

**THE FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
CENTRAL STATISTICAL AGENCY**

**REPORT ON LARGE AND MEDIUM SCALE
MANUFACTURING AND ELECTRICITY
INDUSTRIES SURVEY**

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- STATISTICAL BULLETIN -

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Abbreviations

CSA	- Central Statistics Agency
E.C	-Ethiopian Calendar
E .F.Y.	- Ethiopian Fiscal Year
ISIC	-International Standard Industrial Classification
Rev.3	-Economic Activities Revision 3
S.N.N.P.	- Southern Nations, Nationalities and Peoples' Region
N.E.C.	- Not Elsewhere Classified
S.N.A.	- System of National Accounts
CSPro	-Census and Survey Processing System
KW	- Kilowatt
KWH	- Kilowatt Hour

1. Introduction and Objectives of the Survey

1.1 Introduction

The presence of adequate and current statistical data in various economic sectors that are considered essential for development planning, socio-economic policy formulation and economic analysis is vital in promoting the economic development of a country. Based on this general objective, the Central Statistical Agency (CSA) has been conducting surveys of various economic activities, of which, the annual Large and Medium Scale Manufacturing Industries survey is one.

Manufacturing is defined here according to International Standard Industrial Classification (ISIC Revision-3) as “the physical or chemical transformation of materials or components into new products, whether the work is performed by power-driven machines or by hand, whether it is done in a factory or in the worker’s home, and whether the products are sold at wholesale or retail. The assembly of the component parts of manufactured products is also considered as manufacturing activities.”

CSA has been publishing results of the survey of Manufacturing and Electricity Industries on annual basis since 1968 E.C. to provide users with reliable, comprehensive and timely statistical data on these sectors. In this respect, this survey, which is conducted on annual basis, is the principal source of industrial statistics on large and medium scale manufacturing industries in the country.

This bulletin has six parts: - Part I, deals with an introduction and objective of the survey. Part II gives an overview about the survey methodology, data collection and processing. Part III presents summary of selected survey results. Part IV presents statistical tables of the survey for the year 1996 E.F.Y (2003/04). Part V deals with time series data and various ratios for the period of five years i.e. 1992-1996 E.F.Y. (1999/00 - 2003/04) for Large and Medium Scale Manufacturing Industries. Finally part VI presents the activity and performance of the Electricity Industry which also refers to the same five years period. At the end, the survey questionnaire is attached as an appendix.

1.2 Objectives of the survey

The main objectives of the annual survey of Large and Medium Scale Manufacturing and Electricity Industries are to:-

1. Obtain basic statistical data that are essential for policy makers, planners and researchers by major industrial group.
2. Collect basic quantitative information on employment, volume of quantitative information on employment, volume of production and raw materials, structure and performance of the country’s Large and Medium Scale Manufacturing and Electricity Industries.

3. Compile statistical data which will be an input to the System of National Accounts (SNA), on Large and Medium Scale Manufacturing and Electricity establishments as a whole and by major industrial group.
4. Obtain the number of proprietors engaged in these sectors and find out the major problems that create stumbling blocks for their activities.

2. Survey Methodology, Data Collection and Processing

2.1 Scope, Coverage and Content

The scope of the Large and Medium Scale Manufacturing survey is confined to those establishments which engage ten persons and above and use power-driven machinery and covers both public and private industries in all Regions of the country, where establishments under the scope of the survey are found. With regard to electricity data, the survey covered *only* the electricity supplied by the Ethiopian Electric Power Corporation.

Like in the previous years, in the current survey an attempt was made to update the directory using as source of information - the licenses issued by the Ministry of Trade and Industry and corresponding bureaus of the Regional States of the country, for the public and private establishments. From this list, all manufacturing establishments which engaged ten persons and above, were selected and included in the directory of large and medium scale manufacturing establishments.

In this publication detailed information on number of establishments, number of persons engaged, and employees, wages and salaries paid by major industrial groups, sex, nationality and occupation, paid-up capital, gross value of production, industrial and non-industrial costs, value added, operating surplus, quantity of production and raw materials consumed, fixed assets, investment and production capacity are presented.

2.2 Basic Concepts and Definitions:-

(i) An Establishment: - is defined as the whole of the premises under the same ownership or management at a particular address. (E.g. a bakery, a saw mill, etc.)

(ii) Paid -up Capital: - is that part of the issued capital of an establishment that has been paid by the shareholders or the individual owner.

(iii) Working Proprietors, Active Partners and Family Workers: - include all unpaid working proprietors, active partners and members of their household who actively participate in the operation of the establishment.

(iv) Administrative and Technical Employees:- include salaried directors and managers, technicians, superintendents, research workers, draftsmen and designers, engineers, chemists, architects, accountants, book-keepers, office machine operators, receptionists, sales men, delivery personnel, guards and other office staff.

(v) Production Workers:- include workers directly engaged in production i.e., persons engaged in fabricating, processing, assembling, maintenance, repair, janitorial, record keeping and other associated activities.

(vi) Seasonal and Temporary Workers: - include workers who are employed for a whole or a part of the year. These workers are not regularly on the payroll of the establishment.

(vii) Number Employed: - includes all persons on the payroll whether seasonal or temporary workers. The number of seasonal and temporary workers has been adjusted to give equivalent of full-time worker.

(viii) Number Engaged: - includes paid employees and working proprietors. Active partners and unpaid family workers are also included here.

- (ix) Basic Wages and Salaries:** - includes all payments in cash made to employees during the reference year. It excludes commissions, bonuses, professional and hardship, allowances.
- (x) Wages and Salaries:** - includes all payments in cash or in kind made to employees during the reference year in connection with the work done for the establishments.
- (xi) Commissions, Bonuses, Professional and Hardship Allowances:** - refer to the total of commissions, bonuses and cost of living allowances paid in cash to employees. It excludes car allowance and per diem.
- (xii) Supplements to Wages and Salaries of Employees:** - represents payments made by the employer to social security systems, insurance premiums, etc on behalf of his employees.
- (xiii) Revenue from Sales:** - represents the total sales value of all products and by-products during the reference year, valued at market price.
- (xiv) Receipt from Industrial Services Rendered to Others:** - include all contract, repair and maintenance work done to others, with raw materials and spare parts supplied by the customer.
- (xv) Receipt of Products Bought and Resold:** - refers to revenue obtained from sales of all goods bought and resold during the reference year without any transformation or processing.
- (xvi) Other Receipts:** - include rental income from lease of machinery and equipment, income from sales of scrap, the value of fixed assets produced by the unit for its own use and other income.
- (xvii) Difference of Stocks in the Value of Finished Goods and Semi-Finished Goods:-**is the net change of stocks between the end and the beginning of the reference period in the value of finished and semi-finished goods.
- (xviii) Gross Value of Production:** - includes the sales value of all products of the establishment, the net change of stocks between the beginning and end of the reference period in the value of finished goods and the value of semi finished goods, the value of industrial services rendered to others, the value of goods bought and resold without any transformation or processing, and other receipts. The valuation of Gross Value of Production is in terms of producers' values where indirect taxes are included in the value of sales of the establishment and the value of subsidies received is excluded.
- (xix) Raw Materials:** - include all raw and auxiliary materials, parts and containers which are consumed during the reference year. The value of local raw materials is the value of locally produced raw materials and is the cost at the factory which includes the purchase price, transport charges, taxes and other incidental costs. The value of imported raw materials is the value of raw materials produced in other countries and obtained directly or from local source and is the cost at the factory which includes the purchase price, transport charges, taxes and other incidental costs.
- (xx) Other Industrial Services Rendered by Others:** - refer to contract, repair and maintenance work done by others in the reference year on materials controlled by the establishment. Included are also the cost of all goods purchased and resold without any transformation during the reference year and the cost of water consumed.
- (xxi) Industrial Cost:** - Includes the cost of raw materials, fuels, and other supplies consumed, cost of industrial services rendered by others, cost of goods bought and resold without any transformation or processing and cost of electricity consumed.
- (xxii) Non-industrial Cost:** - includes payments like professional fees, postage, telephone, insurance, advertising, hired transport, rental payments, etc. (interest, amortization and depreciation are excluded).

