CHAPTER : 3

PATTERN OF INDIAN INDUSTRIAL DEVELOPMENT

INTRODUCTION :

Rapid industrial development is greatly instrumental in changing the industrial structure of the country. Therefore, the strategy for industrial development must be based on understanding of some of the fundamental principles of the process of industrialization. The most important of these principles is that industrialization is a process of transferring industrial knowledge, experience and equipment from the places in the country where they are ample to the places where they are scarce. Therefore, the Industrial Policy Resolution of 1956 urges the need for a balanced industrial growth in the country. It states, "in order that industrialization may benefit the economy of the country as a whole, it is important that disparities in levels of development between regions should be progressively reduced". Industrialization of industrially backward states has been one of the cardinal aims of the policy of the government of India.

According to the constitution of India, the responsibility of regulation of industrial development is shared between the centre and the states. However, in a broad sense, the Central government has a crucial and overall responsibility in the development and regulation of industry so as to achieve national objectives. The approach and objectives of the Central government have been articulated in the Industrial Policy Resolution Statements.

The Industrial Policy Resolution of 1948, the first in the post-independence period, has no direct mention of the problem of industrial development in backward areas. The policy of the government was articulated more fully in the Industrial Policy Resolution of 1956. This resolution has a specific reference to the problem of industrial development in backward areas. It reads as under:

"In order that industrialization may benefit the economy of the country as a whole, it is important that disparities in levels of development between different regions should be progressively reduced. The lack of industries in different parts of the country is

very often determined by factors such as availability of the necessary raw materials or other natural resources. Concentration of industries in certain areas has also been due to the ready availability of power, water supply and transport facilities which have been developed there. It is one of the aims of national planning to ensure that these facilities are steadily made available to areas which are at present lagging behind industrially or where there is greater need for providing opportunities for employment, provided the location is otherwise suitable.

Only by securing a balanced and coordinated development of the industrial and the agricultural economy in each region, can the entire country attain higher standards of living".

The 1956 Resolution has been the cornerstone of the government policy though there have been several subsequent Statements on Industrial Policy which have emphasized one or the other aspect in order to reflect changing conditions.

The Statement of 1977 Industrial Policy attaches great importance to balanced regional development of the entire country. In pursuance of this, the government decided to restrict licensing and financial assistance to new industrial units within certain limits of large metropolitan cities having a population more than one million and urban areas with a population of more than 5 lakhs as per the 1971 Census.

The Statement on Industrial Policy issued in July 1980 indicates as one of the objectives of the policy the "correction of regional imbalances through a preferential treatment of industrially backward areas". The Statement says that "special concessions and facilities will be offered for this purpose and these incentives will be growth and performance oriented". An integral part of this approach would be to create new focal points of industrial growth which have maximum effect on the quality of life. This has to be based essentially on the utilization of the materials and the man power available locally. The ripple effect of substantial investments in backward districts has not been adequate in many cases in the past, mainly because such investments did not have effective linkages with local resources. The government, therefore, proposes to encourage investment both by public and private sector which meets these criteria and also would

promote a network of spreadout ancillaries. In 1982-83, important changes in the policy regarding the development of backward areas were implemented. As a further step, in 1983-84 the state governments were advised to identify growth centres in No Industry Districts or Special Regions and assess the infrastructure requirements essential for development.

Recent Development in Industrial Strategy

After 1980, the government of India has taken several decisions regarding industrial development which shows a trend of more and more privatization. Many industries such as oil exploration, port development, power, aviation etc. which were earlier kept reserved for the public sector have been released in favour of the private sector.

The planners have recognized that the industrial licensing policy is a major impediment to rapid growth of industrialization in the country. About 25 broad categories of industries were delicenced in 1985. About 22 industries were opened up for MRTP and FERA companies with the condition that the units were to be set-up in backward areas. The policy of delicensing was extended to 82 broad categories in 1986 and 26 industries in 1988. The Industrial Policy Statement of 1990 exempted all new units from obtaining licenses if the investment in fixed assets amounted to Rs.25 crores in centrally announced non-backward areas, and to Rs.75 crores in backward areas.

The New Industrial Policy (NIP) was tabled in Parliament on July 24 1991. The NIP purports to raise industrial efficiency to the international standard and through it, to accelerate industrial growth. The NIP relates to industrial lincensing policy, foreign investment, foreign technology agreements, public sector policy and Monopolies and Restrictive Trade Practices (MRTP) Act. One of the prime features of the NIP is related to the location of private firms. It states that for locations other than cities having more than one million population no industrial approval need to be obtained from the Central government except for the industries subject to compulsory licensing. In respect of bigger cities (i.e. having population of more than one million) non-polluting industries

like electronics, printing, etc will be permitted to be located beyond 25 kms of its peripheries. No other special measures have been initiated in the NIP.

The purpose of this chapter is to make an indepth enquiry into the pattern of industrial development on the lines of policy strategy as mentioned above. To make inferences more plausible following statistical techniques have been used :

1) Different Ratios such as capital productivity, labour productivity and capital intensity of the states of India for years 1969, 1974-75, 1979-80, 1985-86 and 1987-88 are worked out.

2) Share of top five industries in value added generated by states for the years 1979-80, 1985-86 and 1987-88 are worked out to study the extent of diversification. Similarly, share of five top states in value added generated by industries for the years 1979-80, 1985-86 and 1987-88 are worked out to examine the extent of regional concentration of Industries and

3) Finally, specialization coefficient for the years 1979-80, and 1985-86 are worked out.

INDUSTRIALIZATION : PAST AND PRESENT

In order to examine the impact of the policy measures, discussed in the first chapter and also to analyse the pattern and the concentration of industrial development as indicated at the outset of the present chapter, tables 3.1 to 3.5 need to be considered. These tables provide us with state wise data for 1969, 1974-75, 1979-80, 1985-86 and 1987-88 on the significant characteristics of manufacturing sector. They reveal following important facts regarding industrial development of different states since 1969 : (i) Maharashtra, Tamil Nadu, Gujarat, West Bengal and Andhra Pradesh are among the affluent states enjoying higher share in terms of number of factories. The status of West Bengal has been deteriorating as it has declined from fourth rank during 1969 to eighth rank in 1987-88. While the status of Uttar Pradesh has been improving through out the period of analysis.

