivotal in shaping the direction of my study. Her tremendous assistance, counsel, and mentorship during the course of completing my thesis. I am confident that the achievement would not have been reachable without her unwavering support and encouragement.

And than particular thank you so much to Professor, Dr. Sandar Thein for all of her guidance, encouragement, and help getting resources I needed to study this program.

I deeply acknowledge to Dr. Hla Hla Aye, Professor, Department of Statistics, Yangon University of Economics for her invaluable consultations and sharing idea.

Since gratitude is owed my classmates and collage in the MAS Program, without Whose kind time and insightful contributions this research could not have been conducted.

Finally, I would like to express my sincere gratitude to all the participants of the research survey who have provided essential contributions. I want to take this opportunity to express my sincere appreciation to all of the parties involved and organizations who have provided me with the necessary details.

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LIST OF ABBREVIATIONS

AAC	Augmentative and Alternative Communication
ABS	Australian Bureau of Statistics
CDC	Centers for Disease Control
CRPD	Convention on the Rights of Persons with Disabilities
CSO	Central Statistical Organization
DG	Disability Grant
ILO	International Labor Organization
MNSD	Myanmar National Strategy on Disability
MICS	Myanmar Inter-censal Survey
NIA	National Institute of Aging
NIDCD	National Institute on Deafness and Other Communication Disorders
NINDS	National Institute on Neurological Disorders and Stroke
PWD	People With Disabilities
UNDP	United Nation Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
WHO	World Health Organization

CHAPTER I
INTRODUCTION

A typical definition of youth describes it as the span of time that is between childhood and maturity, and it is characterised by the development of physical, psychological, social, and emotional functioning. Young people. Young people go through a time of fast physical, emotional, and social growth during which they get an education, enter the workforce, and begin to actively engage in society. This era is characterised by rapid development in all three areas. Due to the fact that they have the potential for creativity, productivity, and civic involvement, young people make up a sizeable fraction of the world's population and are largely acknowledged as being key contributors to the growth of nations. Myanmar is one of the developing nations in which young people are confronted with a number of complicated issues. These challenges include restricted access to quality education, high rates of unemployment, and an inadequate number of platforms for involvement in the policy and decision-making processes. When it comes to marginalised populations, such as young people with disabilities, who frequently face structural impediments and social isolation, these problems are even more difficult to overcome. Concerns like these need to be addressed by inclusive policies and individualised activities in order to maximise the potential of young people and to promote sustainable development. Both biological and societal factors, including cultural, economic, and political forces, contribute to the formation of young people. According to the World Bank (2007), this is a crucial stage for the development of skills, the building of an identity, and the integration into society.

The development of disabilities in young people is a big concern since it is associated with challenges in establishing a productive life. In order for young people with disabilities to experience full participation in society and the workforce, they must first overcome a number of obstacles. As a result of the fact that impairments can be passed on from parents or developed later in life, they encompass a diverse set of young people. The characteristics of young individuals who have impairments include age, gender, ethnicity, education level, and place of residence, among other differences. Young people who have disabilities have significant challenges throughout their lives, particularly when it comes to finding occupations that are appropriately suited to their abilities. According to the World Health Organisation, one of the most significant

challenges is the dearth of educational and training options that are in line with the requirements of the labour market. The unfortunate reality is that young people with disabilities have a higher likelihood of being jobless and working in jobs that pay low wages than individuals who do not have impairments.

1.1 Rationale of the Study

The employment rate, unemployment rate, and employment rate of people with disabilities are all lower than those of those without impairments. People with disabilities are less likely to work. It is also more difficult for them to find paid job that offers financial stability or social benefits, which highlights the need of having policies that are accessible to people with disabilities. According to the World Health Organisation (WHO), more than one billion adolescents across the world have impairments. There are around 110–190 million people from across the world who have major disabilities, and they are more likely to be unemployed than the general population. In OECD countries, the employment rate for people with disabilities is 44%, whereas the employment rate for people without impairments is 75% (World Health Organisation, 2011).

Job opportunities are essential for the survival of disabled young people. But disadvantaged children have a worse chance of finding employment compared to their counterparts who do not have disabilities. In most cases, marginalisation is the root cause of youth unemployment among disabled people. As a result of firms who pay less than the minimum wage and may not hire disabled teenagers, these adolescents are at a disadvantage. Consequently, they often require support from their family members. As a result of this reliance, the family may be forced to endure economic inactivity, poor housing, food poverty, and restricted access to fundamental medical care (World Bank, 2005). The members of the family may have new disabilities as a result of the economic strain. It is more probable that young people throughout the world are unemployed, underemployed, or employed at lower pay than adults are. This is especially true for young people who have disabilities. Because of their lack of education and skills, young people with disabilities have a difficult time competing in the labour market. The entire adult population of handicapped people has unemployment rates that are forty to sixty percent higher than those of the non-disabled population (ILO, 2022). This is despite the fact that unemployment rates vary nationally.

Employing handicapped children in Myanmar, a country in Southeast Asia with a population of almost 54 million people, provides a number of unique challenges. Everyday living and social relationships are both negatively impacted when a child has a disability. Disability is defined by the World Health Organisation (WHO) as the inability to engage in activities and participate in activities due to hereditary problems, accidents, or diseases (WHO, 2011).

It is estimated that around 4.6% of the population in Myanmar is affected by some kind of impairment, with a sizeable proportion of those affected experiencing severe problems, such as blindness, deafness, or the inability to walk. Many times, young people who have impairments are subjected to prejudice, unfavourable perceptions, and poor access to educational possibilities, healthcare, and career chances. In nations with low incomes, such as Myanmar, where resources for disability inclusion are frequently limited and traditional attitudes towards disability continue to be prevalent, these issues are reinforced. At this point in time, the nation is still in the first phases of building laws and infrastructure to help individuals who have certain impairments. It is common for conventional ideas and stigma to have a role in shaping social attitudes towards disability. This can result in discrimination in hiring practices and uneven treatment in the workplace (UN, 2016).

For the purpose of ensuring that young people with disabilities are not left behind, contributing to Myanmar's sustainable economic growth, and encouraging inclusive variables that impact labour force participation, this study is absolutely necessary. In addition, there are not many career possibilities available for disabled young people, and they frequently encounter prejudice in the workplace, which places them in a position where they must rely on their family for financial assistance. The purpose of this study is to investigate the factors that have an impact on the ability of disabled young people in Myanmar to participate in the labour force.

1.2 Objectives of the Study

The objectives of the study are:

(i) to investigate the labour force participation, demographic factors and socioeconomic factors of disable youth in Myanmar

(ii) to examine the demographic factors, socioeconomic factors related to labour force participation of disable youth in Myanmar.

(iii) to analyze the factors influencing labour force participation of disable youth in Myanmar.

1.3 Method of Study

This study used descriptive statistics, Pearson's chi-square test and binary logistic regression model. The descriptive statistics was applied to investigate the labour force participation of disable youth in Myanmar. Pearson's chi-square test was used to examine demographic factors and socioeconomic factors related to labour force participation of disable youth in Myanmar. The binary logistic regression model was applied to explore the factors influencing labour force participation of disable youth in Myanmar.

1.4 Scope and Limitations of the Study

This study used secondary data from the 2019 Myanmar Inter-censal survey (MICS), Department of Population, Ministry of Labor, Immigration and Population. This study focused on people with disabilities aged 15 to 24 years. While the secondary data were obtained 85851 disable people from MICS in 2019, this study focused on 3446 disable youth aged 15 to 24 years old. The scope of the research is limited to youths aged 15-24 with various disabilities, including physical, sensory, and both physical and sensory disabilities, residing within urban and rural areas of Myanmar. The study focused on both individual and societal factors that may impact their engagement in the labor market. The availability of accessible education and vocational training, supporting employment for disable youth and physical infrastructural accessibility were not considered in the study.

1.5 Organization of the Study

This research was broken up into five different segments. The motivation for the study, the objectives of the investigation, the technique of study, the scope and constraints of the study, and the organisation of the study are all included in the first chapter, which is referred to as the introduction. The literature review is part of Chapter II. Methodology is detailed in Chapter III. An examination of the participation of disabled young people in the labour force in Myanmar is presented in Chapter IV. A conclusion is presented in Chapter V.

CHAPTER II
LITERATURE REVIEW

Disability and labour force participation in developing countries, disabile youth in Myanmar, barriers to labour force participation for disabile youth with government policy and legal framework, disability reviews from previous studies, and conceptual framework of the study are covered in this chapter. This chapter also discusses the factors that comprise the conceptual foundation for disabled adolescent labour force participation.

2.1 Disability and Labor Force Participation in Developing Countries

According to the WHO, disability encompasses impairments, activity limits, and participation restrictions that may limit an individual's ability to fully participate in social functions, including work. People with disabilities are frequently excluded from the labour market in many developing countries, including Myanmar, due to social stigmas, a lack of accessible work possibilities, and restricted access to education and training (Meekosha and Soldatic, 2011). Myanmar is one of these nations. This trend is evident in a variety of studies, such as those carried out in India (Chaudhuri, 2011) and Cambodia (Rao et al., 2015), where young people with disabilities face compounded disadvantages related to their educational and vocational training opportunities, which consequently affect their labour force participation rates. These studies were conducted in India and Cambodia, respectively.