(xxiii) Census Value Added (at Market Price):- is the difference between Gross Value of production and Industrial cost. Census Value Added at market price minus indirect taxes net (i.e., indirect taxes less subsidies) gives census value added at factor cost.

(xxiv) Value Added in the National Account Concept (at Market Price):- is defined as the difference between the gross value of production and industrial and non-industrial costs.

(xxv) Value Added in the National Account Concept (at Factor Cost):- is the gross income from operating activities after adjusting for operating subsidies and indirect taxes.

(xxvi) Fixed Capital Assets: - are those with a productive life of one year or more which are intended for the use of the establishment including fixed assets made by the establishment's own labour force for its own use. They are valued in this report at book-value at the end of the reference year that is the net book value at the beginning, plus new capital expenditure minus those sold and disposed and depreciation during the reference year.

2.3 Methods of Data Collection and Field Organization

All CSA Statistical Branch Offices were involved in this survey. Accordingly, 25 statisticians form Branch Statistical Offices, about 157 enumerators and supervisors (105 from Addis Ababa Branch Office and 52 from other Branch Offices), and 9 statisticians form the Head Office and about 36 drivers (11 from Addis Ababa branch and 25 from the rest) were involved in the data collection activity.

In Addis Ababa Branch Statistical Office, where the majority of the establishments under the scope of the survey are located, enumerators were organized into teams and each team on the average constituted five enumerators and a field editor (a supervisor). The supervisor was provided with a four-wheel drive vehicle and a driver. At the Head Office, prior to the deployment of the teams, the list of the establishments under the scope of the survey were distributed among the teams, in accordance with their location. Then, each enumerator was assigned to collect data, on average, from 15 establishments. The data collection operation was carried out in collaboration with the concerned personnel of each establishment. Similar arrangement was in place in other branch offices. Overall, the data collection activity took 30-45 days in most of the regions of the country.

2.4 Data Processing

2.4.1 Editing, Coding and Verification

A number of quality control steps were taken to ensure the quality of data. The first step taken in this direction was, to revise the questionnaire, to make it easier for internal consistency checking or editing, both at field and office level. Furthermore, based on this revised questionnaire, revised instruction manual with field editing procedures were prepared in Amharic for both enumerators and supervisors (field editors). Using this manual, some editing and coding were carried out by field editors during the data collection stage.

After the majority of the completed questionnaires were brought back to head office, final editing, coding and verification were performed by editors, statistical technicians and statisticians. Finally, the edited and coded questionnaires were checked and verified by other senior professionals.

2.4.2 Data Entry, Cleaning and Tabulation

The data were entered and verified on personal computers using CSpro (Census and Survey Processing System) Software. Twelve CSA data entry staff and one data cleaner participated in this activity for fifteen days with close supervision of the activities by two professionals. Then, the data entered were cleaned using personal computers in combination with manual cleaning for some serious errors. Finally, the tabulation of the results was processed using the same software by one programmer with technical assistance from Industry, Trade and Services Statistics Department staff.

3. Summary of the Major Findings of the Survey

The distribution of Large and Medium Scale Manufacturing Industries by Regional States and major industrial groups is shown in Summary Table 3.1. The figures in the table indicate that, the total number of large and medium scale manufacturing establishments for the country as a whole stood at 1,074 in 1996 E.F.Y. (2003/2004). For the country as a whole, establishments classified under manufacture of food products and beverages industrial group constituted the largest share accounting for 30.0 percent of the total. The output by these industries among others include: flour, bread, edible oil, soft drinks, beer and alcohol drinks. Manufacture of furniture and manufacture of non-metallic mineral products, which represented 16.0 and 11.5 percent of the total, were in second and third position, respectively. That means the share of the three industrial groups combined was 57.4 percent of the total number of manufacturing industries, which indicates that, the Ethiopian Large and Medium Scale Manufacturing Industry is characterized by a high concentration of a limited range of manufacturing activities.

On the other hand, the figures in the same table reveal that, the distribution of large and medium scale manufacturing industries by Regional States of the country is highly skewed. Nearly half (56.9 percent) of the total large and medium scale manufacturing industries, which were operating in the reference year, were located in Addis Ababa. Following Addis Ababa, Oromiya, Amhara, S.N.N.P, Tigray and Dire Dawa regions covered 14.2, 9.8, 7.8, 6.5 and 2.2 percent of the total establishments, in that order.

The data shown in Summary Tables 3.2 and 3.3 refer to the total number of persons engaged and number of employees over five years period, i.e., from 1992-1996 E.F.Y. (1999/00 – 2003/04), respectively. In 1996 E.F.Y., there were 106,151 persons engaged, out of which, 105,381 were, employees in the sector. Number of persons engaged and employees during the survey period, showed an increase of 3.7 and 3.9 percent, compared to that of a year before, respectively. These increases in the number of persons engaged and employees could be attributed to the increase in the number of establishments covered in 1996 E.F.Y. An examination of the distribution of persons engaged and employees by major industrial groups reveals that manufacture of food and beverage and manufacture of textiles industrial groups, as could be expected, accommodated the largest number of employees. These two industrial groups, alone, contributed more than 51 percent in both number of persons engaged and number of employees throughout the period under review. The relative importance of the rest of the industrial groups in terms of employment varies between 0.2 percent in manufacture of machinery and equipment, to 8.7 percent in manufacture of non-metallic mineral products.

The percentage distribution of value added, which indicates the contribution level of, Large and Medium Scale Manufacturing Industries, to the total value added in the manufacturing sector, by industrial groups is given in Summary Table 3.4 for the period 1992-1996 E.F.Y. The data in this table make obvious, the fact that, food and beverages manufacturing industrial group's contribution to the value added, was significantly higher than the other industrial groups, throughout the period under review. During 1996 E.F.Y., about 45.0 percent of the total manufacturing value added was generated from manufacture of food and beverage industrial groups. Other important industrial groups in this respect are: manufacture of non-metallic mineral products, manufacture of chemicals and chemical products, manufacture of paper, paper

DISTRIBUTION OF LARGE AND MEDIUM SCALE MANUFACTURING INDUSTRIES BY REGIONAL STATES*
AND INDUSTRIAL GROUP - PUBLIC AND PRIVATE 2003/2004 (1996 E.F.Y)