Similarly, in terms of productive capital, number of workers, wages and net value added, Maharashtra, Tamil Nadu, Gujarat, Uttar Pradesh and West Bengal have greater share. Except Uttar Pradesh rest of other states are industrially affluent states of India. However, the position of West Bengal has been declining in terms of productive capital i.e. from the second rank during 1969 to seventh rank in 1987-88. Whereas Madhya Pradesh has shown little improvement from seventh rank in 1969 to fifth rank in 1987-88. Andhra Pradesh has remained among the top five states in terms of number of factories and number of workers, but was unable to maintain its rank in terms of productive capital, wages and net value added.

(ii) Poor industrial development has been observed in cases of states like Himachal Pradesh, Jammu and Kashmir, Haryana, Orissa, Rajasthan, Kerala, Assam and Punjab. Because all of them have remained at the bottom of the list through out the period of analysis in terms of number of factories, productive capital, number of workers, wages and net value added. Out of these states, Assam, Rajasthan, Jammu and Kashmir, Himachal Pradesh etc have been declared since 1970 as industrially backward states eligible for central and state governments incentives and concession schemes designed by the Planning Commission, government of India.

Karnataka and Bihar, with little variations, have maintained neither of the status poor or industrially well developed. Because neither sudden nor substantial movement have been noted in terms of productive captial, workers and value added since 1969.

One of the important tasks of this chapter is to examine performance of various states with respect to · **(1)** Capital productivity, **(2)** Labour productivity, **(3)** Capital intensity and (4) Wages per worker. For this tables 3.6 to 3.9 need to be considered.

Tables 3.6 and 3.7 reveal that higher inflow of capital per worker does not always lead to higher capital productivity for all the states in India. For instance, since 1969 states like Maharashtra, Gujarat, Tamil Nadu, Karnataka, Kerala and West Bengal have lower capital intensity (that is capital per worker) accompanied by higher capital productivity. Where as states like Orissa, Bihar, Madhya Pradesh, Haryana, Uttar Pradesh and Punjab although have been enjoying higher share in terms of capital per

worker have remained below the All India average in terms of capital productivity. This is mainly because of the mining industry located in Bihar which is highly capital intensive and its productivity highly depends upon the stock of minerals Industrially lagging states like Bihar, Madhya Pradesh, Orissa and Rajasthan continue to account for the higher capital per worker due to the collieries, steel plants and deposites of other natural resources. All such projects require huge capital and, therefore, majority of central public enterprises are located in Bihar, Madhy Pradesh, etc. The First phase of Librelisation was introduced in 1985 that has brought more and more capital intensive multinational companies in the industrially affluent states like Maharashtra and Gujarat. Therefore, since 1985, both Maharashtra and Gujarat have been enjoying higher share in terms of capital per worker.

These tables further reflect that in terms of labour productivity Bihar, Gujarat, Haryana, Madhya Pradesh and Maharashtra have greater share and, thus, have remained above the all India average. From 1969 to 1987-88, while states like Andhra Pradesh, Jammu and Kashmir, Kerala, Tamil Nadu, Uttar Pradesh, Punjab and West Bengal have remaining below the all India average during the same time. This implies that higher capital per worker may lead to higher labour productivity (e.g. Bihar, Madhya Pradesh and Haryana) However, this is not true in case of all the states in India. Because till 1985 Gujarat and Maharashtra remained below the all India average in terms of capital per worker while in terms of capital and labour productivity they remained above all India average.

Further, higher capital productivity does not lead to higher labour productivity in case of all the states in India. For instance, Tamil Nadu, Kerala, Karnataka and West Bengal were enjoying high capital productivity despite low labour productivity.

Thus it infers, from the analysis based on tables 3.6 to 3.8, that higher capital per worker does not mean higher capital and labour productivity in case of all the states in India. It also infers that higher capital productivity does not lead to higher labour productivity all the time and in case of all the states in India. However, traditionally industrially developed states like Gujarat and Maharashtra are exception

to this hypothesis. Because both are above the all India average interms of capital and labour productivity, where as although Tamil Nadu, West Bengal; Kerala, etc. have performed well in terms of capital productivity they have proved poor in terms of labour productivity.

Table 3.9 reveals that high wages per worker have been paid in Bihar, Madhya Pradesh, Maharashtra, Orissa and West Bengal. This observation alongwith the observation based on table 3.8 seek to establish a thesis that higher wages per worker may lead to higher labour productivity. Bihar, Madhya Pradesh and Maharashtra support this thesis. However, this is not true in case of all the states of India, as Orissa and West Bengal discard this thesis.

Further in order to bring out more detailed picture, coefficient of correlation among various indicators have been worked out in Table : 3.10(A) for five different years. The results of this table indicate a highly significant degree of correlation for all the variables reported. It also reveals the positive association between all the variables.

The co-efficient of correlation between workers and wages indicates a specific pattern. This correlation shows a continuous decline since 1969 to 1988. This may indicate that the average wage declines over a period of time. However, this may be confirmed from regression results given in the Table: 3.10(B).

The correlation between value added and productive capital shows a positive and significant relation without any specific pattern. This indicates a constancy in capital productivity. Where as although the correlation between value added and workers shows a positive and significant relation, the degree of association between them started declining from 0.9471 in 1969 to 0.8884 in 1987-88. This implies that the value added per worker has been falling over a period of time. However, this conclusion can be confirmed from the regression results of the table 3.10(B). In brief all results of table 3.10(A) indicate positive and significant correlation.

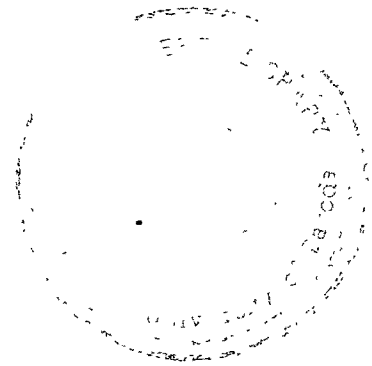

TABLE : 3.10 (A) COEFFICIENT OF CORRELATION (r)

Sr				Y E A R		
No.	**Variable**	**1969**	**1974-75**	**1979-80**	**1985-86**	**1987-88**
01	Workers and Wages	0.9793	0.9716	0.9397	0.9337	0.9195
02	Value Added and Productive Capital	0.9321	0.9408	0.8563	0.9427	0.9285
03	Value Added and Workers	0.9471	0.9438	0.9030	0.8575	0.8884
04	Value Added and Wages	0.9726	0.9667	0.9563	0.9497	0.9804

** Indicate 1% Level Significance

For detail analysis consider Table 3.10 (B). In this table four different sets of regression equations are fitted for different time periods using cross section data. The same reference years, which were used in table 3 10(A), have been used.

