



A STUDY ON EMPLOYMENT STATUS OF INDUSTRIAL WORKERS IN INDIA

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Abstract

Welfare of the workers and utilization of the inactive labour in any economy depend upon the employment condition. The prosperity of the economy is also predisposed by the availability of jobs in the job market. If there is short run volatility in the job market, the macroeconomic aggregates such as output, income and employment reduces and perpetuates log run development gaps between the different sectors of the economy and impacts negatively on the labour class. The increased labour contribution to the national income is determined by the increased employment in the economy. The modern proactive governments are striving to create employment for the growing labour population. For policy making to create the employment opportunities in various sectors of the economy by the government through the public spending it is important to know the existing status of the employment. The full utilization of available resources of the economy shows the level of employment condition. Better employment status helps for the progression of standard of living of the labour class. The present study is an attempt to identify the employment status of industrial workers in India both in public and private sectors by Industry.

Keywords: *Employment, Annual Growth Rate, Compounded Annual Growth Rate, Public Sector, and Private Sector.*

Introduction

The experience of countries that succeeded in reducing poverty significantly indicates the importance of high rates of economic growth in achieving this. High growth, however, is not a sufficient condition for poverty reduction; the pattern and sources of growth as well as the manner in which its benefits are distributed are equally important from the point of view of achieving the goal of poverty reduction. Industrial workers are working for various organized and unorganized sectors in India. They have to depend on public and private sectors for employment opportunities. The growth of employment in private sector is higher than in public sector in India. In this context, employment plays a key role in all developing countries. Indeed, countries which attained high rates of employment growth alongside high rates of economic growth are also the ones who succeeded in reducing poverty significantly.

Review of Literature

The expansion of public sector in India was started with the initiation of Planning Commission in 1950 and public sector gradually started to dominate core industries before liberalization was initiated in the early 1990s.

T.S. Papola (2001) studied that the rate and structure of growth rather than technology were seen as the instruments of employment generation. Thus while granting that in an economy with relative abundance of labour a bias in favour of comparatively labour intensive techniques is both natural and desirable, it was clearly recognized that considerations of size and technology should not be set aside to emphasize employment. Unemployment was estimated to be relatively low, as was also the growth rate of labour force, and a targeted economic growth rate of 5 per cent with some emphasis on labour intensive consumer goods sectors, was expected to generate large enough employment over the years to prevent any increase in unemployment.

Sunanda Sen and Byasdeb Dasgupta (2006), had discussed on the issue of labour in the organized manufacturing industries in India in the post-reform period. The study had examined the employment conditions of labour and was explored by linking them up to the growth of respective industries.

Labour Market Report, Tata Institute of Social Sciences (2009), studied that the growth of public sector employment, in India, has extensively been debated on various grounds, and has particularly received wide attention since liberalization. In the early 1960s there was a tendency of growing share of public sector in the gross fixed capital formation and industrial investment in the developing countries, particularly India.

T.S. Papola and Partha Pratim Sahu (2012), in their paper describes the growth and structural changes in employment in the long and short periods, with a special focus on the period since economic liberalization. It assesses the employment challenge in its quantitative and qualitative dimensions and examines the prospects of generating productive employment of adequate quantity and quality. It concludes with indication of some broad measures of policy for faster growth of productive and decent employment.

Arup Mitra and Sher Verick (2013), provides important insights into the challenges facing young people in India in terms of underemployment, unemployment and the lack of job opportunities in the formal economy. The study highlights the diversity in outcomes for young people depending on their educational attainment, social status and where they live. Overall, the findings underscore the need for comprehensive approaches to promote more and better jobs for young people in India and beyond.

Thus, the review of literature clearly shows that no attempt has so far been made to analyze the employment status of industrial workers in India. Hence, present study proposes to fill the gap in existing literature.

Objectives

This study is based on the following objectives.

- To identify the level of employment in the public sector by industry in India.
- To recognize the level of employment in the private sector by industry in India.
- To compare the size of the employment in the public and private sector by industry from 2000 to 2011 in India.