SUMMARY TABLE - 3.1

INDUSTRIAL GROUP	REGIONAL STATES										TOTAL	PERCENTAGE
	TIGRAY	AFAR	AMHARA	OROMIYA	SOMALIE	S.N.N.P.	GAMBELLA	HARARI	ADDIS ABABA	DIREDAWA		
MANUFACTURE OF FOOD PRODUCTS AND BEVERAGES.....	15	-	31	69	5	12	1	4	174	11	322	29.98
MANUFACTURE OF TOBACCO PRODUCTS	-	-	-	-	-	-	-	-	1	-	1	.09
MANUFACTURE OF TEXTILES	2	2	5	-	-	4	1	-	23	1	38	3.54
MANUFACTURE OF WEARING APPAREL, EXCEPT FUR APPAREL....	2	-	-	1	-	2	-	-	31	1	37	3.45
TANNING AND DRESSING OF LEATHER; MANUFACTURE OF FOOTWEAR, LUGGAGE AND HANDBAGS	3	-	7	9	-	-	-	-	46	-	65	6.05
MANUFACTURE OF WOOD AND OF PRODUCTS OF WOOD AND CORK, EXCEPT FURNITURE	-	-	1	4	-	3	-	-	12	-	20	1.86
MANUFACTURE OF PAPER, PAPER PRODUCTS AND PRINTING	4	-	4	4	-	1	-	1	82	2	98	9.12
MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS.....	1	1	-	8	-	1	-	-	34	1	46	4.28
MANUFACTURE OF RUBBER AND PLASTIC PRODUCTS	-	-	-	7	-	-	-	-	35	-	42	3.91
MANUFACTURE OF OTHER NON-METALLIC MINERAL PRODUCTS ...	13	3	15	25	-	19	-	3	43	2	123	11.45
MANUFACTURE OF BASIC IRON AND STEEL.....	1	-	1	1	-	-	-	-	10	-	13	1.21
MANUFACTURE OF FABRICATED METAL PRODUCTS EXCEPT MACHINERY AND EQUIPMENT	18	-	6	7	-	4	-	-	42	1	78	7.26
MANUFACTURE OF MACHINERY AND EQUIPMENT N.E.C.	-	-	-	-	-	-	-	-	10	1	11	1.02
MANUFACTURE OF MOTOR VEHICLES, TRAILERS & SEMI-TRAILERS	1	-	-	1	-	-	-	-	6	-	8	.74
MANUFACTURE OF FURNITURE; MANUFACTURING N.E.C.	10	-	35	16	1	38	-	6	62	4	172	16.01
T O T A L	70	6	105	152	6	84	2	14	611	24	1,074	100.00
%	6.52	.56	9.78	14.15	.56	7.82	.19	1.30	56.89	2.23	100.00	

* THE AREAL COVERAGE OF THE SURVEY EXCLUDES BENISHANGUL-GUMUZ REGION, WHERE THERE ARE NO MANUFACTURING ESTABLISHMENTS, THAT FALL WITHIN THE SCOPE OF THE SURVEY

products and printing, manufacture of rubber and plastics products, manufacture of tobacco products and tanning and dressing of leather, which together contributed about 41.9 percent in 1996 E.F.Y. However, it is important to note here that, despite their big share in the total value added, the contribution of manufacture of food products and beverages, manufacture of wearing apparel, manufacture of wood and products of wood, except furniture, manufacture of non-metallic mineral products, manufacture of motor vehicles, trailers and semi-trailers and manufacture of furniture, declined, while the share of the remaining nine industrial groups increased in 1996 E.F.Y., as compared to that of 1995 E.F.Y. Furthermore, the textile manufacturing industrial group, being the second most important in terms of employment creation, its share in manufacturing value added however, was ranked eighth in 1996 E.F.Y.

Summary Table 3.2: Number of Persons Engaged by Major Industrial Group - Public and Private 1992 - 1996 E.F.Y (1999/00 - 2003/04)

Division of ISIC Rev. 3	Major Industrial Group	Year (E.F.Y)				
		1992	1993	1994	1995	1996
		Number of Persons Engaged				
15	Manufacture of Food Products and Beverages	28,547	27,460	29,133	30,840	31,589
16	Manufacture of Tobacco Products	854	822	792	792	785
17	Manufacture of Textiles	23,754	24,296	22,388	21,957	22,914
18	Manufacture of Wearing Apparel, Except Fur Apparel	3,773	3,733	3,716	4,312	3,840
19	Tanning and Dressing of Leather; Manufacture of Footwear, Luggage and Handbags	7,034	7,074	6,757	7,278	7,718
20	Manufacture of Wood and Products of Wood and Cork, Except Furniture	1,138	1,035	1,329	1,694	1,639
21 - 22	Manufacture of Paper, Paper Products and Printing	5,911	5,533	6,179	6,424	6,955
24	Manufacture of Chemicals and Chemical Products	4,451	4,298	5,079	5,102	5,075
25	Manufacture of Rubber and Plastic Products	3,157	3,409	4,331	4,429	4,412
26	Manufacture of Other Non-Metallic Mineral Products	7,349	7,510	8,354	8,049	9,266
27	Manufacture of Basic Iron and Steel	1,166	1,100	1,449	1,466	1,700
28	Manufacture of Fabricated Metal Products Except Machinery and Equipment	2,529	2,659	2,808	3,488	3,516
29	Manufacture of Machinery and Equipment N.E.C.	292	177	202	260	267
34	Manufacture of Motor Vehicles, Trailers and Semi-Trailers	1,735	1,062	1,087	1,021	1,132
36	Manufacture of Furniture; Manufacturing N.E.C.	4,169	4,364	5,382	5,235	5,343
	Total	95,859	94,532	98,986	102,347	106,151

The data in Summary Table 3.5 refer to the ratio of cost of imported raw materials to that of the total cost of raw materials consumed by major industrial groups for the period 1992-1996 E.F.Y. In general, the industrial groups which had the highest rates in the previous years continued to do

so in the survey year as well. The steady high ratio of imported raw materials to the total cost of raw materials consumed, over the five years period, is an indication of the dependency of large and medium scale manufacturing industries in the country, on imported raw materials. The

Summary Table 3.3: Number of Employees by Major Industrial Group - Public and Private 1992 - 1996 E.F.Y (1999/00 - 2003/04)

Division of ISIC Rev. 3	Major Industrial Group	Year (E.F.Y)				
		1992	1993	1994	1995	1996
		Number of Employees				
15	Manufacture of Food Products and Beverages	28,324	27,260	28,860	30,570	31,359
16	Manufacture of Tobacco Products	854	822	792	792	785
17	Manufacture of Textiles	23,747	24,284	22,373	21,938	22,900
18	Manufacture of Wearing Apparel, Except Fur Apparel	3,752	3,720	3,681	4,278	3,806
19	Tanning and Dressing of Leather; Manufacture of Footwear, Luggage and Handbags	6,989	7,040	6,740	7,232	7,665
20	Manufacture of Wood and Products of Wood and Cork, Except Furniture	1,124	1,033	1,313	1,669	1,616
21 - 22	Manufacture of Paper, Paper Products and Printing	5,888	5,519	6,142	6,405	6,940
24	Manufacture of Chemicals and Chemical Products	4,438	4,291	5,072	5,094	5,071
25	Manufacture of Rubber and Plastic Products	3,144	3,401	4,326	4,424	4,410
26	Manufacture of Other Non-Metallic Mineral Products	7,269	7,328	8,232	7,835	9,138
27	Manufacture of Basic Iron and Steel	1,164	1,100	1,448	1,466	1,699
28	Manufacture of Fabricated Metal Products Except Machinery and Equipment	2,482	2,477	2,740	3,412	3,453
29	Manufacture of Machinery and Equipment N.E.C.	275	172	190	244	256
34	Manufacture of Motor Vehicles, Trailers and Semi-Trailers	1,729	1,060	1,082	1,019	1,130
36	Manufacture of Furniture; Manufacturing N.E.C.	3,979	4,230	5,145	5,026	5,153
	Total	95,158	93,737	98,136	101,404	105,381

overall dependency ratio, i.e., for all industrial groups combined, showed a fluctuation throughout the years under review. Manufacture of basic iron and steel, manufacture of machinery and equipment N.E.C, manufacture of rubber and plastics products, manufacture of motor vehicles, trailers and semi- trailers, manufacture of fabricated metal products, manufacture of chemicals and products, manufacture of paper, paper products and printing, and manufacture of wood and products of wood and cork, except furniture, consumed the highest proportion of imported raw materials, to that of the total cost of raw materials, ranging from 56.0 to 99.0 percent in 1996 E.F.Y.

