

CHAPTER VI

UNREGISTERED MANUFACTURING

Coverage

6.1. Unregistered manufacturing sector covers all manufacturing units which are not registered under the Indian Factories Act, 1948. In other words, it covers all manufacturing units employing less than 10 workers if using power, or less than 20 workers if not using power. All manufacturing and processing activities, including repair and maintenance services undertaken by households and non-household units are included. However, hand pounding of rice, conversion of sugarcane into gur, slaughtering of animals for meat and preparation of milk products (except khoa, ice cream and chhana) are left out of the scope of the sector and included under agriculture and allied activities.

Methodology and Source Material Estimates at current and constant prices

6.2. Estimates of gross domestic product at constant prices are worked out first and the current price estimates are derived therefrom. The estimates are prepared using the production approach. The method followed consists of preparing the estimates of gross value added for the bench mark year (1970-71) and carrying these forward to other years on the basis of appropriate indicators of physical output/input.

Bench-Mark Year Estimates

6.3. The industry is divided into two subsectors, viz., (i) manufacturing household and (ii) manufacturing non-household and estimates of value added in the two sub-sectors are prepared separately. Broadly speaking, the benchmark estimate of value added in either of the sub-sectors is worked out using respective estimates of value added per worker and working force.

Unregistered manufacturing household

6.4. The estimates of value added per person are based on the results of NSS surveys on small scale manufacture and self-employed households in non-agricultural enterprises carried out in the NSS 23rd and 29th rounds³⁰ respectively. These results provide the all-India rural-urban break-

up of some selected key items of information such as household and hired labour, value of fixed and working capital, value of output, input and value added per enterprise for each of the industry groups. For the Twenty-ninth round, statewise results are also available. The value added per worker by groups in 1970-71 are arrived at using the results of both Twentythird and Twenty-ninth round surveys which have the reference periods 1968-69 and 1974-75 respectively. The value added per worker as available from the NSS Report No. 205, Some Results on Small Scale Manufacturing in Rural and Urban Areas 23rd Round: 1968-69 (NSSO, 1975) is moved forward to obtain the corresponding estimates for 1970-71 and 1974-75. The indices used for the purpose are the index of wages of rural skilled workers (specially prepared by CSO using data obtained from the Ministry of Agriculture) and of urban factory workers published by the Labour Bureau. figures so obtained are compared with the 1974-75 figures available from the NSS Draft Report No. 280/6, Tables with Notes on Survey of Selfemployed Households in Non-agricultural Enterprises—Detailed Results, 29th Round: 1974-75 (NSSO, 1978) yielding and adjustment fac-The estimates for different years are adjusted on a prorata³¹ basis for the difference between the projected and actual figure as obtained from the NSS 29th round for the year 1974-75 to obtain a set of estimates compatible with the results of both the NSS rounds.

6.5. The 1971 population census provides industrywise figures of principal workers engaged in household manufacturing, separately for rural and urban areas. These figures, which relate to 1 April 1971 are adjusted to correspond to the mid-financial year 1970-71. This has been obtained by using the rate of change between 1961 and 1971 by industry groups. For the purpose the 1961 census figures are first adjusted to conform to the 1971 census concept of worker on the basis of the 'Report on Resurvey on Economic Question—Some results' by the Registrar General³². In the 1971 population census, information on secondary occupations has also been collected but the results have

 $X'_{4}=X_{2}-\left[\frac{X_{4}-X_{0}}{X_{4}-X_{0}}\right]X_{6}-Y$

³⁰. Twenty Third round:—'Some Results on Small Scale Manufacturing in Rural and Urban Areas 1968-69, (NSS Report No. 205).

Twenty Ninth Round:— 'Tables with Notes on Survey of Self-employed Households in Non-agricultural Enterprises 1974-75' (NSS Report No. 280/6).

³¹. Is X₀ is the value added per worker for the year 1968-69 and X₁, X₂, X₆ are the projected figures for the years 1969-70, 1970-71, 1974-75, and Y is the value added per worker for 1974-75 from the 20th round, then adjusted value added per worker (X'₂) for 1970-71 is

^{32.} The method of adjustment for the working force to correspond to the mid financial year 1970-71 has been described in the Chapter XV relating to Working Force.