Disabled youth face enormous barriers to employment worldwide. These difficulties include unfair hiring, limited education, and physical or mental employment challenges. The workforce involvement of young people with disabilities differs significantly from that of their peers without disabilities. This imbalance is most obvious in developing nations, where the social and economic infrastructure necessary to promote inclusion is sometimes missing. It has been found that similar patterns are occurring in Myanmar, where young people with impairments are under-represented in the employed population. This under-representation is caused by a lack of inclusive policies and practices, societal stigma, and insufficient knowledge of the people' talents. Although a number of studies indicate that there is a rising understanding of the

potential for young people with disabilities to make economic contributions, there are still substantial hurdles that prevent them from being fully included.

One of the most significant factors that prevents young people in Myanmar from participating in the labour market is the stigma that is associated with mental illness. According to Thein et al. (2019), companies frequently refrain from hiring persons with disabilities because of unfavourable social views towards disability. These attitudes include beliefs of inability and reliance. Underemployment and a lack of workplace modifications that would enable people with disabilities to function well in their occupations are both consequences of this stigma, which leads to underemployment opportunities. Since a large portion of Myanmar's unemployed are young, youth unemployment is a major issue. It has been reported by the International Labour Organisation (ILO, 2020) that the rates of young unemployment in Myanmar are very high, particularly in rural regions. For young people who are disabled, the situation is much more difficult since they not only have to contend with the typical obstacles that stand in the way of work, but they also have to contend with the additional difficulties that are related with their condition. According to Aung et al. (2018), Myanmar's disabled youth are more likely to be jobless or underemployed, typically working in informal, low-paying employment without job security or benefits.

Traditional gender roles further complicate the labor force participation of youth with disabilities, particularly for young women. In Myanmar, the cultural expectations around gender often restrict women's roles to domestic responsibilities, and these constraints are amplified for young women with disabilities. These individuals face a double disadvantage have experiencing both gender-based and disability-based discrimination. Thus, they have less schooling and career options than males. A gender-sensitive strategy that acknowledges the distinct public and private obstacles experienced by women with disabilities is needed to address this issue.

2.2 Types of Disability and Their Impact on Daily Life

Millions of individuals worldwide are disabled, affecting their everyday duties and social participation. Sensory, physical, cognitive, and neurological disabilities create different problems. Visual, hearing, walking, memory, self-care, and communication problems are prevalent. These limitations can severely limit freedom and quality of life. This article will discuss these six infirmities and their issues using reputable sources.

Visual Disability: Visual impairments, which ranged from partial to complete blindness, drastically limited a person's ability to engage in activities that many took for granted, such as reading, driving, or identifying faces. The World Health Organisation (2011) stated that 2.2 billion individuals had near or distance visual impairment, many of which were avoidable or curable. Vision-impaired people used Braille, screen readers, and aural cues to navigate. Audible traffic signals and high-contrast signs also improved accessibility. Despite technological advances, inadequate visual information affected independence and safety (WHO,2011).

Hearing Disability: Hearing loss, which ranged from mild to profound, impairs the ability to hear speech, sounds, or environmental noises. The National Institute on Deafness and Other Communication Disorders (NIDCD, 2020) stated 15% of American people have hearing loss. Hearing-impaired people communicate via hearing aids, cochlear implants, or sign language. Still, social isolation and communication hurdles were major issues. The CDC (2020) noted that hearing-impaired people have trouble hearing alarms and discussions in social settings and crises, which might put them at danger (NIDCD, CDC,2020)

Physical Disability: Mobility impairments, such as difficulty walking, can resulted from conditions like arthritis, spinal cord injuries, or muscular dystrophy. The Centers for Disease Control and Prevention (2020) stated that around 1 in 7 adults in the U.S. reported serious difficulty walking or climbing stairs. Individuals with these disabilities used wheelchairs, canes, or walkers for support. Despite these aids, staircases and uneven surfaces hampered public area access. Ramps and lifts reduced these obstacles and increased freedom for those with mobility issues, according to the World Health Organisation Report on Disability (WHO, 2011).

Intellectual Disability: Memory-related disabilities, such as those caused by Alzheimer’s disease or brain injuries, affected cognitive function, particularly the ability to recall information or perform everyday tasks. According to the Alzheimer’s Association (2020), more than 6 million Americans lived with Alzheimer's disease, which often led to memory loss and confusion. Individuals with memory impairments struggled to recall directions, appointments, or even recognize loved ones. The National Institute on Neurological Disorders and Stroke (NINDS, 2020) noted that memory disabilities were caused by a wide range of neurological disorders, which impacted both short-term and long-term memory. Support strategies, such as using reminders,

calendars, and digital apps, assisted with memory challenges, but emotional and social challenges persisted (NINDS,2020).

Difficulty with Self-care: Dressing, bathing, and eating were difficult for people with self-care difficulties. According to the National Institute of Aging (2020), these difficulties often arose from conditions such as severe arthritis, stroke, or neurological disorders. For instance, individuals with arthritis experienced joint pain that made it difficult to grasp objects or perform tasks that required fine motor skills. Occupational therapy and adaptive devices, such as modified utensils or shower chairs, aided in overcoming these barriers. However, the emotional toll of losing independence in these personal tasks led to frustration or depression, underscoring the need for supportive caregiving or community (NIA,2020)

Difficulty Communication: Communication disabilities, including those related to speech impairments, autism, or brain injuries, prevented individuals from effectively expressing themselves. The National Institute on Deafness and Other Communication Disorders (NIDCD, 2020) explained that speech disorders, which affected millions of people globally, may hindered a person's ability to articulate their thoughts, making social interactions challenging. Some individuals relied on speech therapy, sign language, or communication devices, such as augmentative and alternative communication (AAC) tools. Despite these aids, communication barriers persisted, and individuals faced isolation or discrimination as a result. Speech-language pathologists played a vital role in helping individuals with speech disabilities regain or improve their ability to communicate (NIDCD,2020).

Thus, the six disabilities—seeing, hearing, walking, remembering, self-care, and communicating—can profoundly impair a person's everyday life. These obstacles, from social isolation to physical restrictions, hinder independence and social participation. However, assistive technology and public policies can reduce these issues. For disabled people to live better, accessible settings and support services must be developed. Society may provide everyone respect and freedom by promoting inclusion.

2.3 Convention on the Rights of Persons with Disabilities and Implementation in Myanmar

The UN Convention on the Rights of Persons with Disabilities (CRPD) promotes youth with disabilities' labor market involvement. Myanmar ratified the

CRPD; however, its implementation remains inconsistent. While the country has taken steps towards integrating disability rights into national law, many youths with disabilities still face significant barriers in accessing employment. The lack of effective implementation of the CRPD in Myanmar's legal, educational, and employment sectors reflects broader systemic issues related to policy enforcement and public awareness (UNESCAP,2020).

Discriminatory Practices in Hiring and Promotion: Discriminatory hiring practices and a lack of career advancement opportunities for individuals with disabilities are widespread in Myanmar. Employers often perceive individuals with disabilities as less capable or productive, leading to a reluctance to hire them or promote them to higher positions. These discriminatory practices are exacerbated by the absence of strong anti-discrimination laws and the lack of awareness among employers about the potential benefits of an inclusive workforce. Educating employers about the abilities and contributions of youth with disabilities is crucial for breaking down these barriers (UNESCAP,2020).

Lack of Job Training and Awareness Among Employers: The lack of adequate job training programs and employer awareness contributes significantly to the underrepresentation of youth with disabilities in the workforce. Many employers lack the knowledge and resources to provide necessary accommodations or support to employees with disabilities. Additionally, youth with disabilities often do not receive the specialized job training that would allow them to succeed in the competitive job market. Addressing these gaps through targeted training programs and employer education initiatives is essential to improving labor force participation (UNESCAP,2020).

Access to Quality Education for Youth with Disabilities: Quality education is one of the biggest determinants affecting disabled youth labour force participation. In Myanmar, educational opportunities for youth with disabilities are often limited by a lack of trained teachers, appropriate resources, and accessible school buildings. As a result, many youth with disabilities are excluded from mainstream education, leading to lower levels of literacy and skill development. Strengthening the education system and ensuring that it accommodates the needs of students with disabilities will be essential in promoting their future employment prospects (UNESCAP,2020).

Mental Health Issues and Their Impact on Employment: Mental health issues, which are common among youth with disabilities, can further complicate the

transition into employment. The stigma associated with mental health, coupled with a lack of appropriate mental health services, exacerbates the difficulties faced by these individuals. Mental health support is critical to ensuring that youth with disabilities can pursue and retain employment, and addressing mental health concerns must be a priority within both policy and practice (UNESCAP,2020).

Government Policy and Legal Framework: Government policy plays an essential role in facilitating or hindering the labor force participation of youth with disabilities In Myanmar, the absence of comprehensive disability policies and the weak enforcement of existing laws create additional challenges. The Persons with Disabilities Law, enacted in 2015, addresses issues such as discrimination, access to education, and employment rights. However, its implementation remains inconsistent, particularly in rural areas, where local government infrastructure and support systems are weak (Myint & Khin, 2020). Furthermore, the absence of specific labor market policies targeting youth with disabilities means that this group remains marginalized in terms of employment opportunities (Tin Myint & Mya Khin, 2020).

