

Changing Status of Women in Uttar Pradesh (1971-2001): An Inter-district

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Introduction

Recently the issues of the changing status of women has received a great deal of attention. Both government and individual efforts have been made to discuss and carry out systematic research to have a deeper understanding of the disabilities and discrimination, consciously or unconsciously practiced against women in our country.

Exposure of the women to formal education and participation in paid labourforce are the two key modernisation forces responsible for bringing about change in the role and status of women. These factors have brought about a number of changes in traditionally society and have posed many problems of adjustment towards for women. Today women are moving towards a situation where they would require taking multiple roles and responsibilities. They would be equal partners to men in various respects both individually and socially. In the course of time, though the social status of women has witnessed a great deal of change, still there are various issues that need more serious debates and discussions. This paper tries to capture condition of women in the districts of UP within a socio-economic and demographic ambience that has marked UP in last 30 years and acknowledges that the status of women cannot be conceived as monolithic and static.

The present paper highlights the changes in women's status and position in the districts of Uttar Pradesh in terms of literacy, work participation, health and other indicators during the last three decades, e.g., 1971-81, 1981-91 and 1991-2001. The paper is divided into four sections. Decadal variation in women's status during 1971-81, 1981-91 and 1991-2001 has been discussed in section one. In the second section disparities among the indicators of women's status has been examined. In the third section results of correlation analysis have been discussed. The concluding section presents a brief summary of the main finding of this paper.

Changes in Demographic Aspects

Major demographic trends in terms of women's status during 1971-81 and 1981-91 and 1991-2001 (wherever data are available for the year 2001) in the state are analysed in case of sex ratio (SR), Mean Age at Marriage, and Total Fertility Rate (TFR).

Sex Ratio

Table 1 presents the changes in sex ratio in all the districts in the past few decades.

Table 1: Percentage Change in Sex Ratio

Rank	DISTRICT	1971-81	DISTRICT	1981-91	DISTRICT	1991-01
Districts with Highest Change						
1	Shahjahanpur	5.52	Lucknow	4.20	Kanpur Nagar	5.46
2	Azamgarh	2.41	Meerut	2.97	Sultanpur	4.93
3	Deoria	2.40	Saharanpur	2.53	Sonebhadra	3.94
4	Kanpur Nagar	2.22	Muzaffar Nagar	2.28	Bareilly	3.93
5	Kanpur Dehat	2.17	Rampur	2.02	Lakhimpur Kheri	3.92
6	Lakhimpur Kheri	2.06	Farrukhabad	1.78	Moradabad	3.87
7	Basti	1.99	Mainpuri	1.71	Badaun	3.83
8	Gorakhpur	1.95	Pilibhit	1.46	Gorakhpur	3.79
9	Sonebhadra	1.86	Lalitpur	1.43	Deoria	3.72
10	Gonda	1.71	Agra	1.41	Siddhartha Nagar	3.61
District with lowest change						
1	Jhansi	-1.15	Allahabad	-1.69	Faizabad	1.73
2	Banda	-1.26	Gorakhpur	-1.70	Mirzapur	1.59
3	Mathura	-1.34	Gonda	-1.91	Kanpur Dehat	1.54
4	Badaun	-1.35	Mau	-2.21	Muzaffar Nagar	1.40
5	Etah	-1.44	Banda	-2.21	Varanasi	1.34
6	Mainpuri	-1.44	Hamirpur	-2.21	Hamirpur	1.31
7	Pratapgarh	-1.48	Ghazipur	-2.45	Fatehpur	1.13
8	Hamirpur	-2.05	Shahjahanpur	-2.97	Mau	1.03
9	Mirzapur	-2.44	Ballia	-3.57	Jhansi	0.81
10	Jalaun	-3.03	Sultanpur	-3.71	Allahabad	0.80

Source: 1. Census of India, General Report of U.P., 1971.
2. Census of India, 1981, 1991 and 2001.

It is evident from the Table 1 that during 1971-81 sex ratios has declined in many districts of U.P., which are spread all over the state. All the Bundelkhand districts show a decline in sex ratio. No change in sex ratio during this decade has been observed in Sultanpur, Barabanki and Lucknow, while in other 36 districts sex ratio has increased.