Methodology

- **Sources of Data Collection:** The study is based on published sources of data collected from various sources. The data was extracted from the sources: Handbook of Statistics on the Indian economy, Indian Labour Year Book, Govt. of India, Annual Surveys of Industries, Economic Survey, Government of India, various issues, Secretariat of Industrial Assistance (SIA), Central Statistical Organization (CSO).
- **Period of Study:** The size of the employment in the public and private sector by branch and industry in India is analyzed during the Post Liberalization period; hence the study is undertaken for a period of 12 years from 2000 to 2011.
- **Tools used for Analysis:** To analyze the size of the employment in the public and private sector by branch and industry in India during the period from 2000 to 2011 the Annual Growth Rate (AGR) and Compounded Annual Growth Rate (CAGR) are used.

I. Employment in the Public Sector by Branch in India

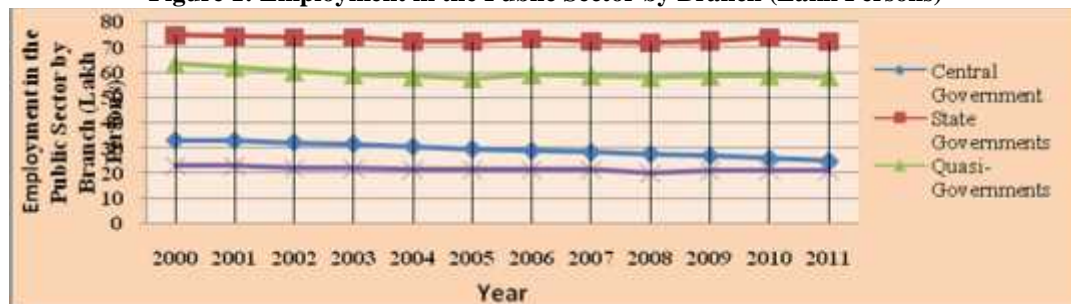
The government of India is providing various employment opportunities to its people in the public sector and which includes central government, State Governments, Quasi-governments, and Local bodies. In 2011 there was 175.5 Lakh persons were employed in the four branches across the country. The detailed description was given the following table-1.

Table 1: Employment in the Public Sector by Branch (Lakh Persons)

Branches	Year												Total
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Central Government	32.7	32.6	32	31.3	30.3	29.4	28.6	28	27.4	26.6	25.5	24.6	349
State Governments	74.6	74.3	73.8	73.7	72.2	72	73	72.1	71.7	72.4	73.5	72.2	875
Quasi-Governments	63.3	61.9	60.2	59	58.2	57.5	59.1	58.6	58	58.4	58.7	58.1	711
Local Bodies	22.6	22.6	21.8	21.8	21.3	21.2	21.2	21.3	19.7	20.7	20.9	20.5	255
Total	193.1	191.4	187.7	185.8	182	180.1	181.9	180	176.7	178.2	178.6	175.5	

Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

Figure 1: Employment in the Public Sector by Branch (Lakh Persons)



Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

The above table-1 and figure-1 depicts that, the employment in the public sector by branch which is the State Governments have provided more employment to the laborers in India as compared to the other branches or governments and occupied the first place. The lowest employment offered in the public sector was local bodies and secured fourth place or last place. The second place occupied by Quasi-Governments in providing employment in the public sector in India. The third place was attained by the Central Government in providing employment in the public sector in India.

In the case of central government, while look into the annual growth rates (AGR) of employment in the public sector had been secured a negative growth rate in employment during the observed period. It shows that year by year there had been a continuous decrement in the employment during this time period. The compounded annual growth rate (CAGR) of employment was -2.34 percent and it shows that 2.34 percent of employment was declined during the observed period.

The State Governments had been provided the highest employment in the public sector in various states in India during this period. The annual growth rates of employment between the years 2000-2005 and in 2007, 2008, and 2011 was negative and it shows that a continuous decline in the employment. But in 2006 a slight positive increment in the employment (1.36 percent) in this sector and the compounded annual growth rate (CAGR) of employment was negative (-0.002744353 or -0.27 percent). It shows that 0.27 percent of employment had been declined in the public sector of state governments.