Globally, countries such as South Korea and Thailand have implemented successful policies aimed at improving the employment of youth with disabilities. These policies include financial incentives for employers who hire people with disabilities, as well as initiatives to raise awareness and provide vocational training (Kim et al., 2018). Such strategies could serve as valuable models for Myanmar, where labor market integration for youth with disabilities remains limited(Kim et al., 2018).

Myanmar has certain laws protecting and including people with impairments, but there are no comprehensive and enforced policies to assist disabled youth's labour market participation. Disability-specific laws and financial incentives, such as tax breaks for employers who hire disabled workers or subsidies for vocational training programs, could create more inclusive opportunities. However, the absence of a robust disability-inclusive policy landscape means that such measures remain underdeveloped or poorly implemented.

2.4 Barriers to Labor Force Participation of Disabe Youth

There are several key barriers that limit labor force participation for youth with disabilities, both globally and with in Myanmar. These barriers can be grouped into economic, educational, social, and physical access categories.

Economic Barriers: Disability employment is hindered by poverty, especially in low-income nations. In Myanmar, where most people reside in rural regions, disabled adolescents typically lack training, work possibilities, and financial means (UNESCAP, 2020). The National Disability Survey (2020) highlighted that young people with disabilities in Myanmar face greater economic vulnerability, as they are often excluded from informal labor markets, which make up a large portion of the country's employment opportunities (UNESCAP,2020)

Educational Barriers: Education is a key determinant of employability. In Myanmar, the educational system is not fully inclusive, with few specialized schools or training programs available for students with disabilities. According to the United Nations Development Programme (UNDP, 2021), the educational attainment of individuals with disabilities in Myanmar is lower than that of their peers without disabilities, due to both limited access to schools and a lack of resources for students with special needs. This educational gap significantly reduces the employability of youth with disabilities, as they often do not possess the skills or qualifications necessary to enter the workforce(UNDP,20121).

Social Barriers: Social exclusion remains a pervasive issue for youth with disabilities in Myanmar. Cultural attitudes, which often associate disability with inability, exacerbate the social isolation faced by these individuals. This exclusion is compounded by the lack of support networks that would help integrate youth with disabilities into the workforce. The Myanmar National Strategy on Disability (2019) acknowledges these social barriers and highlights the importance of raising awareness about disability rights, as well as fostering inclusive societal attitudes (MNSD,2019).

Physical and Accessibility Barriers: The physical accessibility of workplaces is another critical barrier to labor force participation for youth with disabilities. In Myanmar, many workplaces are not equipped with the necessary accommodations, such as ramps, assistive devices, and modified workspaces, to ensure accessibility for individuals with physical disabilities (Soe & Myint, 2017). This lack of accessibility further limits employment opportunities, especially for those with mobility impairments. disabilities (Soe & Myint, 2017).

2.5 Review on Previous Studies

Johannssmeier (2007) addressed a qualitative research on South African disabled people's poverty, job, and education issues. This study examined how the

disability grant (DG) affects disabled persons and their households, emphasising the need for more research on its social and economic effects. The disability stipend is mostly utilised for food and tuition in households with little to no supplementary income, leaving them vulnerable to financial shocks and debt. Development programs to address poverty and exclusion must incorporate disability as high unemployment and poverty promote disability grant reliance by disabled persons and their households.

Hogan et al. (2012) used ABS 2003 Survey of Disability, Ageing, and Careers data to examine disability-related labour participation obstacles. Logistic regression showed that age, gender, education level, and country of birth affected disability labour force participation. Males and English-speakers were more likely to work than females and non-English speakers. Higher-educated people were more likely to work than those without a grade 12.

Rao et al. (2015) examined Cambodian juvenile disability employment chances. Cambodian teenagers with disabilities encounter high levels of social exclusion and career difficulties due to negative preconceptions, physical accessibility concerns, and hiring discrimination, according to the study. To counteract disability stigma, the report recommended vocational training programs, awareness campaigns, and legal measures to assure workplace accommodations and fair job opportunities.

Lo (2020) examined disability demographics and job outcomes. The 2018 European Social Survey collected 36,015 answers from 20 countries. Chi-square testing and binomial logistic regression examined disability, age, gender, and education on job outcomes. Results showed relationships between gender, age, and education with disability. Disability employment outcomes were also strongly affected by age-education interaction. A few age-education relationships affected PWD job prospects, but no severely disadvantaged subgroups were discovered. This study suggests dynamic demographic group interactions by finding substantial interaction effects.

Disability labour market outcomes must be examined by gender, according to Ballo (2020). Intersectional theory warns against generalising female and male experiences and thinks disability and gender may affect sexism and disableism. Norwegian full-population registry data on disability benefit users are used to study how higher education impacts three labour market outcomes for impaired men and women. The statistics imply that disabled men have bigger job disadvantages than disabled women. Higher education increases involvement more for impaired women

than men. Disability-related gender inequalities in participation are less than for the general population.

Lay-Raby et al. (2021) examined Chilean disability employment. The Chilean Ministry of Social Development and National Service for Disability provided the statistics. Multinomial logistic regression predicted job opportunity variables. The model included factors linked to extra income (subsidies), education level, study pursuit, and disability. Some characteristics impact employment opportunity, including continuity and study access.

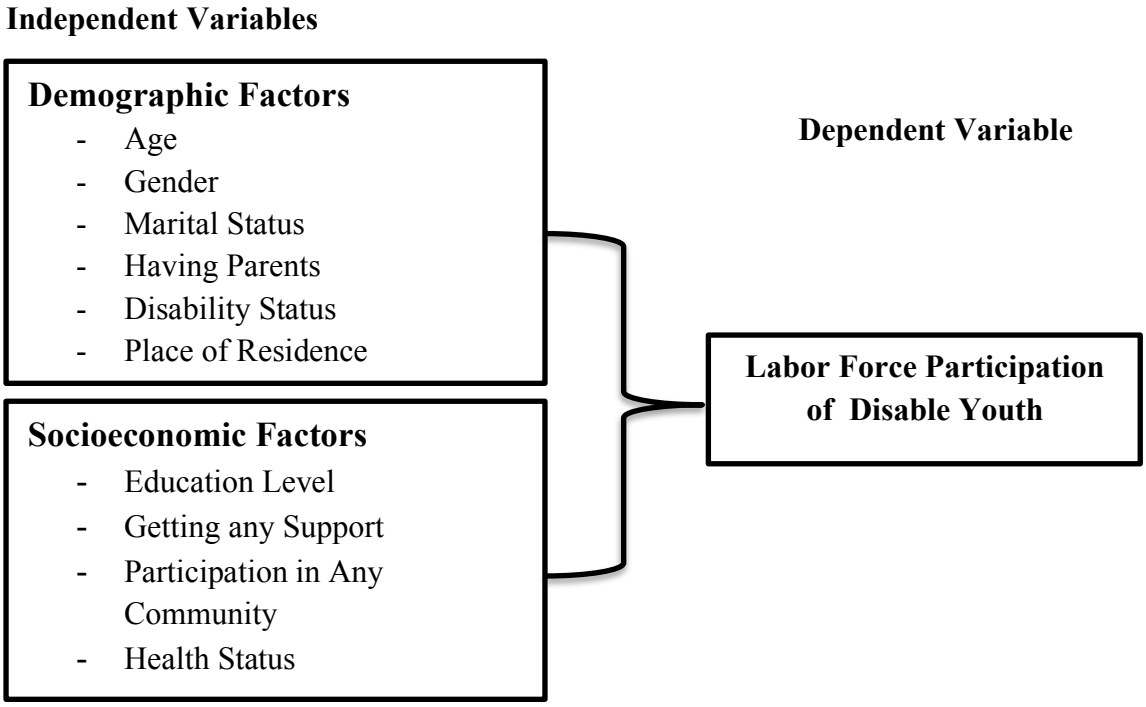
In Myanmar, Hlaing Hlaing Moe and Shunn Lei Yee Aung (2023) evaluated impaired workers' labour force participation. Use 2019 Inter-censal Survey (ICS) data. Descriptive statistics, Pearson chi-square test, and probit regression were utilised. In Myanmar, 24% of disabled individuals work. The probit regression model shows that disabled people's labour force participation varies by age, sex, marital status, education level, household size, annual household income, states, regions, and difficulty seeing, walking, remembering, taking care of themselves, and communicating. Married, educated, and higher-income handicapped persons are more likely to work. The study found that disabled women work less than disabled males. There are evident gender disparities in Myanmar's workforce. However, handicapped persons with larger families and difficulties seeing, walking, remembering, self-care, and speaking are less likely to work. Geographically, handicapped people are employed differently.

Nwe Ni Win (2023) used 2019 Inter-censal Survey data to examine socio-economic and demographic factors affecting impaired Myanmarese employment status by gender. The study used descriptive statistics, Pearson's chi-square, and binary logistic regression. Descriptive figures show 73% and 50% of disabled men and women employed. The Pearson chi-square test demonstrated a strong link between socio-economic and demographic factors and occupational status for both sexes. The binary logistic model showed that age group, state and region (Tanintharyi and Ayeyawady), place of residence, marital status, and community participation positively affect male disabled persons' employment status, while parenthood, disability status, high school education, and support negatively affect it. Age, state, region (Kayah, Chin, Sagaing, Bago, Magway, Mandalay, Rakhine, Shan, and Ayeyawady), place of residence, support, and community participation positively affect employment status for female disabled people, while marital status, disability status, and educational attainment negatively affect.