The equation -I studies the relationship between productive capital and value added where former is the independent variable. This equation confirms the conclusion drawn on the basis of table 3.10(A) that there is a constancy in capital productivity over time. Increase or change by one unit in productive capital generates 0.34 units of value added in 1969 and 0.32 units of value added in 1987-88.

The equation - II explains the labour productivity over time. This result reveals that a considerable improvement in terms of labour productivity is noted. It was 0.077 units in 1969 and 0.52 in 1987-88 as changes in workers by one unit. This is a significant rise in view of the constancy in capital productivity. Nevertheless, this result discards the conclusion drawn regarding labour productivity from table 3.10 (A).

Further equation - III support this conclusion because per unit change in wage leads to more than proportionate change in the value added. This is also an indication of increasing labour productivity over time.

Last equation indicates that wage increase but at a diminishing rate. However, this is a money wage and an increase in wage may not be significant if adjusted for inflation.

Thus on the whole, from the results of Table 3 10 (A) and (B), We find very little support to the belief that production function (i.e level of technology) are the same for different states. On the contrary, we have strong ground to expect considerable variations in the levels of technological options available in different states. One can also conclude that higher level of capital attract good quality of labour and therefore higher wages and higher labour productivity. This also implies that the policies and programmes introduced by the government of India failed to change the inherent structural drawbacks on the way of industrial development of industrially lagging states. The improvement in the level and pattern of industrial development of the industrially

backward states is significantly slow while the development and growth of industry in the industrially affluent states is notably fast.

INDUSTRIAL CONCENTRATION :

Tables 3.11 and table 3.11 (A) present the extent of regional concentration of industrial groups (two digit level) as measured by the net value added for the years 1979-80, 1985-86 and 1987-88.

It may be noted that in 1979-80 Maharashtra figured in 22 industrial groups. This situation underwent a change over time. In 1985-85 industrial concentration in Maharashtra went done to 20 industrial groups while in 1987-88, it improved to 23 industrial groups i.e. all the industrial groups were concentrated in Maharashtra. In 1979-80 17 industrial groups were concentrated in West Bengal. This status of West Bengal deteriorated during 1985-86 and 1987-88 because the concentration of industries went down to 13 industrial groups out of 23 industrial groups. In case of Tamil Nadu improvement in terms of industrial diversification has been observed as it was 14 industrial groups during 1979-80 and 1985-86 which increased to 16 industrial groups out of 23 industrial groups during 1987-88. Uttar Pradesh has showed a mix trend in terms of industrial concentration, it was 12 industrial groups during 1979-80 which improved to 16 during 1985-86 and again lowered down to 12 industrial groups during 1987-88. Gujarat has also shown the same pattern. Industrial concentration of Gujarat was in 10 industrial groups during 1979-80 which improved to 11 and again reduced to 9 out of 23 industrial groups during 1987-88. A substatial improvement has been noted in Karnataka. Industrial concentration in Karnataka was in 5 industrial groups during 1979-80 which improved to 7 and 9 out of 23 industrial groups during 1985-86 and 1987-88 respectively. Exactly the opposite trend has been observed in Punjab. Punjab had concentration in 5 industrial groups during 1979-80, which reduced drastically to one industrial group during 1985-86 and 1987-88. States such as Haryana, Rajasthan, Assam and Bihar remained at the bottom of the list so far as industrial diversification is concerned for all three years taken for the analysis. Since 1979-80, both Assam and Bihar have

been enjoying a top positions - Assam in wood and wood products while Bihar in basic metal and alloy industries (33). This implies that their concentration in these two industrial groups is strictly because of rich endowment of natural resources

TABLE : 3.11 (A)

INDUSTRIAL CONCENTRATION BY STATES AT VARIOUS POINTS OF TIME:

Sr. No.	States	Year		
		1979-80	1985-86*	1987-88*
1.	Andhra Pradesh	06	06	06
2.	Assam	03	04	02
3.	Bihar	06	03	05
4.	Gujarat	10	11	09
5.	Haryana	02	02	02
6.	Himachal Pradesh	-	01	Nil
7.	Jammu & Kashmir	-	-	Nil
8.	Karnataka	05	07	09
9.	Kerala	03	02	04
10.	Madhya Pradesh	06	08	07
11.	Maharashtra	22	20	23
12.	Orissa	01	01	01
13.	Punjab	05	01	01
14.	Rajasthan	03	03	02
15.	Tamil Nadu	14	14	16
16.	Uttar Pradesh	12	16	12
17.	West Bengal	17	13	13

Note : Total Number of industrial groups (two digit level) are 23.

* Delhi (3 out of 23 industrial groups) is not included.

in these states This also supports the hypothesis that though benefits in the form of incentives and concessions to foster industrial development of industrially lagging areas were introduced in Five Year Plans and the corresponding industrial resolutions, in fact favoured more industrially affluent areas like Maharashtra, Gujarat, Tamil Nadu and West Bengal and not Orissa, Rajasthan, Himachal Pradesh and Assam.

Further, for each of the industry, it is observed that the top 5 states generate a minimum of 58.1% of total value added generated. In as many as 12 industrial groups, it is found that top five states contribute more than 70% of value added, this indicates a higher level of concentration. Depending upon the nature of the industry, one specific industry is usually found to be greatly concentrated in a particular region. For instance, during 1979-80 the industries like jute, hemp and mesta textiles (25) were concentrated in West Bengal only. This contributes 87.56% of value added generated by this industry in the country. This trend continued till 1987-88. Other noteworthy situations are :

1) Leather and Leather products (29) : In this case Tamil Nadu alone has contributed more than 40% of value added generated in the country since 1979.

