Inter District Disparities of Social Infrastructure in Punjab:
A Comparative Study of Pre- and Post Reform Period

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Abstract

Infrastructure is the pre-requisite for the development of any economy. Infrastructure is the backbone of any economy. Unless adequate and proper infrastructure, there can't be sustainable development. The study analyses the inter district disparities in social infrastructure in Punjab for the period from 1981 to 2011 in order to compare pre-reform (1981-1991) and post-reform (2001-2011) changes. The study undertook variables, namely number of educational institutions, number of teachers in educational institutions, number of medical institutions, number of beds in medical institutions, number of hospitals, number of dispensaries and number of Primary Health Centres. The study found that inter district disparities do exist in all these variables during the period and the disparity has increased from pre-reform period to post-reform period. The study concluded that inter district disparities can be eradicated by investing in both public and private sectors. More investment in the social sectors like education, health services and other development activities is the need of the hour.

Keywords: Punjab, Infrastructure, Economic Development, Social Infrastructure.
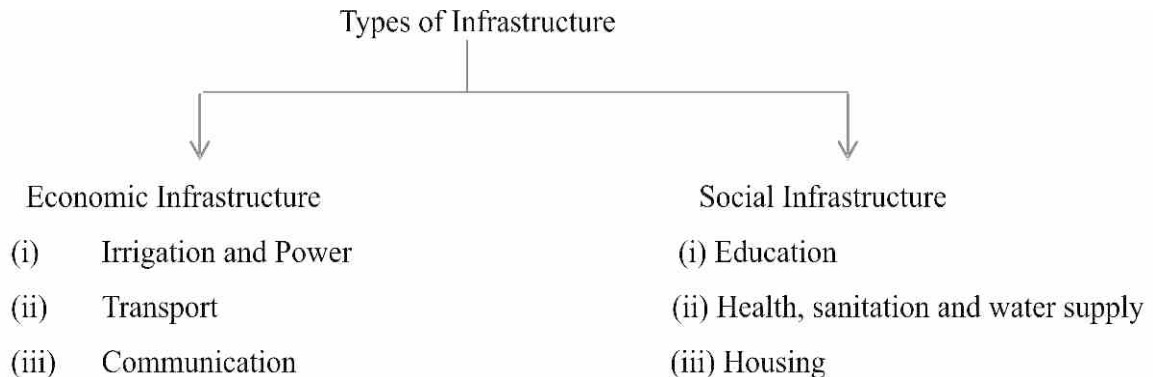
Introduction

Infrastructure is a basic physical and organizational structure required for the operation of a society or enterprise, or the services and facilities necessary for an economy to function. It can be generally defined as the set of interconnected structure elements that provide the framework supporting an entire structure of development. It is an important term for judging a country or region's development. The word is a combination of two Latin words infra meaning "beneath" and structural meaning "to construct." Infrastructure is an umbrella term for several activities. These include public works like railways, roads; major irrigation works etc. and also public utilities like power, telecommunication, tap water supply, sanitation and sewerage etc. The infrastructure term also includes facilities pertaining to health, education, skill formation, etc. These activities are necessary for the working of an economy. Infrastructure is categorized into two types: Economic Infrastructure and Social Infrastructure.

·Economic Infrastructure is defined as the infrastructure that helps in promoting economic activities such as roads, highways, railroads,

airports, seaports, electricity, telecommunications, water supply and sanitation.

Social Infrastructure (such as schools, libraries, universities, clinics, hospitals, courts, museums, theatres, parks, fountains and statues) is defined as the infrastructure that helps in promoting the health, education and cultural standards of the population – activities that have both direct and indirect impacts on the welfare.

Types of Infrastructure

Economic Infrastructure

(i) Irrigation and Power

(ii) Transport

(iii) Communication

Social Infrastructure

(i) Education

(ii) Health, sanitation and water supply

(iii) Housing

Social infrastructure is a subset of the infrastructure sector and generally includes the assets which accommodate social services. Social Infrastructure means those basic activities which not only help in achieving social objectives, but also indirectly help in attaining various economic activities. For example, education does not directly help in economic activities such as production and distribution, but indirectly helps in the economic development of the country by providing scientists, technologists and engineers. So the examples of social infrastructure are education, health services, sanitation and water supply etc.