been tabulated for household industry as a whole and not separately by industry groups thereunder. Since the estimates of value added per worker based on NSS data relate to persons having household industry as their principal as well as secondary occupation, it is necessary to add to the census figures of working force, the number of persons engaged in household manufacturing industry as their secondary occupation. This is done by making use of the proportion of persons with household manufacturing as secondary occupation to those following household manufacturing as their principal occupation. This proportion is worked out using the data on principal and secondary workers based, on the NSS 23rd round unpublished results separately by 16 industry groups³³ and by rural and urban areas. A table of correspondence between the 16 industry groups followed in National counts Statistics and the 23 industry groups of the 23rd round of NSS is given at Appendix The estimates of gross value added per person alongwith figures of working force and estimates of gross value added in the household manufacturing subsector for the benchmark year are presented in Appendix 6.4. Since the estimates of gross value added for the year 1974-75 are prepared directly using data on value added per worker as available in the NSS Draft Report (No. 280/6, Tables with Notes on Survey of Self-employed Households in Non-agricultural Enterprises Detailed Results, 29th Round: 1974-75) (NSSO, 1978). The estimates for 1974-75 have also been presented. The working force for 1974-75 has been obtained by projecting the corresponding estimates for 1971 with the help of the growth observed in the number between 1968-69 and 1974-75 on the basis of the NSS 23rd round and 29th round Adjustment for secondary workers in results. 1974-75 has been made on the basis of data available from NSS the 29th round results. Details of estimates are given in Appendix 6.5.

Unregistered manufacturing non-household

6.6. The 1971 population census gives for individual industries the number of workers engaged in non-household manufacturing units. After obtaining the corresponding estimates for mid-financial year 1970-71, these are netted out for workers employed in various industries in registered manufacturing sector to obtain the corresponding estimates for manufacturing (unregistered)—non-household sector. The employment data on registered manufacturing industry are from the ASI 1970 (census and sample sectors) duly adjusted for non-reporting in the census sector. The total employment thus obtained is bifurcated into rural and urban with the help of rural-urban employment ratios derived

from the Establishment Tables of 1971 Population Census.

- 6.7. The NSS surveys cover effectively the household establishments only and do not provide information on value added per worker for the non-household enterprises. However data are available from the results of the survey conducted under the Centrally Sponsored Scheme on Survey of Small Scale Industries (CSSI) which was launched by the Ministry of Industrial Development for the collection of data in the urban non-household sub-sector with 1970-71 as the reference period and also from the All-India Report on the Census of Small scale Industrial Units (1972) covering primarily urban areas. published by the Development Commissioner, Small Scale Industries (DCSSI) in 1977. The results of these survey and census have been used to estimate value added per worker in the urhan unorganised manufacturing-non-household establishments. As the census results pertains to 1972, the value added per worker derived there from is brought back to 1970 with the help of an index of earnings of factory workers earning upto Rs. 400 p.m. (ILB). These estimates level. combined industry group are with similar estimates based on CSS to give the value added per person in urban areas for the non-household segment for the year 1970-71.
- 6.8. The above estimates of value added per worker together with census based urban working force figures give the estimates of gross value added for each of the 16 industry groups. In the absence of similar survey/census results for rural areas, the rural and urban differentials of value added per person (observed in the NSS 23rd round) are used to botain the corresponding rural values. These are multiplied by the rural working force estimates for the groups of industries to detain the gross value added. These estimates separately for rural and urban areas are presented in Appendix 6.6.
- 6.9. The estimates for household and non-household manufacturing (unregistered) are added to yield the total gross value added for each of the sixteen industry groups for the bench mark year, viz., 1970-71.

Estimates for other Years

- 6.10. The estimates of gross value added for other years are worked out first at base year prices by carrying forward the bench mark estimates with the help of suitable physical indicators of output/input.
- 6.11. For food products, the physical indicator used is a combined index of production of wheat, rice, sugarcane, oil-seeds and pulses.

^{1.} food products. 2. beverages, tobacco and tobacco products. 3. textiles. 4. wood and wood products, furniture and fixtures. 5. paper and paper products and printing, publishing and allied industries. 6. leather and leather & fur products (except repair). 7. rubber, plastic, petroleum and coal products. 8. chemicals and chemical products (except petroleum and coal). 9. non-metallic products. 10 basic metal and alloys industries. 11. metal products and parts (except machinery) and transport equipment. 12. machinery, machine tools and parts except electrical machinery 13. electrical machinery appearants and appliances. 14. transport equipment and prats. 15. miscellaneous manufacturing industries. 16. repair services.



The weights for combining these indices are their values of production. In respect of beverages, tobacco and tobacco products, an average of the indicators of production of fruits (viz., mangoes, grapes and citrus fruits) and tobacco cleared for home consumption is used. For the category textiles (cotton, wool, silk and products thereof), a composite weighted indicator is employed. This indicator is constructed using production of cotton textiles (decentralised sector), woollen khadi and silk khadi yarn. The weights used are the corresponding estimates of gross value added, available from the survey of small scale industries, 1970-71 (CSSI). In the case of manufacture of wood and wood products, furniture and fixtures, the value of output of industrial wood at 1970-71 prices is used to represent the production trend. For manufacture of paper and paper products and printing, publishing and allied industries the indicator used is production of paper and paper products by khadi and village industries. In respect of leather and its products as well as fur products, total value of output of cow and buffalo hides and goat and sheep skins at 1970-71 prices is used as the indicator. For rubber, plastic petroleum and coal products, value of production of raw rubber at 1970-71 prices is taken as the indicator.