As shown in Summary Table 3.6, where per capita and ratios of major manufacturing indicators are summarized, in 1996 E.F.Y., wages and salaries paid per employee, gross value of production per employee, value added per employee and operating surplus per employee, have shown an increase by 4.5, 15.9, 6.1 and 6.8 percent, respectively, compared to that of 1995

E.F.Y., while value of fixed assets per employee showed a decrease of 4.0 percent in the same year. Among the ratios presented in the table, fixed assets to gross value of production, cost of labour to gross value of production, value added to gross value of production and operating surplus to gross value of production declined, while industrial cost to gross value of production, and value added to total fixed capital, showed an increase; whilst cost of energy to gross value of production remained unchanged during the stated period.

Summary Table 3.4: Percentage Distribution of Value Added* by Major Industrial Group - Public and Private 1992 - 1996 E.F.Y (1999/00 - 2003/04)

Division of ISIC Rev. 3	Major Industrial Group	Year (E.F.Y)				
		1992	1993	1994	1995	1996
Value Added in Percent						
15	Manufacture of Food Products and Beverages	45.03	50.82	45.41	46.88	45
16	Manufacture of Tobacco Products	4.6	2.76	4.07	3.5	5.27
17	Manufacture of Textiles	5.84	5.94	4.94	4.15	4.23
18	Manufacture of Wearing Apparel, Except Fur Apparel	.66	.57	.64	.90	.74
19	Tanning and Dressing of Leather; Manufacture of Footwear, Luggage and Handbags	4.54	4.76	6.8	4.37	5.02
20	Manufacture of Wood and Products of Wood and Cork, Except Furniture	.55	.69	.76	1.03	0.84
21 - 22	Manufacture of Paper, Paper Products and Printing	5.82	5.85	6.57	5.53	6.21
24	Manufacture of Chemicals and Chemical Products	5.17	4.64	5.33	5.71	6.67
25	Manufacture of Rubber and Plastic Products	4.52	5.68	6.08	5.97	6.21
26	Manufacture of Other Non-Metallic Mineral Products	8.91	8.64	9.7	13.75	12.55
27	Manufacture of Basic Iron and Steel	2.13	2.03	3.08	2.37	3.67
28	Manufacture of Fabricated Metal Products Except Machinery and Equipment	1.43	1.63	2	1.93	2.72
29	Manufacture of Machinery and Equipment N.E.C.	.09	.10	.07	.06	.09
34	Manufacture of Motor Vehicles, Trailers and Semi-Trailers	8.93	4.27	2.51	1.6	-1.23
36	Manufacture of Furniture; Manufacturing N.E.C.	1.77	1.61	2.05	2.27	1.99
	Total	100.00	100.00	100.00	100.00	100.00

* In the national account concept at factor cost

The ratio of cost of energy consumed to total industrial cost by major industrial groups for the period 1992-1996 E.F.Y. is presented in Summary Table 3.7. The figures in this table indicate that, non-metallic mineral products manufacturing, recorded the highest proportion of cost of energy consumed to the total industrial cost, throughout the period under review, exhibiting more than 46.0 percent. This large proportion is mainly due to the high energy requirement by cement and glass and glass products manufacturing establishments. The proportion of cost of energy to

industrial cost for non-metallic industries evidenced a fluctuating trend throughout the period under review. In this respect, the proportion for this industrial group alone ranged from 46.0 to 57.0 percent from 1992-1996 E.F.Y. Following non-metallic mineral products, the highest energy consumption, compared to their industrial cost was observed in manufacture of wood and products of wood. The share for manufacture of wood and products of wood showed a slight increase in 1996 E.F.Y. as compared to 1995 E.F.Y. Nevertheless, the total cost of energy consumed to total industrial cost has shown a decreasing sign for the first time in 1996 E.F.Y.

Summary Table 3.5: Ratio of Imported to Total Consumed Raw Material Costs by Major Industrial Group -

Public and Private 1992 - 1996 E.F.Y (1999/00 - 2003/04)

Division of ISIC Rev. 3	Major Industrial Group	Year (E.F.Y)				
		1992	1993	1994	1995	1996
		Ratio of imported raw material				
15	Manufacture of Food Products and Beverages	.278	.193	.250	.220	.214
16	Manufacture of Tobacco Products	.782	.726	.798	.798	.368
17	Manufacture of Textiles	.314	.242	.259	.290	.311
18	Manufacture of Wearing Apparel, Except Fur Apparel	.174	.070	.099	.257	.163
19	Tanning and Dressing of Leather; Manufacture of Footwear, Luggage and Handbags	.270	.198	.230	.216	.184
20	Manufacture of Wood and Products of Wood and Cork, Except Furniture	.577	.631	.568	.546	.564
21 - 22	Manufacture of Paper, Paper Products and Printing	.524	.593	.732	.754	.712
24	Manufacture of Chemicals and Chemical Products	.737	.770	.772	.732	.779
25	Manufacture of Rubber and Plastic Products	.957	.963	.826	.850	.940
26	Manufacture of Other Non-Metallic Mineral Products	.332	.188	.047	.298	.170
27	Manufacture of Basic Iron and Steel	.983	.992	.992	.992	.990
28	Manufacture of Fabricated Metal Products Except Machinery and Equipment	.819	.873	.899	.890	.850
29	Manufacture of Machinery and Equipment N.E.C.	.582	.405	.945	.923	.942
34	Manufacture of Motor Vehicles, Trailers and Semi-Trailers	.912	.873	.892	.934	.926
36	Manufacture of Furniture; Manufacturing N.E.C.	.427	.353	.416	.423	.442
	Total	.516	.455	.452	.437	.471

The ratio in Summary Table 3.8 depicts the share of value added in gross value of production by major industrial groups. The share of the industrial groups like that of manufacture of tobacco products, tanning and dressing of leather, manufacture of chemical and chemical products, manufacture of rubber and plastic products, manufacture of fabricated metal products, manufacture of machinery and equipment N.E.C and manufacture of furniture recorded an increase, while the ratio of the remaining eight industrial groups declined in 1996 E.F.Y., as

compared to a year before. On the other hand the share of value added in gross value of production for all industrial groups combined, has decreased during the survey year.