Quasi-governments are also playing an important role in providing employment to the people in India in the public sector. From the above table it is very clear that, it has attain a positive annual growth rate (AGR) of employment in 2006 (2.8 percent), 2009 (0.82 percent), and in 2010 (0.41 percent) respectively. In the remaining observed period there had been reached a negative annual growth rates in employment and it shows that there was a decline in the employment in this sector. The compounded annual growth rate (CAGR) of employment in the observed period was negative (-0.007008601 or -0.70 percent) in the public sector quasi-governments in India. It shows that, 0.70 percent of decline in the employment.

Finally, from the above table we can understand that, Local bodies are also considered as an essential sector in providing employment in public sector in India. If we compare to the central, state and quasi-governments the local governments were providing a very less employment opportunities in public sector in India. It is also very clear from the above table that the local bodies achieved a positive annual growth rate (AGR) in employment during 2001, 2003, 2007, 2009, and 2010 respectively. But a negative annual growth rate (AGR) was reached in employment in the remaining years. The compounded annual growth rate (CAGR) of employment in the observed period was negative (-0.007790151 or -0.77 percent). It shows that, there was 0.77 percent of decrement in the employment in this sector. Eventually, each branch or governments in public sector had been secured a depressing CAGR during this observed period and implies that, there was a continuous decrement in the overall employment in the public sector in India.

II. Employment in the Public Sector by Industry in India

It is important to state that the government of India is being providing employment in the Public Sector by Industry. There are various public sector undertakings functioning across the country and which can be mainly classified as Agriculture and hunting, Mining and quarrying, Manufacturing, Electricity, gas and water, Wholesale and retail trade, Transport, storage & communication, Finance, insurance, real estate, Community, Social & personal services as shown in the following table-2. From this table-2 total size of the employment, annual growth rates (AGR), and compounded annual growth rate (CAGR) of employment in the observed period was studied.

Table 2: Employment in the Public Sector by Industry (Lakh Persons)

Industry	Year												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Total
Agriculture, hunting etc.	5.14	5.02	4.83	5.06	4.93	4.96	4.69	4.75	4.71	4.77	4.78	4.77	58.41
Mining and quarrying	9.24	8.75	8.61	8.47	10.3	10.1	11.5	11.4	11.2	11.1	11	10.9	122.6
Manufacturing	15.3	14.3	13.5	12.6	11.9	11.3	10.9	10.9	10.4	10.6	10.7	10.2	142.6
Electricity, gas and water	9.46	9.35	9.23	9.13	8.74	8.6	8.49	8.49	7.96	8.39	8.35	8.31	104.5
Construction	10.9	10.8	10.3	9.48	9.32	9.11	8.94	8.66	8.52	8.45	8.59	8.47	111.5
Wholesale and retail trade	1.63	1.63	1.57	1.82	1.81	1.84	1.82	1.78	1.65	1.74	1.71	1.7	20.7
Transport, storage &	30.8	30.4	30.1	29.4	28.2	27.5	26.8	26.4	26.3	26	25.3	30.8	337.9

communication													
Finance, insurance, real estate etc.	13	12.8	12.3	13.8	14.1	14.1	13.9	13.7	13.5	13.6	14.1	13.6	162.4
Community, Social & personal services	97.7	98.3	97.4	96.1	92.8	92.5	91.8	90.9	88.5	90.1	90.5	91.0	1118
Total	193	191	188	186	182	180	179	177	173	175	175	180	

Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

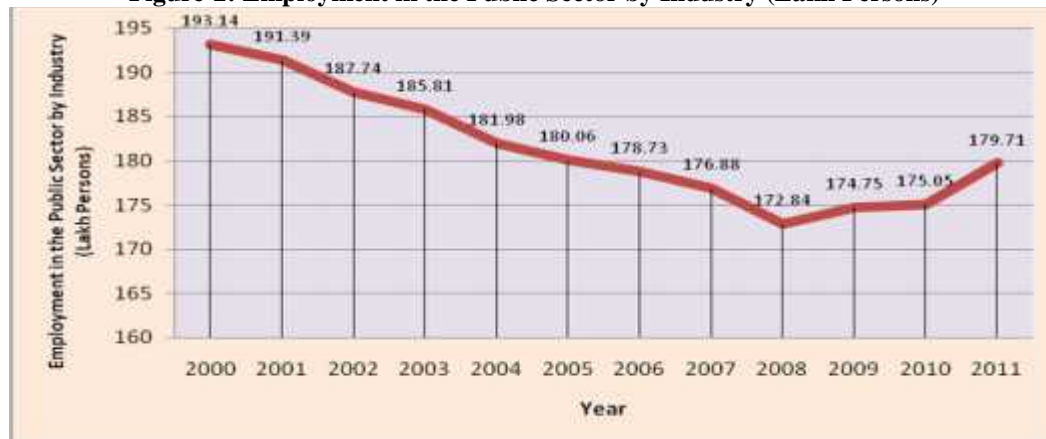
From the above table-2 it is very clear that, only few industries such as Mining and quarrying (1.38 percent), Wholesale and retail trade (0.35 percent), Transport, storage & communication (0.01 percent), and Finance, insurance, real estate (0.4 percent) sectors or industries had been attained a positive compounded annual growth rate (CAGR) of employment during the observed period. In the above positive sectors or industries the highest employment was generated in the Mining and quarrying (1.38 percent) industry. But the remaining industries had been attained a negative CAGR of employment such as Agriculture, hunting etc. (-0.62 percent), Manufacturing (-3.35 percent), Electricity, gas and water (-1.07 percent), Construction (-2.09 percent), and finally Community, Social & personal services (-0.59 percent). Among these negative sectors the highest reduction in employment was in the Manufacturing sector i.e., -3.35 percent.

Table 3: Employment in the Public Sector by Industry (Lakh Persons)

Year	Employment in Public Sector by Industry	Annual Growth Rate (AGR)%
2000	193.14	---
2001	191.39	-0.00906078
2002	187.74	-0.01907101
2003	185.81	-0.01028017
2004	181.98	-0.02061245
2005	180.06	-0.01055061
2006	178.73	-0.00738643
2007	176.88	-0.01035081
2008	172.84	-0.02284034
2009	174.75	0.011050683
2010	175.05	0.001716738
2011	179.71	0.026620965
Compounded Annual Growth Rate (CAGR) %		-0.005987907 Or -0.59%

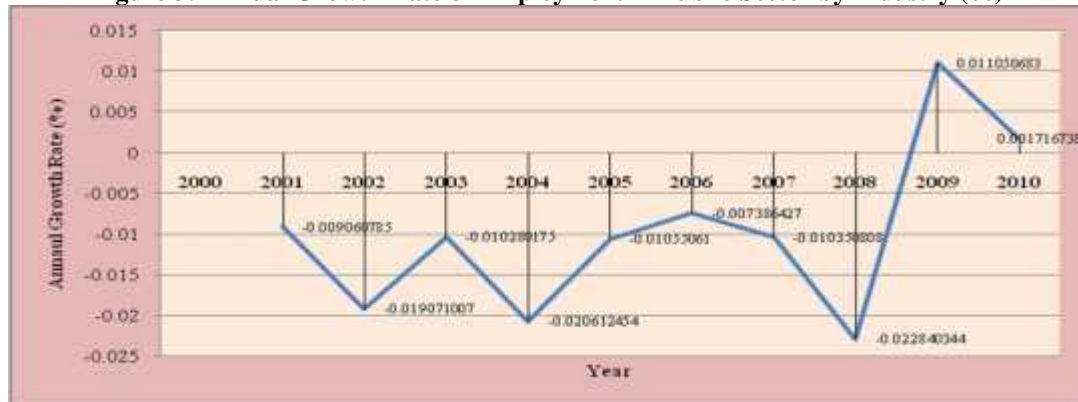
Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

Figure-2: Employment in the Public Sector by Industry (Lakh Persons)



Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

Figure 3: Annual Growth Rate of Employment in Public Sector by Industry (%)



Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

The table-3, figure-2 and figure-3 shows that, compounded annual growth rate (CAGR) of employment in the public sector by industry was calculated for the observed period. During the period 2009-2011 there had been a positive annual growth rates (AGR) in employment can be seen and from 2000 to 2008 a negative AGR of employment had been attained. The CAGR for the entire observed period was -0.59 percent, it shows that, there was 0.59 percent of reduction in employment in the public sector by industry in India. The average employment in public sector by industry was 181.50 Lakh persons. There was 6.65 Lakh employment in the public sector by industry was varying with the observed employment as based on the average employment (Standard deviation = 6.657196).

