iJRASET
International Journal For Research in Applied Science and Engineering Technology



INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 13 **Issue:** VI **Month of publication:** June 2025

DOI: https://doi.org/10.22214/ijraset.2025.72709

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 13 Issue VI June 2025- Available at www.ijraset.com

Missing Women in Formal Economic Sector: A Case Study of Odisha

Miss. Rutusmita Mishra[1], Mr. Amiya Ranjan Jagadev[2]
[1]*Lecturer at S.C.S (A) College, Puri.,* [2] *Lecturer at S.C.S (A) College, Puri*
[1 and 2] *P.G. Department of Geography, Puri, Odisha,*

Abstract: ***The issue of 'missing women in the formal economy' has become increasingly urgent in light of the pandemic's profound adverse effects on women's social and economic standing. During the lockdown period, the absence of alternative caregiving options resulted in women being disproportionately burdened with caregiving responsibilities. Estimates indicate that the pandemic has led to a 30 percent increase in women's unpaid labor. In this context, the state of Odisha merits attention, as it frequently encounters natural disasters and faces the risk of descending into extreme poverty and unemployment due to COVID-19. As a coastal state, Odisha boasts an effective literacy rate of 78.4% (74.2% in rural areas and 87.4% in urban areas), as reported in the latest PLFS Annual Report 2019-20 (statement -4). This achievement is commendable, attributable to the Odisha government's concerted efforts to eradicate illiteracy. Notably, despite favorable literacy rates in both rural and urban regions, the state exhibits a lag in female workforce participation, particularly within the formal sector. To effectively analyze this situation and identify the underlying causes of this paradox, a study was conducted to elucidate the historically low Female Labor Force Participation Rates (FLPRs) in Odisha, encompassing both rural and urban areas. For this purpose, secondary data from the National Sample Survey of 2019-20 and the Periodic Labour Force Survey report from July 2019 to June 2020 were utilized to ascertain the actual figures concerning FLPRs in Odisha. By analyzing the data, it was found that, under formal economic sector, only 16 % of women workforce are coming against a national average of 23.8% in Odisha. It is also worth mentioning that the female unemployment rate by 2019-20 was 37.4%, and the Worker Population Ratio was 35.7% for the age group of 15-59 years. The study also reveals that on the basis of regular wage distribution, only 7% of women in rural areas and 47.1% of women in urban areas are getting the salary on a 365 days basis and the rest are in the wings of the unorganized sector. This raises the question: What are educated women in Odisha doing, and how are they spending their time? To solve this unsolved question, this study attempts to find some possible solutions in a productive way.***
Index Terms: FLPR, Women Workforce Participation, Female Literacy Rate Component.

I. INTRODUCTION

Odisha lies on the eastern coastline of India and is a state known for its rich natural resources, with 33.2 percent of forests covering of the total geographical area. The economy here is entirely agricultural based which tends the peoples to rely upon climatic condition immensely. Being a coastal state, Odisha is prone to several natural calamities among which frequent cyclone are predominant on an annular basis which impoverishing the life of people. Due to its tradition bound agrarian economy, Odisha lags behind in terms of economic advancement and equitable resource distribution arena as it is considered among one of the lower income state of India. Here the literacy rate is 73.45% by 2011 census and 78.4% (Rural -74.2 and Urban -87.4 %) by the latest PLFS annual Report 2019-20 (statement - 4) which is way forward if we compare with other states of India like Jammu and Kashmir, Andhra Pradesh, Madhya Pradesh ,Chhatisgarh and Utter pradesh where the per capita income (PCI) is rather high. In terms of female literacy rate (15+ age), it is 64.36 percent which is higher than the literacy rate of Uttar Pradesh, Bihar, Rajasthan , Jharkhand, Chhatisgarh and Madhya Pradesh according to the data of 2011 census. If we will talk about FLPR which measures the ratio of employed to total female population then the Female Labour Force Participate Rates (FLPRs) in Odisha have been low historically, both in rural and urban areas. According to the Periodic Labour Force Survey (PLFS) 2019-20 round, rural FLPR is 39.5 per cent and Urban FLPR is 34 per cent whereas the total LFPR is 37.4 percent against 32.3 percent of national average. In Odisha the Per Capita Income for year 2020-21 (AE) is Rupees 1,02,156 and Unemployment Rate (UPS) by Labour Bureau 2019-20 was 4.3 percent. As the females are the most vulnerable group of society so for this study the employability of women mass is considered and data related to literacy rate, unemployment rate as well as LFPR are compared to assess the overall economic status of women in Odisha.