- 6.12. For the remaining industrial groups viz., (i) manufacture of chemicals and chemical products, (ii) non-metallic mineral products, (iii) basic metal and alloy industries, (iv) metal products and parts except machinery and transport equipment, (v) manufacture of machinery, machine tools and parts except electrical machinery, (vi) manufacture of electrical machinery, apparatus, appliances and supplies and parts and (vii) manufacture of transport equipment and parts, no indicators relevant to unregistered manufacturing units are available. The indicators made use of are therefore the indices of industrial production (base 1970) for the relevant groups. Of the remaining two groups for the other manufacturing industries, the index of industrial production of major group 2-3 (NIC-70) is applied while for the repair services group, simple average of indices of industrial production of (a) machinery other than electrical, (b) electrical machinery and (c) transport equipment is utilised.
- 6.13. The data on value added per person obtained from the different surveys both for household and non-household manufacturing units are gross of consumption of fixed capital. NSS results give no estimate of consumption of fixed capital while such figures are available in the surveys/census (conducted under the CSSI and DCSSI) at a 2 digit level of industries (NIC-70). A simple average of the proportion of expenditure on consumption of fixed capital to

gross value added available from these results is used at 2 digit level of industries to arrive at the net value added in 1970-71. These proportions are assumed to remain unchanged for the subsequent years.

- 6.14. The estimates of gross value added at current prices are obtained from the constant price estimates by super-imposing the relevant price changes for each industry group separately. For this purpose, the index numbers of wholesale prices of relevant commodity groups (EA, base 1970-71) are used. The proportion of consumption of fixed capital to gross value added is assumed to be the same at current and constant prices.
- 6.15. The estimates of value added of unregistered manufacturing establishments are not fully adjusted for banking charges. The value of such services forms a part of the income originating in the banking and insurance sector and as such needs to be deducted from the value added of the unregistered manufacturing sector. In the absence of adequate details, adjustment for imputed bank charges are made at the overall level from the total value added of unregistered manufacturing industries.

Reliability, Objectivity and Current Status of Data

- 6.16. The NSS results provide comprehensive data on capital investment, output, input and value added in respect of the household manufacturing enterprises once in 5 or 6 years. The survey under the CSSI and the census of DCSSI which have been the main sources of information for the unregistered non-household manufacturing establishment suffer from incomplete coverage. The CSSI survey is exclusive of units employing less than 5 persons and the DCSSI census is restricted to units registered with the Directorate of Industries and excludes units which fall under the purview of special boards and agencies. Also, both do not cover the rural areas.
- 6.17. The periodic comprehensive survey and census provide detailed data on input and output once in 5 years only and the problem of preparing the estimates for the intervening years remains. The indicators of output/input used for moving the bench-mark year estimates cannot be considered as satisfactory. Further, even these indicators relevant for unregistered manufacturing can be constructed only for 10 industry groups. One major gap in the data system is, therefore the lack of detailed annual indicators necessary for carrying forward the bench-mark year estimates.



Appendix 6.1: Correspondence between the 16 Industry Groups of Unregistered—Manufacturing and the 23 Industry Group available from NSS Twentythird Round

National Accounts Statistics	NSS 23rd Round: 1968-69					
1. food products	1. food manufacturing industries except beverage industries					
2. beverages, tobacco and tobacco products	2. beverage industries					
	3. tobacco manufactures					
3. textiles	4. manufacture of textiles					
	7. Manufacture of wearing apparel except footwear					
	8. manufacture of made up textile goods except wearing apparel.					
1. wood and wood products, furniture and fixtures	 manufacture of wood and cork except manufacture of furniture 					
	10. manufacture of furniture and fixtures					
5. paper and paper products and printing, publishing	11. manufacture of paper and paper products					
and allied industries.	12. printing, publishing and allied industries					
leather and leather and fur products (except repair)	5. manufacture of footwear except rubber footwear					
1	13. manufacture of leather and leather and fur products except footwear and other wearing apparel					
rubber, plastic, petroleum and coal products	14. manufacture of rubber products.					
	16. manufacture of petroleum and coal					
s. chemicals and chemical products (except petroleum and coal).	15. manufacture of chemical and chemical products					
9. non-metallic mineral products	17. manufacture of non-metallic mineral products except products of petroleum and coal					
0. basic metal and alloys industries	18. basic metal industries					
 metal products and parts except machinery and transport equipment. 	 manufacture of metal products except machinery and transport equipment. 					
machinery, machine tools and parts except electrical machinery.						
3. electrical machinery, apparatus and appliances	21. manufacture of electrical machinery, apparatus, appliances an supplies.					
4. transport equipment and parts	22. manufacture of transport equipment					
5. miscellaneous manufacturing industries	23. miscellaneous manufacturing industries					
6. repair services	6. repair of footwear					
Appendix 6·2 : Data Source for	ESTIMATION IN UNREGISTERED MANUFACTURING					
.,	source					