III. Employment in the Private Sector by Industry

It is also important to thorough that the huge employment has been generating in India in the Private Sector by Industry. There are a range of private sector industry functioning across the country and which can be mainly classified as Agriculture and hunting, Mining and quarrying, Manufacturing, Electricity, gas and water, Wholesale and retail trade, Transport, storage & communication, Finance, insurance, real estate, Community, Social & personal services as shown in the following table-4. From this table-4 total size of the employment, annual growth rates (AGR), and compounded annual growth rate (CAGR) of employment in the observed period was studied.

Table 4: Employment in the Private Sector by Industry (Lakh Persons)

Industry	Year												Total
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	
Agriculture, hunting etc.	9.04	9.31	8.55	8.95	9.17	9.83	10.3	9.5	9.92	8.96	9.23	9.18	111.92
Mining and quarrying	0.81	0.79	0.68	0.66	0.65	0.79	0.95	1	1.11	1.15	1.61	1.32	11.52
Manufacturing	50.9	50.1	48.7	47.4	44.9	44.9	45.5	47.5	49.7	52	51.8	54	587.35
Electricity, gas and water	0.41	0.52	0.42	0.5	0.47	0.49	0.4	0.5	0.51	0.64	0.64	0.7	6.2
Construction	0.57	0.57	0.56	0.44	0.45	0.49	0.55	0.7	0.69	0.8	0.91	1.02	7.75
Wholesale and retail trade	3.3	3.39	3.35	3.6	3.51	3.75	3.87	4.1	2.72	4.72	5.06	5.46	46.83
Transport, storage & communication	0.7	0.76	0.76	0.79	0.81	0.85	0.87	1	1.04	1.32	1.66	1.89	12.45
Finance, insurance, real estate etc.	3.58	3.7	3.91	4.26	4.58	5.23	6.52	8.8	11	13.1	15.5	17.2	97.35
Community, Social & personal services.	17.2	17.3	17.4	17.6	17.9	18.2	18.8	19.5	21.7	20.2	21.4	23.5	230.81
Total	86.5	86.5	84.3	84.2	82.5	84.5	87.7	92.6	98.4	103	108	114	

Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

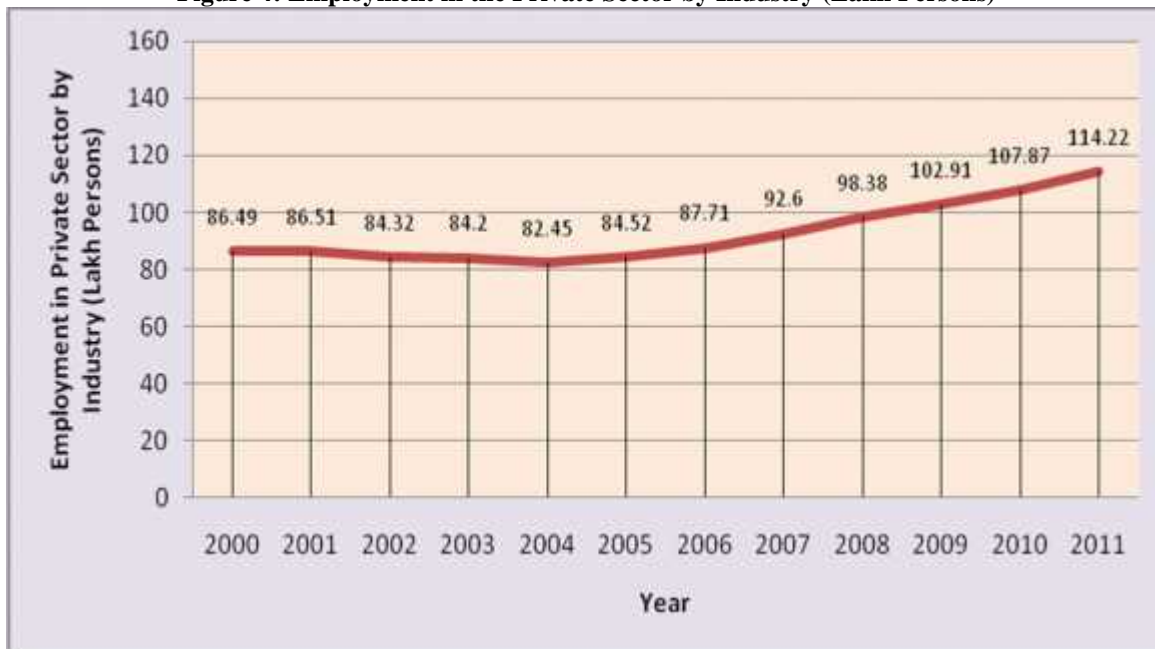
From the above table-4 it is very apparent that, all industries such as Mining and quarrying (4.1 percent), Wholesale and retail trade (4.2 percent), Transport, storage & communication (8.6 percent), and Finance, insurance, real estate (3.9 percent), Agriculture, hunting etc. (0.1 percent), Manufacturing (0.4 percent), Electricity, gas and water (4.5 percent), Construction (4.9 percent), and finally Community, Social & personal services (2.6 percent) had been attained a positive compounded annual growth rate (CAGR) of employment during the observed period. Among these sectors the highest increment in employment was attained by the Transport, storage & communication sector i.e., 8.6 percent and the lowest increment was attained by the Agriculture and hunting sector in India in private industries.