2) Gas and Steam (41) : Assam contributed 80.6% of value added during 1985-86.

3) Basic metal and Alloy industries (33) : Around 30% of value added has been contributed by Bihar only since 1979.

It is important to mention here that this measure is very simplistic and has certain limitations. A state like Uttar Pradesh which is industrially lagging, is found to contribute significantly in 16 industrial groups during 1985-86, merely because of its size.

Table : 3.12 presents the extent of diversification of industrial structure. Industrially developed states are expected to exhibit diversification of industrial structure. A state like Maharashtra, where the scope for all industrial groups are fair, exhibits high diversification. Data of table 3.12 reveal that over a period of time degree of industrial diversification in Maharashtra has increased. Because the share of top five industries

in terms of value added has decreased from 60% to 56.9%. Similarly, states like Andhra Pradesh, Karnataka, and West Bengal exhibit greater diversification compared to other states. Hardly any significant improvement in the degree of diversification has been noted in their cases over a period of time. However, Uttar Pradesh also enjoyed a greater diversification till 1985-86 and during 1987-88 share of top five industries in value added increased form 57% in 1979-80 to 72.5% This is mainly because electricity has contributed heavily in terms of value added. The share of electricity among top five industrial groups, of Uttar Pradesh, was 11% during 1979 which went down to 9% during 1985-86 and suddenly increased to 27% during 1987-88. Whereas Tamil Nadu reveals a positive trend in the degree of industrial diversification over a period of time. The share of top five industries in value added has gone down from 64.4% in 1979-80 to 59% during 1987-88.

At the outset of the analysis of the above few states it infers that the degree of industrial diversification depends upon local factors such as endowment of natural resources, entrepreneurship skill, availability of infrastructure, availability of skilled and educated manpower, attitude of bureaucrats which play vital role. The following analysis also supports this cause and effect relationship. Despite of the fact that Gujarat has been considered one of the traditionally industrially developed states of India, it has lesser degree of industrial diversification. Further, over a period of time hardly any change in the degree of industrial diversification has been noticed because the share of top five industries in value added has almost remained the same, that is, it was 71.6% during 1979-80 and 1987-88. It has been found from the table 3 12 that till 1979-80. Gujarat had heavy concentration of cotton textile industry. Since 1979-80 the first place in terms of share of value added of cotton textile industry has been gradually taken over by chemical and chemical products group of industry. Its share in value added was 20% in 1979-80 which increased to 35% in 1987-88. The share of cotton textile industry, as a result, reduced to 9% during 1987-88. This implies that structural changes and diversification has not been found in case of Gujarat, notwithstanding in terms of only chemical and chemical products group of industry

instead of cotton textile. Another important change was noted that the case of industrial concentration in Gujarat was in the form of machinery and machine tools group of industry. Share of this group of industry increased from 6% in 1979-80 to 13.7% in 1987-88. Another relevant case is the state of Bihar, which is a industrially lagging state, where heavy concentration of only one industrial group related to its heavy endowment of mineral i.e. Basic metal and alloys, has been noted since 1979-80. Similarly, domination of only one industry in terms of share in value added has been observed in case of Assam, Himachal Pradesh and Orissa. In Assam, food products industry group contributes almost 52% in the share of total value added. Himachal Pradesh has been enjoying high concentration of electricity group of industry since 1979, nontheless, the share of electricity group of industry in terms of value added which was 82.7% in 1979-80, was reduced to 60% in 1987-88. States like Assam, Orissa, Himachal Pradesh, Jammu and Kashmir, and Rajasthan are industrially lagging states since independence. And all these states exhibit lowest degree of industrial diversification after almost four decades of economic planning.

All these results (i.e. of table 3.11 and 3.12) reveal the prevalence and persistence of regional inequalities in industrial development. These inequalities are generally consequence of the concentration of economic activities in few regions on one hand and concentration of most viable and high value added generating group of industries on the other. Despite of the measures introduced in the Industrial Dispersal Policy of government of India, this concentration creates strong agglomeration forces, which may prevent peripheral regions and industrially lagging states from overcoming their original disadvantage. The spatial concentration of economic activities also result in polarization of the spatial incidence of growth and development during the early stages of national development. This accounts for the persistence of the inequalities.

Further, the concentration of labour force in large metropolitan centres may result in negative externalities. It may cause overload on the urban infrastructure whereas lead to underloading and jeopardizing the maintenance of the rural infrastructure. Even the efforts of the government in the form of diverting investment in infrastructural

development and subsidies with a view to attracting private entrepreneurs to (settle their industries in) industrially lagging regions failed to produce substantial results. According to Hirschman and others these benefits are important permissive factors in the development of directly productive activities in the industrially lagging regions.

A major aim for industrialization is not only to provide employment and income but to stabilize the state income through diversification of industries in the different fields. Such activities are essential for better linkages between the industries which would have repercussive impact on other sectors of the state economy. In case of industrially developed states the very existence of industries at a location often enhances its magnetic effect on other industries. The growth of such geographic concentration also calls for banking and insurance facilities and as a result, the service industry will grow. It will also necessitate and encourage repair services and host of other tertiary activities to develop around it Since enormous economic advanteges can be derived from the concentration of industries, a few such centres in turn will increase income and demand, and thus cause a second round of investment and development

The analysis based on Table : 3.11 and 3.12 gives us a partial picture. However, to see whether the overall industrial system has a concentration pattern or a diversified one the concept of coefficient of specialization can be utilized. If a given region has an appropriate mix of industrial activities identical with the national system, the value of specialization coefficient will be zero. In contrast, if industrial employment or output or value added of the region is concentrated in a single industry, its value will be unity. Changes in the value of specialization coefficient across regions and in different points of time will reflect the degree of industrial diversification achieved in the region. A less diversified industrial structure in a region is likely to cause a growth rate pattern which is some what different from that of the nation.