Similarly during 1981-91 only 30 districts out of 63 districts have registered increase in sex ratio (Table 1). Meerut, Lucknow, Sitapur, Muzaffarnagar, Kanpur Dehat and Farrukhabad show highest increase in SR. 33 districts have registered decline in sex ratio of which 18 districts belong to Eastern region, 7 belong to Central region, 3 belong to Bundelkhand and only one district belong to Western region of the state.

The above examination of district-wise sex ratio over the years 1971, 1981, 1991 and 2001 have shown sudden fall in the sex ratio in many districts of U.P. The declining proportion of females along with high rate of infant and maternal mortality in these districts underlines serious shortcomings.

Mean Age at Marriage

Over the decade 1971-81 the highest increase of 2.85 years in respect of female age at marriage was registered in Jhansi closely followed by Pratapgarh, Jalaun, Mainpuri and Unnao. The districts of Bahraich, Maharajganj and Deoria have registered very small increase in female mean age at marriage, which stagnated in Hardoi at the level of 16.6 years and declined in Rampur from 17.29 years in 1971 to 14.7 years in 1981 (Table 2).

During 1981-91 highest increase in female age at marriage is found in Rampur closely followed by Kanpur Nagar, Fatehpur, Kanpur Dehat, Allahabad, Banda and Farrukhabad (Table 2). The increase in female age at marriage is attributable largely to the progress in literacy level. Shahjahanpur, Pilibhit, Badaun, Jhansi, Hamirpur, Jalaun, Mainpuri, Mathura, Moradabad, Etawah and Ferozabad have shown very slow increase in this aspect, reflecting relatively low socio-economic development and low literacy level of their womenfolk.

Table 2: District-wise Change in Mean Age at Marriage (in years)

RANK	DISTRICT	1971-81	DISTRICT	1981-91
Districts with Highest Change				
1	Jhansi	2.84	Rampur	4.89
2	Pratapgarh	2.31	Kanpur Nagar	2.60
3	Jalaun	1.94	Fatehpur	2.50
4	Mainpuri	1.78	Kanpur Dehat	2.50
5	Unnao	1.69	Allahabad	2.44
6	Etawah	1.66	Banda	2.44
7	Fatehpur	1.66	Farrukhabad	2.40
8	Faizabad	1.63	Deoria	2.37
9	Mau	1.63	Maharajganj	2.37
10	Basti	1.62	Gorakhpur	2.30
District with lowest change				
1	Sitapur	0.93	Aligarh	0.98
2	Mirzapur	0.88	Bareilly	0.96
3	Sonebhadra	0.88	Rae Bareli	0.95
4	Mathura	0.88	Etah	0.94
5	Varanasi	0.85	Etawah	0.93
6	Ghaziabad	0.75	Moradabad	0.92
7	Meerut	0.74	Ferozabad	0.87
8	Sultanpur	0.73	Mathura	0.86
9	Deoria	0.64	Mainpuri	0.84
10	Maharajganj	0.64	Jalaun	0.83

Source: 1. J.N. Srivastava, 1978, *Mean Age at Marriage in U.P., District Level Estimates*.

2. SRS, 1981, Registrar General of India, New Delhi.

3. Census of India, District Profile of U.P., 1991.

Changes in Total Fertility

Uttar Pradesh has the highest Total Fertility Rate (TFR) among the states of India. The TFR in U.P. during the period 1993-95 was 5.1, i.e. 1.6 points above the national level. It has improved from 5.1 in 1993-95 to 3.4 children per women during 2001. Table 3 shows change in per cent point in TFR during 1981-91 and 1991-2001.

Table 3: Change in Total Fertility Rate (%)

RANK	DISTRICT	1981-91	DISTRICT	1991-2001
Districts with Highest Change				
1	Lalitpur	-8.20	Kanpur Nagar	-33.33
2	Ghaziabad	-4.26	Kanpur Dehat	-32.26
3	Jhansi	0.00	Lucknow	-29.55
4	Shahjahanpur	3.77	Ferozabad	-28.36
5	Kanpur Nagar	5.41	Rae Bareli	-28.33
6	Etawah	6.25	Unnao	-28.07
7	Hardoi	6.25	Allahabad	-27.59
8	Hamirpur	6.52	Saharanpur	-27.27
9	Rampur	7.27	Bijnore	-26.98
10	Moradabad	7.84	Gonda	-26.56
District with lowest change				
1	Sultanpur	41.46	Basti	-14.55
2	Siddharth Nagar	42.22	Hamirpur	-14.29
3	Mau	43.59	Rampur	-13.56
4	Pratapgarh	43.59	Ghaziabad	-13.33
5	Deoria	45.00	Shahjahanpur	-12.73
6	Jaunpur	47.37	Badaun	-12.70
7	Ghazipur	48.57	Lalitpur	-12.50
8	Sonebhadra	51.43	Barabanki	-9.62
9	Varanasi	54.55	Sonebhadra	-9.43
10	Allahabad	56.76	Moradabad	-9.09