**Summary Table 3.6: Per Capita and Ratios of Major Indicators -
Public and Private 1992 - 1996 E.F.Y (1999/00 - 2003/04)**

Major Industrial Group	Year (E.F.Y)				
	1992	1993	1994	1995	1996
	Per Capita				
Wage and Salaries Paid Per Employee	6,337	7,025	7,575	7,913	8,268
Gross Value of Production Per Employee	85,469	90,035	82,454	88,993	103,166
Value Added* Per Employee	23,956	25,270	22,557	25,397	26,937
Operating Surplus Per Employee	17,619	18,245	14,983	17,484	18,669
Value of Fixed Asset Per Employee	54,855	63,743	63,073	64,370	61,790
	Ratio				
Fixed Assets to Gross Value of Production	.642	.708	.765	.723	.599
Cost of Labour to Gross Value of Production	.074	.078	.092	.089	.080
Industrial Costs to Gross Value of Production	.529	.530	.512	.504	.513
Cost of Energy to Gross Value of Production	.040	.048	.048	.055	.055
Value Added* to Gross Value of Production	.280	.281	.274	.285	.261
Operating Surplus to Gross Value of Production	.206	.203	.182	.196	.181
Value Added* to Total Fixed Capital	.437	.396	.358	.395	.436

* In the national account concept at factor cost

The ratio of cost of labour to gross value of production for major industrial groups, which roughly measures, labour productivity, is treated in Summary Table 3.9. It is evident from the data in this table, that, the ratio of cost of labour to gross value of production varies across major industrial groups. In 1996 E.F.Y., the highest and lowest ratios were registered in manufacture of wearing apparel and manufacture of basic iron and steel, respectively. Ratio of cost of labour to gross value of production for all manufacturing industries combined, showed slight fluctuation from year to year during the period under review.

The ratio of operating surplus to gross value of production by major industrial groups and for all manufacturing industrial groups combined is presented in Summary Table 3.10. The share of eight out of fifteen major industrial groups and the overall average exhibited a decrease in 1996 E.F.Y. against that of 1995 E.F.Y. The data further indicate that, manufacture of textiles and manufacture of motor vehicles, trailers and semi-trailers, recorded a negative ratio of operating surplus to gross value of production in 1996 E.F.Y.

Summary Table 3.7: Ratio of Cost of Energy Consumed to Total Industrial Cost by Major Industrial Group - Public and Private 1992 - 1996 E.F.Y (1999/00 - 2003/04)

Division of ISIC Rev. 3	Major Industrial Group	Year (E.F.Y)				
		1992	1993	1994	1995	1996
		Ratio of cost of energy consumed				
15	Manufacture of Food Products and Beverages	.056	.072	.074	.075	.108
16	Manufacture of Tobacco Products	.009	.008	.008	.008	.009
17	Manufacture of Textiles	.122	.125	.141	.104	.092
18	Manufacture of Wearing Apparel, Except Fur Apparel	.025	.057	.030	.022	.019
19	Tanning and Dressing of Leather; Manufacture of Footwear, Luggage and Handbags	.024	.022	.018	.016	.021
20	Manufacture of Wood and Products of Wood and Cork, Except Furniture	.237	.230	.224	.221	.240
21 - 22	Manufacture of Paper, Paper Products and Printing	.041	.063	.055	.054	.054
24	Manufacture of Chemicals and Chemical Products	.028	.041	.035	.037	.040
25	Manufacture of Rubber and Plastic Products	.080	.085	.093	.083	.086
26	Manufacture of Other Non-Metallic Mineral Products	.473	.568	.484	.518	.460
27	Manufacture of Basic Iron and Steel	.036	.012	.022	.024	.014
28	Manufacture of Fabricated Metal Products Except Machinery and Equipment	.075	.053	.063	.070	.054
29	Manufacture of Machinery and Equipment N.E.C.	.053	.040	.064	.037	.022
34	Manufacture of Motor Vehicles, Trailers and Semi-Trailers	.003	.010	.010	.018	.014
36	Manufacture of Furniture; Manufacturing N.E.C.	.020	.028	.023	.020	.026
	Total	.076	.090	.095	.109	.106

Summary Table 3.8: Ratio of Value Added* to Gross Value of Production by Major Industrial Group - Public and Private 1992 - 1996 E.F.Y (1999/00 - 2003/04)

Division of ISIC Rev. 3	Major Industrial Group	Year (E.F.Y)				
		1992	1993	1994	1995	1996
		Ratio of value added* to gross value of production				
15	Manufacture of Food Products and Beverages	.308	.361	.321	.337	.320
16	Manufacture of Tobacco Products	.401	.261	.351	.351	.411
17	Manufacture of Textiles	.221	.201	.162	.142	.126
18	Manufacture of Wearing Apparel, Except Fur Apparel	.239	.244	.246	.317	.244
19	Tanning and Dressing of Leather; Manufacture of Footwear, Luggage and Handbags	.175	.134	.182	.142	.175
20	Manufacture of Wood and Products of Wood and Cork, Except Furniture	.367	.405	.409	.431	.409
21 - 22	Manufacture of Paper, Paper Products and Printing	.385	.365	.337	.328	.288
24	Manufacture of Chemicals and Chemical Products	.252	.212	.230	.256	.261
25	Manufacture of Rubber and Plastic Products	.271	.307	.288	.315	.316
26	Manufacture of Other Non-Metallic Mineral Products	.339	.322	.309	.346	.302
27	Manufacture of Basic Iron and Steel	.206	.119	.150	.160	.137
28	Manufacture of Fabricated Metal Products Except Machinery and Equipment	.281	.255	.271	.228	.258
29	Manufacture of Machinery and Equipment N.E.C.	.351	.411	.263	.162	.179
34	Manufacture of Motor Vehicles, Trailers and Semi-Trailers	.211	.178	.243	.217	-.126
36	Manufacture of Furniture; Manufacturing N.E.C.	.317	.323	.322	.299	.333
	Total	.280	.281	.274	.285	.261

* In the national account concept at factor cost

**Summary Table 3.9: Ratio of Cost of Labour to Gross Value of Production by Major Industrial Group -
Public and Private 1992 - 1996 E.F.Y (1999/00 - 2003/04)**

Division of ISIC Rev. 3	Major Industrial Group	Year (E.F.Y)				
		1992	1993	1994	1995	1996
		Ratio of cost of labour				
15	Manufacture of Food Products and Beverages	.059	.066	.086	.081	.076
16	Manufacture of Tobacco Products	.038	.046	.053	.053	.036
17	Manufacture of Textiles	.185	.162	.177	.153	.154
18	Manufacture of Wearing Apparel, Except Fur Apparel	.243	.295	.290	.294	.242
19	Tanning and Dressing of Leather; Manufacture of Footwear, Luggage and Handbags	.090	.072	.074	.073	.067
20	Manufacture of Wood and Products of Wood and Cork, Except Furniture	.198	.163	.177	.175	.194
21 - 22	Manufacture of Paper, Paper Products and Printing	.123	.125	.122	.125	.099
24	Manufacture of Chemicals and Chemical Products	.062	.059	.073	.077	.064
25	Manufacture of Rubber and Plastic Products	.064	.064	.069	.072	.069
26	Manufacture of Other Non-Metallic Mineral Products	.080	.085	.082	.070	.063
27	Manufacture of Basic Iron and Steel	.050	.035	.037	.051	.028
28	Manufacture of Fabricated Metal Products Except Machinery and Equipment	.133	.129	.124	.121	.100
29	Manufacture of Machinery and Equipment N.E.C.	.199	.181	.174	.129	.084
34	Manufacture of Motor Vehicles, Trailers and Semi-Trailers	.016	.026	.057	.081	.071
36	Manufacture of Furniture; Manufacturing N.E.C.	.171	.189	.181	.134	.170
	Total	.074	.078	.092	.089	.080

Summary Table 3.10: Ratio of Operating Surplus to Gross Value of Production by Major Industrial Group

Public and Private 1992 - 1996 E.F.Y (1999/00 - 2003/04)