©IJRASET: All Rights are Reserved

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 13 Issue VI June 2025- Available at www.ijraset.com

A. Research Objective

The objective of this study is framed as follows:-

1) To analyse the trend and structure of Women Labour Force Participation in Odisha, especially to assess the overall female literacy rate of the state;
2) To understand and analyse the factors contributing to the change in women's labour participation rates;
3) To establish the relationship between literacy rate and income opportunity;
4) To find out some possible solution to tackle with low job participation of women mass in formal sector.

II. DATA SOURCES, METHODOLOGY AND STUDY AREA

The following methods are obtained to analyse the data for this study:-

1) The study area is confined to state of Odisha and data are mainly secondary in nature.
2) Labour force participation rate of females are shown in percentage.
3) Thematic graphs are made to compare the effective literacy rate, dependency ratio, % of UG and PG pass out students, Labour force participation Rate of females and engagement of females mainly in formal sector of economy based on broad division of industry of Odisha and India.
4) Correlation analysis made to analyze the data for examining relationship among the variables.
5) The temporal analysis has done for a period range of 2010-2021 and data are obtained from National Sample Survey, Census Report and PLFS report 2019-20.

III. STATUS OF WOMEN IN ECONOMIC SCENARIO OF ODISHA WITH EMPHASIS ON FORMAL SECTOR ECONOMY

A. Literacy Rate

Education is a core component of social sector. According to 2011 Census overall literacy rate in Odisha (73.45 per cent) was at par with the national average (74.04 per cent) exhibiting an increase of 9.8 percentage points compared to Census 2001. For providing quality school education the government has established 250 Adarsh Vidyalayas in 250 blocks and 64 more are to be set up in the remaining blocks of Odisha.

B. Female Literacy Rate

The female Literacy Rate of the State works out to 64.36 percent (Rural 60.7 percent; Urban 80.4 percent). The highest female literacy rate in rural areas is found in Jagatsinghapur district (80.4 percent), while the lowest is found in Koraput (31.3 percent) in Odisha.

C. Literacy Rate in Terms of Undergraduate and Post Graduate Passed Females

According to the data published by PLFR 2020-21, in Odisha there are 6 percent of female candidates have passed under graduate and post graduate degree against 10.2 percent of national average which is lower than the states like Chhatisgarh and Madhya Pradesh.

D. Labour Force Participation Rate of Females by Usual Status (Age 15-59)

Census classifies workers into main and marginal workers implying persons who participated in any economically productive activity for not less than six months and for less than 6 months respectively during the year preceding the date of enumeration. In Odisha, The total number of workers was 175.42 lakh of which 151.04 lakh (86.1per cent) were in rural areas and 24.38 lakh (13.9per cent) in urban Odisha. Among them, female workers numbered 56.39 lakh constituting 32.1 percent of the total workers in urban area where as it is 39.5 percent in rural areas.

