



Economic Growth and Gender Disparities in Economic Participation

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Abstract

Economic Growth refers to an increase in the productive capacity of an economy as a result of which the economy is capable of producing additional quantities of goods and services. It generates job opportunities and hence stronger demand for labour. In turn, increasing employment is crucial in delivering higher growth. It is important to ensure that the economic opportunities are equally distributed between men and women. The Global Gender Gap Index released by the World Economic Forum (WEF) examines the gap between men and women in four fundamental categories namely Economic Participation and Opportunity, Educational Attainment, Health and Survival and Political Empowerment. According to Global Gender Gap report 2015, India ranks 139 in economic participation and opportunities among 145 countries.

In the Indian context the gender gap in work participation has reduced between 2001 and 2011 census. The gap in the case of main workers has reduced from 30.0% to 22.7%. It is observed that the share of females among main workers has increased marginally from 57.3% in 2001 to 59.6% in 2011. There are considerable differences among the states in terms of gender gap in work participation. In this context the present study makes an attempt to analyze the gender gap in economic participation and its relationship with economic growth at the macro level. Gross domestic product is considered as an indicator for economic growth at the national level and Net State Domestic Product (NSDP) at the state level.

Keywords: Economic Growth, Economic Participation, Gender Gap

Introduction

Economic Growth refers to an increase in the productive capacity of an economy. As a result of this the economy is capable of producing additional quantities of goods and services. Generally, the standard of living is measured by the quantity of goods and services available therefore economic growth is synonymous with an increase in the general standard of living. Economic growth generates job opportunities and hence stronger demand for labour. However,

the real impact of growth on the wellbeing of people depends on whether the economic opportunities are equally distributed between men and women.

Contemporary research has emphasized the role of women in the development. It is emphasized that economic growth and development of India depends upon successfully utilizing its workforce, both male and female. Despite its recent economic advances, India's gender balance in economic participation remains among the lowest in the world. Improving this balance is an important step in India's development. According to Global Gender Gap report 2016 released by World Economic Forum (WEF), India ranks 136 in economic participation and opportunities among 144 countries. It is reported that though the gender gap in India has narrowed down, still it remains as one of the worst countries in the world for women in terms of labour force participation, income levels as well as health and survival. India has closed its gender gap by 2% in a year (2016), but much work remains to be done to empower women in the economic sphere.

In this context the present paper makes an attempt to analyze the gender gap in economic participation and its relationship with economic growth at the macro level.

Objectives

1. To analyze the trends in economic participation of men and women in India.
2. To analyze the influence of economic growth on gender disparities in economic participation in India.

Methodology

The paper is based on the secondary data. The data were collected from various published sources like books, journals, Census of India Reports (2011), reports of the Central Statistical Organization, Planning Commission, Ministry of Labour and Employment and internet sources.

Review of Literature

Several research studies have analyzed the linkages between gender gap and economic growth. While some of the studies have explored the impact of gender gap on economic growth, the others have looked into the contribution of economic growth to reducing gender gap. Review of some of the studies is presented below.

Lagerlof (2003) analysed the impact of gender equality on economic growth. It is observed that gender equality has a positive impact on long run economic growth. The linkage is established through reduced fertility and increased income when women are working more in labor market. According to World Bank report (2001), women are less prone to corruption and nepotism than men so that increasing access of women to the workforce and to decision making bodies may improve governance in business and government.

Seguino (2000), observed that gender is an important macroeconomic variable and that gender relations can affect economic development and growth.

Lahoti (2013) discussed the relationship between economic growth and female labour force participation in India. Based on the state-level panel data from 1983-2010, the study observed that growth by itself is not sufficient for increasing women's economic activity. According to the author a different set of policies are needed to encourage women to overcome social and cultural constraints in their joining the labour force.

Pallavi and Nagaraja (2013) examined the participation of women in the workforce, the quality of work allotted to them and their contribution to the GDP based on the NSSO survey 2009-10. The

study observed the positive impact of women's empowerment programs on participation of women in the job market.

Verick (2014) analyzed the relationship between development and female labor force participation in developing countries, including Brazil, India, Indonesia and Turkey. Based on the ILO data, the study observed that the quality of employment and opportunities for better jobs continue to be unequally distributed between men and women. Educating women beyond middle school was advocated for greater economic participation of women.