Division of ISIC Rev. 3	Major Industrial Group	Year (E.F.Y)				
		1992	1993	1994	1995	1996
		Ratio of operating Surplus				
15	Manufacture of Food Products and Beverages	.248	.295	.235	.257	.244
16	Manufacture of Tobacco Products	.364	.215	.297	.297	.375
17	Manufacture of Textiles	.035	.039	-.015	-.011	-.028
18	Manufacture of Wearing Apparel, Except Fur Apparel	-.005	-.051	-.044	.022	.002
19	Tanning and Dressing of Leather; Manufacture of Footwear, Luggage and Handbags	.085	.063	.108	.069	.109
20	Manufacture of Wood and Products of Wood and Cork, Except Furniture	.168	.243	.231	.257	.216
21 - 22	Manufacture of Paper, Paper Products and Printing	.262	.241	.215	.203	.188
24	Manufacture of Chemicals and Chemical Products	.190	.153	.157	.179	.196
25	Manufacture of Rubber and Plastic Products	.207	.242	.219	.243	.247
26	Manufacture of Other Non-Metallic Mineral Products	.259	.237	.227	.277	.239
27	Manufacture of Basic Iron and Steel	.156	.084	.113	.108	.109
28	Manufacture of Fabricated Metal Products Except Machinery and Equipment	.148	.126	.147	.106	.158
29	Manufacture of Machinery and Equipment N.E.C.	.152	.229	.088	.033	.095
34	Manufacture of Motor Vehicles, Trailers and Semi-Trailers	.195	.152	.186	.136	-.198
36	Manufacture of Furniture; Manufacturing N.E.C.	.146	.134	.141	.165	.164
	Total	.206	.203	.182	.196	.181

Establishments that worked less than 12 months during the reference period were asked to state their reasons for not working the whole year during the reference period and the results are presented in Summary Table 3.11. It can be observed that among the total establishments which operated less than 12 months, during the reference period, 30.9 percent and 23.1 percent indicated that shortage of supply of raw materials and absence of market demand stood as the first and second major reasons, respectively.

In a similar note to the above, establishments which were not working at full capacity were asked to state their reasons for working below capacity during the reference period and the responses are displayed in Summary Table 3.12. Absence of market demand and shortage of supply of raw materials emerged as the first and second major causes for under utilization of capacity.

In a similar way, the data in Summary Table 3.13 depict the first major problems faced by establishments during the survey period. As the data in the table indicate, about 33.6 percent of the establishments reported that the first major current operating difficulty was absence of market demand for their products, followed by shortage of supply of raw materials which were reported by about 26.9 percent of the total establishments.

**FIG. I Gross Value of Production at Current Price by
Ownership 1992 - 1996 E.F.Y (1999/00 - 2003/04)**

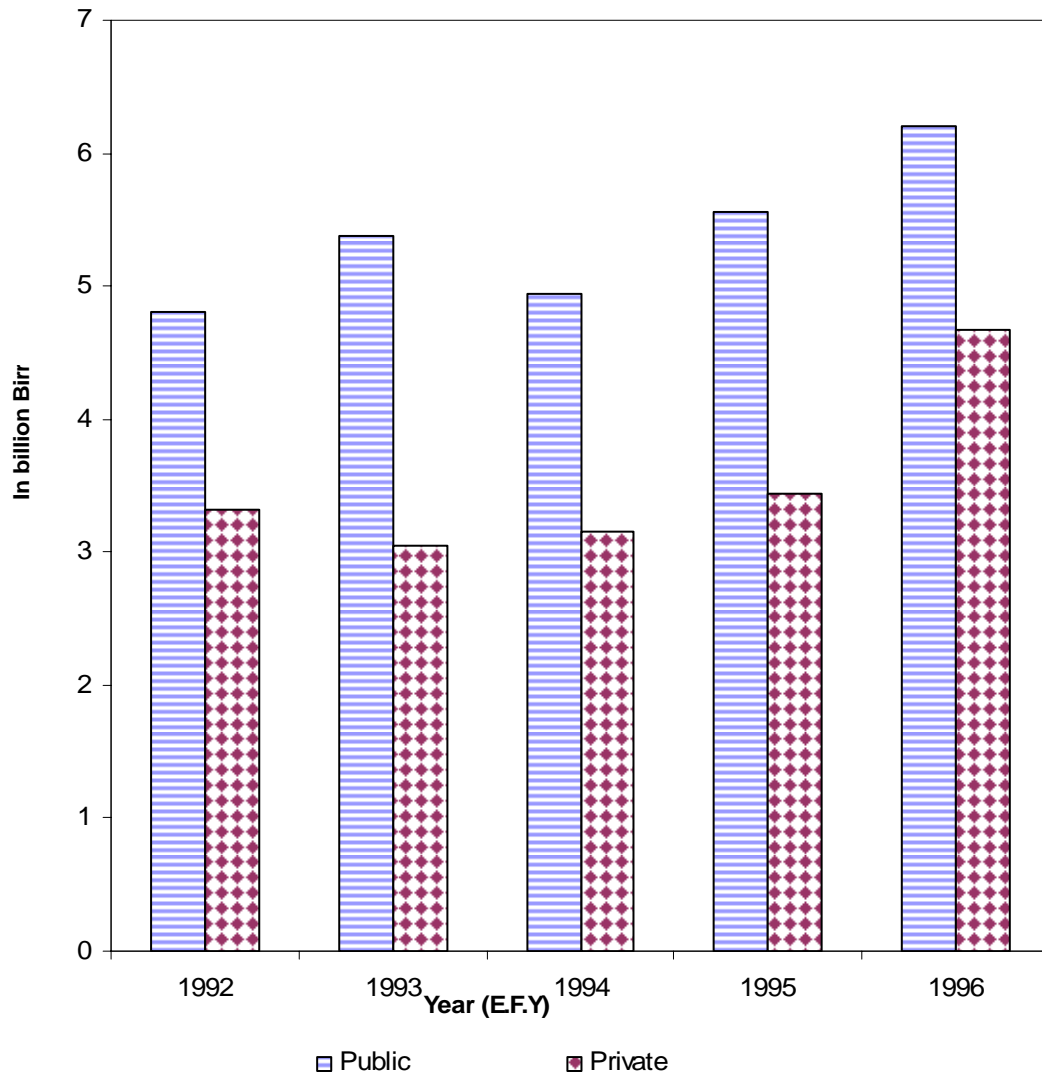


FIG. II Value Added by Ownership
1992 - 1996 E.F.Y (1999/00 - 2003/04)