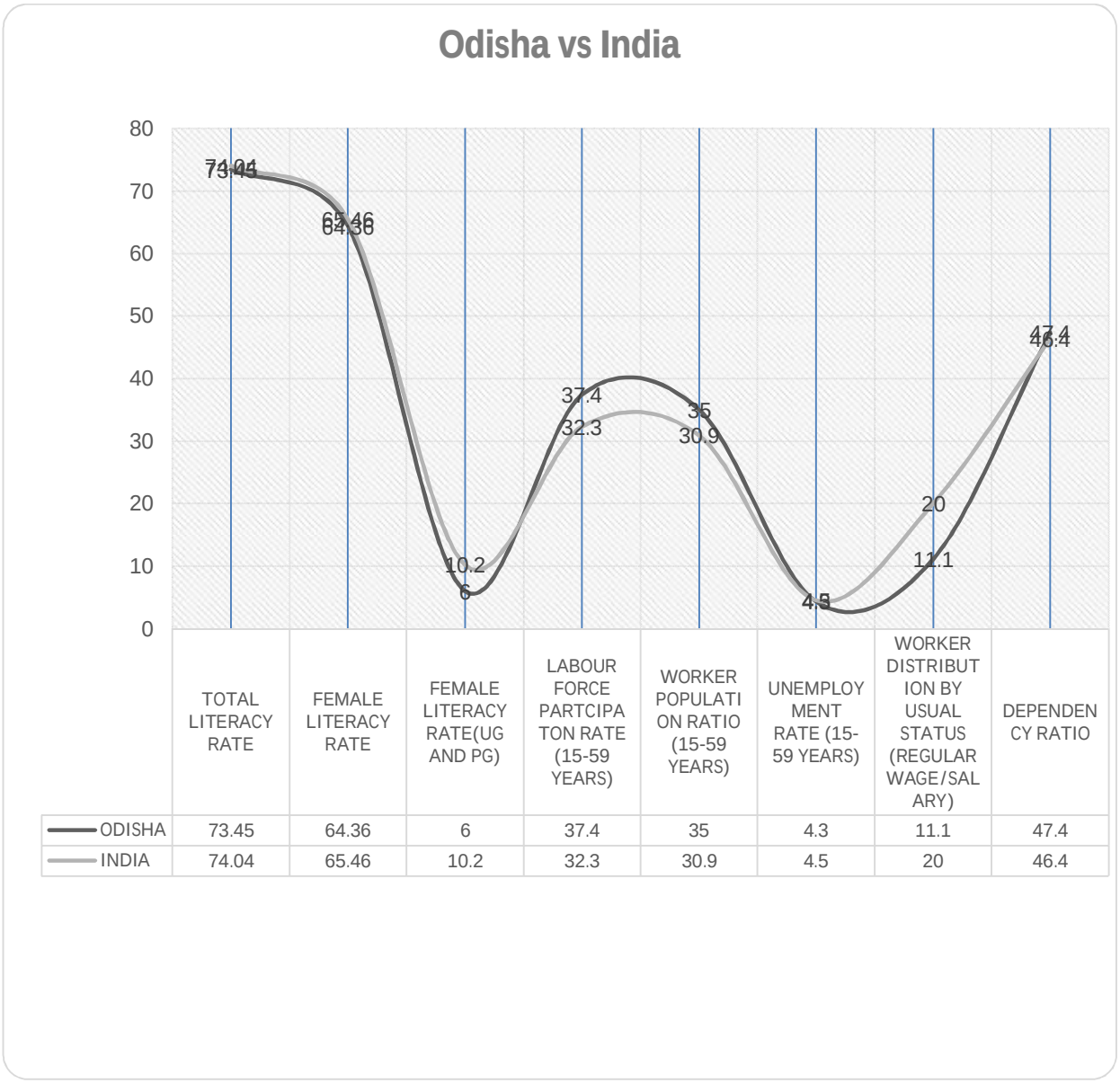
E. Female Unemployment Rate(age 15-59)

In terms of female unemployment rate among the age group of 15-59 years it is 3.8 percent in rural areas where as 8.3 percent in urban areas. In India, the female unemployment stands at 4.5 percent.

©IJRASET: All Rights are Reserved | SJ Impact Factor 7.538 | ISRA Journal Impact Factor 7.894 |

F. Dependency Ratio

The dependency ratio is an age-population ratio of those typically not in the labor force and those typically in the labor force. It is used to measure the pressure on the productive population which is a measure of the number of dependents aged zero to 14 and over the age of 65, compared with the total population aged 15 to 64.In Odisha the dependency ratio is 47.4 percent against an all India average of 46.4 percent which says that nearby half of the population are depending directly on other half of people who are in productive age group in terms of workforce. This clearly indicates the stagnant condition of overall development in the state.



