

Analysis of Disabled People in India

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Abstract: *This research paper is an attempt to analyse the spread of disabled, working people in India across different states. People of different age-groups, with different types of disabilities were analyzed. These included both male and female population. Comparative study based on gender, age, and type of disability was made.*

Keywords: Disability, India, Working, Analysis,

1. Introduction

Number of disabled people in India has been on a rise. As per census 2011, about 2.21% of the total population are disabled. It is crucial to focus on the initiatives necessary to be taken to help in the employment and development of these people. The National Policy for Persons with Disabilities (2006) recognizes that disabled people are valuable human resource for the country and seeks to create an environment that provides equal opportunities for them. To facilitate this there is a need for collection, compilation and analysis of data on disability (1).

Disabled people often find it challenging to get employment. Most working sectors do not employ disabled people. There are very few companies who have specific job roles suiting people with various disabilities. These jobs are limited and sought by many. The ratio of number of disabled people outnumbers the availability of jobs for them. Certain types of disability such as disability in seeing, attract less number of jobs when compared to disability in hearing.

This report will analyze India's disability data collected for 2011 (2). The collected data

comprises of mainly disabled population among main workers, marginal workers, and non-workers by type of disability, age and sex for 2011.

2. Dissecting the Data

Person with disability means a person suffering from not less than forty percent of any disability as certified by a medical authority (any hospital or institution, specified for the purposes of this Act by notification by the appropriate Government). As per the act "Disability" means:

- i. Blindness
- ii. Low vision
- iii. Leprosy-cured
- iv. Hearing impairment
- v. Loco motor disability
- vi. Mental retardation
- vii. Mental illness.

Those workers who had worked for the major part of the reference period (i.e. 6 months or more) are termed as Main Workers (2). The data is collected state wise and classified based on gender, age-group and type of disability. Estimation is done separately for males and females for total number of disabled people, number of main workers, number of marginal workers (less than 3 months), and number of non-workers.

Based on the data, distribution of disabled across different states, different age-groups and disability types can be viewed in Fig 1, 2, and 3.

Age-group	State Code	Disability							
		Any-Ot..	In-Hea..	In-Mov..	In-Seei..	In-Spe..	Menta..	Menta..	Multip..
0-14	AP	■	■	■	■	■	.	■	■
	Assam	■	■	.	■	.	.	.	.
	Gujrat	■	■	■	■	.	.	■	■
	HP	.	.	.	.	.	.	.	.
	J&K	■	■	■	■	.	.	.	.
	Karnataka	■	■	■	■	■	.	■	■
	Kerala	■	■	■	■	.	.	.	■
	MAHA	■	■	■	■	■	.	■	■
	MP	■	■	■	■	.	.	■	■
	Orissa	■	■	■	■	.	.	■	■
	Punjab	■	■	.	■	.	.	.	.
	Rajasthan	■	■	■	■	.	.	■	■
	TN	■	■	■	■	.	.	■	■
	UP	■	■	■	■	■	.	■	■
	WB	■	■	■	■	■	.	■	■

Figure 1 Analysis of Disabled - Age (0-14)

15-59	AP	■	■	■	■	■	.	■	■
	Assam	■	■	.	■	.	.	.	■
	Gujrat	■	■	■	■	.	.	■	■
	HP	.	.	.	.	.	.	.	.
	J&K	■	■	■	■	.	.	.	■
	Karnataka	■	■	■	■	■	.	■	■
	Kerala	■	■	■	■	.	■	■	■
	MAHA	■	■	■	■	■	.	■	■
	MP	■	■	■	■	■	.	■	■
	Orissa	■	■	■	■	■	.	■	■
	Punjab	■	■	■	■	.	.	■	■
	Rajasthan	■	■	■	■	■	.	■	■
	TN	■	■	■	■	■	.	■	■
	UP	■	■	■	■	■	.	■	■
	WB	■	■	■	■	■	.	■	■

