



WOMEN IN LABOUR FORCE IN INDIA - AN ANALYSIS

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Abstract

The Women's participation in the workforce of a country is determined by ' Female Labour Participation Rate'(FLPR). Labour force participation rate is defined as the section of working population in the age group of 16-64 in the economy currently employed or seeking employment.

The most recent World Bank report March 2017 has brought to light, the unfavourable status of Women's participation in workforce in India, determined by the Female Labour Participation Rate (FLPR) which is only 27% for India based on the Government data for the period 2004-5 to 2011-12.

This indicates that there is no significant contribution to the economy of the country from the Female population of the country. Women constitute nearly 48.5% of the Indian Population. In an economy that is among the fastest growing among the world nations, with high literacy rates, and increasing per capita income, the trend of declining labour force participation in India is inconceivable.

This article explores the possible reasons for low Female Labour Participation Rate in India. Although there are several factors that contribute to the participation of women in workforce, Literacy rates, Urbanisation, Wage rates, Working hours are considered to be influencing factors in this article.

The article analyses 'The constitution of the Indian Female Labour force' ; The correlation of Contributing factors of FLPR among Major Economies of the World and 'Within the states of India'. A discussion of the findings and suggestion based on the same are detailed in this article. This article would make a significant contribution to the research on causes of low FLPR in India.

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The FLPR Trend In India - The International Labour Organisation ILO 2015

1990	1995	2000	2005	2010	2015
35%	35%	35%	37%	29%	27%

Source : ILO STAT2015

ILO's 'Global Employment Trend 2013' ranks India as the lowest among the BRIC countries in terms of FLPR. This downward trend of FLPR by nearly 10% between 2005 and 2015 is a matter of concern and has become a subject for research.

The Constitution of the Indian Female Labour Force

1. Rural and Urban Participation: The female workforce participation in India is 27% as per the World Bank report Mar 2017 with 30% FLPR in Rural India and 15.4% FLPR in Urban India. The Urban Female participation in Labour force is significantly low compared to their Rural counterpart
2. Age wise distribution : The FLPR is highest among the age group of 30-59

Age wise Distribution of FLPR in India

	15-29	30-44	45-59	Above 60
Rural FLPR	18%	33%	34%	-
Urban FLPR	16%	23%	19%	-

Source: Census 2011 data, Office of the Registrar General, India.

The age group of 30-59 shows highest FLPR both in Rural and Urban India. The lower participation between 15 to 29 could be attributed to marriage, maternity and child care.

1. Salary Gap: Women earn only 57% as their male counterparts in India. Gender gap in wage disparity is significant in India. The more educated a women in employment, higher is the Salary gap.
2. Sector wise Participation: Female workforce participation by Sector reveals a shift from agricultural to non-agricultural sectors.
(NSSO 2011-12 survey)

Sector	2004-5	2011-12	Inc/ Dec %
Agriculture	74.5%	81%	-6.6%
Manufacturing	9.4%	81.6%	0.8%
Non- Manufacturing	5.6%	2.1%	3.5%
Services	10.5%	7.9%	2.6%
	100%	100%	

Source: Census 2011 data, Office of the Registrar General, India.

There is a structural shift in the Female workforce from agriculture to Non-Agro sectors, mainly Non-manufacturing and Services sector.

1. Self Employment: As per NSSO survey 2011-12, 60% of rural female who are employed and 43% of urban females are Self employed.
2. Marriageable age: Average Marriageable age of Indian females is 23.2 years against the global average of 22.3 years
3. Literacy and FLPR: The FLPR is low among literates and Female literacy is around 60.6% in India, with 80% rate among Urban women and 59% among rural women.

Comparison of FLPR and its contributing factors, in India and Other Major Economies of the World.

Global participation of Men in Workforce is 75% and 50% for women.

GDP And Economic Growth

India is the sixth largest economy with 2.45 trillion \$ GDP next only to US, China, Japan, Germany, UK. The GDP of a country and its FLPR have a low positive correlation of $r=0.38$.

SNO	1	2	3	4	5	6	7	8	9	10
Country	Usa	China	Japan	Germany	Uk	India	France	Brazil	Italy	Canada
GDP in \$Trillion	19.42	11.48	4.84	4.13	2.5	2.45	2.42	2.14	1.81	1.6

Source : Investopedi-: IMF's World Economic Outlook Database, April 2017.

Female Labour Participation Rate Across Countries

The Female labour participation rate in India is 27% (2011-12). India is in the 9th place among the Top 10 economies of the world in terms of FLPR, next only to Italy.