Table : 3.13 presents the coefficient of specialization for various states for the years 1979-80 and 1985-86. From this information it can be concluded that Karnataka (0.2663), Tamil Nadu (0.3195), and Maharashtra (0.3706) in this order are the most diversified industrially in 1985-86. Where as Assam (0.9884), Jammu and Kashmir

(0.9420), Orissa (0.9001), Himachal Pradesh (0.8145) and Bihar (0.7041) are least diversified. Almost all of these states are industrially lagging since independence. Whereas Maharashtra and Tamil Nadu are industrially most affluent. This analysis supports the conclusion drawn on the basis of Tables 3.11 and 3.12 that lowest degree of diversification and highest degree of industrial concentration has noticed in case of industrially lagging states and vice versa. However, states like Gujarat and West Bengal are industrially developed states since independence but reveal little higher level of specialization in comparison to other industrially developed states like Maharashtra and Tamil Nadu.

TABLE : 3.13 COEFFICIENT OF SPECIALIZATION OF THE STATES OF INDIA

Sr. No.	**States**	**Specialization Coefficient**	
		1979-80	**1985-86**
1.	Andhra Pradesh	0.6643	0.6509
2.	Assam	0.9853	0.9844
3.	Bihar	0.6383	0.7041
4.	Gujarat	0.6353	0.6379
5.	Haryana	0.6366	0.4921
6.	Himachal Pradesh	0.8696	0.8145
7.	Jammu and Kashmir	0.6864	0.9421
8.	Karnataka	0.2393	0.2663
9.	Kerala	0.6330	0.6012
10.	Madhya Pradesh	0.5288	0.4765
11.	Maharashtra	0.4391	0.3706
12.	Orissa	0.8717	0.9001
13.	Punjab	0.5645	0.5035
14.	Rajasthan	0.4996	0.5265
15.	Tamil Nadu	0.3884	0.3195
16.	Uttar Pradesh	0.5149	0.5399
17.	West Bengal	0.6820	0.7019

TABLE : 2.1
PERCENTAGE DISTRIBUTION OF GROSS INVESTMENT IN CENTRAL PUBLIC ENTERPRISES BY STATES - SELECTED YEARS FROM 1974-75 TO 1989-90

INVESTMENT (GROSS BLOCK)

SR. NO.	STATES	1974-75	1979-80	1985-86	1988-89	1989-90
0	1	2	3	4	5	6
1	Andhra Pradesh	4.76	5.13	10.18	11.13	11.14
2	Assam	3.51	3.24	5.79	5.32	4.93
3	Bihar	29.56	20.85	12.14	9.48	9.41
4	Gujarat	5.33	5.82	4.63	5.70	5.53
5	Haryana	0.34	1.67	0.63	0.91	0.88
6	Himachal Pradesh	0.02	0.84	1.05	1.07	1.27
7	Jammu & Kashmir	0.11	0.05	0.16	0.97	1.32
8	Karnataka	2.83	4.94	2.98	2.45	2.53
9	Kerala	3.06	2.80	1.78	1.71	1.66
10	Madhya Pradesh	12.90	14.76	13.17	12.92	12.28
11	Maharashtra	3.60	8.69	17.37	18.18	19.46
12	Orissa	9.38	6.14	7.84	6.43	5.83
13	Punjab	0.75	2.40	1.16	0.90	0.82
14	Rajasthan	2.04	2.23	1.38	1.57	1.68
15	Tamil Nadu	6.46	4.95	5.68	5.50	5.76
16	Uttar Pradesh	3.85	5.31	6.37	9.32	8.59
17	West Bengal	11.51	10.19	7.70	6.44	6.92
	T O T A L	100.00	100.00	100.00	100.00	100.00

SOURCE : Annual Reports - Public Enterprises Survey
Bureau of Public Enterprises, New Delhi.

TABLE : 2.2
PERCENTAGE SHARE OF CENTRAL GOVERNMENT UNDERTAKING IN TOTAL EMPLOYMENT (PUBLIC & PRIVATE SECTORS) BY STATES FOR 1974-75

SR. NO.	STATES	1974-75
1	Andhra Pradesh	4.62
2	Assam	11.12
3	Bihar	14.71
4	Gujarat	1.55
5	Haryana	0.04
6	Himachal Pradesh	-
7	Jammu & Kashmir	3.03
8	Karnataka	9.90
9	Kerala	2.62
10	Madhya Pradesh	13.67
11	Maharashtra	4.69
12	Orissa	13.38
13	Punjab	3.10
14	Rajasthan	3.36
15	Tamil Nadu	3.51
16	Uttar Pradesh	7.54
17	West Bengal	3.14
	T O T A L	100.00

SOURCE : AS PER THE TABLE : 2.1

TABLE : 2.3
PERCENTAGE DISTRIBUTION OF MANPOWER IN CENTRAL PUBLIC ENTERPRISES - BY STATES - FOR SELECTED YEARS FROM 1979-80 TO 1989-90

SR. NO.	STATES	No. of Employees including Casual labour			
		1979-80	1985-86	1988-89	1989-90
0	1	2	3	4	5
1	Andhra Pradesh	3.91	4.45	4.93	4.75
2	Assam	1.72	2.71	2.79	2.73
3	Bihar	24.88	21.91	21.90	20.37
4	Gujarat	2.37	2.47	2.54	2.54
5	Haryana	0.53	0.24	0.90	0.85
6	Himachal Pradesh	0.59	0.77	0.25	0.24
7	Jammu & Kashmir	0.12	0.24	0.45	0.42
8	Karnataka	6.69	5.71	5.82	5.69
9	Kerala	1.54	1.60	1.64	1.60
10	Madhya Pradesh	13.92	13.68	14.14	13.59
11	Maharashtra	8.65	9.09	11.25	10.68
12	Orissa	3.61	3.48	3.78	3.57
13	Punjab	0.47	1.16	1.14	1.08
14	Rajasthan	1.78	1.74	1.94	1.88
15	Tamil Nadu	3.79	4.16	4.38	4.19
16	Uttar Pradesh	4.03	5.85	1.59	6.73
17	West Bengal	21.39	20.74	20.56	19.10
	T O T A L	100.00	100.00	100.00	100.00

SOURCE : AS PER THE TABLE : 2.1.