Review of Literature

Dadibhavi (1991) analyzed the disparities in social infrastructure in the states during the period 1970-71 to 1984-85 by using educational and health facilities as indicators and opined that over the years there had been a remarkable progress in the development of social infrastructure facilities. Purohit and Tasleem (1994) analyzed the utilization of health services in India from various angles. It was found that the level of utilization was higher in states with higher in states with higher per capita Governmental expenditure on health care, while the states with lower per capita governmental expenditure depicted lower levels of utilization. Joshi (2006) analyzed the expenditures incurred by the Central and State Governments on social sector during the pre-reform period and post-reform period. The study found that there had been a rise in health expenditure from 0.8% of GDP in 1980-81 to 0.92% in 1989-90 (i.e during pre-reform period). Kumar and Gupta (2012) made an attempt to study health infrastructure in India and the impact of National Rural Health Mission (NRHM) initiated by the central government. The study found that government is required to take an integrated approach, which must take into consideration meeting the regional differences. Kumar and Singla (2013) analyzed the regional inter- state disparities to observe the pattern of economic performance across 15 major Indian states for pre –reform and post reform period i.e 1980-81 to 2010-11. The study revealed that regional disparities had reduced in indicators such as GSDP growth rate,cash – deposit ratio, literacy rate and population growth rate from pre- reform period (1980-81) to post –reform period (2010-11). Chotia and Chaudhry (2014) investigated the inter-relationship between regional infrastructure, poverty and economic growth in Rajasthan. The study found that Jaipur held the edge over the other districts of Rajasthan in indicators like roads per sq.km of area, number of census houses per sq.km, percentage of villages connected with roads etc.

Objective of the study

·To analyze the inter district disparities of social infrastructure in Punjab for the pre- (1981-1991) and post-reform periods 2001-2011).

Database and Methodology

The study is carried out by using the secondary data. The secondary data on different variables is taken from various issues of the Statistical Abstract of Punjab. In order to study inter district disparities, 12 districts i.e. Gurdaspur, Amritsar, Kapurthala, Jalandhar, Hoshiarpur, Rupnagar, Ludhiana, Firozpur, Faridkot, Bathinda, Sangrur and Patiala are taken for study for the period 1981-2011.

Inter District Disparities of Social Infrastructure

For this study mainly education and health sectors are taken. The indicators of social infrastructure used to compare inter district disparities are number of educational institutions, a number of teachers in educational institutions, number of medical institutions, number of beds in medical institutions, number of dispensaries, number of hospital and number of Primary Health Centers.

Number of educational institutions: Education plays an important role in shaping lives and life styles. Thus, education is a pre-requisite for progress and development in economy. The educational institutions are categorized into (a) High Schools, (b) Middle schools and (c) Primary Schools.

(a) Number of high schools and teachers in high schools: Table 1.1 shows that during pre-reform period the number of high schools increased in all the districts. The highest growth

in number of high schools has recorded in Gurdaspur (25%) followed by Ferozpur (24.10%), Amritsar(22.92%) and Patiala (22%) and the number of teachers in high schools during the same period also increased in all the districts depicting highest growth in Sangrur (136.49%), followed by Ferozpur (101.57%) and Rupnagar (98.42%). The table shows that the number of teachers in high schools grew at higher rate than in number of schools during pre-reform period.