Figure 2 Analysis of Disabled - Age (15-59)

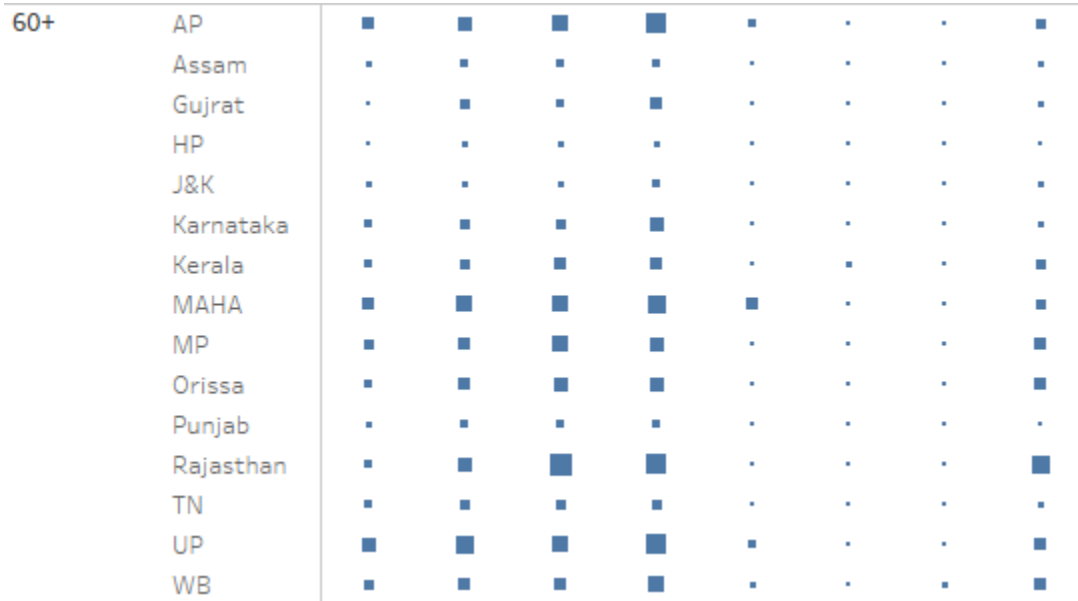


Figure 3 Analysis of Disabled - (Age 60+)

UP records the highest number of disabled people amongst various states followed closely by West Bengal, Maharashtra, and Tamil Nadu. There are more disabled people in the age-group of 15-59 when compared to the other two age-groups. Number of

disabled males are higher when compared to the females.

3. Data Analysis

In this analysis, I studied the number of disabled people (male and female) who were employed in main stream work and marginal work, and number of non-workers. Also I analyzed the type of disability that comprised least number of working people.