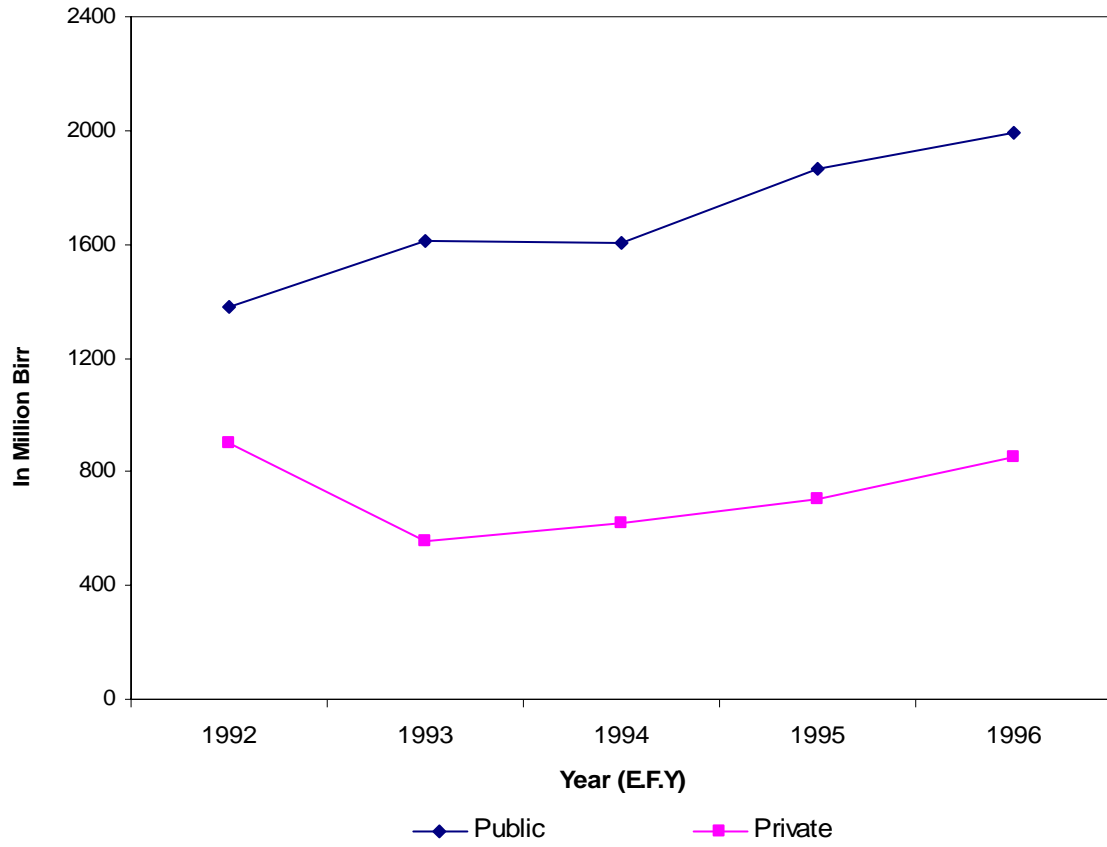
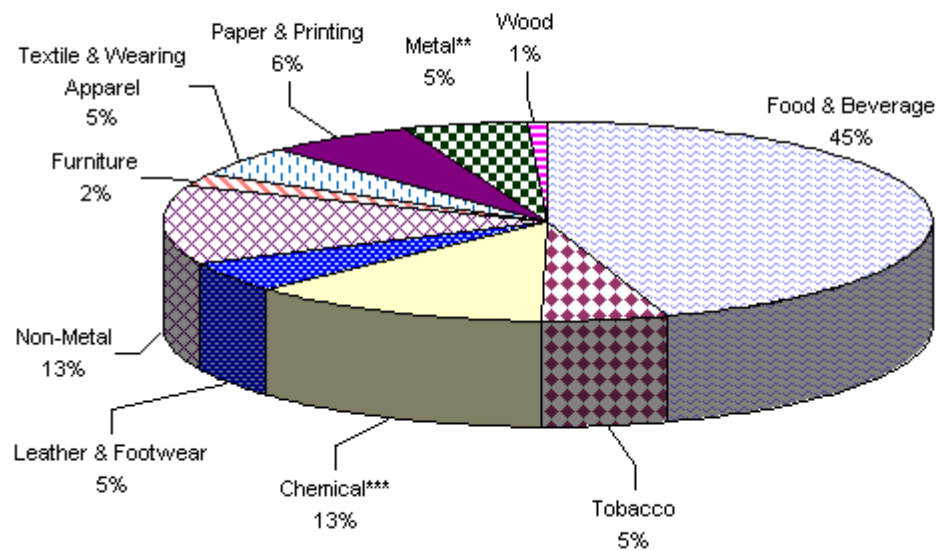


FIG. III Percentage Distribution of Value Added*
by Major Industrial Group 1996 E.F.Y (2003/04)