Source: 1. Census of India, 1981, Occasional Paper No.13 of 1988.

2. Census of India, 1991, U.P. District Profile, 1991.

3. District Level Estimates of Fertility from India's 2001 Census, Economic and Political Weekly, Vol.XVII, No.7, February 2002.

Decline in TFR during 1981 and 1991 is very significant in Lalitpur Ghaziabad and Jhansi. In case of Lalitpur, it was 6.1 children per woman during 1981, which has declined to a level of 5.6 during 1991 and 4.9 during 2001. Contrary to this TFR has increased in Mirzapur, Kanpur Dehat, Gonda, Ballia, Ferozabad and Allahabad. During 1991-2001, of all the districts Ghaziabad, Kanpur Nagar, Agra, Sitapur, Shahjahanpur and Meerut have registered decline in fertility of women as depicted by Table 3, whereas districts of Maharajganj, Lalitpur and Jhansi have registered no change in TFR during this decade. It is observed that female literacy is relatively high in those districts where the decline in TFR is more significant.

Changes in Infant Survival Rate

Significant improvement has been observed in infant survival rate (ISR) from 1971 to 1991. During the decade 1971-81 infant survival rate increased by 11.79 percentage points in the state. Highest increase in ISR has been noticed in Kanpur Nagar, closely followed by Etah, Shahjahanpur, Rampur, Siddharth Nagar, Badaun, Basti and Hardoi, whereas lowest increase has been found in the districts like Ballia, Banda, Jalaun, Sonebhadra, Mirzapur, Varanasi and Mau (Table 4). Only one district, namely, Kanpur Dehat, has registered decline in Infant Survival Rate during this period.

During 1981-91 decade Basti, Kanpur Dehat, Mathura, Rae Bareli, Bulandshahar, Unnao, Moradabad, Rampur and Siddharth Nagar have shown highest increase in ISR, whereas Maharajganj, Dehradun, Siddharth Nagar, Agra, Saharanpur, Ferozabad, Lucknow, Jhansi, Nainital and Bareilly have registered lowest increase in ISR (Table 5.10). Contrary to this, it has declined in the districts of Mirzapur.

Table 4: Change in Infant Survival Rate Per 1000

RANK	DISTRICT	1971-81	DISTRICT	1981-91
Districts with Highest Change				
1	Kanpur Nagar	24.83	Basti	8.22
2	Etah	18.27	Kanpur Dehat	7.48
3	Shahjahanpur	17.86	Mathura	7.43
4	Rae Bareli	17.86	Rae Bareli	7.27
5	Rampur	16.25	Bulandshahar	6.71
6	Siddhartha Nagar	16.04	Unnao	6.41
7	Badaun	15.88	Moradabad	6.32
8	Basti	15.88	Rampur	6.21
9	Hardoi	15.86	Siddhartha Nagar	6.08
10	Sultanpur	15.86	Etah	5.96
District with lowest change				
1	Etawah	9.30	Pratapgarh	2.29
2	Agra	9.29	Hamirpur	2.05
3	Azamgarh	9.00	Deoria	1.92
4	Faizabad	9.00	Sonebhadra	1.66
5	Mau	9.00	Jalaun	1.46
6	Varanasi	8.40	Varanasi	1.33
7	Mirzapur	8.26	Fatehpur	1.24
8	Sonebhadra	8.26	Azamgarh	1.00
9	Banda	7.69	Maharajganj	0.56
10	Ballia	5.68	Etawah	0.45

Source: 1. Census of India, 1971, U.P. General Report.

2. Census of India, 1981, Occasional Paper No.5 of 1988.

3. IMR estimates for 1991 based on Census Data.

Generally the increase in infant survival rate during the decade 1981-91 was lower in scale and slower in pace in comparison with the decade 1971-81.