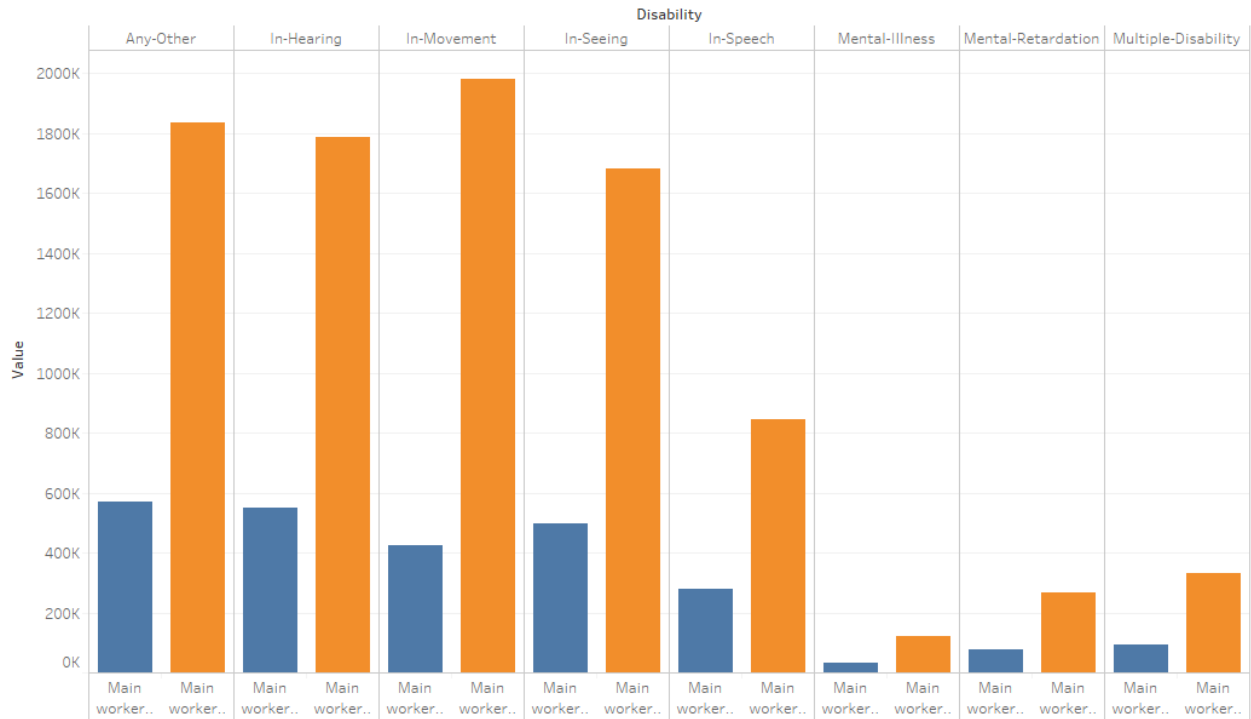


Figure 4 Main Workers vs Type of Disability

Across all types of disabilities, male workers outnumber females. People with In-Speech disability don't seem to easily find jobs when compared to others. Mentally retarded people hardly find employment due to their disability. Amongst non-working disabled people, females outnumber males in most

categories of disability. Higher number of people having disability in hearing, movement, and seeing seem to be unemployed. Almost 150K people (male and female) with different types of disabilities opt for temporary employment ranging from 3 to 6 months.

Table 1 Estimate of Main working and Non-working disabled people

Disability	Main worker - Females	Main worker - Males	Disability	Non-worker - Females	Non-worker - Males
Any-Other	569,582	1,834,363	Any-Other	2,590,013	2,039,094
In-Hearing	551,121	1,786,849	In-Hearing	2,763,000	1,898,056
In-Movement	425,176	1,978,552	In-Movement	2,565,978	2,795,206
In-Seeing	496,022	1,680,057	In-Seeing	2,903,331	2,004,419
In-Speech	278,439	845,070	In-Speech	1,051,958	846,427
Mental-Illness	33,715	120,014	Mental-Illness	434,199	484,696
Mental-Retardation	78,514	266,949	Mental-Retardation	911,540	1,055,228
Multiple-Disability	93,639	329,680	Multiple-Disability	1,396,068	1,441,883