Ghani et.al, (2013) analyzed the gender disparities between men and women. Based on the Global Gender Gap report-2011, the study observed that to encourage more equitable economic participation and growth, better access to education and infrastructure are needed.

However, Duflo (2010) observed that economic development alone is not a sufficient condition for attaining gender equality and it can be achieved only through public policy adopting positive discrimination favouring women.

Trends in Economic Growth

Gross Domestic Product (GDP) is probably the best indicators of economic growth. Trends in growth rate of GDP in India during the past 22 years are presented in table -1.

Table: 1 Trends in Annual Growth Rate of GDP in India

Year	GDP Growth rate (%)	Year	GDP Growth rate (%)
1995	7.6	2006	9.3
1996	7.5	2007	9.8
1997	4	2008	3.9
1998	6.2	2009	8.5
1999	8.5	2010	10.3
2000	4	2011	6.6
2001	4.9	2012	5.5
2002	3.9	2013	6.4
2003	7.9	2014	7.5
2004	7.8	2015	8
2005	9.3	2016	7.1

Source: IMF, 2017

The data shows that there are greater fluctuations in growth rate of GDP in India. Growth rate registered a lowest rate of 3.9 during 2002. But later it picked up and reached to the level of nearly 10 percent during 2007 and 2010. But in the later period growth rate in GDP was oscillating between 7 and 6 percent only.

Interstate Disparities in Economic Growth

Economic growth is essential for best utilization of resources, economic welfare, and sustainability. It generates job opportunities and hence stronger demand for labour. In turn, increasing employment is crucial in delivering higher growth. For the overall growth of the country, individual states also should be performing well. State-wise annual growth rates in India for the period 2010-11 to 2014-15 is presented in table -2.

Table-2 State-wise Annual Growth Rate of Net State Domestic Product (NSDP) in India

States\UTs	2010-11	2011-12	2012-13	2013-14	Average	2014-15
Andaman and Nicobar Islands	8.69	8.44	7.93	3.67	7.18	NA
Andhra Pradesh	6.67	2.96	3.72	7.27	5.15	7.19
Arunachal Pradesh	4.32	5.24	-2.61	9.05	4	7.07
Assam	4.92	4.09	3.7	6.28	4.75	4.9
Bihar	15.27	10.23	10.6	9.37	11.37	9.66
Chandigarh	-0.02	1.65	2.59	9.59	3.45	NA
Chhattisgarh	9.64	6.6	5.43	2.96	6.16	4.31
Delhi	8.29	4.93	7.42	7.33	6.99	8
Goa	19.69	20.66	4.91	6.84	13.02	NA
Gujarat	10.94	6.65	5.82	8.13	7.88	NA
Haryana	6.78	8.54	5.45	6.66	6.86	8
Himachal Pradesh	8.37	7.49	6.21	6.41	7.12	NA
J & K	5.72	5.38	5.61	5.96	5.67	-2
Jharkhand	14.55	5.28	8.36	8.36	9.14	9
Karnataka	10.28	3	5.33	7.39	6.5	7
Kerala	6.4	5.82	5.89	6.49	6.15	NA
Madhya Pradesh	5.25	8.93	8.53	9.64	8.09	10.44
Maharashtra	11.39	4.24	7.65	7.54	7.71	6
Manipur	-2.93	9.38	6.63	6.23	4.83	NA
Meghalaya	9.89	11.67	3.92	9.72	8.8	8.97
Mizoram	18.45	-2.95	6.42	7.12	7.26	NA
Nagaland	9.5	8.2	6.41	6.42	7.63	6.47
Odisha	6.3	3.75	3.89	0.39	3.58	7.85
Puducherry	6.69	3.69	11.36	11.08	8.21	11.35
Punjab	6.46	5.39	4.09	5.41	5.34	6
Rajasthan	15.02	9.38	5.74	4.78	8.73	6
Sikkim	10.08	12.91	7.43	7.88	9.58	NA
Tamil Nadu	13.64	7.37	2.84	7.48	7.83	7.45
Telangana	17.68	5.57	5.33	4.85	8.36	5
Tripura	7.55	9.13	11.28	9.7	9.42	NA
Uttar Pradesh	7.99	5.41	5.22	4.96	5.89	6.01
Uttarakhand	10.51	9.97	6.73	8.3	8.87	9.32
West Bengal	6.06	3.67	7.22	7.12	6.02	7.35
Coefficient of Variation	53.55	59.56	44.43	31.21	29.347	37.85

Source: Central Statistical Organization

The data shows that several states have registered higher growth rate during 2013-14 compared to the earlier years. An average growth rate during the four years period shows that majority of the states have registered more than 7 percent growth rate. Goa registered highest growth rate of 13.02 percent. However states like Odisha (3.6%), Chandigarh (3.5%), and Arunachal Pradesh (4%) registered very low growth rate in NSDP.