Change in Literacy Rate

Over the period 1971 to 2001 female literacy has shown sharp improvement in all the districts. Highest percentage increase during 1971-81 was recorded in Jhansi followed by Basti, Siddharth Nagar and Jalaun (**Table 5**). On the other hand, lowest increase in female literacy rate has been recorded in districts of Hardoi, Moradabad, Gonda, Kheri, Etah, Allahabad, Sitapur and Pilibhit.

Table 5: Percentage Change in Female Literacy Rate

RANK	DISTRICTS	1971-81	DISTRICTS	1981-91	DISTRICTS	1991-2001
Districts with Highest Change						
1	Jhansi	68.08	Gorakhpur	136.39	Maharajganj	178.60
2	Basti	53.28	Pratapgarh	132.46	Basti	155.05
3	Siddharth Nagar	53.28	Gonda	130.83	Siddharth Nagar	139.44
4	Jalaun	52.90	Mau	129.30	Deoria	132.32
5	Deoria	50.41	Basti	124.43	Barabanki	131.28
6	Maharajganj	50.41	Sultanpur	122.41	Banda	125.67
7	Faizabad	50.19	Fatehpur	118.35	Lakhimpur Kheri	119.51
8	Mau	50.19	Lakhimpur Kheri	114.85	Gonda	116.93
9	Azamgarh	48.60	Barabanki	113.73	Bahraich	116.87
10	Hamirpur	47.77	Mirzapur	110.17	Sonebhadra	113.89
District with lowest change						
1	Rampur	23.85	Lalitpur	66.87	Mainpuri	59.36
2	Jaunpur	23.75	Jalaun	66.67	Farrukhabad	57.49
3	Bahraich	23.60	Muzaffar Nagar	66.40	Agra	56.18
4	Mathura	22.93	Etawah	62.60	Etawah	52.56
5	Varanasi	22.36	Bareilly	60.99	Ghaziabad	52.33
6	Lucknow	21.17	Jhansi	57.90	Kanpur Dehat	51.70
7	Agra	20.58	Lucknow	57.79	Jhansi	51.69
8	Pilibhit	19.79	Ferozabad	56.45	Meerut	46.32
9	Sitapur	19.20	Saharanpur	55.59	Lucknow	30.59
10	Allahabad	19.05	Agra	54.77	Kanpur Nagar	23.26

Source: *Census of India, 1971, 1981, 1991 and 2001.*

During 1981-91 maximum increase was again experienced in Gorakhpur, followed by Pratapgarh, Gonda, Basti, Sultanpur and Mau. On the contrary Jhansi, Lucknow, Ferozabad, Saharanpur and Agra registered very slow increase during this period.

The decade 1991-2001 also registered high growth in female literacy level (Table 5). Mau, Basti, Siddharth Nagar, Deoria, Barabanki, Banda, Kheri, Bahraich, Gonda and Sonebhadra have registered maximum increase in female literacy level during this decade. Contrary to this, districts of Dehradun, Kanpur Nagar, Lucknow, Meerut, Jhansi, Kanpur Dehat, Ghaziabad and Etawah have registered very slow increase as compared to other districts of the state.

The progress in female literacy is no doubt substantial, but in absolute terms the situation is far from satisfactory because three-fourths of women are still illiterate. In some districts literacy rate among female population is still found lower than 30 per cent (Table 5).

Further the pace of increase in percentage of literacy among females has shown wide difference across the districts of the state. Despite the progress in female literacy level, there is much to be done before female illiteracy is eradicated wholly.

Changes in Female Work Participation Rate

The level and rate of growth of female participation rates vary sharply across the districts of the State. Table 6 reveals that female work participation rates have improved slightly over the past three decades. The FWPR has increased markedly in Aligarh (from 1.35 per cent in 1971 to 5.74 per cent in 1981) closely followed by Shahjahanpur, Ghaziabad, Maharajganj, Bijnore, Deoria, Farrukhabad, Meerut and Kanpur Dehat during the decade 1971-81. FWPR during 1971-81. Highest decline has been noticed in Lalitpur (-62.09) followed by Hardoi, Ghazipur, Basti, Bahraich, Fatehpur, Gonda, Faizabad and Gorakhpur.