Table 1.1 Number of High Schools and Teachers in High school

| District | Pre-reform period | | | | | | Post-Reform Period | | | | | |
| | Number of high schools | | | Number of teachers in high schools | | | Number of high schools | | | Number of teachers in high schools | | |
	1981	1991	Growth Rate (%)	1981	1991	Growth rate	2001	2011	Growth rate	2001	2011	Growth rate (%)
Gurdaspur	144	180	25	1489	2863	92.27	183	303	65.57	2736	3823	39.72
Amritsar	205	252	22.92	2005	3071	53.16	240	221	-7.91	3339	2797	-16.23
Kapurthala	74	81	9.45	692	1189	71.82	79	91	15.18	985	1814	84.16
Jalandhar	224	270	20.53	2664	3748	40.69	192	147	-23.43	2783	2566	-7.79
Hoshiarpur	171	193	12.86	1578	2818	78.58	178	200	12.35	2344	4684	99.82
Rupnagar	104	114	9.61	951	1887	98.42	117	87	-25.64	1882	1013	-46.17
Ludhiana	220	262	19.09	1963	3869	97.09	225	367	63.11	3238	3652	12.78
Ferozpur	112	139	24.10	1013	2042	101.57	133	196	47.36	1759	2278	29.50
Faridkot	183	218	19.13	1614	3100	92.07	53	79	49.05	874	1094	25.17
bathinda	145	160	10.34	1362	2366	73.71	117	148	26.49	1962	1961	-0.050
Sangrur	173	197	13.87	1329	3143	136.49	183	180	-1.63	2573	1998	-22.34
Patiala	150	183	22	1606	2726	69.73	148	174	17.56	2319	2218	-4.35
Mean	158.75	187.42		1522.17	2735.17		154	182.75		2232.83	2491.5	
SD	46.65	58.38		529.88	767.15		56.55	85.95		783.33	1098.30	
CV(%)	29.38	31.15		34.81	28.04		36.72	47.03		35.08	44.08	

Source: Statistical Abstract of Punjab, Various Issues

Thus during pre-reform period Sangrur shows growth rate of 13.87% in number of high schools whereas growth rate of teachers is 136.49% which is approximately ten times more than number of high schools. Similarly the number of high schools in Rupnagar recorded growth of 9.61% and number of teachers showed growth of 98.42%.The mean value of number of high schools and during pre-reform period in 1981 and 1991is 158.75 and 187.42 respectively, registering a variation of 29.38% to 31.15% however the mean value of number of teachers in high schools during 1981 and 1991 is 1522.17 and 2735.17 respectively recording a variation of 34.81% and 28.04% respectively. However during post-reform period the number of high schools increased in some of the districts while some of the districts showed negative growth such as Amritsar (-7.91%), Jalandhar (-23.43%), Rupnagar (-25.64%) and Sangrur (-1.63%).The highest growth in number of high schools is recorded in Gurdaspur

(65.57%), followed by Ludhiana (63.11%), Faridkot (49.05%) and Ferozpur (47.36%). It is observed that the districts which showed negative growth in number of high schools also showed negative growth in number of teachers in high schools except Bathinda and Patiala which revealed positive growth of 26.49% and 17.56% respectively in number of schools and corresponding growth of number of teachers is -0.050% and -4.35% respectively.The mean value of number of high schools during post-reform period has increased from 154 to 182.75 in 2001 and 2011 respectively showing a variation of 36.72% and 47.03%. However the mean value of number of teachers in high schools in 2001 and 2011 is 2232.83 and 2491.5 respectively registering a variation of 35.08% and 44.08%.

(b) Number of middle schools and teachers in middle schools : Table 1.2 shows that during pre-reform period the number of middle schools showed highest growth in

Amritsar (8.69%), followed by Ferozpur (7.09%), Bathinda (1.94%) and Kapurthala (1.56%) whereas all other districts showed negative growth viz. Ludhiana (-16.42%), Rupnagar (-12.32), Jalandhar (-11.42%), Faridkot (-11.38%), Sangrur (-10.81%) and Patiala (-9.42%).Whereas the number of teachers decreased in all the districtsduring pre-reform period showing negative growth in Sangrur (-76.56%), Ludhiana (-73.90%), Rupnagar (70.45%) and Jalandhar (69.23%). The mean value of number of middle schools during pre-reform period is 125.16 in 1981 and 119.16 in 1991 registering a variation of 26.81% and 28.31%. Similarly the mean value of number of teachers in middle schools is 2326.75 in 1981 and 867 in 1991 depicting a variation of 26.60% and 46.31% respectively. However,

