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IMPACT OF ATTAINMENT AT HIGHER EDUCATION OF PERSONS ON LABOUR FORCE PARTICIPATION IN INDIA

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ABSTRACT

This research paper has been carried out to study the research question, "Does attainment at higher education level of persons impact on labour force participation in India?" To serve this purpose, state wise Gross Enrolment Ratio in higher education and labour force participation rate in India were selected as indicators. For analysing the result, two variables - gross enrolment ratio in higher education and its impact on labour force participation rate have been used. To serve the purpose of study linear regression model with charts has been applied. Results have been tested by using these statistical techniques such as regression model, t-test, charts and tables. No effect of education enrolment on labour force participation rate was observed. It implies that labour force participation rate is influenced by other variables, not by education attainment at higher education level.

Keywords: *State Wise Gross Enrolment Ratio of India, Labour Force Participation Rate of Indian States*.

Introduction

Education plays an important role to develop the career of the people. It has quantifying and qualifying functions for any economy and society. There can be seen imperfect links between education and employment or labour force participation because of limits in the identification of job requirements, occupational dynamics, unspecified work tasks of the highly qualified work force, planning gaps, various concepts, and growing importance of lifelong education, whereby diverse value judgements come into play. It is assumed that if people are highly educated and skilled then unemployment rate or labour participation rate declines. But in India, educated unemployment is seen in large proportion. Relationship between education and employment is strongly affected by economic paradigms, especially the human capital approach. But many other parts of research are related as well, such as labour market research, vocational education, educational sociology, sociology and history of the professional, sociology of mobility etc. Previous analysis of educational attainment left out various modes of professional training.

Literature Review

Does education influence labour market or employment? To answer this question Timothy Zimmer (2016), analysed unique employment and unemployment claims data anda simple model. The model attempted to determine which factors impactthe relative wage of the personemerging from unemployment andthe duration of unemployment.The results emphasized the relativeshort-term importance of educationon the ability of an unemployedindividual to successfully navigatethe re-employment market. It was also resulted in this study thathigherlevels of education increased thechance an unemployed person wouldemerge with a comparable wage andreduce the time required to found newemployment. In case of foreign neighbour countries like China, Chen, Z., Wu, Y (2007) suggested that the development of education in China at present has been beneficial to the increase in the employment rate, the increase in the proportion of the laborers with junior school education had negative effects on employment, and the development of higher education created positive effects on the employment, but no evidence showed any significant correlation between the proportion of the laborers with senior high school education and the unemployment rate.In OECD countries (OECD-2018), estimated that the unemployment rate was almost twice for those who have not completed upper secondary education as for those with higher qualification: 15 percent of younger adults age (25-34) without upper secondary education were unemployed compare to around 7 percent for those with a higher level of education. From the above literature review, it can be seen that no study has been carried out to study impact of attainment at higher education of persons on labour force participation in India.

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Objective

- To study impact of education attainment in higher education of male and female on labour force participation in all states of India.

Data and Methodology

This study has been based on secondary data. The source of data has been collected from government website of MHRD, survey of AISHE and MINISTERY OF STATISTICS AND PROGRAMME IMPLEMENTATION. The geographical coverage of the study is all the states of India and hence the sample size covers the whole population of India. To examine education impact on labour force participation, state-wise Gross Enrolment Ratio in Higher Education (18-23 Years) and State wise Labour Force Participation Rate were selected as indicators. To meet the objectiveof study linear regression model with charts has been applied. Results have been estimated by using these statistical techniques such as regression model, t-test, charts and tables.

The following table-1 represents Gross Enrolment Ratio of total persons of 36 states of India.

Table 1: State Wise Gross Enrolment Ratio in Higher Education (18-23 years)

States of India/UTs	Gross Enrolment Ratio of total person
A & N Islands	23.2
Andhra Pradesh	32.4
Arunachal Pradesh	29.7
Assam	18.7
Bihar	13.6
Chandigarh	50.6
Chhattisgarh	18.6
D & N Haveli	9.3
Daman & Diu	5.5
Delhi	46.3
Goa	30.1
Gujarat	20.4
Haryana	29.2
Himachal Pradesh	39.6
Jammu & Kashmir	30.9
Jharkhand	19.1
Karnataka	28.8
Kerala	37
Lakshadweep	7.4
Madhya Pradesh	21.5
Maharashtra	32
Manipur	33.7
Meghalaya	25.8
Mizoram	25.7
Nagaland	18.7
Odisha	22.1
Puducherry	46.4
Punjab	29.5
Rajasthan	23
Sikkim	53.9
Tamil Nadu	49
Telangana	36.2
Tripura	19.2
Uttar Pradesh	25.8
Uttarakhand	39.1
West Bengal	19.3
India	26.3

Source: AISHE REPORT 2018-19, MHRD

Table -2 reveals State-wise Labour Force Participation Rate for persons aged 15 years & above.