Table 6: Percentage Change in Female Work Participation Rate

RANK	DISTRICT	1971-81	DISTRICT	1981-91	DISTRICT	1991-2001
Districts with Highest Change						
1	Aligarh	324.97	Etah	461.40	Mathura	304.50
2	Shahjahanpur	172.48	Muzaffar Nagar	418.99	Bareilly	296.75
3	Ghaziabad	53.02	Bahraich	416.52	Bulandshahar	277.77
4	Maharajganj	42.56	Aligarh	400.00	Ferozabad	234.35
5	Bijnore	36.81	Rampur	316.06	Etawah	221.80
6	Deoria	20.41	Pilibhit	309.09	Mainpuri	215.23
7	Farrukhabad	20.36	Hardoi	301.57	Kanpur Dehat	198.97
8	Meerut	14.17	Bulandshahar	277.55	Kanpur Nagar	197.11
9	Kanpur Dehat	11.58	Lakhimpur Kheri	225.20	Moradabad	156.19
10	Muzaffar Nagar	9.00	Ghaziabad	223.31	Faizabad	122.14
District with lowest change						
1	Jaunpur	-26.21	Bijnore	28.57	Mau	8.94
2	Pratapgarh	-26.66	Rae Bareli	22.92	Mirzapur	5.96
3	Varanasi	-27.27	Maharajganj	20.71	Varanasi	5.90
4	Allahabad	-28.71	Mirzapur	20.65	Deoria	5.26
5	Gorakhpur	-32.58	Basti	17.41	Hamirpur	3.50
6	Faizabad	-32.91	Ferozabad	9.29	Ghaziabad	-4.05
7	Gonda	-33.10	Gorakhpur	8.61	Gonda	-4.13
8	Fatehpur	-33.81	Kanpur Nagar	-5.54	Bahraich	-8.09
9	Bahraich	-35.19	Azamgarh	-14.35	Banda	-8.35
10	Basti	-37.18	Deoria	-19.35	Sonebhadra	-11.83

Source: Census of India, 1971, 1981, 1991 and 2001.

During 1981-91 maximum increase has been observed in Etah (from 1.14 in 1981 to 6.30 in 1991) followed by Muzaffarnagar, Bahraich, Aligarh, Rampur, Pilibhit, Hardoi, Bulandshahar, Kheri, Ghaziabad, Sitapur, Gonda, Moradabad, Meerut and Badaun (Table 6). On the other hand, proportion of females in workforce has declined in Deoria, Azamgarh, and Kanpur Nagar. fifteen districts have registered growth in female work participation rate above 50 per cent during this decade, e.g., Lucknow, Banda, Fatehpur, Saharanpur, Unnao, Faizabad, Shahjahanpur, Allahabad, and Bareilly.

During the decade 1991-2001 maximum increase in female work participation rate has been noticed in Mathura, i.e. 304.5 per cent followed by Bareilly, Bulandshahar, Ferozabad, Etawah, Mainpuri, Kanpur Dehat, Kanpur Nagar and Moradabad. Mau, Mirzapur, Varanasi, Deoria, recorded low increase in female work participation rate, i.e. below 10 per cent. Contrary to this Sonebhadra, Banda, Bahraich, Gonda, Ghaziabad, registered decline in female work participation rate.

It is noteworthy from above analysis that participation rate of females has generally been rising from decade to decade. Although the change in FWPR is positive sign of females increasing participation in economic activities, but participation of females in the workforce has been increasing very slowly within the state.

The above discussion reveals that though the position and status of women in U.P. has improved over the two decades with regards to literacy, work participation rate, mean age at marriage and infant survival rate, the pace of change has varied across districts. Some districts in Eastern and Bundelkhand regions are lagging much behind other districts in respect to women's status. We have analyzed the trends in inter-district disparities in the following section.