during post reform period the number of middle schools increased in all the districts except in Jalandhar and Sangrur showing negative growth -7.57% and -9.49% respective.The highest growth in number of middle schools is observed in Gurdaspur (90.03%) followed by Rupnagar (62.93%), Ludhiana (54.80%), Hoshiarpur (49.46%) and Kapurthala (33.03%). The number of teachers also increased during this period showing highest growth in Hoshiarpur (147.66) followed by Kapurthala (104.91%) and Gurdaspur (81.93%) whereas districts like Amritsar (-2.58%), Rupnagar (-2.19%) and Sangrur (-24.07%) showed negative growth. During post-reform period it is noticed that although the districts like Amritsar, Kapurthala, Ferozpur and Bathinda showed positive growth in number of middle schools.

Table 1.2 Number of Middle Schools and Teachers in Middle Schools

| | Pre-reform period | | | | | | Post-Reform Period | | | | | |
| | Number of middle schools | | | Number of teachers in middle schools | | | Number of middle schools | | | Number of teachers in middle school | | |
District	1981	1991	Growth Rate	1981	1991	Growth rate	2001	2011	Growth rate	2001	2011	Growth rate
Gurdaspur	136	136	-	2330	931	-60.04	251	477	90.03	1561	2840	81.93
Amritsar	161	175	8.69	3234	1011	-68.73	270	294	8.88	1705	1661	-2.58
Kapurthala	64	65	1.56	1193	380	-68.14	112	149	33.03	570	1168	104.91
Jalandhar	175	155	-11.42	2873	884	-69.23	198	183	-7.57	1124	1726	53.55
Hoshiarpur	137	129	-5.83	2752	927	-66.31	186	278	49.46	1112	2754	147.66
Rupnagar	73	64	-12.32	1577	466	-70.45	116	189	62.93	821	803	-2.19
Ludhiana	140	117	-16.42	3024	789	-73.90	208	322	54.80	1329	1974	48.53
Ferozpur	141	151	7.09	1920	1172	-38.95	210	311	48.09	1154	1599	38.56
Faridkot	123	109	-11.38	2199	669	-69.57	96	106	10.41	586	643	9.72
bathinda	103	105	1.94	1786	705	-60.52	115	155	-34.78	853	949	11.25
Sangrur	111	99	-10.81	2390	560	-76.56	179	162	-9.49	1055	801	-24.07
Patiala	138	125	-9.42	2643	1910	-27.73	167	217	29.94	1057	1060	0.28
Mean	125.16	119.16		2326.75	867		175.66	236.92		1077.55	1498.16	
SD	32.77	33.73		618.96	401.51		56.51	103.62		345.91	738.29	
CV(%)	26.18	28.31		26.60	46.31		32.71	43.73		32.11	49.27	

Source: Statistical Abstract of Punjab, Various Issues.

But the number of teachers in middle schools revealed negative growth in these districts. It is observed from the table that in Sangrur during post-reform period both, number of middle schools and number of teachers in middle schools showed negative growth rate of -9.49% and -24.07% respectively.Whereas Jalandhar and Bathinda showed negative growth of number of middle schools of -7.57% and -34.78% respectively but showed positive growth of 53.55% and 11.25% of number of teachers in middle schools respectively.On the other hand, Amritsar showed positive growth of 8.88% in number of middle schools but recorded negative growth of -2.58% in number of teachers in middle

schools.The mean value of number of middle schools during post-reform period is 175.66 in 2001 and 236.92 in 2011 revealing variation of 32.71% and 43.73% respectively. However, the mean value of number of teachers in middle schools during 2001 was 1077.55 and 1498.16 during 2011 registering variation of 32.11% and 49.27%.