SNO	1	2	3	4	5	6	7	8	9	10
Country	China	Canada	Uk	Us	Germany	Brazil	Japan	France	India	Italy
FLPR % 2016	69	68	58	55	47	47	45	34	29	23

Source: <https://data.worldbank.org/indicator/>

Literacy Rate

With an Average literacy rate of 63% India. India has the lowest literacy rates among the 10 major economies of the world.

SNO	1	2	3	4	5	6	7	8	9	10
Country	Japan	Germany	Uk	Italy	Canada	Brazil	France	Us	China	India
LITERACY RATES	99%	99%	99%	99%	99%	93%	81%	77%	68%	63%

UNESCO 2015 Survey Literacy rates 2011.

Literacy rate exhibits low correlation with FLPR with coefficient of $r = 0.04$.

Working Hours

Average working hours of Indians is highest among the developing nations at 50 hours per week with youngsters accounting for nearly 52 hours per week.

SNO	1	2	3	4	5	6	7	8	9	10
Country	India	China	Japan	Brazil	Us	Italy	Uk	Canada	France	Germany
Avg Working Hrs/Week	50	48	46	44	34.4	34	32	32	28	26

Source : <https://stats.oecd.org/index.aspx>

There is a low negative correlation between Average working hours and FLPR $r=(- 0.003)$. Working hours has a negative correlation with FLPR indicating that FLPR can be increased with decreasing working hours.

Urbanisation

Urbanisation in India is 33% and India is in the lowest rank among the ten major economies discussed. There is a very low positive co-relation $r= 0.28$ indicating that Urbanisation has a low positive impact on FLPR

Source : <https://data.worldbank.org/indicator/>

Infrastructure & Logistics

India has a score of 3.34 for urbanisation and is in the 9th place among the world nations. There is a very low positive correlation of $r=0.28$ between FLPR and Infrastructure .

Sno	1	2	3	4	5	6	7	8	9	10
Country	Japan	Brazil	Uk	Us	Canada	France	Germany	Italy	China	India
Urbanisation%	94	86	83	82	82	80	76	69	57	33

Sno	1	2	3	4	5	6	7	8	9	10
Country	Germany	Uk	Us	Canada	Japan	France	Italy	China	India	Brazil
Logistics & Infrastructure Score	4.4	4.21	4.15	4.14	4.1	4.01	3.79	3.7	3.34	3.11

Source : <https://data.worldbank.org/indicator/>

Unemployment Rate

Unemployment rate in India on an average is 3.4% which is relatively low compared to other major economies in the world. There is negative correlation of $r = -0.415$ between Unemployment and Female participation in work force. This indicates that with availability of job opportunities the FLPR can be increased.

Sno	1	2	3	4	5	6	7	8	9	10
Country	Brazil	Italy	France	Canada	Uk	Us	China	Germany	India	Japan
Flpr 2016	47	23	34	68	58	55	69	47	29	45
Unemployment Rate	11.8	11.6	9.6	5.9	4.2	4.1	4.1	3.7	3.4	2.4

Source : <https://data.worldbank.org/indicator/>

A comparison of statistics of the major economies reveals that

1. Factors like Economic strength by GDP, Literacy rate, Urbanisation and Infrastructure have a low but positive impact on FLPR. India is ranked low among economies in terms of FLPR, Literacy rate, Urbanisation and Infrastructure.
2. Indians are among the workforce with longest weekly Working hours. Long hours of work has been an impending factor for India, instead of a promoting factor, leading to lower productivity of Indian labour. Younger generation work for more than 52 hours a week. Long working hours exhibit negative correlation with Female participation. Women participation decreases with increase in working hours.
3. Women participation decreases with increase in Unemployment. Therefore it is imperative improve employment opportunities to improve FLPR.

The Indian Context – State Wise Analysis of FLPR

	State	2011 -FLPR	Fem. Literacy Rate%	Rank By Contribution To GDP	Av.Daily Wage- Rural Rs.	Av.Daily Wage- UrbanRs.	Unemployment/ Thousand	Urban isation%
1	Himachal	45	77	22	251	307	13	10
2	Nagaland	45	77	30	490	418	36	29
3	Chattisgarh	40	61	18	163	252	14	23
4	Sikkim	40	76	32	548	419	50	25
5	Manipur	39	73	29	523	647	22	30
6	Andhra	36	60	8	225	244	80	33
7	Mizoram	36	89	31	603	610	14	51
8	Arunachal	35	60	28	475	629	46	23
9	Rajasthan	35	53	7	178	413	18	25
10	Madhya Pradesh	33	60	10	109	321	14	28
11	Meghalaya	33	74	26	359	444	19	20
12	Karnataka	32	68	5	152	392	10	38
13	Tamil Nadu	32	74	2	199	298	20	48
14	Maharashtra	31	75	1	307	370	12	45
15	Jharkand	29	56	19	294	380	12	24
16	Orissa	27	64	16	223	286	24	17
17	Uttrakhand	27	71	20	393	446	27	31
18	Dadar & Nagar	25	66	34	155	390	20	47
19	Tripura	24	83	25	219	302	36	26
20	Gujarat	23	70	3	173	272	4	43