Trends in Disparities in Women Development Indicators

Wide inter-district disparity is found to exist in the indicators of women's status. Coefficient of Variation (CV) has been used to measure inter-district disparity. As revealed in Table 7 disparities have come down rapidly in case of all indicators except in case of child-women ratio. Highest disparity has been found in FWPRs but the CV has come down from 141.08 per cent in 1971 to 59.40 per cent in 2001. Similarly in case of female literacy rate CV declined continuously from 50.13 per cent in 1971 to 47.65 per cent during 1981, 40.43 per cent during 1991 and 24.39 per cent in 2001. Inter-district disparity is found low in terms of sex ratio and infant survival rate. In

case of SR it was 9.60 per cent in the year 1971 and came down at the level of 7.42 per cent during 2001. Similarly in case of ISR it was 5.76 per cent in 1971 and came down to 2.39 per cent during 1991. But, in case of fertility marginal increase in disparity has been noticed during 1981-91, CV rising from 9.08 per cent in 1981 to 10.23 per cent in 1991. Similarly CV for total fertility rate (TFR) has also increased slightly from 14.28 per cent in 1981 to 15.74 per cent during 2001. This shows uneven progress of family welfare programme across districts.

Table 7: Trends in Disparity in Women Development Indicators

Year	Literacy Rate (LR) (%)	Female Work Participation Rate (FWPR) (%)	Infant Survival Rate (ISR) (Per 1000)	Child-Women Ratio (CWR) (Per 1000)	Mean Age at Marriage (Years)	Sex Ratio SR (Per 1000)
	(X ₁)	(X ₂)	(X ₃)	(X ₄)	(X ₅)	X ₆
1971						
Mean	10.73	9.47	784.98	680.83	15.47	889.44
SD	5.38	13.36	45.19	78.90	1.57	85.38
CV	50.13	141.08	5.76	11.59	10.14	9.60
1981						
Mean	14.62	10.94	874.71	620.11	16.65	890.70
SD	6.97	13.15	26.34	55.07	1.51	77.65
CV	47.65	120.14	3.01	8.88	9.08	8.72
1991						
Mean	26.44	15.12	901.11	620.83	18.38	886.5
SD	10.69	12.79	21.76	63.48	1.64	66.36
CV	40.43	84.56	2.39	10.23	8.92	7.49
2001						
Mean	27.40	28.50	915.54	883	17.5	909.86
SD	5.67	12.10	16.02	84	1.0	67.63
CV	20.72	42.47	1.75	9.46	5.86	7.44

The analysis reveals that inter-district disparities in status of women are still fairly high in case of female work participation rate and female literacy rate among the districts of Uttar Pradesh.

Analysis of Correlation Matrix

In all the years female literacy (X₁) is found positively and strongly correlated with Infant Survival Rate (X₃) and female Mean age at marriage (X₅) and negatively associated with child women ratio.

Female literacy (X_1) also shows negative but statistically insignificant association with female work participation (X_2). A strong negative relationship is found between child women ratio (X_4) and other variables (X_1 ; X_2 ; X_3 ; X_4 ; X_5 and X_6).

Table 8: Correlation Matrix 1971

	X_1	X_2	X_3	X_4	X_5	X_6
X_1	1.0000					
X_2	-0.1463	1.0000				
X_3	0.3937*	0.2464***	1.0000			
X_4	-0.0358	-0.5067	-0.0425	1.0000		
X_5	0.6153	-0.0026	0.1139	0.1762	1.0000	
X_6	-0.2939	0.7035	0.2589**	-0.4854	-0.3011	1.0000

* Significant at 1.0 per cent level.

** Significant at 5.0 per cent level.

*** Significant at 10.0 per cent level.

Table 9: Correlation Matrix, 1981

	X_1	X_2	X_3	X_4	X_5	X_6
X_1	1.0000					
X_2	0.0085	1.0000				
X_3	0.5352	0.3004	1.0000			
X_4	-0.5418	-0.2899**	-0.3531*	1.0000		
X_5	0.7042	-0.0191	0.2441***	-0.1890	1.0000	
X_6	-0.1170	0.7260	0.2704**	-0.2247***	-0.3027	1.0000

* Significant at 1.0 per cent level.

** Significant at 5.0 per cent level.

*** Significant at 10.0 per cent level.

Table 10: Correlation Matrix, 1991

	X_1	X_2	X_3	X_4	X_5	X_6
X_1	1.0000					
X_2	0.0999	1.0000				
X_3	0.6441	0.24271**	1.0000			
X_4	-0.5955	-0.4745	-0.5085	1.0000		
X_5	0.7034	0.1316	0.4624	-0.3883*	1.0000	
X_6	0.1007	0.6810	0.3654	-0.4171	-0.0239	1.0000

* Significant at 1.0 per cent level.