The data for 2014-15 are available for only 23 states. According to this Puducherry (11.34%) and Madhya Pradesh (10.44%) has showed highest growth rates and these two states

have a growth rate of above 10 percent. Bihar (9.66%), Uttarkhand (9.32%) and Jarkhand (9%) are the other three states that have shown as GDP growth rate between 9 to 10 percent. Jammu and Kashmir registered a negative growth rate of -2 percent during 2014-15.

It is observed that interstate variation in growth rata has declined continuously from 2011-12 though it increased marginally in 2014-15. Coefficient of variation declined from 59 percent in 2011-12 to 31 percent by 2013-14, but increased to 37.85 percent during 2014-15.

Trends in Work Participation Rate

While Work Participation Rate (WPR) is one of the indicators for the progress of the country, women work participation is considered as an indicator for economic empowerment of women. It is also one of the important determinants of social status of women. Data relating to the Trends in WPR of men and women in rural and urban areas is presented in table -3.

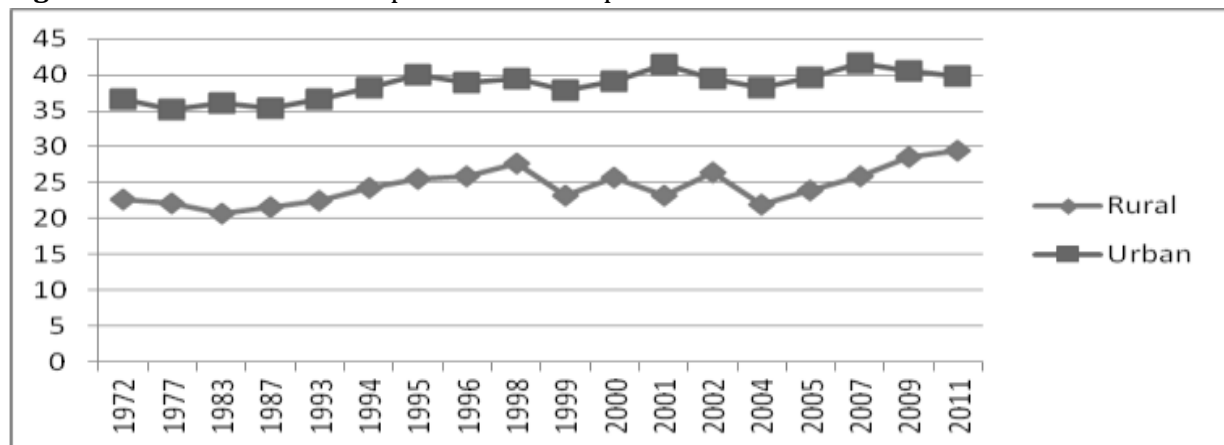
Table - 3 Trends in Gender Gap in Work Participation Rate in India

Year	Rural			Urban		
	Male	Female	Gender Gap	Male	Female	Gender Gap
1972	54.5	31.8	22.7	50.1	13.4	36.7
1977	55.2	33.1	22.1	50.8	15.6	35.2
1983	54.7	34	20.7	51.2	15.1	36.1
1987	53.9	32.3	21.6	50.6	15.2	35.4
1993	55.3	32.8	22.5	52.1	15.5	36.6
1994	56	31.7	24.3	51.9	13.6	38.3
1995	55.1	29.5	25.6	52.5	12.4	40.1
1996	55	29.1	25.9	52.1	13.1	39
1998	53.9	26.3	27.6	50.9	11.4	39.5
1999	53.1	29.9	23.2	51.8	13.9	37.9
2000	54.4	28.7	25.7	53.1	14	39.1
2001	54.6	31.4	23.2	55.3	13.9	41.4
2002	54.6	28.1	26.5	53.4	14	39.4
2004	54.6	32.7	21.9	54.9	16.6	38.3
2005	54.9	31	23.9	54	14.3	39.7
2007	54.8	28.9	25.9	55.4	13.8	41.6
2009	54.7	26.1	28.6	54.3	13.8	40.5
2011	54.3	24.8	29.5	54.6	14.7	39.9
Average	54.64	30.12	24.52	52.72	14.13	38.59
CV	1.15	8.76	10.30	3.25	8.63	5.02

Source: Ministry of Statistics and Programme Implementation, Govt. of India

Following diagram shows the trend lines of gender gap in rural and urban work participation rate in India during the year 1972 to 2011.