(c) Number of primary schools and number of teachers in primary schools: Table 1.3 shows that during the pre-reform period the number of primary schools increased in the districts of Ludhiana (1.58%), Ferozpur (0.35%), Bathinda (7.37%) and Patiala (0.078%) showing positive growth, but the number of primary schools decreased in other districts

like Gurdaspur (-1.43%), Amritsar (-3.22%), Hoshiarpur (-0.62%) and so on. The number of teachers in primary schools during pre-reform period also decreased showing negative growth except Faridkot (3.31%) and Bathinda (0.77%) which show positive growth.The mean value of number of primary schools during pre-reform period is 1031.91 and 1031.58 in 1981 and 1991 with a variation of 31.51% and 30.11% respectively, whereas the mean value of number of teachers in primary schools is 4234.66 in 1981 and 3997.83 registering a variation of 33.70% and 32.05%. During post reform period, the number of primary schools increased in Kapurthala, Jalandhar, Hoshiarpur, Ludhiana , Ferozpur, Faridkot,Bathinda and Patiala showing growth of 16.90%, 12.14%, 3.49%, 7.93%, 10.28%, 21.77%, 6.59% and 6.65%

respectively. Whereas the number of primary schools showed negative growth in districts like Gurdaspur (-7.43%), Amritsar (-34.15%), Rupnagar (-29.28%) and Sangrur (-17.25%).The number of teachers in primary schools increased during post-reform period depicting the highest growth in Kapurthala (103.05%), followed by Jalandhar (101.01%), Hoshiarpur (85.04%) and Ferozpur (26.53%) while districts like Gurdaspur (-35.35%), Amritsar (-42.35%), Rupnagar (-35.49%), Sangrur (-26.96%), Bathinda (-14.33%) and   Patiala (-10.04%).It is observed from the table that during post-reform period the status of number of primary schools and number of teachers in primary schools has improved as compared to pre-reform period.

Table 1.3 Number of Primary Schools and Teachers in Primary schools

District	Pre-reform period						Post-Reform Period					
	Number of primary schools			Number of teachers in primary schools			Number of primary schools			Number of teachers in primary schools		
	1981	1991	Growth Rate	1981	1991	Growth rate	2001	2011	Growth rate	2001	2011	Growth rate
Gurdaspur	1327	1308	-1.43	4967	4925	-0.84	1736	1607	-7.43	6530	4221	-35.35
Amritsar	1488	1440	-3.22	7188	6527	-9.19	1461	962	-34.15	5806	3347	-42.35
Kapurthala	486	485	-0.20	1827	1677	-8.21	485	567	16.90	1442	2928	103.05
Jalandhar	1177	1175	-0.16	5219	4708	-9.79	914	1025	12.14	2957	5944	101.01
Hoshiarpur	1435	1426	-0.62	4788	4498	-6.05	1259	1303	3.49	3504	6484	85.04
Rupnagar	866	849	-1.96	2550	2484	-2.58	823	582	-29.28	2096	1352	-35.49
Ludhiana	1008	1024	-1.58	5250	4711	-10.26	1046	1129	7.93	3976	4044	1.71
Ferozpur	1131	1135	0.35	3679	3407	-7.39	1060	1169	10.28	2468	3123	26.53
Faridkot	739	767	3.78	4068	4203	3.31	225	274	21.77	1016	1121	10.33
bathinda	624	670	7.37	3110	3086	-0.77	470	439	6.59	2100	1799	-14.33
Sangrur	832	829	-0.36	3552	3322	-6.47	817	676	-17.25	2796	2042	-26.96
Patiala	1270	1271	0.078	4618	4426	-4.16	947	1010	6.65	2838	2553	-10.04
Mean	1031.91	1031.58		4234.66	3997.83		936.92	895.25		3127.41	3246.5	
SD	325.21	310.61		1427.45	1281.33		426.51	391.37		1642.88	1695.02	
CV(%)	31.51	30.11		33.70	32.05		45.52	43.71		52.53	52.21	

Source: Statistical Abstract of Punjab, Various Issues .