TABLE : 2.4
SHARE OF GROUPS OF STATE IN INVESTMENT (GROSS) AND EMPLOYMENT IN CENTRAL PUBLIC ENTERPRISES AS ON :

SR. NO.	STATES/REGIONS	31-3-1980		31-3-1986		31-3-1989		31-3-1990	
		BLOCK CAPITAL	EMPLOYMENT	BLOCK CAPITAL	EMPLOYMENT	BLOCK CAPITAL	EMPLOYMENT	BLOCK CAPITAL	EMPLOYMENT
1.	Industrially Developed (including Delhi)	35.1	43.9	38.9	45.8	39.9	46.7	41.9	46.4
2.	Industrially Backward	51.7	51.9	55.1	53.0	55.8	52.0	53.2	52.0
3.	Unallocated	13.2	4.2	6.0	1.2	4.3	1.3	4.9	1.6
	TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Note : Classification in to developed and backward states is on the basis of per capita value added in Manufacturing NCDBA - Planning Commission, Government of India, New Delhi.

TABLE : 2.6
STATE-WISE DISTRIBUTION OF CAPITAL INVESTMENT (GROSS) PER WORKER IN CENTRAL PUBLIC ENTERPRISES - SELECTED YEARS FROM 1979-80 TO 1989-90

(in Lakhs)

SR. No.	STATES	1979-80	1985-86	1988-89	1989-90
0	1	2	3	4	5
1	Andhra Pradesh	1174.42	5754.36	10006.38	11298.83
2	Assam	1690.93	5378.02	8452.29	8707.29
3	Bihar	750.40	1393.29	1918.25	2225.81
4	Gujarat	2199.00	4716.75	9943.33	10481.96
5	Haryana	2810.78	6523.20	4520.39	4994.28
6	Himachal Pradesh	1270.20	3412.13	19034.20	25955.00
7	Jammu & Kashmir	352.50	1674.60	9632.00	15013.89
8	Karnataka	660.58	1310.64	1863.92	2139.63
9	Kerala	1626.31	2796.21	4617.61	5003.65
10	Madhya Pradesh	949.26	2418.51	4050.10	4353.11
11	Maharashtra	899.96	4803.11	7159.15	8781.22
12	Orissa	1521.92	5657.19	7525.38	7850.36
13	Punjab	4531.50	2511.58	3488.48	3637.00
14	Rajasthan	1125.40	1992.17	3587.26	4291.83
15	Tamil Nadu	1168.34	3435.00	5565.58	6631.47
16	Uttar Pradesh	1179.82	2735.83	25922.41	6149.90
17	West Bengal	426.70	932.36	1387.51	1744.87
	ALL INDIA AVERAGE	895.54	2513.52	4430.75	4817.13

SOURCE : AS PER THE TABLE : 2.1

TABLE : 3.1
PERCENTAGE DISTRIBUTION OF NUMBER OF FACTORIES BY STATES - ALL INDUSTRIES - FOR SELECTED YEARS FROM 1969 TO 1987-88

SR. NO.	STATES	1969	1974-75	1979-80	1985-86	1987-88
0	1	2	3	4	5	6
1	Andhra Pradesh	8.23	8.92	12.84	13.16	14.34
2	Assam	2.46	3.13	1.88	1.95	1.62
3	Bihar	4.15	4.07	5.18	5.15	3.55
4	Gujarat	11.00	11.05	11.99	10.64	10.83
5	Haryana	1.75	2.00	2.54	3.12	2.82
6	Himachal Pradesh	0.19	0.24	0.32	0.26	0.23
7	Jammu & Kashmir	0.31	0.37	0.37	0.38	0.38
8	Karnataka	5.59	6.41	5.92	5.63	5.83
9	Kerala	3.88	4.16	3.37	3.20	3.11
10	Madhya Pradesh	4.37	4.13	3.97	4.14	3.47
11	Maharashtra	18.51	17.45	16.25	15.46	15.42
12	Orissa	1.98	1.47	1.53	1.51	1.61
13	Punjab	6.33	5.97	5.81	5.90	6.20
14	Rajasthan	2.09	2.25	2.83	3.06	2.98
15	Tamil Nadu	11.35	11.20	10.77	12.83	13.41
16	Uttar Pradesh	7.10	7.76	7.55	7.80	8.78
17	West Bengal	10.70	9.43	6.87	5.80	5.42
	T O T A L	100.00	100.00	100.00	100.00	100.00

SOURCE : CENTRAL STATISTICAL ORGANISATION - ANNUAL SURVEY - OF INDUSTRIES - SUMMARY RESULTS FOR FACTORY SECTOR

TABLE : 3.2
PERCENTAGE DISTRIBUTION OF PRODUCTIVE CAPITAL BY STATES - ALL INDUSTRIES - FOR SELECTED YEARS FROM 1969 TO 1987-88

SR. NO.	STATES	1969	1974-75	1979-80	1985-86	1987-88
0	1	2	3	4	5	6
1	Andhra Pradesh	5.49	5.20	5.69	5.50	5.86
2	Assam	2.20	1.33	1.56	0.97	0.94
3	Bihar	7.60	7.22	12.31	8.05	7.65
4	Gujarat	6.66	8.38	8.94	8.99	9.80
5	Haryana	2.49	2.89	3.28	3.09	3.24
6	Himachal Pradesh	0.21	0.22	0.56	0.95	0.96
7	Jammu & Kashmir	0.07	0.12	0.32	0.43	0.49
8	Karnataka	5.12	4.53	4.56	3.84	3.95
9	Kerala	2.43	3.40	3.02	2.67	2.35
10	Madhya Pradesh	6.44	6.45	6.26	8.02	8.33
11	Maharashtra	17.71	19.14	16.91	19.43	16.26
12	Orissa	4.58	4.07	2.89	2.70	4.52
13	Punjab	2.83	3.81	4.67	4.24	5.79
14	Rajasthan	2.69	3.17	3.62	3.89	3.75
15	Tamil Nadu	9.47	8.80	7.92	9.89	8.72
16	Uttar Pradesh	9.16	11.35	9.77	9.88	10.94
17	West Bengal	14.88	9.92	7.72	7.45	6.44
	T O T A L	100.00	100.00	100.00	100.00	100.00

SOURCE : AS PER THE TABLE : 3.1

TABLE : 3.3
PERCENTAGE DISTRIBUTION OF NUMBER OF WORKERS BY STATES - ALL INDUSTRIES FOR SELECTED YEARS FROM 1969 TO 1987-88