Khin Sandar Thein Myint (2024) studied the demographic, socio-economic, and disability-related characteristics of children with disabilities in Myanmar, utilizing data from the 2019 Intercensal Survey (ICS). Among the 548,553 observations, 135,476 children are aged between 5 and 18 years, with 4% (5,819 children) identified as having disabilities. The results found that gender distribution is balanced, with males representing 52.8% and females 47.2%. A significant majority (75.1%) of these children reside in rural areas, highlighting a disparity in resource availability compared to urban areas. Regional distribution indicates that Ayeyawady has the highest representation of children with disabilities (16.0%), followed by Magway (10.3%) and Sagaing (10.0%). The studied founds the types and severity of disabilities, with many children experiencing difficulties in seeing, hearing, walking, remembering, self-care, and communication.

2.6 Conceptual Framework of the Study

Emphasis is placed on how the socioeconomic and demographic characteristics of disabled kids affect their work position. The majority of the important factors identified in the earlier literature assessments are used to build the conceptual framework for this investigation. However, several variables were excluded from the 2019 Myanmar Inter-censal Survey (MICS), therefore they could not be used in this analysis. Therefore, in this study, the labour force participation of disabled youth was the dependent variable, while demographic and socioeconomic characteristics like age, gender, marital status, having parents, disability status, place of residence, educational level, receiving any support or participating in any community, and health status were used as independent variables. Figure (2.1) presents the conceptual framework that demonstrates the demographic and socioeconomic elements that impact disabled youth's labour force participation in Myanmar.



Source: Own Compilations (2025)

Figure (2.1) Conceptual Framework for Labour Force Participation of Disable Youth

Age : The age of disabled youth is divided into three groups with 15-17, 18-20 and 21-24 years respectively.

Gender: The disabled are divided into male and female categories.

Marital Status: List of handicapped people's current marriages. This was in the single and married divisions.

Having Parents: Having parents is the status of the detailed disabled persons of the natural alive of parents. Having parents is divided into four groups: mother alive, father alive, both parents and no parents.

Disability Status: For impaired people, functional issues include seeing, hearing, walking, thinking, self-care (washing, clothing), and communicating. Disability Status has three primary domains: sensory, physical, and both. Sensory includes hearing, seeing, and remembering. The physical domain includes walking, self-care, and communication issues.

Place of Residence: Place of Residence was classed as urban, with more buildings, population, and infrastructure, and rural, with fewer people and mostly agricultural land use.

Educational Level: Educational Level is the highest grade/level of education (public and private schools, nonformal, monastic, and non-state) accomplished in the country's most advanced education system. Educational Level has four categories: Zero Education, Primary and Below Middle, high, and above.

Getting Any Support. There were two categories: those who received help and those who did not.

Participation in Any Community : People who participated in community/social/religious activities and those who did not were mentioned.

Health Status: The independent variable Health Status is categorized based on the self-reported physical well-being of the respondents. Health Status is divided into three groups: good, fair and poor.

CHAPTER III

METHODOLOGY

The methodological framework for analysing the socioeconomic and demographic determinants affecting disabled youth's labour force participation in Myanmar is described in this chapter. The descriptive statistics, Pearson's chi-square test, and binary logistics regression model were used in this study.

3.1 Pearson's Chi-Square Test

A statistical test for figuring out whether two categorical variables have a significant relationship is the Pearson Chi-Square Test of Association. It contrasts the actual frequencies in each contingency table category with the frequencies that would be predicted in the absence of any correlation between the variables (McHugh, 2013).

To test the hypotheses:

H_0: The two category variables are unrelated.

H_1: Two category variables are linked.

The test-statistic is

$$\chi^2 = \sum_{i=1}^{n} \frac{(O_i - E_i)^2}{E_i} \quad (3.1)$$

where, χ^2= Pearson's cumulative test statistic, which asymptotically approaches a χ^2 distribution

O_i = the number of observations of type i

E_i = the expected (theoretical) count of type i

If the null hypothesis is not rejected, the test means that two variables are not related to each other. Rejecting the null hypothesis indicates two variables are connected.

A Chi-square test can be used when the following assumptions are met:

Assumption 1: Both variables are categorical.

Two categorical variables are assumed. Two variables are named or labelled.

Assumption 2: All observations are independent.

All of the data set's observations are presumed to be independent. In other words, one observation's value in the data set has no bearing on the values of any other observations.

Assumption 3: Cells in the contingency table are mutually exclusive.

Individuals are probably restricted to one contingency table cell. Since the cells in the table are mutually exclusive, an individual cannot belong to more than one.

Assumption 4: Expected values of cells should be 5 or greater in at least 80% of cells.

It is considered that no cell in the contingency table should have an expected value less than 1, and that at least 80% of the cells should have expected values of 5 or above. These prerequisites guarantee the precision of the p-value and the dependability of the chi-square approximation (McHugh, 2013).

3.2 Binary Logistic Regression Model

Binary logistic regression is used for dichotomous dependent variables and continuous or categorical independent variables. A multinomial logistic regression can be used for non-binary dependent variables with more than two categories.

Dichotomous or binary dependent variables are prognosed using binary logistic regression. Logistic regression calculates the likelihood of an event occurring over the risk of it not occurring. Logistic regression models the mean of Y as a function of X using the equation.

$$Y = E(Y \mid X) + \varepsilon_i$$

$$\text{Logit}(Y) = \ln\left(\frac{p_i}{1-p_i}\right) = \beta_0 + \beta_1 X_1 \qquad (3.2.1)$$

Where,

p_i is the probability of the outcome of interest

$p_i = 1$, if the event will occur.

$p_i = 0$, if the event does not occur.

Unfortunately, the extreme values of X will give values of $\hat{\beta}_0 + \hat{\beta}_i X_i$ that does not fall between 0 and 1. Using the natural logarithm to change the chances is the

logistic regression solution to this issue. (Hosmer, D. W., Sturdivant, R. X., & Lemeshow, S. 2013).The estimated logit model is

$$\hat{L} = 1n\left(\frac{\hat{p}_i}{1-\hat{p}_i}\right) = \hat{\beta}_0 + \hat{\beta}_i X_i \quad (3.2.2)$$

where X is the explanatory variable and p is the desired outcome probability. The logistic regression parameters are i. This is the basic logistic model. To anticipate the likelihood of the desired event, take the antilog of Equation (3.2.2) on both sides.

P = P (Y = interested outcome | X = x, a specific value

$$p = \frac{e^{(\beta_0+\beta_1 X)}}{1+e^{(\beta_0+\beta_1 X)}} \quad (3.2.3)$$

Complex logistic regressions may be developed by adding variables to the basic logistic regression.

$$1n\left[\frac{p(Y=1 \mid X_1,\ldots,X_k)}{1-p(Y=1 \mid X_1,\ldots,X_k)}\right] = \text{Logit}\,(Y) = 1n\ (\text{odds})$$

$$= 1n\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_k X_k$$

$$= 1n\left(\frac{p}{1-p}\right) = \beta_0 + \sum_{j=1}^{k} \beta_j X_j$$

Where, $p = P(Y = 1 \mid X_1 = x_1,\ldots,X_k = x_k)$

$$p = \frac{e^{\beta_0+\sum_{j=1}^{k}\beta_j X_j}}{1+e^{\beta_0+\sum_{j=1}^{k}\beta_j X_j}}$$

$$= \frac{1}{1+e^{-(\beta_0+\sum_{j=1}^{k}\beta_j X_j)}}$$

$1 - p = p(Y = 1 \mid X_1 = x_1,\ldots,X_k = x_k)$

$$1 - p = \frac{1}{1+e^{(\beta_0+\sum_{j=1}^{k}\beta_j X_j)}}$$

Assumptions of the Logistic Regression Model

The assumptions of logistic regression model are as follows:

1. Logistic regression requires several samples.
2. Logistic regression requires independent observations.
3. Logistic regression needs low independent variable multicolinearity.
4. In logistic regression, residuals (error terms) need not be regularly distributed.

Parameter Estimating in the Logistic Regression Model

Most logistic regression analyses estimate parameters using maximum likelihood. Maximum likelihood will provide values of β_0 and β_i which maximize the probability of obtaining the data set. The likelihood function estimates data observation probability based on unknown parameters (β_0 and β_i). The "likelihood." is the probability that the independent variables can predict the dependent variable. The likelihood varies from 0 to 1, like other probabilities. If every sample of size "n" selected from the population has the same likelihood of an event occurring, Yi=1 means the ith subject will experience an event; otherwise, Yi=0. The observed data are X1...Xn and Y1...Yn. The likelihood, or joint probability, of the data is provided by

$$L = \prod_{i=1}^{n} p^{y_i} (1-p)^{1-y_i}$$

$$= (p)^{\sum_{i=1}^{n} y_i} (1-p)^{n-\sum_{i=1}^{n} y_i}$$

Natural logarithm of the likelihood is

$$L = \text{Log}(L) = \sum_{i=1}^{n} y_i \log p + (n - \sum_{i=1}^{n} y_i) \log(1-p)$$

To estimate β0 and βi, use the first derivatives of log-likelihood and solve for them. Iterative computing is utilised. A random coefficient value (typically 0) is chosen first. Then log-likelihood is calculated and coefficient fluctuation is noticed. The process is repeated until l is maximised, resulting in the most likely estimates of β0 and βi.