Table 2: State-wise Labour Force Participation Rate for Persons Aged 15 Years & above.

States of India/ UTs	Labour Force Participation Rate Total Person
A & N Islands	57.9
Andhra Pradesh	59.9
Arunachal Pradesh	45
Assam	47.5
Bihar	38.2
Chandigarh	51.5
Chhattisgarh	64.5
D & N Haveli	66.6
Daman & Diu	65.2
Delhi	47.1
Goa	49.8
Gujarat	49.8
Haryana	45.5
Himachal Pradesh	62.4
Jammu & Kashmir	53.9
Jharkhand	45.1
Karnataka	51.6
Kerala	46.5
Lakshadweep	43.7
Madhya Pradesh	56.7
Maharashtra	53.1
Manipur	48.1
Meghalaya	63.2
Mizoram	51.6
Nagaland	41.8
Odisha	48.3
Puducherry	42.2
Punjab	46.5
Rajasthan	50.7
Sikkim	60.9
Tamil Nadu	55.1
Telangana	53.9
Tripura	45.1
Uttar Pradesh	44.6
Uttarakhand	43.9
West Bengal	50.1
India	49.8

Source: Ministry of statistics and programme implementation, Government of India, Women and Men in India 2019

In this study education attainment (Gross Enrolment Ratio) of total persons at higher education level are regressed on labour force participation rate in all states of India Regression line is as follows.

$Y_i = b_0 + b_iX_i$

Where,

Y_i = labour force participation rate of total persons in India

X_i = education attainment of total persons at higher education level in India

And b_0 shows intercept term, $b_i$is parameter

The following hypothesis has been framed.

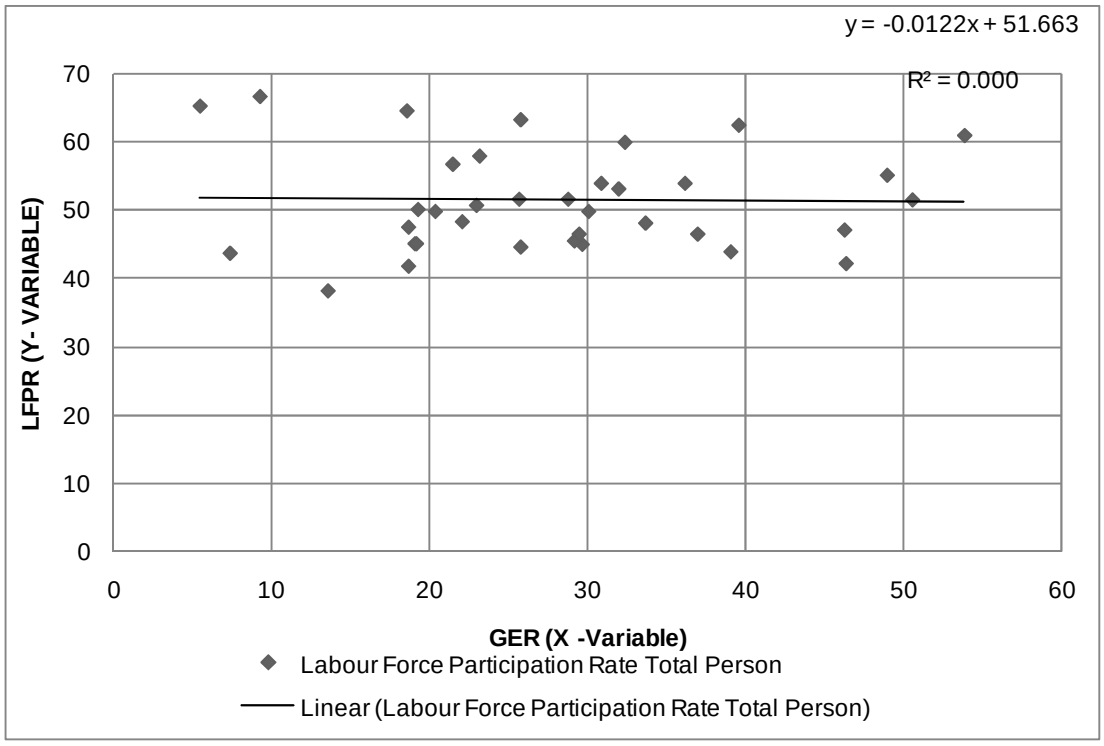
H_O: There is no significant impact of education attainment in higher education on labour force participation rate.