SR. NO.	STATES	1969	1974-75	1979-80	1985-86	1987-88
0	1	2	3	4	5	6
1	Andhra Pradesh	6.93	7.54	9.82	9.65	10.21
2	Assam	1.81	1.86	1.82	1.70	1.44
3	Bihar	4.96	4.85	4.46	4.60	5.10
4	Gujarat	9.47	9.98	9.59	9.39	8.98
5	Haryana	1.92	2.01	2.14	2.91	3.02
6	Himachal Pradesh	0.27	0.32	0.26	0.45	0.52
7	Jammu & Kashmir	0.34	0.29	0.37	0.57	0.60
8	Karnataka	4.60	4.75	4.89	5.06	4.94
9	Kerala	4.60	4.47	4.02	3.35	3.43
10	Madhya Pradesh	3.88	3.76	3.88	4.35	4.49
11	Maharashtra	19.28	19.22	17.17	15.52	15.05
12	Orissa	1.85	1.55	1.58	2.01	2.10
13	Punjab	2.59	2.81	3.60	4.37	5.13
14	Rajasthan	1.88	1.93	2.62	2.97	3.08
15	Tamil Nadu	10.45	10.50	10.78	12.12	12.04
16	Uttar Pradesh	7.22	8.68	9.76	9.70	10.14
17	West Bengal	17.94	15.48	13.25	11.26	9.75
	T O T A L	100.00	100.00	100.00	100.00	100.00

SOURCE : AS PER THE TABLE : 3.1

TABLE : 3.4
PERCENTAGE DISTRIBUTION OF WAGES BY STATES - ALL INDUSTRIES - FOR SELECTED YEARS FROM 1969 TO 1987-88

SR. NO.	STATES	1969	1974-75	1979-80	1985-86	1987-88
0	1	2	3	4	5	6
1	Andhra Pradesh	3.63	4.03	5.13	5.94	5.95
2	Assam	1.08	0.68	0.83	0.84	0.62
3	Bihar	5.87	5.55	6.29	6.40	6.61
4	Gujarat	9.58	9.36	8.92	8.35	8.10
5	Haryana	1.70	1.62	2.00	2.27	2.82
6	Himachal Pradesh	0.27	0.33	0.20	0.35	0.45
7	Jammu & Kashmir	0.23	0.22	0.25	0.33	0.40
8	Karnataka	4.17	4.57	4.67	5.08	5.09
9	Kerala	2.98	2.94	2.95	2.83	2.94
10	Madhya Pradesh	3.91	4.94	4.31	4.53	4.66
11	Maharashtra	24.42	23.80	22.47	21.91	21.76
12	Orissa	2.07	1.87	2.09	2.17	2.18
13	Punjab	2.29	2.14	2.70	3.27	3.82
14	Rajasthan	1.58	1.83	2.52	3.01	3.07
15	Tamil Nadu	9.53	10.03	9.78	10.57	10.63
16	Uttar Pradesh	6.32	7.13	7.77	8.58	9.05
17	West Bengal	20.37	18.97	17.12	13.55	11.85
	T O T A L	100.00	100.00	100.00	100.00	100.00

SOURCE : AS PER THE TABLE : 3.1

TABLE : 3.5
PERCENTAGE DISTRIBUTION OF NET VALUE ADDED BY STATES - ALL INDUSTRIES - FOR SELECTED YEARS FROM 1969 TO 1987-1988

SR. NO.	STATES	1969	1974-75	1979-80	1985-86	1987-88
0	1	2	3	4	5	6
1	Andhra Pradesh	3.93	4.40	5.17	5.55	4.50
2	Assam	1.29	1.84	1.46	2.02	1.68
3	Bihar	5.70	6.39	5.12	5.51	6.90
4	Gujarat	8.87	10.24	9.70	9.47	10.34
5	Haryana	1.95	2.22	2.98	3.00	2.92
6	Himachal Pradesh	0.25	0.16	0.61	0.79	0.60
7	Jammu & Kashmir	0.10	0.14	0.19	0.25	0.25
8	Karnataka	5.51	4.62	5.34	5.15	4.86
9	Kerala	4.06	2.85	3.28	2.97	3.14
10	Madhya Pradesh	3.24	4.82	4.25	6.00	5.65
11	Maharashtra	27.27	26.76	25.50	26.49	22.58
12	Orissa	1.80	1.77	2.17	1.48	1.71
13	Punjab	2.47	2.29	3.35	3.29	3.70
14	Rajasthan	1.71	1.96	3.08	2.80	2.53
15	Tamil Nadu	9.65	9.70	10.13	10.56	10.20
16	Uttar Pradesh	7.08	6.64	6.42	6.10	9.32
17	West Bengal	15.11	13.21	11.24	8.57	9.13
	T O T A L	100.00	100.00	100.00	100.00	100.00

SOURCE : AS PER THE TABLE : 3.1

TABLE : 3.6
CAPITAL INTENSITY - ALL INDUSTRIES-BY STATES-FOR SELECTED YEARS FROM 1969 TO 1987-88

(value in Lakhs)

SR. NO.	STATES	1969	1974-75	1979-80	1985-86	1987-88
0	1	2	3	4	5	6
1	Andhra Pradesh	0.2058	0.2586	0.3691	0.8269	1.0098
2	Assam	0.3156	0.2675	0.5445	0.8244	1.1476
3	Bihar	0.3978	0.5574	1.7571	2.5407	2.6379
4	Gujarat	0.1824	0.3149	0.5933	1.3889	1.9197
5	Haryana	0.3357	0.5384	0.9766	1.5386	1.8865
6	Himachal Pradesh	0.1967	0.2622	1.3752	3.0361	3.2741
7	Jammu & Kashmir	0.0507	0.1583	0.5543	1.0912	1.4414
8	Karnataka	0.2888	0.3571	0.5944	1.1005	1.4068
9	Kerala	0.1369	0.2851	0.4789	1.1566	1.2030
10	Madhya Pradesh	0.4300	0.6422	1.0259	2.6721	3.2615
11	Maharashtra	0.2384	0.3731	0.6270	1.8152	1.9003
12	Orissa	0.6412	0.9804	1.1667	1.9497	3.7889
13	Punjab	0.2827	0.5085	0.8265	1.4055	1.9849
14	Rajasthan	0.3712	0.6151	0.8788	1.8998	2.1438
15	Tamil Nadu	0.2352	0.3142	0.4675	1.1831	1.2738
16	Uttar Pradesh	0.3291	0.4902	0.6374	1.4772	1.8960
17	West Bengal	0.2152	0.2402	0.3711	0.9589	1.1605
	ALL INDIA AVERAGE	0.2595	0.3748	0.6366	1.4501	1.7581