The districts like Gurdaspur , Amritsar , Rupnagar and Sangrur showed negative growth in both, number of primary schools and number of teachers in primary schools showing -7.43%, -34.15%, -29.28% &-17.25% respectively and -35.35% , -42.35% , -35.49% and -26.96%   respectively. The mean value of number of primary schools during post-reform period is 936.92 and 895.25 with a variation of 45.52% and 43.71% respectively and the mean value of number of teachers in primary schools is 936.92 in 2001 and 895.25 in 2011 with a variation of 45.52% and 43.71%.

Health: Health is an essential element of well being. Good health is considered as both the means and the end of development.

(a) Number of medical institutions and beds in medical institutions : the number of medical institutions increased in

all the districts during pre-reform period depicting the highest growth in Rupnagar (23.97%) followed by Gurdaspur (23.27%), Sangrur (21.33%) Ludhiana (19.25%). The number of beds in medical institutions is also increased during this period depicting the highest growth in Faridkot (45.77%) followed by Rupnagar (24.68%), Hoshiarpur (22.63%) and Kapurthala (21.92%). It is observed that during pre-reform period the number of beds in medical institutions increased with the increase in number of medical institutions. The mean value of medical institutions in 1981 is 155 and 182.91 in 1991 revealing variation of 27.21% and 26.88% respectively. Whereas the mean value of number of beds in medical institutions in 1981 is 1703.41 and 2003.92 in 1991 registering a variation of 55.89% and 53.17%.

Table 1.4 Number of medical institutions and beds in medical institutions

	Pre-reform period						Post-Reform Period					
	Number of medical institutions			Number of beds in medical institutions			Number of medical institutions			Number of beds in medical institutions		
District	1981	1991	Growth Rate(%)	1981	1991	Growth rate	2001	2011	Growth rate	2001	2011	Growth rate (%)
Gurdaspur	159	196	23.27	1308	1548	18.34	196	178	-9.18	1575	1502	-4.63
Amritsar	228	266	16.66	3884	4429	14.03	269	145	-46.09	4623	3096	-33.03
Kapurthala	76	82	7.89	593	723	21.92	83	70	-15.66	773	667	-13.71
Jalandhar	193	228	18.13	2092	2477	18.40	170	152	-10.58	2189	1315	-39.92
Hoshiarpur	147	185	25.85	1246	1528	22.63	167	138	-17.36	1491	1211	-18.77
Rupnagar	92	114	23.91	725	904	24.68	118	52	-55.93	978	525	-46.31
Ludhiana	194	224	15.46	2838	3343	17.79	217	167	-23.04	3427	1426	-58.38
Ferozpur	135	161	19.25	1412	1590	12.60	149	131	-12.08	1634	1151	-29.55
Faridkot	158	181	14.55	1372	2000	45.77	41	34	-17.07	790	780	-1.26
bathinda	150	175	16.66	1274	1397	9.65	117	103	-11.96	990	994	0.40
Sangrur	150	182	21.33	1215	1438	18.35	185	115	-37.83	1570	1041	-33.69
Patiala	178	201	12.92	2482	2670	7.57	163	116	-28.83	2464	2061	-16.35
Mean	155	182.91		1703.41	2003.92		156.25	116.75		1875.33	1314.08	
SD	42.18	49.18		952.17	1065.43		60.95	45.11		1158.91	695.55	
CV (%)	27.21	26.88		55.89	53.17		39.00	38.64		61.79	52.93	

Source: Statistical Abstract of Punjab, Various Issues.