Goodness of Fit Test

Once the logistic regression model parameters are determined using the maximum likelihood estimator, the variables' significance to predicting the response variable must be assessed. Deviance, likelihood ratio, Hosmer-Lemeshow goodness of fit, Omnibus, and Wald tests can be used to evaluate. Testing statistics' chi-square distribution has degrees of freedom equal to the number of predictors.

Deviance

Hosmer & Lemshow (2000) say the model's fit depends on the deviation, or statistic D. Where q is the number of variables in the equation, a Chi-square distribution with q degrees of freedom defines deviation (D).

$$D = -2\sum_{i=1}^{n}\left[y_i 1n\left(\frac{p_i}{y_i}\right) + (1-y_i)1n\left(\frac{1-p_i}{1-y_i}\right)\right]$$

Likelihood Ratio Test

A likelihood ratio test compares the deviation with all of the model's predictors to the deviation with none (or the intercept alone model). The likelihood ratio test determines logistic regression variable relevance. The dropped variable will be a significant predictor in the equation if the test is significant, but it will be eliminated from the model if not. Chi-square distributes likelihood-ratio tests. The log-likelihood ratio compares the deviation of the null model (a model with just the constant) to a model with independent variables.

The figure is provided by:

$$-2\log\left(\frac{L_0}{L_1}\right) = -2[\log(L_0) - \log(L_1) = -2(l_0 - l_1)]$$

Where *lo* is the maximum likelihood function value for a basic model and l_1 for a comprehensive model. One variable is eliminated from the simple model, while the comprehensive model includes all important parameters. (Hosmer and Lemeshow, 2000).

Hosmer-Lemeshow Goodness of Fit Test

This test compares the dependent variable's actual and predicted values. This method is similar to Chi-square goodness of fit. The Hosmer-Lemeshow test compares observed event proportions with estimated probability of occurrence in model population subgroups. To execute the Hosmer-Lemeshow test, predicted probabilities are split into deciles (10 groups based on percentile ranks) and a Pearson Chi-square is generated to compare expected and actual frequencies in a 2-by-10 table. The value of the test statistics is

$$\chi^2 = \sum_{10}^{i=1} \frac{(O_i - E_i)^2}{E_i}$$

Where O_i and E_i denote the observed events, and expected events for the i^{th} risk decile group.

Omnibus Test

Omnibus test statistic measures model fit. The test contrasts at least one independent variable's non-zero coefficient to the null hypothesis, which states that all coefficients are zero. When p-value goes below significance threshold, null hypothesis is rejected. It advises modelling the data with logistic regression.

Wald Test

The Wald statistic may assess each coefficient's or predictor's relevance in a model. The Wald test is a vector-matrix calculation employing the parameter vector, transpose, and variance matrix inverse (Hosmer and Lemeshow, 2000). The Wald statistic may be calculated using the following formula;

$$W = \frac{\hat{\beta}_i}{SE(\hat{\beta}_i)}$$

where, $\hat{\beta}_i$ is the estimate of the coefficient of the independent variable x_i and SE ($\hat{\beta}_i$) is the standard error of $\hat{\beta}_i$. The squared value of the Wald statistics as indicated below is chi- square distributed with one degree of freedom.

$$W^2 = \left(\frac{\hat{\beta}_i}{SE(\hat{\beta}_i)}\right)^2.$$

The Wald statistic has I degrees of freedom and is based on a chi-square distribution. If the test's p-value is smaller than α (the significance level), the null hypothesis is rejected. When a coefficient's Wald statistic p-value is smaller than the significance level (α), it indicates that the variable is significant in the model.

Cox and Snell R Square

The model's log likelihood in relation to the baseline model's log likelihood is the basis for Cox and Snell R^2. Cox and Snell R^2 calculates the R^2 for logistic regression as

$$\text{Cox \& Snell } R^2 = \left[\frac{-LL_0 - LL_k}{-LL_0} \right]^{n/2}$$

3.3 Source of Data

This study used data from the 2019 Myanmar Inter-censal Survey (MICS) by the Department of Population under the Ministry of Labour, Immigration, and Population. This nationally respresentative survey aimed to collect comprehensive demographic and socioeconomic information on individuals across Myanmar for the purpose of this study, a sub set the dataset was extracted , focusing sepcifically on disable youth aged 15-24 years. Out of 85,851 disable youth taken in the dataset, a total of 3,446 disable youth are participated. But 156 missing case in the health status of disable youth found in the dataset. So these missing cases were delected and 3290 disable youth are participated in the study.

3.4 Definition of Variables Applied to the Model

In Myanmar, age group, gender, marital status, having parents, disability status, place of residence, educational attainment, receiving support, community involvement, and health status can directly affect the value of a regressor, such as disabled youth labour force participation, and the regressor whose variation is being studied.

Table (3.1) lists the regressor variable names and codes used in this study.

Table (3.1) Classification of Dependent Variable

Dependent Variable	Classification	Code
Labor Force Participation of Disable Youth	Yes	1
	No	0

Regardless of the industry or labour force characteristics that determine the youth's classification, Table (3.1) shows the kind of work completed during the reference period by the youth who participated in the labour force or the type of work completed before by the young who did not participate. The codes are (0) No and (1) Yes.

Table (3.2) provides an explanation of each predictor variable.

Table (3.2) Classification of Independent Variables

Independent Variables	Classification	Code
Age	15 –18	1
	18 – 21	2
	21– 24	3
Gender	Male	1
	Female	2
Marital Status	Single	1
	Married	2
Having Parents	Both Parents	1
	Mother alive	2
	Father alive	3
	No Parents	4
Disability Status	Sensory domain	1
	Physical domain	2
	Both Senory and Physical	3
Place of Residence	Urban	1
	Rural	2
Educational Level	No Education	1
	Primary and Below	2
	Middle School	3
	High School and above	4
Getting any support	Yes	1
	No	2
	No need	3
Participation in any community	Yes	1
	No	2
Health Status	Good	1
	Fair	2
	Poor	3

CHAPTER IV
RESULTS AND FINDINGS

This chapter examines Myanmar's 15–24-year-old disabled youth labour force participation variables. The study uses descriptive statistics, Pearson's chi-square test, and binary logistics regression. In this chapter the findings detail in following sub titles such as labor force participation of disable youth, demographic factors of disable youth and socioeconomic factors of disable youth, association between demographic and socioeconomic factors and labor force participation of disable youth and binary logistic regression analysis for labor force participation of disable youth.

4.1 Descriptive Statistics

Descriptive statistics is used to investigate the labor force participation of disable youth, demographic and socioeconomic factors of disable youth in Myanmar based on 2019 Myanmar Inter-censal Survey.

4.1.1 Distribution of Labor Force Participation of Disable Youth

This study is predicted the Frequency and Percentage of labor force participation of disabe youth as shown in Table (4.1).

Table (4.1) Distribution of Labor Force Participation of Disable Youth

Labor Force Participation of Disable Youth	Frequency	Percentage
Yes	638	19.4
No	2652	80.6

Source : Myanmar Inter-censal Survey (MICS, 2019)

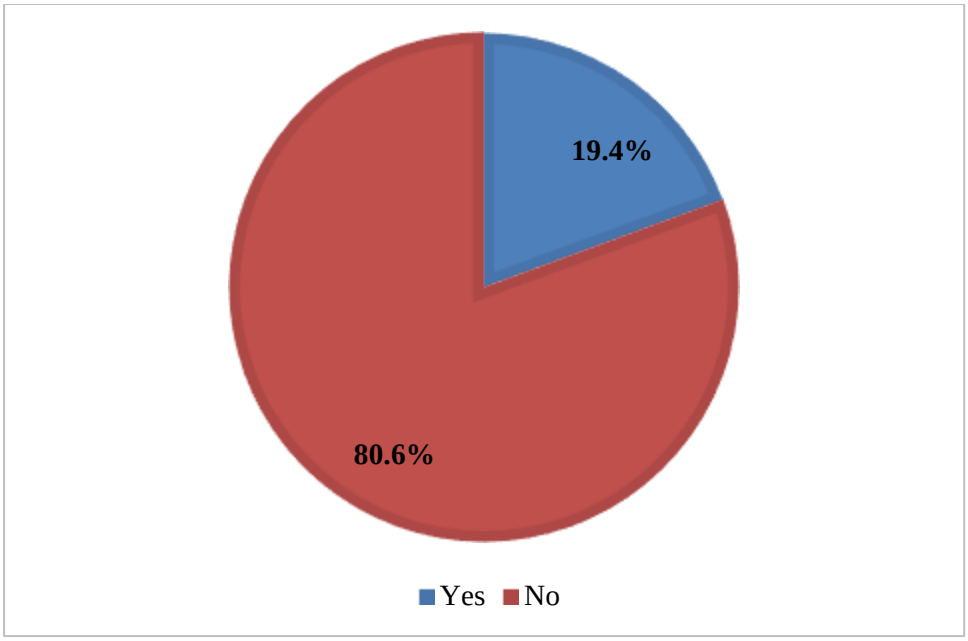


Figure (4.1) Pie Chart of Labor Force Participation of Disable Youth

According to Table (4.1) and Figure (4.1), the labor force participation of disable youth is only 19.4% of focus group, and this percentage is very small contribution on labor force participation. But 80.6% of disable youth are not participated in labor force.