H_1: There is significant impact of education attainment in higher education on labour force participation rate. Hypothesis has been tested by using statistical techniques such as regression model, t-test, charts and tables.

Results and Discussion

In this study, attainment at higher education (Gross Enrolment Ratio of total persons) is regressed with labour force participation rate in India. The following regression line is estimated as shown in following table and chart.

LFPR = β0 + β1*ED



Summary Output

Regression Statistics	
Multiple R	0.019821488
R Square	0.000392891
Adjusted R Square	-0.029007318
Standard Error	7.459405441
Observations	36

ANOVA

	df	**SS**	**MS**	**F**	**Significance F**
Regression	1	0.743584812	0.743585	0.013364	0.908648956
Residual	34	1891.852804	55.64273		
Total	35	1892.596389			

	Coefficients	**Standard Error**	**t Stat**	**P-value**	**Lower 95%**	**Upper 95%**	**Lower 95.0%**	**Upper 95.0%**
Intercept	51.66309544	3.222234849	16.03331	2.02E-17	45.11472632	58.2114645	45.11472632	58.21146447
Gross Enrolment Ratio Total Persons	-0.012233199	0.10582274	-0.1156	0.908649	-0.227290881	0.20282448	-0.22729088	0.202824483

- R-square indicates variation in the outcome because of the predictors (independent variable). In this model, its value is 0.00039, which shows very less variation on labour force participation rate by enrolment in higher education level in India.

- The adjusted R-square indicates how well model generalizes and ideally, its value to be the same, or very close to, the value of R- square. In the above-mentioned table difference for model is a fair. This shrinkage means that if the model were derived from the population rather than a sample it would account for approximately 1 percent less variance in the outcome
- An analysis of variance (ANOVA) tests whether the model is significantly better at predicting the outcome than using the mean as a 'best guess'. F- Ratio reveals the ratio of the improvement in prediction that results from fitting the model (labelled 'regression' in the table), relative to the inaccuracy that still exists in the model (labelled 'residual' in the table). F-Ratio is 0.01, and p value is 0.9, ($p > 0.05$) which shows null hypothesis is accepted at 5 percent level of significance.
- Linear regression model equation can be written as follows from the above-mentioned table values.

  LFPR predicted = $\beta 0 + \beta 1 * Ed$

  LFPR predicted = -0.0122*Ed + 51.663 (or LFPR predicted = 51.663- 0.0122*Ed)
- Each of these beta values has an associated standard error indicating to what extent these values would vary across different samples, and these standard errors are used to fix whether or not the b values differ significantly from zero. Therefore, t-test associated with a b values is significant. For this model, the coefficient for education attainment of total person in India is 0.05, t = (-0.12), is statistically insignificant different from zero.

Conclusion

In this study Gross Enrolment Ratio in Higher Education in India has been taken as an indicator of education attainment for estimating result and to know, Does education attainment influence to labour force participation rate in India? For this study all states of India were selected. Linear regression model was applied for finding out results. It was found that no effects were observed. It indicates that labour force participation rate gets affected more by other variables not by education attainment in higher education.

References

- All India Survey on higher education -2019, MHRD New Delhi.
- Chen, Z., Wu, Y.(2007). The relationship between education and employment: A theoretical analysis and empirical test. Front. Econ. China 2, 187–211. https://doi.org/10.1007/s11459-007-0010-4
- OECD (2018), Education at a glance (2018): OECD Indicators, OECD Publishing Paris. http://dx.doi.org/10.1787/eag-2018-en
- Teichler, U. (2001). *Education and Employment.* International Encyclopedia of the Social & Behavioral Sciences, Elsevier Ltd. Retrieved from https://doi.org/10.1016/B0-08-043076-7/02355-X
- women and men in India (2019),ministry of statistics and Programme implementation, government of India
- Zimmer, T. (2016). The Importance of Education for the Unemployed. *IBR/INDIANA BUSINESS REVIEW, Volume 91*(No. 1), 9-16.

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