Figure: 1 Trends in Gender Gap in Work Participation Rates in India



The data reveals increasing trends in the gender gap in both rural and urban work participation rates. It is observed that during the entire period the gender gap in urban is always higher than the gap in rural areas. But the gap followed the same overall trend in both urban and rural areas. The overall trend does not show any drastic decrease. However similarities between urban and rural areas could be observed in fluctuations. Whenever there is a dip in gender gap in rural areas, there is a dip in urban areas also. In the year 1999, the gender gap in both the rural and urban areas was low compared to the other years. While the gender gap in the urban areas is reduced from 40.5 percent to 39.9 percent between 2009 and 2011, it has increased in rural areas. However there is a marginal decrease in rural and urban divide during 2011 though there is an overall increase in gender gap. The average gender gap for the entire period is 24.52 percent in rural areas and 38.59 percent in urban areas. But in terms of variation, rural gender gap has shown greater variation (10.3 %) compared to urban gender gap (5.02%) over the entire period.

Interstate Disparities in Work Participation

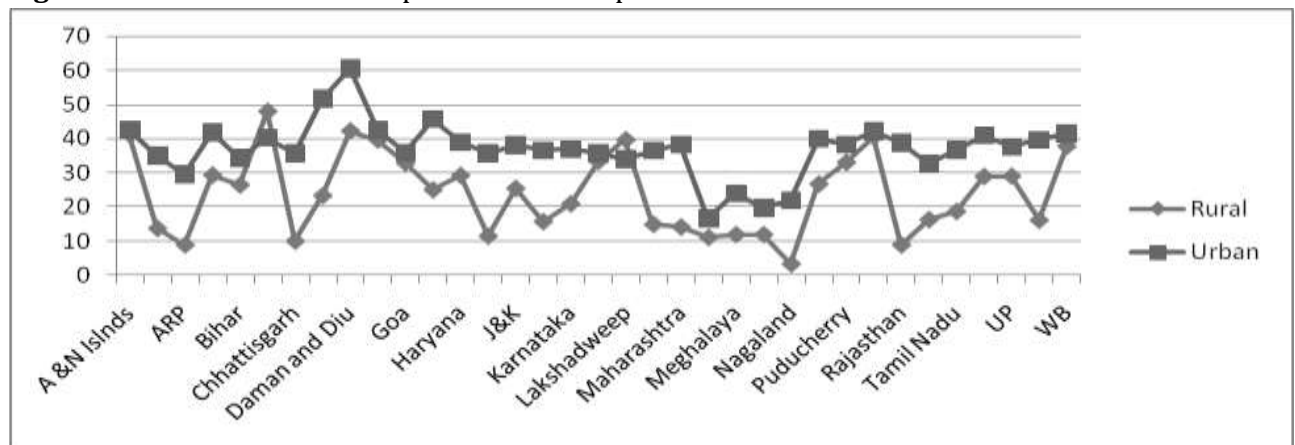
Women’s participation in the workforce assumes more importance in the case of developing countries. It sustains the society economically. It has been found that in developing countries like India, women’s participation in the workforce has been remarkably low as compared to men. Within the country, a large variation across different states is observed in gender gap in work participation rates. Data relating to work participation rate in different states according to 2011 census is presented in table - 4.