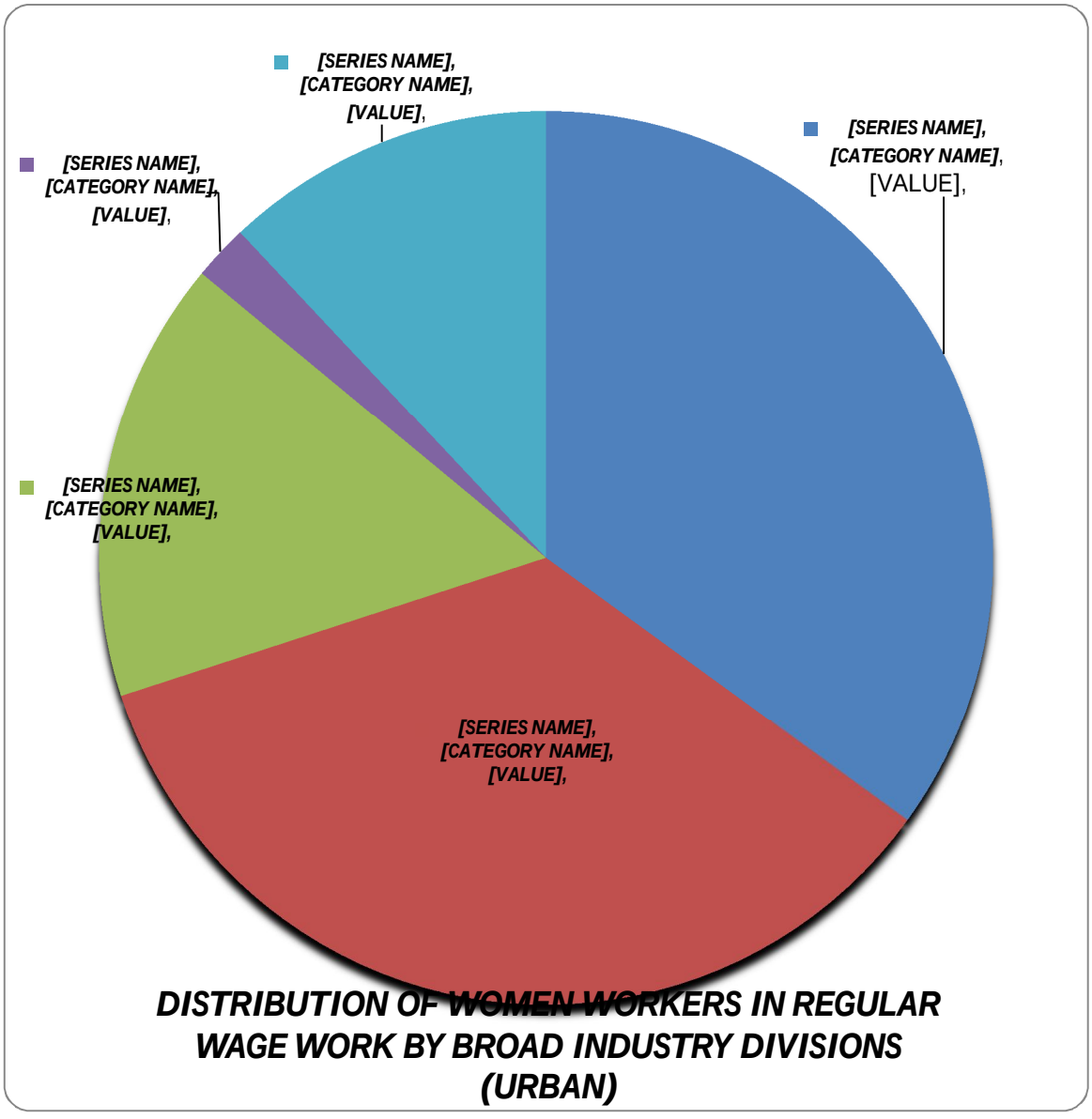
	TOTAL LITERACY RATE	FEMALE LITERACY RATE	FEMALE LITERACY RATE(UG AND PG)	LABOUR FORCE PARTCIPATON RATE (15-59 YEARS)	WORKER POPULATION RATIO (15-59 YEARS)	UNEMPLOYMENT RATE (15-59 YEARS)	WORKER DISTRIBUTION BY USUAL STATUS (REGULAR WAGE/SALARY)	DEPENDENCY RATIO
ODISHA	73.45	64.36	6	37.4	35	4.3	11.1	47.4
INDIA	74.04	65.46	10.2	32.3	30.9	4.5	20	46.4

Source: Plfs Report,2019-20. Govt. Of India.