21	Assam	22	67	17	180	562	18	14
22	Goa	22	82	23	256	436	51	62
23	Bihar	19	53	15	188	369	29	11
24	Jammu	19	58	21	222	485	39	27
25	Andaman & Nico.	18	82	33	435	774	19	36
26	Harayana	18	67	13	357	636	13	35
27	Kerala	18	92	12	240	412	49	48
28	Pondichery	18	81	27	126	224	43	68
29	West Bengal	18	71	6	120	324	21	32
30	Up	17	59	4	171	378	20	22
31	Chandigarh	16	81	24	283	654	12	97
32	Daman & Diu	15	80	35	268	423	30	75
33	Punjab	14	71	14	158	400	23	37
34	Delhi Nct	11	81	11	387	684	19	98
35	Lakshadweep	11	88	36	290	592	50	78
	India	26%	65%		Rs.202	Rs.366	19	33
	Correlation r=		-0.21083		0.33	-0.26039	-0.02148	-0.52641

Source: Census 2011 data, Office of the Registrar General, India.

Female Labour Participation Rate

The female labour participation rate as per 2011 data Female Labour participation in India on an average is only 26% against the Global average of 51%. The overall **Rural FLPR** is **30%** against **15%** in **Urban India**. There is high labour participation in states including North Eastern states of Himachal (45%), Nagaland (45%), Chhattisgarh (40%), Sikkim (40%), Manipur (39%)

Female Literacy Rate And FLPR

The literacy rate of females is high among states of Kerala (92%), Mizoram (89%), Lakshadweep (88%), Tripura(88%), NCT Delhi (86%) with an average literacy rate of 65% as per 2011 Census. The Female Literacy rates reveals a negative correlation of $r = (-0.21)$. This clearly indicates that with increase in the literacy levels the female participation is lower.

Contribution To GDP And FLPR

The states making highest contribution to GDP are Maharashtra (\$430 billion), Tamil Nadu (\$247 billion), Gujarat (\$230 billion), UP (\$230 billion), Karnataka (\$217 billion). It is interesting to observe that there is negative correlation of $r = (-0.01)$ between the FLPR and the contribution of the state to the GDP. In states which make higher contribution GDP the Female Labour Participation Rate is low.

Rural And Urban Wage Rates And FLPR

The rural female wage rates are high among the North Eastern States of Mizoram (Rs. 603 per day), Sikkim (Rs. 548 per day), Manipur (Rs.523 per day), Nagaland (Rs. 490 per day), Arunachal Pradesh (Rs.475 per day). The Avg. Rural daily wage rate is Rs.202. There is a low positive correlation $r = 0.33$ between FLPR and Rural Female Wage rate .

The Urban wage rates are higher than the rural wage rates. The Urban female wage rates are high for Andaman & Nic. (Rs.774), NCT Delhi (Rs. 684), Chandigarh (Rs. 654), Manipur (Rs. 647), Haryana (Rs. 636) with an average of Urban daily wage rate of Rs. 366 per day. There is a low positive correlation of $r = 0.26$ between the Urban wage rates and the FLPR.

Unemployment And FLPR

The rate of unemployment is higher among the states of Andhrapradesh(80 per 1000), Goa (51 per 1000), Lakshadweep (50 per thousand), Sikkim (50 per thousand), Kerala (49per thousand) with a national average of 19 per thousand. There is a

negative correlation of $r = (-0.02)$ between unemployment rate and FLPR. With higher incidence of unemployment women tend to keep away from workforce.

Urbanisation: The most Urban states of India are the NCT Delhi(98%), Chandigarh(97%), Lakshadweep(78%), Daman and Diu (75%), Pondicherry (68%) with an average of 33% urbanisation among the Indian states. There is a negative correlation of $r = (-0.52)$ showing clearly that FLPR is lower in highly Urban areas.