** Significant at 10.0 per cent level.

Table 11: Correlation Matrix, 2001

	X_1	X_2	X_3	X_4	X_5	X_6
X_1	1.000	-0.254				
X_2	-0.254	1.000				
X_3	0.517	-0.108	1.000			
X_4	-0.690	0.132	-0.484	1.000		
X_5	0.377	-0.558	0.227	-0.146	1.000	
X_6	-0.148	0.364	0.175	-0.042	-0.576	1.000

The correlation analysis confirms the hypothesis that with the increase in female literacy, female mean age at marriage, female infant survival rate, sex ratio and female work participation rate rise and child-women ratio decline. Thus, female literacy is a critically instrumental value for improving the overall status of women.

Hence, in this section we have analyzed the impact of male and female literacy on different indicators of women's status during 1971-91 with the help of correlation analysis.

Table 12: Correlation Matrix in Per Cent Change during 1971-01 in Indicators of Women Development

Variables	Changes in Female Literacy	Changes in Male Literacy
Changes in Female Literacy (LR) X1	1.000	0.509
Changes in Female Work Participation Rate (WPR) X2	-0.407	-0.032
Changes in Female Infant Survival Rate (ISR) X3	-0.011	0.277*
Changes in Child Women Ratio (CWR) X4	-0.275*	-0.428
Changes in Female Mean Age at Marriage X5	0.482	0.192
Changes in Sex Ratio (SR) X6	-0.492	-0.217*
Changes in Total Fertility Rate (TFR) X7	-0.324	0.430

* Significant at 5.0 per cent level.

Note: Percentage change has been calculated for the year 1981-2001 in case of TFR.

It is observed from the Table 12 that change in female literacy (X_1) has a negative and statistically significant impact on change in child-women ratio (X_4), change in sex ratio (X_6) and change in total fertility rate (X_7). Thus, districts which show increase in female literacy rate also register improvement in child-women ratio, mean age at marriage of female and male literacy. Further the change in female literacy (X_1) has a negative and statistically significant effect on change in female work participation rate. These results may appear startling. But it may be recalled that FWPR in U.P. is higher among the poorer sections with low literacy. Similarly, sex ratio is found to be higher among poorer sections.

The table also reveals that male literacy has a positive and statistically significant impact on changes in female literacy, female infant survival rate and female mean age at marriage. Thus, districts which show increase in male literacy also show increase in female literacy, female mean age at marriage as well female infant survival rate. Change in male literacy rate also show negative and statistically significant effect on child-women ratio. Contrary to this, changes in male literacy have a negative effect on changes in female work participation rate and changes in sex ratio. This would suggest that gender bias is higher among the educated middle and upper classes.

Our analysis establishes the fact that the demographic parameters related to the status of women are closely associated with the level of female and male literacy. Thus, it can be asserted that increase in male and female literacy tend to change values and attitudes of women in favour of later marriages, lesser number of children per women and high infant survival rate and affect status of women positively.

Conclusion

The above analysis reveals that wide variations prevail in the status of women across districts in the state. Female mean age at marriage, sex ratio and infant survival rate are relatively higher in the Central as compared to the Western, Eastern and Bundelkhand districts. For almost all socio-economic and demographic variables some of the Western districts, e.g., Ferozabad, Bareilly, Rampur, Hardwar, Pilibhit, Etah, Shahjahanpur and Badaun, show very poor performance. Most of these districts have a high proportion of Muslim population, which is generally lagging behind in literacy and other indicators of socio-economic development. Thus, it appears that economic development by itself does not raise social status of women.

Our analysis further reveals that there was an overall trend of decline in inter-district disparities in women's status over the period 1971 to 2001 in all indicators of women's status except in case of Child-Women Ratio and TFR. However, changes during 1971-81 were faster than in the decade 1981-91.

The close relationship between education and status of women has clearly emerged from our analysis. Female literacy plays a crucial role in reducing mortality and fertility. Female literacy also leads to higher age at marriage. The analysis also indicates that increase in literacy both of males and females is associated with decline in levels of fertility and higher levels of infant survival rate and higher levels of female mean age at marriage.

To conclude, the above analysis shows that in spite of the improvement experienced over the last few decades in indicators of women development in all the districts of the State, very sharp differences still exist across districts in this respect. The picture continues to be dismal in a good number of districts. The policy makers should, therefore, focus their efforts particularly on the laggard districts.

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