IV. STATUS OF FEMALE WORKER AS PER REGULAR WAGE/SALARY DISTRIBUTION IN ODISHA

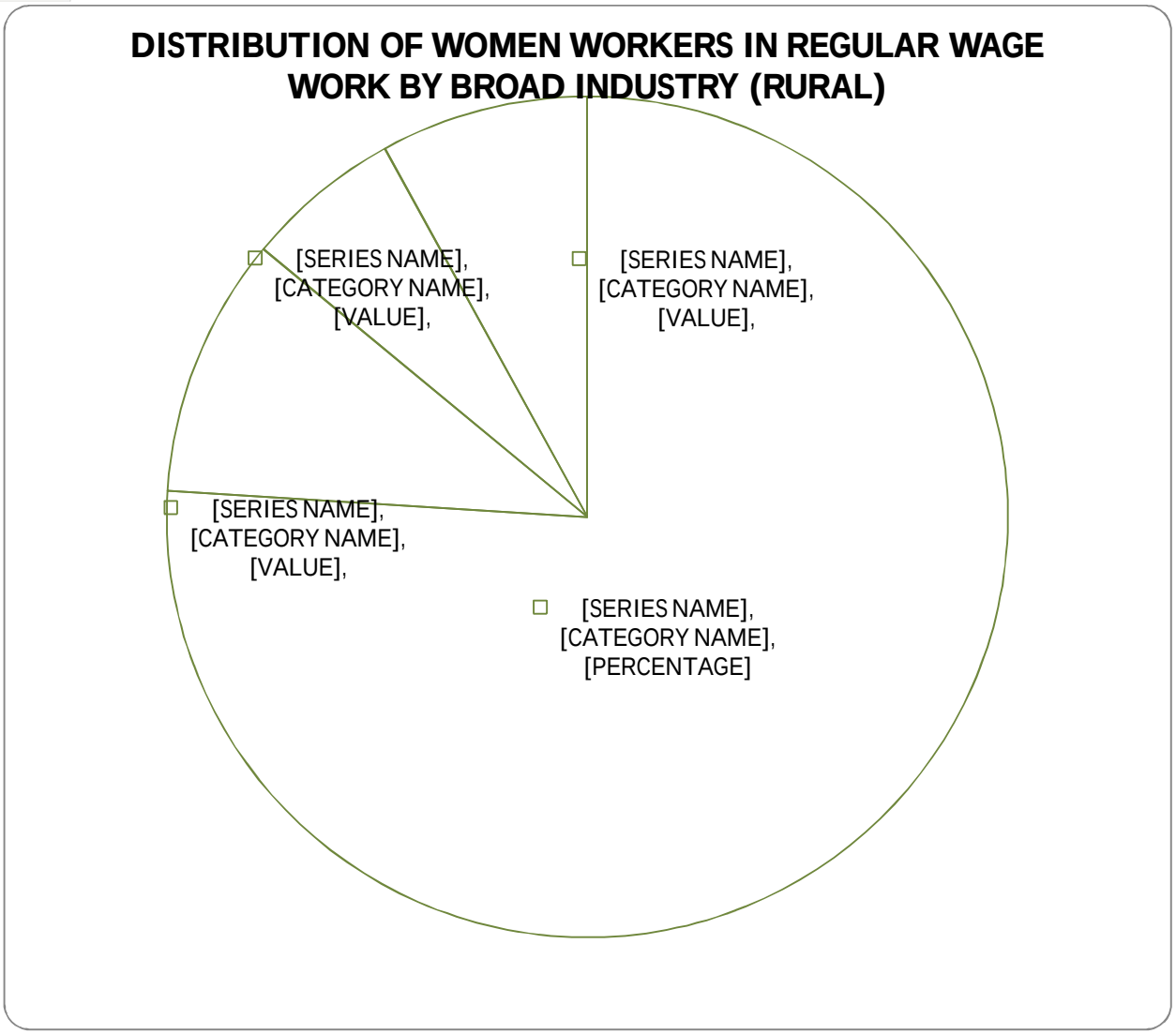
Employment generation in the organized sector is a great indicator of a state's employment situation because this sector provides quality employment with social security. In 2013, the organised sector was 7.95 lakh in which the public sector had a share of 82 per cent and private sector's share was only 18 per cent. Women's share in organised sector employment was only 11.1 percent against 20 percent of all India level by the data of 2020-21 which clearly says that the Odisha lags far behind in terms of female employment in formal sector of economy. The total number of workers was 175.42 lakh of which 151.04 lakh (86.1per cent) were in rural areas and 24.38 lakh (13.9per cent) in urban Odisha. Male workers were 119.03 lakh with a share of 67.9 per cent and female workers numbered 56.39 lakh constituting 32.1 per cent of the total workers. Of the total workers, 107.08 lakh or 61 per cent

were main workers and 68.34 lakh i.e, 39 per cent were marginal workers. Among the marginal workers, 81.9 per cent were engaged for 3 to 6 months and the balances 18.1 per cent were engaged for less than three months during the reference period. Activity-wise, the 175.42 lakh total workers comprised 41.04 lakh (i.e., 23.4 per cent of total workers) cultivators, 67.40 lakh (38.4 per cent) agricultural labourers, 7.83 lakh (4.5 per cent) household industry workers and 59.15 lakh (33.7 per cent) other workers.In the rural areas, 57.1per cent of total workers were main workers, but in urban areas main workers had a higher share at 85.5per cent. The proportions of male workers to male population and female workers to female population in the state stood at 56.1 per cent and 27.2 per cent respectively. Census data estimated a 22.9 per cent increase of total workers in 2011 over 2001.



Author's calculation is based upon unit level data of PLFR report 2019-20 , Govt. of India.

Fig 9 Represents Distribution of Women Workers in Regular Wage Work by Broad Industry in Rural areas of Odisha



Author's calculation is based upon unit level data of PLFR report 2019-20 , Govt. of India

Table .1 Showing no. of females engaged in Organised sector of economy in Odisha.
Employment of women in Organised Sector (in lakh) of Odisha

Year	Women in Public Sector	Women in Prvate Sector	Total (Public and Private Sector)
2017-18	94681	10887	105568
2019-20	98888	11401	110289

Source: Government of India, PLFS, 2017-18 & 2019-20

Fig. 10 shows no of women employed in organized sector in Odisha.