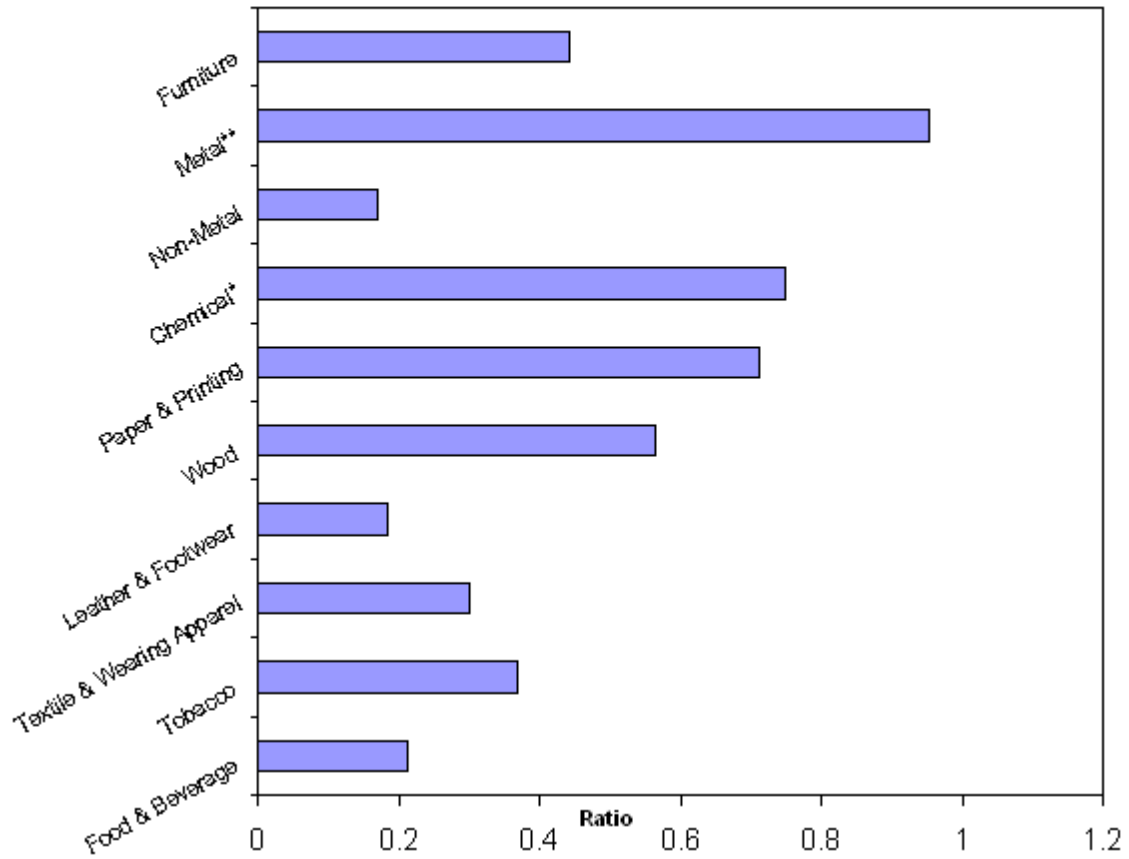


* In the National Account Concept at Factor Cost

** Includes Basic Iron, Fabricated Metal, Machinery and Motor Vehicles

*** Includes Rubber and Plastic

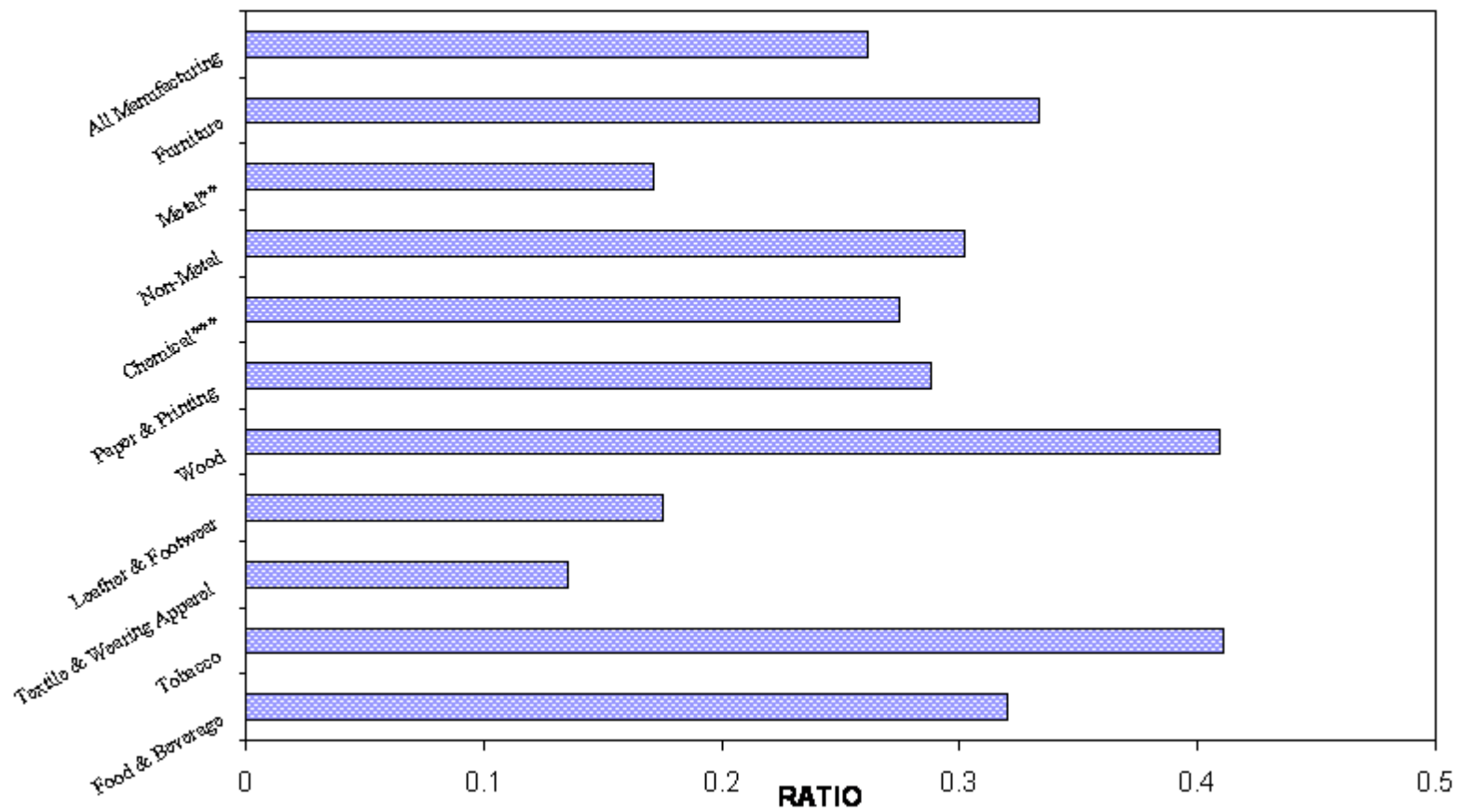
**FIG. IV Ratio of Imported to Total Raw Material Cost
by Major Industrial Group 1996 E.F.Y 2003/04**



* INCLUDES RUBBER AND PLASTICS

** INCLUDES BASIC IRON, FABRICATED METAL, MACHINERY AND MOTOR VEHICLES

**FIG. V - Ratio of Value Added* to Gross Value of Production
1996 E.F.Y (2003/2004)**



* In the National Account Concept at Factor Cost

** Includes Basic Iron, Fabricated Metal, Machinery and Motor Vehicles

*** Includes Rubber and Plastic

FIG. VI - Installed Generating Capacity of Electricity
1992 - 1996 E.F.Y (1999/00 - 2003/04)

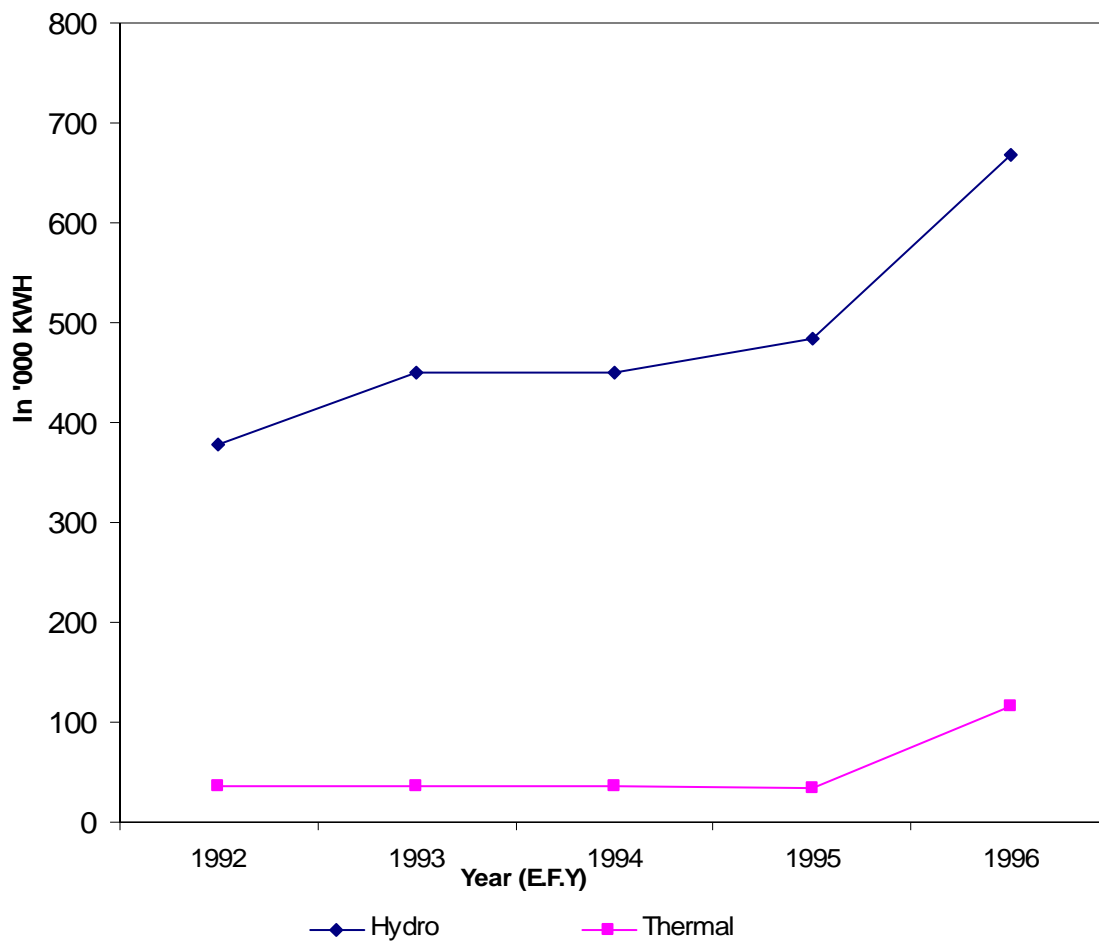


FIG. VII - Production of Electricity
1992 - 1996 E.F.Y (1999/00 - 2003/04)