4.1.2 Distribution of Demographic Factors of Disable Youth

This study is determined demographic factors of disabe youth, age group, gender, marital status, having parents, disability status and place of residence percentage using descriptive statistical methods were applied to participation as shown in Table (4.2).

Table (4.2) Percentage Distribution of Demographic Factors of Disable Youth

Factors	Classification	Frequency	Percentage
Age	15 – 18	1062	32.3
	18 – 21	1012	30.8
	21 – 24	1216	37.0
Gender	Male	1558	47.4
	Female	1732	52.6
Marital Status	Single	2723	82.8
	Married	567	17.2
Having Parents	Both Parents	2617	79.5
	Mother Alive	474	14.4
	Father Alive	127	3.9
	No Parents	72	2.2
Disability Status	Sensory domain	2198	66.8
	Physical domain	586	17.8
	Both sensory and physical	506	15.4
Place of Residence	Urban	1005	30.5
	Rural	2285	69.5

Source : Myanmar Inter-censal Survey (MICS, 2019)

According to Table (4.2), the demographic factors, 37.0% of disable youth belonged to age group 21 - 24 years and followed by 32.3% of disable youth belonged to age group 15-18 years, and nearly 30.8% of disable youth belonged to age group 18-21 years. It was found that, labor force participation was largest in aged group 21-24 years. It was smallest in aged group 18-21 years. The disable youth 52.6% were female whereas 47.4% were male. It was found that, female labor force participation is greater than male labor force participation. In relation to the marital status 82.8% of disable youth were married whereas 17.2% were single. Regarding having parents, it found that 79.5% of disable youth were both parents and and follwed by 14.4% were mother alive, 3.9% were father alive and 2.2% of disable youth were no parents. Having parents was found that, both parents are more than mother alive and father alive, having is the least of no parents.The disability status, 66.8% of disable youth had difficulty sensory domain, 17.8% had difficulty physical domain and 15.4% had

difficulty both sensory and physical domain. Most of disable youth 69.5% lived in rural areas but 30.5% lived in urban areas.

4.1.3 Distribution of Socioeconomic Factors of Disable Youth

This study is determined socioeconomic factors of disabe youth, education level, get any support , participation in any community, health status percentage using descriptive statistical methods were applied to participation as shown in Table (4.3).

Table (4.3) Percentage Distribution of Socioeconomic Factors of Disable Youth

Factors	Classification	Frequency	Percentage
Education Level	No Education	475	14.4
	Primary and below	766	23.3
	Middle School	791	24.0
	High School and above	1258	38.2
Get Any Support	Yes	242	7.4
	No	2900	88.1
	No Need	148	4.5
Participated in Any Community	Yes	933	28.4
	No	2357	71.6
Health Status	Good	2270	69.0
	Fair	663	20.2
	Poor	357	10.9
		3290	

Source : Myanmar Inter-censal Survey (MICS, 2019)

According to Table (4.3) , most of the disable youth 38.2% have achieved high school and above and followed by 24% have achieved middle school, 23.3% have achieved primary and below and 14.4% have no education. Regarding getting support, 88.1% of disable youth have not getting any support, 7.4% have getting support and 4.5 % have not needed any support.

According to the participated in any community, 28.4% of the disable youth participated in the any community wherease 71.6% of the disable youth who did not

participate in any community. With respect to health status, 69.0% of the disabled youth were reported to be in good health, 20.2% in fair health, and 10.9% in poor health.

4.2 Association Between Demographic and Socioeconomic Factors and the Labour Force Participation of Disable Youth

This study can be determined age group, gender, marital status,having partents, disability status, place of residence, education level, getting any support, participation in any communication and health status were associated with the labor force participation of disable youth using the chi-square test and the results are showed in Table (4.4).

Table (4.4) Association of Labour Force Participation of Disable Youth and Demographic and Socioeconomic Factors

Variables	Labour Force Participation		Chi-Square	P-value
	No (%)	Yes (%)		
Age				
15 – 18	960 (36.2)	102 (16.0)	108.311***	0.000
18 – 21	801 (30.2)	211 (33.1)		
21 – 24	891 (33.6)	325 (50.9)		
	2652 (100)	638 (100)		
Gender				
Male	1205 (45.4)	353 (55.3)	20.185***	0.000
Female	1447 (54.6)	285 (44.7)		
	2652 (100)	638 (100)		
Marital Status				
Single	2252 (84.9)	471 (73.8)	44.363***	0.000
Married	400 (15.1)	167 (26.2)		
	2652 (100)	638 (100)		
Having Parents				
Both Parents	2138 (80.6)	479 (75.1)	11.985***	**0.007**
Mother Alive	355 (13.4)	119 (18.7)		
Father Alive	102 (3.8)	25 (3.9)		
No Parents	57 (2.1)	15 (2.4)		
	2652 (100)	638 (100)		

Table (4.4) Association of Labour Force Participation of Disable Youth and Demographic and Socioeconomic Factors

Variables	Labour Force Participation		Chi-Square	P-value
	No (%)	Yes (%)		
Disability Status				
Sensory domain	1727 (64.6)	471 (73.2)	45.421***	0.000
Physical domain	462 (18.0)	124 (19.8)		
Both sensory and physical	463 (17.4)	43 (7.0)		
	2652 (100)	638 (100)		
Place of Residence				
Urban	795 (30.1)	210 (33.0)	2.092*	**0.148**
Rural	1857 (70.0)	428 (67.1)		
	2652 (100)	638 (100)		
Education Level				
No Education	413 (15.6)	62 (9.7)	59.799***	0.000
Primary and below	561 (21.2)	205 (32.1)		
Middle School	610 (23.0)	181 (28.4)		
High School and above	1068 (40.3)	190 (29.8)		
	2652 (100)	638 (100)		
Get Any Support				
Yes	213 (8.0)	29 (4.5)	14.249***	**0.001**
No	2310 (87.1)	590 (92.5)		
No Need	129 (4.9)	19 (3.1)		
	2652 (100)	638 (100)		
Participated in Any Community				
Yes	684 (25.8)	249 (39.0)	44.349***	0.000
No	1968 (74.2)	389 (61.1)		
	2652 (100)	638 (100)		
Health Status				
Good	1778 (67.0)	492 (77.1)	49.368***	0.000
Fair	538 (20.3)	125 (19.6)		
Poor	336 (12.7)	21 (3.3)		
	2652 (100)	638 (100)		

Source: :Myanmar Inter-censal Survey (MICS, 2019)

*** denotes significant at 1% level, ** denotes significant at 5% level and * denotes significant at 10% level

According to the results of Chi-square test, age group, gender, marital status, having parents, disability status, place of residence, education level, get any support, participated in any community and health status are significantly related to labor force participation of disable youth.

According to Table (4.4), age of disable youth is related to the labor force participation at 1% level (chi-square= 108.311 and p-value= 0.000). The most of disable youth with age group 21-24 years (50.9%) participate in the labor force and followed by disable youth with 18-21 years (33.1%) and 15-18 years (16%). The disable youth's gender is related to the labor force participation at 1% level (chi-square= 20.185 and p-value= 0.000). Female disable youth 44.7% participated in labor force whereas male disable youth 55.3% participated in labor force.

The disable youth's marital status is related to the labor force participation at 1% level (chi-square= 44.363 and p-value= 0.000). It is found that married disable youth 26.2% participate in the labor force whereas unmarried disable youth 73.8% participate in the labor force. Having parents of disable youth is related to the labor force participation at 1% level (chi-square= 11.985 and p-value= 0.007). The most of disable youth with both parents 75.1% participate in the labor force and followed by disable youth with mother alive 18.7%, father alive 3.9%and no parents 2.4%. The disable youth's disability status is related to the labor force participation at 1% level (chi-square= 45.421 and p-value= 0.000). Most of disable youth (73.2%) had difficulty sensory domain ,19.8% had difficulty physical domain and 7% had difficulty both sensory and physical domain.

The disable youth's place of residence is related to the labor force participation at 1% level (chi-square= 2.092 and p-value= 0.148). The most of disable youth 67.1% lived in the rual areas participate in the labor force but 33% lived in urban areas participate in the labor force. The disable youth's education level is related to the labor force participation at 1% level (chi-square= 59.799 and p-value= 0.000). The most of disable youth 32.1% have primary and below and followed by 9.7% have no education and 28.4% of disable youth to middle school and 29.8% high school and above. The disable youth's get any support is related to the labor force participation at 1% level (chi-square= 14.249 and p-value= 0.001). The disable youth who get any support 4.5% participate in the labor force, who do not get any support 92.5% participate in the labor force and who do not need any support 3.1% participate in the labor force. The participation of any community is related to to the labor force participation at 1% level

(chi-square= 44.349 and p-value= 0.000). Regarding the participation in labor force, the disable youth who participate in any community 39% and disable youth who do not participate in any community 61.1% . The health status of disable youth is related to labor force participation at 1% level (chi-square= 49.368 and p-value= 0.000). In paticipationg labor force, the most of disable youth 77.1% have good health status and followed by 19.6% and 3.3% have fair health status and poor health status.