Table 5: Employment in the Private Sector by Industry (Lakh Persons)

YEAR	Employment in Private Sector by Industry	Annual Growth Rate (AGR)%
2000	86.49	---
2001	86.51	0.000231241
2002	84.32	-0.02531499
2003	84.2	-0.00142315
2004	82.45	-0.02078385
2005	84.52	0.025106125
2006	87.71	0.037742546
2007	92.6	0.05575191
2008	98.38	0.062419006
2009	102.91	0.046045944
2010	107.87	0.048197454
2011	114.22	0.058867155
Compounded Annual Growth Rate (CAGR) %		0.023445423 Or 2.34%

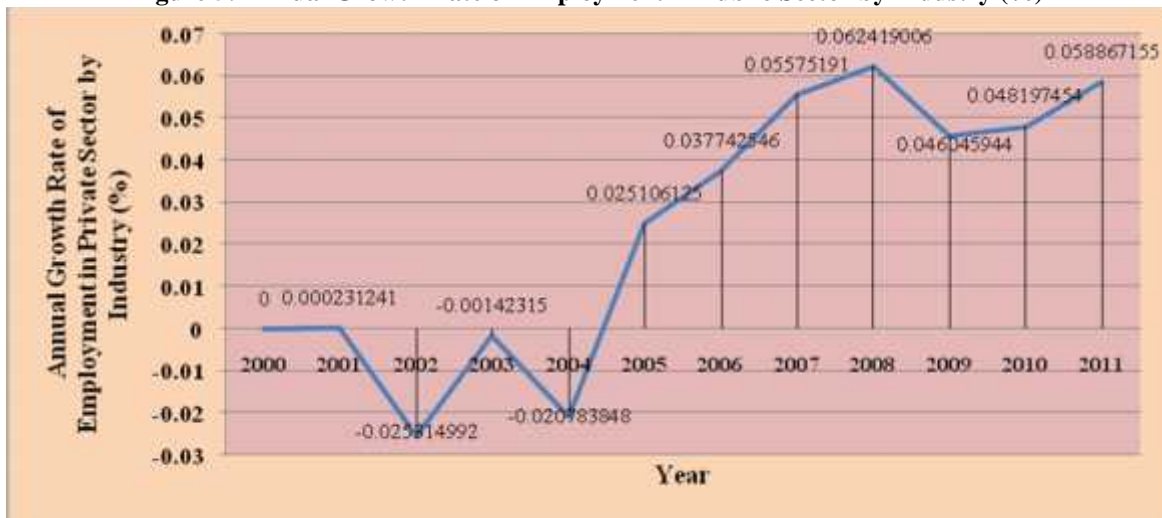
Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

Figure 4: Employment in the Private Sector by Industry (Lakh Persons)



Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

Figure 5: Annual Growth Rate of Employment in Public Sector by Industry (%)



Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

The table-5, figure-4 and figure-5 shows that, compounded annual growth rate (CAGR) of employment in the public sector by industry was calculated for the observed period. During the period 2001 and 2005-2011 there had been a positive annual growth rates (AGR) in employment and from 2002 to 2004 a negative AGR of employment had been attained. The CAGR for the entire observed period was 2.34 percent; it shows that, there was 2.34 percent of increase in employment in the private sector by industry in India. The average employment in private sector by industry was 92.68 Lakh persons. There was 8.6 Lakh employment in the private sector by industry was varying with the observed employment as based on the average employment (Standard deviation = 8.601795479).

IV. The Comparison of the Size of Employment in the Public and Private Sector by Industry From 2000 to 2011 in India

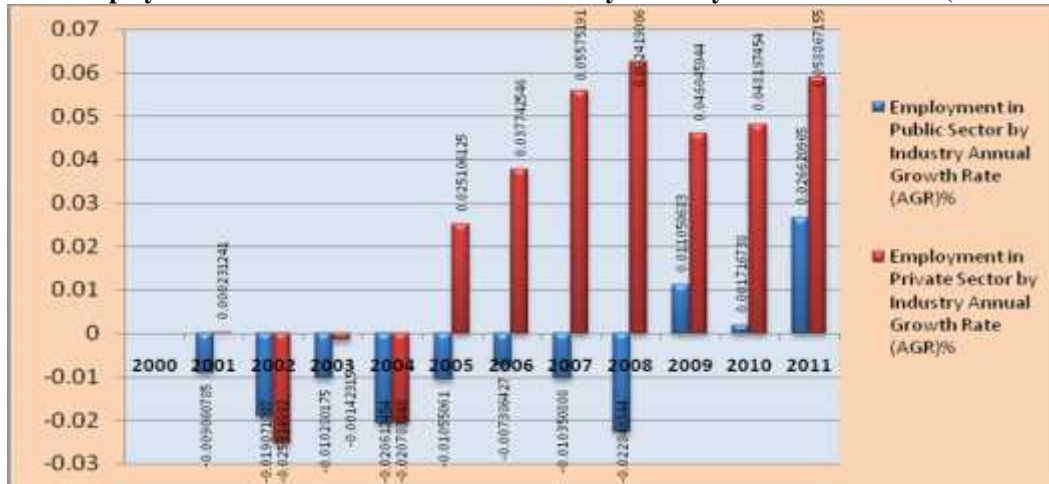
Huge employment had been generating in India in the private sector as compared to the public sector. The below table-6 and figure-6 shows that, there was a negative CAGR of employment in the public sector i.e., -0.59 percent and it shows that 0.59 percent of employment has been declined during the observed period. On the other hand the private sector or industries attained a positive CAGR of employment i.e., 2.34 percent and it shows that, 2.34 percent of employment has been increased during the observed period.

Table 6: Employment in the Public and Private Sector by Industry from 2000 to 2011 (Lakh Persons)

Year	Employment in Public Sector by Industry	Annual Growth Rate (AGR)%	Employment in Private Sector by Industry	Annual Growth Rate (AGR)%
2000	193.14	---	86.49	---
2001	191.39	-0.00906078	86.51	0.000231241
2002	187.74	-0.01907101	84.32	-0.02531499
2003	185.81	-0.01028017	84.2	-0.00142315
2004	181.98	-0.02061245	82.45	-0.02078385
2005	180.06	-0.01055061	84.52	0.025106125
2006	178.73	-0.00738643	87.71	0.037742546
2007	176.88	-0.01035081	92.6	0.05575191
2008	172.84	-0.02284034	98.38	0.062419006
2009	174.75	0.011050683	102.91	0.046045944
2010	175.05	0.001716738	107.87	0.048197454
2011	179.71	0.026620965	114.22	0.058867155
Compounded Annual Growth Rate (CAGR) %		-0.005987907 Or -0.59%	-----	0.023445423 or 2.34%

Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

Figure 6: Employment in the Public and Private Sector by Industry from 2000 to 2011 (Lakh Persons)



Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

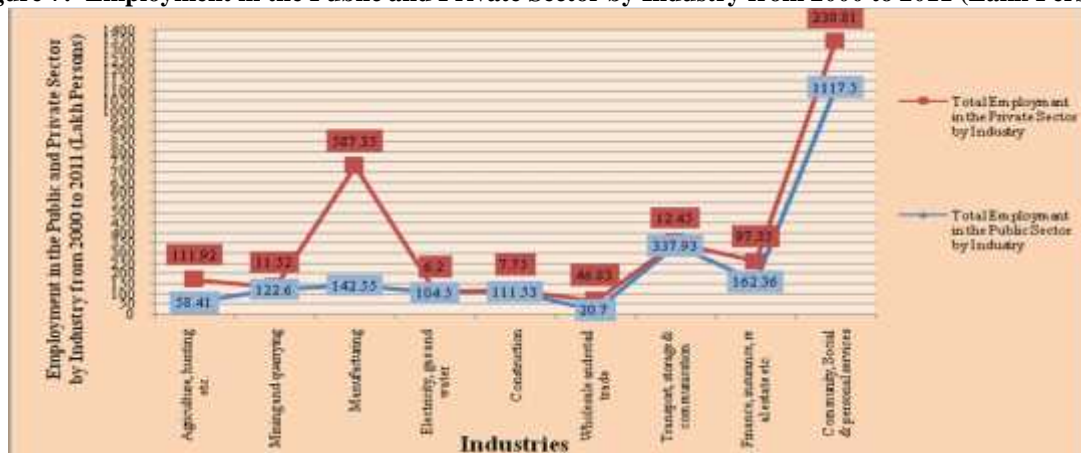
The below table-7 and figure-7 shows that, Community, Social & personal services (230.81 Lakh persons) and Manufacturing (587.35 Lakh persons) sectors provided highest employment in private sector by industry in India. On the other side the Community, Social & personal services (1117.5 lakh persons) and Transport, storage & communication (337.93 Lakh persons) provided highest employment in public sector by industry in India.

Table 7: Employment in the Public and Private Sector by Industry from 2000 to 2011 (Lakh Persons)

Industry	Total Employment in the Public Sector by Industry	Total Employment in the Private Sector by Industry
Agriculture, hunting etc.	58.41	111.92
Mining and quarrying	122.6	11.52
Manufacturing	142.35	587.35
Electricity, gas and water	104.3	6.2
Construction	111.33	7.75
Wholesale and retail trade	20.7	46.83
Transport, storage & communication	337.93	12.45
Finance, insurance, real estate etc.	162.36	97.35
Community, Social & personal services	1117.5	230.81

Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

Figure 7: Employment in the Public and Private Sector by Industry from 2000 to 2011 (Lakh Persons)



Source: Indian Labour Year Book, 2011, Govt. of India, and Compiled by Author

Findings of the Study

The major findings of the study had been given as follows.

- The State Governments had been provided the highest employment in the public sector in various states in India during this period.
- The local governments were providing a very less employment opportunities in public sector in India.
- Each branch or governments in public sector had been secured a depressing CAGR during this observed period and implies that, there was a continuous decrement in the overall employment in the public sector in India.
- The average employment in public sector by industry was 181.50 Lakh persons.
- There was 0.59 percent of reduction in employment in the public sector by industry in India.
- There was 6.65 Lakh employment in the public sector by industry was varying with the observed employment as based on the average employment (Standard deviation = 6.657196).
- There was 2.34 percent of increase in employment in the private sector by industry in India.
- The average employment in private sector by industry was 92.68 Lakh persons.
- There was 8.6 Lakh employment in the private sector by industry was varying with the observed employment as based on the average employment (Standard deviation = 8.601795479).

Conclusion

Labour is one of the significant factors of production in all the economies. The status of workers is also largely depending upon the availability of employment opportunities in the country both in the public and private sectors. There is a large scope for the growing private sector industries in providing employment as compared to public sector. A comparative analysis is needed in this area in order to increase employment opportunities in India. The study highlighted that by finding out the industries which were attained a negative growth rate of employment the policy decision can be made for further improvements in employment opportunities in India.

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