A. Calculation and analysis of data among 6 Indian states whose socio- economic indicators falls nearby of Odisha

Literacy rate determine the quality of population. It decides the growth rate of an economy. It acts as a major determinant for an individual to earn its living. In other words, it is the most important factor for growth and development of an economy. Therefore for this study, the relationship of literacy rate and its effect on Labour force participation tested on the help of correlation analysis which came as ***-0.53*** that shows a perfect negative correlation in between these two variables.

ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538
Volume 13 Issue VI June 2025- Available at www.ijraset.com

Table. 2 showing the correlation in between literacy rate and its effect on Labour force participation

	EFFECTIVE LITERACY RATE OF STATE	*LABOUR FORCE PARTICIPATION RATE*
EFFECTIVE LITERACY RATE OF STATE	1	-0.5
LABOUR FORCE PARTICIPATION RATE	-0.5	1

**Calculated with the help of :Microsoft Excel 2007 – Correlation Data Analysis Tool*

Similarly to test the relationship between literacy rate and usual regular salary correlation analysis method was adopted which came ***0.3*** that indicate a weak positive linear relationship via a shaky linear rule in between these two variables. The data analysis in between these two variables depicts that there is no such significant relationship between literacy rate and formal wage distribution among females that having a good literacy rate do not ensure a regular income from formal sector of employment.

Table. 3 showing the correlation in between literacy rate and usual regular employment among females

	EFFECTIVE LITERACY RATE OF STATE	*REGULAR WAGE FROM FORMAL SECTOR*
EFFECTIVE LITERACY RATE OF STATE	1	0.3
REGULAR WAGE FROM FORMAL SECTOR	0.3	1

Calculated with the help of :Microsoft Excel 2007 – Correlation Data Analysis Tool

To test the relationship in between unemployment and dependency ratio the help of correlation method was adopted and the result came as ***0.25*** which clearly depicts that there is a weak positive relationship exist in between these two variables as we cannot ensure that unemployment rate affects the dependency rate directly or not.

Table 5. showing inter-state comparison of socio-economic data that significantly fits with Odisha.

Sl. No	STATE	EFFECTIVE LITERACY RATE %	FEMALE STUDENT PASSED % (UG & PG)	LABOUR FORCE PARTICIPATION RATE %	DEPENDENCY RATIO %	FEMALE GETTING REGULAR WAGE/ SALARY %	UNEMPLOYMENT RATE (15-59 YEARS) %
1	MADHYA PRADESH	60	7.8	41.1	46.8	4.1	1.4
2	CHHATISGARH	60	7	56.8	45.3	6	2
3	ODISHA	64	6	37.4	47.4	7	4.3
4	HARYANA	66	13.5	18	46.3	26.9	6.7
5	ASSAM	67	5.7	17.4	45.6	48.8	14.3
6	KARNATAKA	68	13.4	37.8	41.3	11.9	6.6
7	UTTRAKHAND	70	14.4	34.8	43.3	10.4	6
8	GUJURAT	70	10.2	34.2	41.2	7.6	1.1

Source: PLFS Report 2021-21. Govt of India.

©IJRASET: All Rights are Reserved

V. MAJOR FINDINGS

Odisha is known to have a mobile workforce and the state is one of the net exporters of labour across the country to major cities such as Hyderabad, Surat, Delhi, Mumbai, Chennai, Jamshedpur, etc., mainly for the construction, gem cutting, and hospitality sectors under informal sector of economy.

As per the PLFS report 2019-20 it is clearly evident that from year 2017-18 increase in work participation rates found in case of rural women to 39.5 percent whereas it is 34 percent of urban woman as against 32.3 percent in case of all India average. This is mainly due to participation of rural females in agricultural work which was rise significantly within the last 2 years due to massive awareness about MGNREGA among rural female folks. Similarly the data about Labour Force Participation Rates says that among urban female it declines to nearby 6 percent as compared to rural females which creates a good question to research further.

The unemployment rate among 15-59 age group which are considered as working age peoples lie at 3.8 percent and 8.3 percent for rural and urban Odisha respectively which clearly depicts that inequality lies in work force distribution in terms of geographical area in the state. Further variables like Effective Literacy Rate, Percentage of Undergraduate and Post Graduate passed students in state, Labour Participation Rate of females among different states, Dependency Ratio and Wage Distribution among the females in formal sector analysed through correlation technique says that there is no significant relationship found in these variables which directly or indirectly influence one another.