Table - 4 State-wise Workforce Participation Rate in India (2011Census)

States/UTs	Rural			Urban		
	Male	Female	Gender Gap	Male	Female	Gender Gap
Andaman and Nicobar Islands	59.10	17.90	41.20	60.35	17.70	42.65
Andhra Pradesh	58.40	44.60	13.80	54.14	19.10	35.04
Arunachal Pradesh	48.50	39.50	9.00	50.91	21.30	29.61
Assam	53.10	23.70	29.40	56.79	14.90	41.89
Bihar	46.70	20.20	26.50	44.90	10.40	34.50
Chandigarh	62.20	14.20	48.00	56.34	16.00	40.34
Chhattisgarh	56.40	46.30	10.10	53.09	17.40	35.69
Dadra and Nagar Haveli	56.80	33.40	23.40	66.51	14.70	51.81
Daman and Diu	58.20	15.90	42.30	75.12	14.50	60.62
Delhi	49.30	9.70	39.60	53.08	10.60	42.48
Goa	55.50	22.60	32.90	57.48	21.50	35.98
Gujarat	57.10	32.00	25.10	57.18	11.40	45.78
Haryana	50.10	20.80	29.30	51.15	12.10	39.05
Himachal Pradesh	59.00	47.40	11.60	55.72	19.90	35.82
Jammu and Kashmir	46.30	20.80	25.50	52.68	14.50	38.18
Jharkhand	50.80	35.00	15.80	46.72	10.10	36.62
Karnataka	59.80	38.80	21.00	57.81	20.80	37.01
Kerala	53.60	20.20	33.40	51.76	16.00	35.76
Lakshadweep	52.30	12.60	39.70	44.56	10.50	34.06
Madhya Pradesh	54.30	39.30	15.00	51.66	15.10	36.56
Maharashtra	56.70	42.50	14.20	55.16	16.80	38.36
Manipur	52.40	41.20	11.20	49.87	33.20	16.67
Meghalaya	47.00	35.00	12.00	47.68	23.60	24.08
Mizoram	53.90	41.90	12.00	50.89	31.10	19.79
Nagaland	55.70	52.30	3.40	47.95	25.90	22.05
Odisha	56.50	29.70	26.80	54.08	14.10	39.98
Puducherry	54.20	21.10	33.10	54.41	16.10	38.31
Punjab	54.90	14.30	40.60	55.51	13.20	42.31
Rajasthan	51.70	42.70	9.00	50.75	12.00	38.75
Sikkim	61.00	44.60	16.40	57.52	24.80	32.72
Tamil Nadu	60.00	41.20	18.80	58.54	21.80	36.74
Tripura	55.30	26.30	29.00	56.97	16.00	40.97
Uttar Pradesh	47.40	18.30	29.10	48.94	11.30	37.64
Uttarakhand	49.10	32.90	16.20	50.98	11.30	39.68
West Bengal	57.20	19.40	37.80	56.84	15.40	41.44
India	53.00	30.00	23.00	53.76	15.40	38.36

Source: Ministry of Statistics and Programme Implementation, Govt. of India.

Figure: 2 State Wise Gender Gap in Work Participation Rate in India



Gender gap in work participation across the states also followed the national trend. Gender gap in work participation rate is higher in urban areas compared to rural areas in all states except in Chandigarh and Lakshadweep. It is observed that the gender gap in the rural and urban workforce participation rate in Daman and Diu is higher than the national average. Daman and Diu had a gender gap of 42.30 percent in rural and 60.60 percent in urban areas as against national average of 23percent in the rural and 38.36 in the urban areas. Lowest gender gap in WPR could be observed in Nagaland with a gender gap of 3.40 percent in rural and 22.05 percent in urban areas.

Chandigarh (48%), Daman and Diu (42.30%), Andaman and Nicobar Island (41.20%) and Punjab (40.60%) have shown higher gender gap in rural areas with a gender gap of above 40 percent. Meghalaya (12%), Mizoram (12%), Himachal Pradesh (11.60%), Manipur (11.20%), Arunachal Pradesh (9%), Rajasthan (9%) and Nagaland (3.40%) have shown the lower gender gap of below the 10 percent in the rural areas. Even in urban areas these states have shown the same trend.

Influence of Economic Growth on Work Participation of Women and Gender Gap

Economic growth creates greater employment opportunities for both men and women in any economy. However the utilization of those opportunities depends on several socio economic factors. Especially in the case of women, participation in the labour market is influenced by the family structure, marital status, economic and social status of the family, apart from the educational attainment. The recent phenomenon of reduced gender gap in education and widening gender gap in work participation is a reflection of this. How far economic growth influences the work participation of women leading to gender parity in employment is a question to be addressed.

The following econometric model is estimated to understand the influence of economic growth on work participation rate of women across different states and gender gap in rural and urban areas.