4.3 Binary Logistic Regression Analysis for Disable Youth

In this study independent variables are age group gender, marital status, having parents, disability status, place of residence, education level, getting any support, participation in any community and health status.

The following table (4.5) presents model fitting information for binary logistic model of labour force participation of disable youth.

Table (4.5) Model Fitting Information for Binary Logistic Model of Labour Force Participation of Disable Youth

Model Fitting Criteria	Chi-square value	df	p-value
OmnibusTest of Model Coefficient	320.909***	18	0.000
Hosmer and Lemeshow (H-L) Test	5.625	8	0.689
-2 Log Likelihood	2915.522		
Cox & Snell R Square	0.093		
Nagelkerke R Square	0.148		
Overall Correct Prediction	80.6%		

Source: : Myanmar Inter-censal Survey (MICS, 2019)

*** denotes significant at 1% level

The binary logistic regression model for impaired juvenile labour force participation is shown in Table 4.5. Five explanatory variables yield a chi-square value of 320.909 with 18 degrees of freedom and a p-value of 0.000 in the Omnibus Test of model coefficient, indicating a statistically significant model.

In the Hosmer and Lemeshow (H-L) Test, which measures model goodness-of-fit, the chi-square value was 5.625 with 8 degrees of freedom and the p-value was 0.689, indicating that the test is not significant at 5%. The model matches data and

predicts comparable classifications. It improves logistic regression model credibility and reliability.

Cox and Snell and Nagelkerke R Squares used chi-square values of 0.093 and 0.148. This suggests that the model explains 9.3% to 14.8% of handicapped adolescent labour force participation. This study covers various unmeasured labour force participation characteristics, and the model explains the outcome statistically.

Table 4.6 displays the binary logistic regression findings for disabled youth labour force participation.

Table (4.6) Results of Binary Logistic Regression Analysis of Labour Force Participation for Disable Youth

Variables	B	SE	Wald Statistics	P-value	Exp(B)	95% C.I. for Exp(B)	
						Lower	Upper
Constant	-2.753	0.322	73.306	0.000	0.064		
Age							
15 – 18**(ref)**							
18 – 21	0.904***	0.134	45.335	0.000	2.469	1.898	3.212
21 – 24	1.126***	0.134	71.079	0.000	3.082	2.373	4.004
Gender							
Male**(ref)**							
Female	-0.413***	0.095	18.733	0.000	0.661	0.549	0.798
Marital Status							
Single**(ref)**							
Married	0.149	0.123	1.460	0.227	1.161	0.911	1.478
Having Parents							
Both Parents	0.191	0.125	2.347	0.126	1.210	0.948	1.546
Mother Alive	-0.028	0.240	0.013	0.908	0.973	0.607	1.557
Father Alive	-0.199	0.312	0.408	0.523	0.819	0.445	1.509
No Parents**(ref)**							

Table (4.6) Results of Binary Logistic Regression Analysis of Labour Force Participation for Disable Youth (Continued)

Variables	B	SE	Wald Statistics	P-value	Exp(B)	95% C.I. for Exp(B)	
						Lower	Upper
Disability							
Sensory domain	0.885***	0.185	22.987	0.000	2.424	1.688	3.481
Physical domain	0.882***	0.202	19.066	0.000	2.416	1.626	3.591
Both sensory and physical**(ref)**							
Place of Residence							
Urban**(ref)**							
Rural	-0.320***	0.105	9.230	0.002	0.726	0.591	0.893
Education Level							
No Education**(ref)**							
Primary and below	0.390**	0.179	4.776	0.029	1.478	1.041	2.097
Middle School	0.824	0.128	41.439	0.000	2.279	1.773	2.928
High School and above	0.608**	0.126	23.343	0.000	1.837	1.436	2.352
Get Any Support							
Yes**(ref)**							
No	0.528**	0.214	6.103	0.013	1.696	1.115	2.578
No Need	0.040	0.329	0.015	0.903	1.041	0.546	1.985
Participated in Any Community							
Yes**(ref)**							
No	-0.383***	0.099	15.045	0.000	0.682	0.562	0.828
Health Status							
Good**(ref)**							
Fair	- 0.110	0.118	0.873	0.350	0.896	0.711	1.128
Poor	- 1.245***	0.242	26.432	0.000	0.288	0.179	0.463

Source: : Myanmar Inter-censal Survey (MICS, 2019)

*** denotes significant at 1% level, ** denotes significant at 5% level and * denotes significant at 10% level

Table (4.6) shows that age, gender, married status, handicap status, location of residence, education level, community activity, and health status affect labour force participation.

Age coefficients for disabled youth 18-21 and 21-24 are 0.904 and 1.126, and their odd ratios are 2.469 and 3.082. Disabled youth aged 18-21 and 21-24 are 2.469 and 3.082 times more likely to work than those aged 15-18 when other independent variables remain constant. The odd ratio of female disabled adolescents is 0.661 and its coefficient is -0.413. Female disabled kids are 0.339 times less likely to work than male disabled youth when other independent factors remain constant. Married disabled youth had a 0.149 coefficient and 1.161 odd ratio. When all variables remain fixed, married disabled youth are 1.161 times more likely to work than unmarried disabled youth.

While all independent variables are constant, disabled children who have problems in both sensory and physical domains are 2.424 and 2.416 times more likely to work.

Place of residence coefficient is -0.320 and odd ratios is 0.726. When all independent factors remain fixed, disabled youth in rural urban regions are 0.274 times less likely to work than those in urban areas. Disabled youth in elementary, middle, and high school had coefficients of 0.390, 0.824, and 0.608 and odd ratios of 1.478, 2.279, and 1.837. When other independent factors remain fixed, disabled adolescents with primary education or less are 1.478 times more likely to work than those without. When all independent factors remain constant, disabled adolescents who have attended middle and high school are 2.279 and 1.837 times more likely to work than those who have not. Unsupported disabled youth have a 5% labour force participation rate. The odd ratio of disabled kids without help is 1.696 and the coefficient is 0.528. When other variables remain unchanged, disabled youth without help are 1.696 times more likely to work than those with support. Community-less disabled kids had a -0.383 coefficient. The odd ratio is 0.682. Disabled kids without community are 0.318 times less likely to work than those with community when other independent factors remain constant.

The odd ratio of disabled kids with bad health is 0.288 and their coefficient is -1.245. Disabled youth with bad health are 0.712 times less likely to work than those with good health when other independent factors remain constant. Thus, age, gender, marital status, disability status, place of residence, education level, support, community

involvement, and health status affect disable adolescent labour force outcomes. Most statistically significant predictors were at 1% and 5%.

CHAPTER V
CONCLUSION

Based on 2019 Myanmar Inter-censal Survey data, this chapter offers the major findings from the research on disable youth labour force participation in Myanmar. Descriptive data, Pearson's chi-square test, and binary regression regression analysis were used to discover disable young labour force participation variables in Myanmar. This chapter covers results, recommendations, and research requirements.

5.1 Findings

This study utilises secondary data from the 2019 Myanmar Inter-censal Survey (MICS), Department of Population, Ministry of Labour, Immigration, and Population. This research targeted 15–24-year-old disabled persons. The 2019 MICS research included 85851 disabled persons, however this study concentrated on 3446 disabled teenagers aged 15–24. Study uses descriptive statistics, pearson chi-square test of association, and binary logistic regression.

The results of the descriptive statistics show that the labor force participation of disable youth is very low and represents only a small share of the overall labor force. The disable youth aged 21-24 years had the highest labor force participation, followed by those aged 18–21 years, the 15–18 years. In the disable youth, male had the higher labor force participation than female. The single disable youth had the higher labor force participation than unmarried disable youth. In disability status, the disable people who experienced both sensory and physical domain had the lowest labor force participation. Rural locations have more disabled youth than metropolitan places. Mainly high school and above, then middle school and primary school and lower, for disabled adolescents.The disable youth who have getting any support is less than disable youth who have not getting the support. The results show that only a small proportion of disabled youth participate in community activities, while the majority are not involved in any community engagement. The disable youth who have good health status had the highest labor force participation.

According to the results of chi-square test, age, gender, marital status, having parents, disability status, place of residence, education level, get any support,

participated in any community and health status are significantly related to labor force participation of disable youth at 1% significance level.

The binary logistic model showed that age, gender, married status, handicap status, place of residence, education level, community activity, and health status affect labour force participation. Disabled youth aged 18-21 and 21-24 are 2.469 and 3.082 times more likely to work than those aged 15-18. Female disabled youth are 0.339 times less likely to work than male disabled adolescents. Married disabled youth are 1.161 times more likely to work than unmarried ones.

They were more likely to work than disabled adolescents who experienced both sensory and bodily domains. Disabled youth with bad health are less likely to work than those with good health. Middle and high school-educated disabled adolescents are more likely to work than those without.