It is also evident from the data that the states like Madhya Pradesh, Chhatisgarh and Haryana which has an effective literacy rate as of Odisha are going good in terms of regular wage or salary distribution from formal sector. The state Haryana with a effective literacy rate of 66.77 percent which is only 2 percent more than that of Odisha have a 26.9 percent of females who are getting a usual salary from formal sector economy as compared to Odisha which is only -7.0 percent per PLFS record of 2019-20 which creates a huge complexity in formal sector economy of Odisha in terms of Female Labour Force Participation. It is also important to mention that Odisha with a 64.36 percent of literacy rate showing a unemployment rate of 4.3 percent while Chhatisgrah with a 60 percent of women effective literacy rate showing only 1.4 percent of unemployment rate in age group of 15-59 which shows that Chhatisgarh is doing good in terms of reduction in percentage of female unemployment rate as compared to Odisha

VI. CONCLUSION AND SUGGESTION

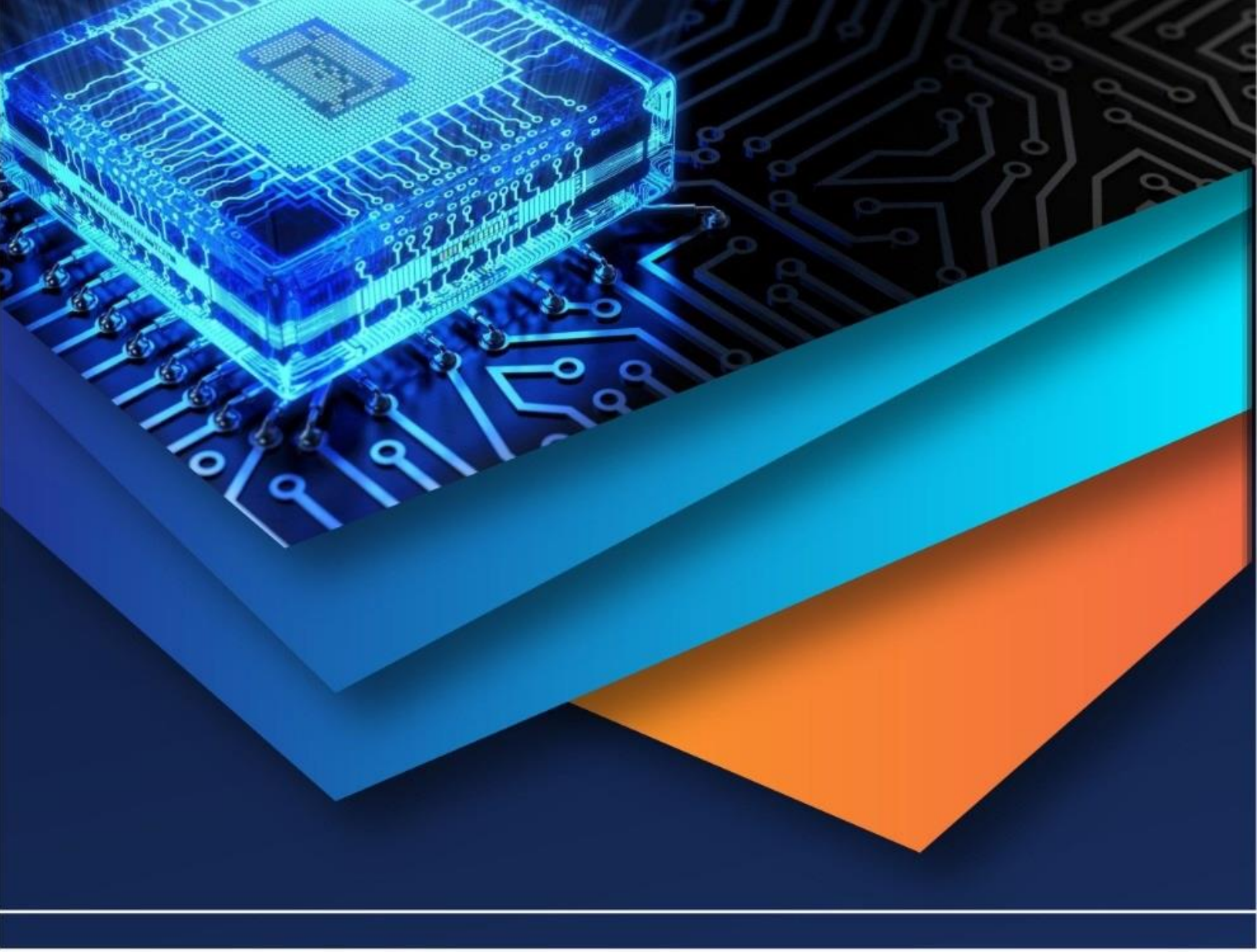
India being a large and diverse country, it is important to study in detail the different regional economies. The levels of economic development and the structures of state economies in India vary widely as also their historical experiences. In view of this, state specific studies assume prime significance.