SOURCE : AS PER THE TABLE : 3.1

TABLE : 3.7
CAPITAL PRODUCTIVITY - ALL INDUSTRIES - BY STATES - FOR SELECTED YEARS FROM 1969 TO 1987-88

(Values in Lakhs)

SR. NO.	STATES	1969	1974-75	1979-80	1985-86	1987-88
0	1	2	3	4	5	6
1	Andhra Pradesh	0.1871	0.2886	0.2603	0.2787	0.2044
2	Assam	0.1535	0.4715	0.2688	0.5751	0.4764
3	Bihar	0.1962	0.3023	0.1194	0.1889	0.2403
4	Gujarat	0.3486	0.4170	0.3116	0.2908	0.2807
5	Haryana	0.2043	0.2626	0.2604	0.2685	0.2399
6	Himachal Pradesh	0.3109	0.2407	0.3107	0.2293	0.1662
7	Jammu & Kashmir	0.4161	0.3921	0.1694	0.1583	0.1341
8	Karnataka	0.2815	0.3480	0.3361	0.3706	0.3273
9	Kerala	0.4378	0.2858	0.3115	0.3075	0.3553
10	Madhya Pradesh	0.1317	0.2552	0.1950	0.2066	0.1807
11	Maharashtra	0.4026	0.4773	0.4327	0.3766	0.3697
12	Orissa	0.1026	0.1486	0.2152	0.1520	0.1008
13	Punjab	0.2286	0.2048	0.2060	0.2145	0.1700
14	Rajasthan	0.1663	0.2110	0.2442	0.1986	0.1797
15	Tamil Nadu	0.2663	0.3764	0.3670	0.2950	0.3114
16	Uttar Pradesh	0.2023	0.1999	0.1883	0.1705	0.2268
17	West Bengal	0.2655	0.4547	0.4178	0.3180	0.3776
	ALL INDIA AVERAGE	0.2615	0.3414	0.2869	0.2763	0.2662

SOURCE : AS PER THE TABLE : 3.1

TABLE : 3.8
LABOUR PRODUCTIVITY - ALL INDUSTRIES - BY STATES-FOR SELECTED YEARS FROM 1969 TO 1987-88

(Values in Lakhs)

SR. NO.	STATES	1969	1974-75	1979-80	1985-86	1987-88
0	1	2	3	4	5	6
1	Andhra Pradesh	0.0385	0.0746	0.0961	0.2305	0.2064
2	Assam	0.0484	0.1261	0.1463	0.4741	0.5468
3	Bihar	0.0781	0.1685	0.2097	0.4799	0.6338
4	Gujarat	0.0636	0.1313	0.1849	0.4039	0.5388
5	Haryana	0.0686	0.1414	0.2543	0.4131	0.4526
6	Himachal Pradesh	0.0612	0.0631	0.4273	0.6962	0.5441
7	Jammu & Kashmir	0.0211	0.0621	0.0939	0.1728	0.1933
8	Karnataka	0.0813	0.1243	0.1998	0.4078	0.4604
9	Kerala	0.0599	0.0815	0.1492	0.3557	0.4274
10	Madhya Pradesh	0.0567	0.1639	0.2001	0.5520	0.5893
11	Maharashtra	0.0960	0.1781	0.2713	0.6836	0.7025
12	Orissa	0.0658	0.1456	0.2511	0.2963	0.3817
13	Punjab	0.0646	0.1041	0.1703	0.3014	0.3375
14	Rajasthan	0.0617	0.1298	0.2146	0.3773	0.3852
15	Tamil Nadu	0.0626	0.1183	0.1715	0.3490	0.3966
16	Uttar Pradesh	0.0666	0.0980	0.1200	0.2519	0.4300
17	West Bengal	0.0571	0.1092	0.1550	0.3050	0.4382
	ALL INDIA AVERAGE	0.0679	0.1279	0.1826	0.4006	0.4681

SOURCE : AS PER THE TABLE : 3.1

TABLE : 3.9
WAGES PER WORKER - ALL INDUSTRIES - BY STATES-FOR SELECTED YEARS FROM 1969 TO 1987-88

(Values in Lakhs)

SR. NO.	STATES	1969	1974-75	1979-80	1985-86	1987-88
0	1	2	3	4	5	6
1	Andhra Pradesh	0.0124	0.0205	0.0308	0.0753	0.0861
2	Assam	0.0141	0.0140	0.0268	0.0606	0.0637
3	Bihar	0.0279	0.0438	0.0831	0.1704	0.1917
4	Gujarat	0.0238	0.0360	0.0547	0.1089	0.1332
5	Haryana	0.0208	0.0309	0.0551	0.0955	0.1379
6	Himachal Pradesh	0.0232	0.0400	0.0453	0.0954	0.1275
7	Jammu & Kashmir	0.0158	0.0288	0.0399	0.0700	0.0983
8	Karnataka	0.0213	0.0369	0.0562	0.1228	0.1522
9	Kerala	0.0152	0.0252	0.0432	0.1034	0.1266
10	Madhya Pradesh	0.0237	0.0503	0.0653	0.1273	0.1534
11	Maharashtra	0.0298	0.0475	0.0770	0.1727	0.2137
12	Orissa	0.0264	0.0461	0.0782	0.1325	0.1536
13	Punjab	0.0208	0.0292	0.0442	0.0914	0.1099
14	Rajasthan	0.0198	0.0363	0.0565	0.1239	0.1472
15	Tamil Nadu	0.0215	0.0367	0.0534	0.1067	0.1305
16	Uttar Pradesh	0.0206	0.0315	0.0468	0.1083	0.1319
17	West Bengal	0.0267	0.0470	0.0761	0.1472	0.1796
	ALL INDIA AVERAGE	0.0236	0.0384	0.0588	0.1224	0.1477

SOURCE : AS PER THE TABLE : 3.1