Unsupported disabled adolescents are more likely to work. Disable youth in rural urban settings were less likely to work than those in metropolitan areas. These findings can guide policy to help disabled adolescents access jobs, education, and community services.

5.2 Suggestions and Recommendations

The conclusions, proposals, and recommendations for strengthening the involvement of disabled youth in the labour force in Myanmar are based on the findings. The age group between eighteen and twenty-four years old should be the primary target of vocational training and job preparation programs. This is because this age group is the most prepared and likely to enter the workforce of all the age groups. There is a large increase in the likelihood that disabled young women will not engage in the labour force. When it comes to gender-inclusive policies, such as flexible working conditions, assistance for carers, and anti-discrimination awareness programs, the goal is to empower and encourage female involvement. A higher level of education is favourably related with participation in the labour force. It is proposed that inclusive education policies be improved, and that scholarship programs that are aimed at students with disabilities be expanded. The intended goal of these programs is to provide students with disabilities with the opportunity to earn at least middle school or high school level certifications.

It is less probable that disabled young people who have disabilities in both the sensory and physical domains will engage in the labour force. To make it possible for young people with severe impairments to participate in the labour force, it is important to make investments in assistive technology, workplace accommodations, and individualised job placement services. It has been shown that involvement in the labour force is substantially correlated with participation in community activities. Encourage community-based initiatives as well as inclusive groups or networks that assist in the development of self-assurance, skills, and social capital for young people who are disabled.

Those disabled young people who live in metropolitan regions have a higher chance of finding work than those who live in rural locations. Increase the number of rural employment programs, such as mobile training centres and rural enterprise support for young people with disabilities. Provide structured support services such as employment, coaching, mentoring, and financial assistance in order to lessen the need for individuals to participate in the labour force and to guarantee that working circumstances are satisfactory. Participation in the labour force is significantly facilitated by one's state of health. It is important to provide disabled young people with improved access to health care, rehabilitation, and mental health services in order to preserve or improve their preparedness for the workforce. The transition into the workforce should be made easier for young people with disabilities, particularly those who have completed higher education, by the implementation of specialised programs. This research may be used to develop policies that will better assist disabled young people in getting access to employment opportunities, educational opportunities, and community resources. The promotion of inclusive education and possibilities for professional training is something that has to be done.

5.3 Needs for Further Research

Despite the fact that this study has produced useful insights, there are still a number of areas that require more research or examination. In next studies, longitudinal research designs must to be taken into consideration. The influence of life transitions, policy changes, and economic developments on impaired adolescents might be better captured through the use of long-term studies, which would assist track how changes in labour market participation occur over any given period of time. These quantitative

findings require the study to be conducted in order to support them. Through in-depth interviews and case studies, it is possible to investigate personal experiences, unearth concealed obstacles, and bring to light motives that cannot be fully explained by statistical data alone. The comparative research between rural and urban impaired adolescent populations or among different types of disabilities would give a more in-depth understanding of the employment problems and possibilities that are particular to certain groups. It is essential to evaluate the efficiency of the initiatives that are currently being implemented by the government and non-governmental organisations. Policy assessments might be used to establish which initiatives have the most potential for success and identify areas in which changes are required to boost employment outcomes for young people with disabilities.

REFERENCES

African Union. (2006). African Youth Charter. Addis Ababa: African Union Commission.

Agresti, A. (2018). *Statistical methods for the social sciences* (5th ed.)Pearson Education.

Ahrendt, D. (2018). Social and employment situation of people with disabilities. Luxembourg: Publications Office of the European Union.

Ballo, J. G. (2020). Labour market participation for young people with disabilities: the impact of gender and higher education. *Work, Employment and Society*, *34*(2), 336-355.

Centers for Disease Control and Prevention (CDC). (2020).Disability and Health Overview.

Central Statistical Organization (CSO) & UNICEF. (2019). Myanmar Multiple Indicator Cluster Survey 2019, Survey Findings Report. Nay Pyi Taw, Myanmar: CSO and UNICEF.

Chaudhuri, M. (2011). *Disability and Employment: A Comparative Study of India and Bangladesh. South Asian Studies Journal.*

Fisher, R. A. (1980). Statistical methods for research workers (14th ed.). Hafner Publishing Company. (Original work published 1925)

Hlaing Hlaing Moe (2023). Factors Influencing Labor Force Participaiton among People With Disabilities in Myanmar*, Journal of Myanmar Academy of Arts and Science (23rd Myanmar* Academy *of Arts and Science Research Conference, 25-27 January, 2024, Nay Pyi Taw State Academy, Nay Pyi Taw)*

Hogan, A., Kyaw-Myint, S., Harris, D., & Denronden, H. (2012). Workforce Participation Barriers for People With Disability. *International Journal of Disability Management*, 7, pp. 1-9.

Hosmer, D. W., Lemeshow, S., & Sturdivant, R. X. (2013). *Applied logistic regression* (3rd ed.). Wiley.

International Labour Organization (ILO) (2022**).** *Employment of people with disabilities and the specific challenges faced in different countries or regions*, ILO, 2022

International Labour Organization (ILO). (2020). *Youth Employment in Myanmar: Challenges and Policy Responses. ILO.*

Johannssmeier. C. (2007). The Social And Economic Effects of The Disability Grant for People with Disabilities and Their Households: A Qualitative Study in Kwazulu-Natal Province, *Qualitative Social Research Report,*74.

Khin Sandar Thein Myint (2024). *Determinats of Educational Attainment of Children with Disabilities in Myanmar.* Unplublished Master Thesis, Master of Applied Statistics (MAS), Department of Statistics, Yangon Unversity of Economics.

Kim, J., Lee, H., & Park, S. (2018). *Inclusive Employment Policies for People with Disabilities in South Korea. International Journal of Disability Management.*

Lay-Raby, N., de la Fuente-Mella, H., & Lameles-Corvalán, O. (2021). Multinomial logistic regression to estimate and predict the job opportunities for people with disabilities in Chile. *Information*, 12(9), 356.

Lo (2020). *At the crossroads: the interaction of demographic factors in persons with disabilities in employment outcomes* (Master's thesis).

Meekosha, H., & Soldatic, K. (2011). Disability and Development in the Global South. *Disability & Society*, *26*(4), 515-528.

Min Thein, Mya Khin & Thura Aung (2019). Disability and Employment in Myanmar: Social and Economic Barriers. Yangon University Journal of Social Sciences.

Moe Soe & Sanda Myint (2017). Barriers to Employment for Disabled People in Myanmar. *Disability Studies Quarterly*, *38*(2).

McHugh, M. L. (2013). The chi-square test of independence. *Biochemia Medica*, **23**(2), 143–149. https://doi.org/10.11613/BM.2013.018

McClave, J. T., & Sincich, T. (2018). *Statistics* (13th ed.). Pearson Education

National Institute of Aging (NIA). (2020). Self-care and Disability.

National Institute of Neurological Disorders and Stroke (NINDS). (2020). Neurological Disabilities.

National Institute on Deafness and Other Communication Disorders (NIDCD,2020).

Nwe Ni Win (2023). *Employment Status of Disable Persons in Myanmar.* M.Econ(Stats) Master thesis, Department of Statistics, Yangon Unversity of Economics.

Rao, N., Lu, J., & Singh, K. (2015). Disability and Employment: Barriers and Opportunities in Cambodia. Asian Development Bank Report.

Stewart, R., Chang, A., & Ho, K. (2019). Non-Governmental Organizations and Disability Employment: A Global Perspective. *Disability International Journal*, *32*(1), 77-92.

Thura Aung, Mya Khin & Min Thein (2018). Youth Disability Employment in Myanmar: Challenges and Opportunities. Yangon University Press.

Tin Myint & Mya Khin (2020). Disability Rights in Myanmar: Policies and Gaps. *Myanmar Journal of Public Policy*, *12*(2), 145-167.

United Nations Development Programme (UNDP) (2021). *Disability and Inclusive Development in Myanmar. UNDP Myanmar.*

United Nations (2016). Department of Economic and Social Affairs. Retrieved from https://en.wikipedia.org/wiki/Conventionon-the-Rights-of-Personswith Disabilities

United Nations (1981). Secretary-General's Report to the General Assembly. New York: United Nations.

UNESCAP (2020). *Disability Inclusion in Asia and the Pacific: Myanmar Report*. United Nations Economic and Social Commission for Asia and the Pacific.

United for Inclusion (2023, December 3).*: Empowering Persons with Disabilities in Myanmar*. UNFPA Myanmar. https://myanmar.unfpa.org/en/news/united inclusion-empoweringpersons-disabilities-myanmar

United Nations Convention on the Rights of Persons With Disabilities CRPD (2016)

United Nations (2006). Convention on the Rights of Persons with Disabilities (CRPD).

World Bank (2005). *Employment & Youth With Disabilities: Sharing Knowledge and Practices,* Report of the E-discussion on Youth & Disabilities, Bocconi University, Milan -Italy

World Bank (2007). World Development Report 2007: Development and the Next Generation. Washington, DC: The World Bank.

World Health Organization. (2011). World Report on Disability. Geneva: World Health Organization.