During post-reform period number of medical institutions decreased in all districts showing negative growth in Amritsar (-46.09%), Sangrur (-37.83%), Patiala (-28.83) and so on. Beds in medical institutions have also decreased during the same period except Bathinda showing 0.40% growth..While all other districts showed negative growth like Ludhiana (-58.38%), Rupnagar (-46.31%), Amritsar (-33.03%), Sangrur (-33.69%) and so on. Thus it is observed that the number of medical institutions and number of beds in medical institutions decreased in post-reform period. The mean value of number of medical institutions in 2001 is 156.25 and 116.75 in 2011 revealing variation of 39% and 38.64% respectively. Whereas the mean value of the number of beds in medical institutions in 2001 is 1875.33 and 1314.08 in 2011 with a variation of 61.79% and 52.93% respectively.

(a) Number of hospitals, PHCs and dispensaries: table 1.5 shows the number of hospitals , dispensaries and PHCs during Pre-reform and Post-Reform Period. During this pre-reform period the number of hospitals decreased in all the districts, revealing negative growth rate in Bathinda (-28.57%), Gurdaspur (-23.80%), Hoshiarpur & Rupnagar (-20%), Faridkot (-19.04%), Sangrur (-18.18%). However the number of dispensaries showed positive growth in the districts of Gurdaspur (1.6%), Amritsar (1.13%), Jalandhar (4.54%), Hoshiarpur (6.08%) and Rupnagar (4%), on the other hand Kapurthala (-4.76%), Ferozpur (-5.66%), Faridkot (-6.34%), Bathinda(-3.33%) and Patiala (-8.9%) whereas Ludhiana and Sangrur does not show any growth the number being 156 and 117 for both respectively. The PHCs show tremendous growth rate depicting the highest growth rate in Ferozpur and Bathinda (322.22%) followed by Patiala (300%), Sangrur (272.72%) and Faridkot (263.63%). During the pre-reform period the mean of hospitals is 21.08 in 1981 and 18.16 in 1991with a variation of 34..70% and 40.51% respectively. However, during the same period the mean value of dispensaries is 123.16 in 1981 and 122.08 in 1991 registering a variation of 26.43% and 27.36%, whereas the mean value of PHCs is 10.75 in 1981 and 36.83 in 1991 exposing a variation of 26.64% and 29.12%. During the post reform period, the number of hospitals again decreased, showing a negative growth rate like Gurdaspur (-76.92%), Amritsar (-78.78%), Jalandhar (86.36%), Sangrur (-76.47%) and so on. Similarly the number of dispensaries also decreased, showing negative growth in Gurdaspur (-44%), Kapurthala (-15.25%), Rupnagar (-58.53%), Sangrur (-37.60%) and so on.The number of PHCs also decreased during this period showing negative growth in Gurdaspur (-13.04%), Amritsar (-25%), Hoshiarpur (-11.11%), Rupnagar (-43.47%), Sangrur (-21.95%) and so on. Only Kapurthala (18.18%) and Jalandhar (3.70%) showed positive growth. The mean value during post reform period , of hospitals is 15.33 and 4, of dispensaries is 102.16 and 78.75 and of PHCs is 30.58 & 26.41 respectively registering a variation of 53.80

% & 35.35%, 39.10% & 40.93% and 40.65% & 39.28 % respectively. It is observed from the table that inter district disparity has increased in post-reform period. Moreover , the number of various types of medical institutions has decreased in post-reform period as compared to pre-reform period.