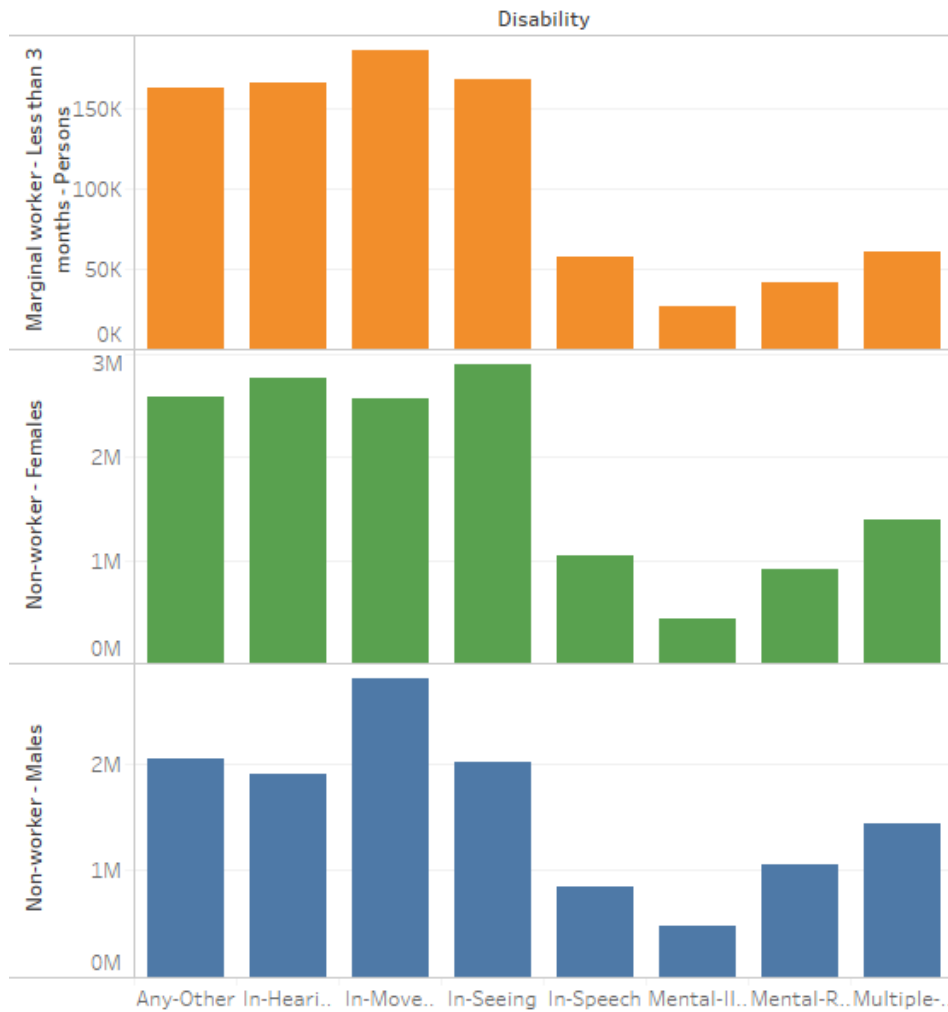


Figure 5 Marginal and Non-Worker Analysis

Number of working disabled people (male and female) vary based on age-group and type of disability. Accordingly the following hypothesis can be constructed:

Hypothesis H1: The total disabled population and number of main stream disabled workers (male and female) is dependent on the age-group and type of disability.

In order to test Hypothesis 1, linear regression considering two independent variables, Age-group and Disability was used. The variation in number of total

disabled people based on age-group and disability could be established by the regression model.

4. Results

As per the output of the regression analysis, hypothesis H1 is proved correct. The total disabled population and number of working disabled people vary based on age-group and type of disability. The regression analysis using Least Squares yielded $P < 0.05$ (refer Table 2). The hypothesis has been proved correct by the regression model for both male and female disabled population. It also holds good for main disabled workers.

Table 2 Regression Analysis output

Total.disabled.population...Females~Age.group+Disability	p-value: < 2.2e-16
Total.disabled.population...Males~Age.group+Disability	p-value: < 2.2e-16
Main.worker...Females~Age.group+Disability	p-value: 6.718e-05
Main.worker...Males~Age.group+Disability	p-value: 1.443e-05

5. Conclusion

The objective of this research was to develop a hypothesis for the dataset and prove it using suitable regression model. Through this research it can be inferred that distribution of disabled people vary across different states in India. Number of disabled people who work depend on age-group and type of disability.

Overall number of disabled males outnumber females, and Uttar Pradesh records the highest number of disabled people in India.

6. References

- [1] Disabled Persons in India. A Statistical profile 2016. Social Statistics Division, Government of India.
- [2] Open Government Data Platform India.