Odisha continues to be a “development challenged” region and the severity of development constraints is huge and has persisted since long. The state features on the bottom, in terms of many standard economic and social development indicators. It forms an area with low per capita income and huge deficit of human capital, employment and livelihood avenues. This region not only continues to grapple with the problem of limited employment opportunities, a set of other crucial issues such as rise in earning inequality, low paid jobs, increasing out migration, youth unemployment (& youth idleness), and huge skill deficit to improve employability remain largely unaddressed and unexplored. Keeping this in mind, this study mainly deals with workforce participation of females in organized sector of economy in Odisha because women are most vulnerable in economic arena in Odisha. After analyzing the data from so many perspective related to status of women in formal sector of economy it was found that still women are facing lots of hindrances to get into formal economic sector despite of good literacy rate which means literacy rate do not ensure employment in formal sector by directly indicating to skilled labour force are lacked in the region. To tackle this issue special focus is called for employment intensive sectors such as tourism, handicraft, education, skill training and also on expansion of economic activities to boost employment opportunities in the state. In this direction, there is also an urgent need to compile data on every walks of life in the state on literacy and sill training aspect of female mass by preparing a directory of economic activities, it will be easy to identify employment potential activities in the state and sector-specific policies could to be formulated on this regard. Further to put Odisha’s women on the path of economic development on an accelerated and inclusive growth way there is a need of balanced blend of investment, infrastructure and commercial policies as a whole.

REFERENCES

[1] https://economictimes.indiatimes.com/news/elections/assembly-elections/rajasthan-assembly-elections/literacy-to-per-capita-income-these-12-charts-show-how-poll-bound-states-are-faring/articleshow/66671580.cms?from=mdr
[2] https://www.indiabudget.gov.in/economicsurvey/doc/echapter_vol2.pdf
[3] https://www.indiacensus.net/literacy-rate.php
[4] https://m.rbi.org.in/Scripts/PublicationsView.aspx?id=19995

[5] https://censusindia.gov.in/2011-prov-results/data_files/india/Final_PPT_2011_chapter6.pdf
[6] Women's Work Participation Rates: Statewise Trends published by IWWAGE.
[7] Working paper: Changing Perspectives of Women's Work and Decline in Female Labour Force Participation Rate in Rural India: A Case of Odisha*Dr P. P. Sahu . Associate Professor, Centre for Entrepreneurship Development, NIRD&PR, Hyderabad.
[8] https://www.adb.org/sites/default/files/publication/30137/economics-wp321-inclusive-growth-gender-inequality.pdf.
[9] HTTPS://JOURNALS.SAGEPUB.COM/DOI/FULL/10.1177/2455632719836801
[10] https://journals.sagepub.com/doi/full/10.1177/2455632719831827#
[11] HTTPS://JOURNALS.SAGEPUB.COM/DOI/10.1177/2455632719836804?ICID=INT.SJ-ABSTRACT.SIMILAR-ARTICLES.1
[12] HTTPS://JOURNALS.SAGEPUB.COM/DOI/10.1177/2455632719831828?ICID=INT.SJ-FULL-TEXT.SIMILAR-ARTICLES.3
[13] HTTPS://JOURNALS.SAGEPUB.COM/DOI/FULL/10.1177/2455632719832210
[14] HTTPS://JOURNALS.SAGEPUB.COM/DOI/10.1177/2455632719836805?ICID=INT.SJ-FULL-TEXT.SIMILAR-ARTICLES.2
[15] https://www.sciencedirect.com/science/article/pii/S2405883116300508 //
[16] http://sersc.org/journals/index.php/IJAST/article/view/6327/3878,International Journal of Advanced Science and Technology, Vol. 29, No. 4s, (2020), pp. 430-440, ISSN: 2005,
[17] http://sersc.org/journals/index.php/IJAST/article/view/8761/4864, International Journal of Advanced Science and Technology,Vol. 29, No. 6s, (2020), pp. 274-278. ISSN: 2005.
[18] http://sersc.org/journals/index.php/IJAST/article/view/4451/2908, International Journal of Advanced Science and Technology, Vol. 29, No. 03, (2020), pp. 2659-2665.
[19] https://journals.sagepub.com/doi/full/10.1177/0049085719901069
[20] https://ilo.userservices.exlibrisgroup.com/discovery/delivery/41ILO_INST:41ILO_V2/1245308160002676?lang=en



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)