Model 1

$$WPR = f(EG, LR, UR)$$

WPR = Work Participation Rate

EG = Economic Growth

LR = Literacy Rate

UR = Urbanization

Separate function was estimated for urban and rural female work participation rates.

$$WPR (U) = -0.145 EG + 0.607 LR^* - 0.261 UR$$

$$WPR (R) = 0.168 EG - 0.008 LR - 0.391 UR^{**}$$

Model 2

$$GGWPR = f(EG, LR, UR)$$

GGWPR = Gender Gap in Work Participation Rate

EG = Economic Growth

LR = Literacy Rate

UR = Urbanization

$$GGWPR (Urban) = 0.194 EG - 0.326 LR^{**} + 0.265 UR$$

$$GGWPR (Rural) = - 0.067 EG + 0.072 LR + 0.317 UR^{**}$$

* Significant at level 1%

** Significant at level 10%

The results indicate significant differences in urban and rural areas. In the case of urban areas work participation rate of women is negatively influenced by economic growth and positively by literacy rate. The literacy rate has a significant influence on work participation in urban areas indicating that higher literacy levels are associated with greater participation. However economic growth and urbanization have shown a negative relationship, though not significant. In the case of rural areas urbanization and literacy levels have a negative influence. Greater the urbanization in the state, lower the work participation of women. Similarly lower the level of literacy, higher the work participation. States with lower levels of female literacy are likely to have greater work participation of women. These results are in consistence with the recent ILO findings on decreased work participation rate (ILO, 2013). According to the findings, one of the reasons for decreased work participation in rural areas is increased enrollment of girls in higher education and not finding suitable opportunitie in rural areas.

In the case of gender gap also there are differences in rural and urban areas. While rural gender gap is negatively influenced by growth rate, urban gender gap is positively influenced by the growth rate. Similarly literacy levels have a positive impact on gender gap in rural areas, but negative impact in urban areas.

Summary and Conclusions

The study shows that there are greater fluctuations in growth rate of GDP in India. Growth rate registered a lowest rate of 3.9 during 2002. But later it picked up and reached to the level of nearly 10 percent during 2007 and 2010. But in the later period growth rate in GDP was oscillating between 7 and 6 percent only.

During the period 2010-11 to 2013-14, several states have registered higher growth rate in 2013-14 compared to the earlier years. An average growth rate during the four years' period shows that majority of the states have registered more than 7 percent growth rate. Goa registered highest growth rate of 13.02 percent. However states like Odisha (3.6%), Chandigarh (3.5%), and Arunachal Pradesh (4%) registered very low growth rate in NSDP. Among the 33 Indian states and Union Territories, Odisha, Arunachal Pradesh, Maharashtra, Mizoram, Tamil Nadu, Uttarakhand and Meghalaya has shown the highest variation of growth rates in every year.

Gender gap in rural areas is lowest in 1987 (21.6%) it is lowest in urban areas during 1977 (35.2%). The data showed that in the year 1999, the gender gap in both the rural and urban areas was low compared to the other years. The gender gap in the urban areas is reduced from 40.5 percent to 39.9 percent between 2009 and 2011. Gender gap in work participation rate in both urban and rural areas has been showing as increasing trend.

It is observed that the gender gap in the rural and urban workforce participation rate in Daman and Diu is more than the national average. Daman and Diu had a gender gap of 42.30 percent in rural and 60.60 percent in urban areas as against national average of 23 percent in the rural and 38.36 in the urban areas. Nagaland state had observed that the lowest gender gap in rural and urban work participation rate is less than the national average. Nagaland had gender gap in rural areas of 3.40 percent and in the urban areas it is 22.05 percent against national average of 23 percent in the rural and 38.36 in the urban areas. Lowest gender gap in WPR could be observed in Nagaland with a gender gap of 3.40 percent in rural and 22.05 percent in urban areas.

The study observed that the gap in work participation is showing an increasing trend both urban and rural areas and the gender gap in urban areas is always higher than the gap in rural areas. Large variations across different states in gender gap in work participation rates are also observed. Econometric analysis indicated weak relationship between gender gap and economic growth across the states. Large variation in gender gap in rural areas is explained by female literacy than economic growth. It appears that cultural and social factors influence the participation of women in work force. Work participation of women is positively associated with literacy in urban areas and negatively in rural areas.

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