Table 1.5 Number of Different Types of Medical Institutions

District	Pre-reform period									Post-Reform Period								
	Number of hospitals			Number of dispensaries			Number of PHCs			Number of hospitals			Number of dispensaries			Number of PHCs		
	1981	1991	Growth Rate	1981	1991	Growth rate	1981	1991	Growth rate	2001	2011	Growth rate	2001	2011	Growth rate	2001	2011	Growth rate
Gurdaspur	21	16	-23.80	125	127	1.6	13	47	261.58	13	3	-76.92	127	120	-5.51	46	40	-13.04
Amritsar	35	33	-5.71	176	178	1.13	17	49	188.23	33	7	-78.78	175	98	-44	48	36	-25
Kapurthala	7	7	-	63	60	-4.76	6	10	66.66	8	3	-62.5	59	50	-15.25	11	13	18.18
Jalandhar	27	25	7.40	154	161	4.54	12	36	200	22	3	-86.36	114	110	-3.50	27	28	3.70
Hoshiarpur	20	16	20	115	122	6.08	12	41	241.67	13	4	-69.23	110	93	-15.45	36	32	-11.11
Rupnagar	10	8	20	75	78	4	7	23	228.57	8	2	-75	82	34	-58.53	23	13	-43.47
Ludhiana	27	27	-	156	156	-	11	35	218.18	27	5	-81.48	147	120	-18.36	33	33	-
Ferozpur	20	17	15	106	100	-5.66	9	38	322.22	16	4	-75	87	85	-2.29	35	34	-2.85
Faridkot	21	17	19.04	126	118	-6.34	11	40	263.63	6	3	-50	24	20	-16.66	9	8	-11.11
bathinda	21	15	-28.57	120	116	-3.33	9	38	322.22	10	4	-60	78	70	-10.25	23	20	-15
Sangrur	22	18	-18.18	117	117	-	11	41	272.72	17	4	-76.47	117	73	-37.60	41	32	-21.95
Patiala	22	19	-13.63	145	132	-8.9	11	44	300	11	6	-45.45	106	72	-32.07	35	28	-20
Mean	21.08	18.16		123.16	122.08		10.75	36.83		15.33	4		102.16	78.75		30.58	26.41	
SD	7.31	7.35		32.55	33.41		2.86	10.72		8.24	1.41		39.95	32.23		12.43	10.37	
CV (%)	34.70	40.51		26.43	27.36		26.64	29.12		53.80	35.35		39.10	40.93		40.65	39.28	

Source: Statistical Abstract of Punjab, Various Issues.

Conclusion and Policy Implications

Social infrastructure, especially education and health play a crucial in the development of nations whether developed and developing. These provide the basic foundation on which the superstructure of development and growth can be erected. If the foundation of social infrastructure is strong, development is not only easily attainable but it also becomes continuous, stable, quantitative and qualitative .Social infrastructures are not the facilities which lead to improve the quality of human life, but represents the very essence of all rounded progress. The study found that in case of number of high schools Gurdasur stood at first rank in both time periods showing 25% and 65.57% growth respectively. However, districts like Ferozpur, Kapurthala, Hoshiarpur, Ludhiana, Faridkot and Bathinda also showed positive growth in number of high schools and number of teachers in high in high schools. On the other hand, districts like Amritsar , Rupnagar, Sangrur and Jalandhar showed negative growth in number of high schools during post-reform period. In number of middle schools also , Gurdaspur showed highest growth of 90.03% during post-reform period, however during pre-reform period Gurdaspur didn't show any growth. The districts like Hoshiarpur, Rupnagar, Ludhiana, Faridkot and Patiala show improvement in number of middle schools during post-reform period in comparison to re-reform period. The number of teachers in middle schools also show better position in post-reform period as compared to pre-reform period, except Amritsar Rupnagar and Sangrur. The status of number of primary schools and number of teachers have also improved in post reform period except Gurdaspur, Amritsar, Rupnagar and Sangrur. However, Patiala and Bathinda showed negative growth of number of teachers in primary schools but positive growth of number of primary schools during post-reform period. The study also found that during post reform period all districts showed negative growth in number of medical institutions and number of beds in medical institutions also showed negative growth except in Bathinda. In case of various types of medical institutions it is observed that the all the types viz. Hospitals,Dispensaries and PHCs showed negative growth during post reform period, which ultimately means that number of hospitals , dispensaries and PHCs have decreased during post reform period in comparison to pre-reform period. From the study it is analysed that disparities among the districts have increased during the post reform period. Now at the end, as it is said that educated and healthy people build a nation with a healthy growth; social infrastructure plays a vital role in improving the social well-being, standard of living, level of education and health services. Yet Social infrastructure has not received the much required attention. The study concluded that to inter district disparities can be eradicated by investing in both public and private sectors. More investment in the social sectors like education, health services and other development activities is the need of the hour.

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