1. Statistics on Female labour participation in Workforce in India show that India has a very Low Female participation in workforce. Rural Female participation is 30% nearly double of Urban female participation
2. With increase in Literacy rates participation in Workforce is decreasing
3. Participation is low in states making higher contribution to GDP.
4. Unemployment is negatively correlated to Female Labour Participation.
5. Urbanisation does not improve female labour participation.

Increase in Literacy rates , Urbanisation and Economic Development are expected to increase the Female participation in workforce. On the other hand in India Statistics clearly shows that with improvement in these parameters there is no increase in Female participation in workforce.

The Discussion

The real cause of Low female participation in India remains a mystery. The literacy rate of Indian women has more than doubled in a decade. In 2011, 60.6% of women over age 15 are literate. Reduction in the labour force due to higher education among girls of age group 15-20 has not reflected in increased participation in other age groups over years.

The raise in the family income levels and decrease in family size need not be a dis-incentive for not working because higher income level increases the affordability to other conveniences which can support a working woman, like domestic help, maternity care, child care, patient attendees, two/four wheelers for conveyance, mobile phones and other gadgets. In fact raising income levels should propel working women participation at all levels.

Job opportunities in rural India are also increasing because of growth of the service sector. Women need not confine to traditional or agrarian labour. They have better options and also better infrastructure and support from Government.

It is observed that women participation is high in selected industries and almost insignificant in the rest. Agriculture, Plantation, Education, Information technology, Fishery and Poultry are industries employing higher percentage of women in workforce in India. (India Skills Report 2017).

Normally workforce participation of women during reproductive age of 18-25 is lower because of delivery and infant care. But better and improved healthcare helps in sustaining the participation without a big fall in percentage of participation. India ranks very low on Health care Index. It currently ranks at 154 among 195 countries. India really lags in health care and maternity care.

Between the age of 30-59 women are expected to provide and contribute their best as the workforce. Age wise statistical analysis has revealed the same.

Other Aspects Discussed At Grass Root Level of Female Work Force Are

1. **Safety At Workplace** : India has a safety **Index of 46.9%** for Safety at work place for women indicating high vulnerability and less protection to the female workforce as per ILO reports.
 - a. (www.ilo.org/wcmsp5/groups/public/@dgreports/@gender/.../wcms_105060.pdf)
2. **Availability of Job Opportunities For Women:** Although women are making it into all sectors of economy Lack of job opportunities stifle their participation. Women dominate only select sectors like Domestic work, Agriculture, Education and Healthcare sector. Manufacturing , Information and Technology see low women participation. In spite of the shift from Agrarian economy to service economy, job opportunities in non- agro sector for women is very less.
3. **Family Support And Domestic Chores:** On an average in India a woman spends five hours a day on unpaid household chores while a man spends less than a hour. The share of unpaid work includes cooking, cleaning, child care, elder care and attention for other members the family. This high share of care keeps Indian women out of the economy. Unpaid labour hours across the world are given in the table below:

	Male	Female
Developed countries	2.33 hrs	4.33 hours
Developing countries	1.33 hrs	4.5 hours

Source: <https://www.weforum.org/agenda/2015/11/do-women-work-longer-hours-than-men/>

Compensation Or Pay Package For Women

Gender pay gap in India refers to the difference in earnings between women and men in the paid employment and labour market. For the year 2013, the gender pay gap in India was estimated to be **24.81%**. Gender pay gap is low at Junior levels and High at Senior positions. **India is ranked 108** and ranked very low due to high gender gap.
(Source: <https://www.weforum.org/reports/the-global-gender-gap-report-2017>)

Mobility, Travel To Workplace

Poor road, rail and other public transport facilities add to the woes of the working women in India decreasing the participation rate.

Suggestions

India has to necessarily rope-in the Female labour into the workforce to see the desired economic progress of becoming a developed economy.

Although India has seen progress in terms of Literacy rates, Urbanisation, Employment opportunities, Infrastructure, Health care etc, India lags behind other economies of the world.

Female labour participation how ever does not show significant association with these parameters. On the other hand reducing unemployment by increasing job opportunities increases the FLPR.

1. Creating job opportunities specially for women in non- agro sector.
2. Creating Part-time job opportunities with flexible working hours.
3. Promoting women entrepreneurship.
4. Improving health care of women.
5. Improving road, commutation and communication facilities.
6. Protection of women at workplace through proper legislation.
7. Reduction in Gender salary gaps through collective representation

Will foster increased women participation in workforce in India. Also, The Educated women should take initiative and participate in the economic progress of the country and give back the nation and the remaining women community, a helping hand in participating in the country's development. India's female literacy rate is still below other economies. The schooling and education system should highlight the need for women to participate in the economy and contribute to the development.

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