item	source
A. household sector	
1. number of workers by industry groups	(i) Census of India—1971; Part II B(iii) General Economic Tables for 1970-71.
l 1	(ii) For 1974-75 NSS Report No. 205, Some Results of Small Scale Manufacture in Rural and Urban Areos, 23rd Round: 1968-69 (NSSO, 1975) and NSS Report No. 280/6, Tables with notes of Survey of Self-employed Households in Non-agricultural Enterprises—Detailed Results, 29th round: 1974-75 (NSSO, 1978).
 secondary workers by industry groups value of output, gross value added per worker etc. by industry groups. 	NSS Report No. 280/6, Tables with Notes of Survey of Self-employed Household in Non-agricultural Enterprises, Detailed Results, 29th Round: 1974-75 (NSSO, 1978).
4 paraumption of fixed capital	All India Report on the Census of Small Scale Industrial Units (1972) undertaken by the Development Commissioner, Small Scale Industries (DCSSI, 1977).



APPENDIX 6.2: Contd.					
item	source				
B. non-household sector	1, —				
Value of output and gross value added per worker urban	[Centrally Sponsored Scheme on Survey of Small Scale Industries (1970-71), Ministry of Industrial Development and All India Report on the Census of Small Scale Industrial units, 1972, undertaken by the Development Commissioner of Small Scale Industries (DCSSI 1977).				
2. index of the earnings of factory employees earning less than Rs. 400/- per month	Labour Bureau, Simia.				
3. urban-rural differential in gross value added	NSS Report No 205, Some Results of Small-Scale Manufacture in Rural and Urban Areas, 23rd Round: 1968-69 (NSSO, 1975).				
C. indicators					
1. tobacco cleared for home consumption	Directorate of Statistics and Intelligence, Central Board of Indirect Taxes, Ministry of Finance.				
2. production of cotton textiles fabric in decentralised sector.	Textile Commissioner, Ministry of Commerce, Bombay.				
3. production of khadi yarn and silk khadi	Khadi and Village Industries Commission, Bombay.				
4. production of paper and paper products	Khadi and Village Industries Comm ssion, Bombay.				
item/industry group	indicator				
1. food products	index of production of wheat, rice, sugarcane and value of output at constant prices for oilseeds and pulses with corresponding of output for 1970-71 as weights.				
2. beverages, tobacco and tobacco products	combined indicators of value of production of mangoes, grape and citrus fruits and tobacco cleared for home consumption.				
3. textiles	for cotton, wool, silk and textile products, a combined indicator of production of cotton textiles in decentralised sector, wooller khadi yarn and silk khadi yarn with corresponding gross valuadded in 1970-71 as weights.				
4. wood and wood products, furniture and fixtures .	value of output of industrial wood at 1970-71 prices.				
5. paper and paper products and printing, publishing and allied industries.	production of paper and paper products by Khadi and village-industries.				
6. leather and leather and fur products (except repair).	total value of output of cow and buffalo hides and goat and sheel skins at 1970-71 prices.				
7. rubber, plastic, petrolium and coal products .	value of production of raw rubber at 1970-71 price.				
8. chemicals and chemical products (except petroleum and coal).	}				
9. non-metallic mineral products					
10. basic metal and alloys industries	1				
 metal products and parts except machinery and transport equipment. 	relevant indices of industrial production in the registered manufacturing sector.				
 metal products and parts except machinery and transport equipment. machinery, machine tools and parts except electrical machinery. 	facturing sector.				

13. electrical machinery, apparatus and appliances 14. transport equipment and parts 15. miscellaneous manufacturing industries .

index of industrial production of major groups 2-3 (NIC-70) in the registered manufacturing sector.

average of indices of industrial production of (i) machinery other than electrical (ii) electrical machinery and (iii) transport equipment 16. repair services

wholesale price index numbers of relevant industry groups. 17. price index



APPENDIX 6.4 : GROSS VALUE ADDED FROM HOUSEHOLD MANUFACTURING, 1970-71 (at current prices)

			rural			urban			
	industry group	total workers (nos.)	gross value added per worker Rs.	gross value added (Rs. lakhs)	total workers (nos.)]	gross value added per worker Rs.	gross value added	valueadded (Rs. lakhs) col. (4)+ col. (7)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1. for	od products	5,56,861	576	3,208	66,261	1,003	665	3,873	
2 bev	verages, tobacco & tobacco products .	7,34,761	286	2,101	1,89,331	886	1,677	3,778	
3. tex	- ·	19,71,702	372	7,336	8,36,611	664	5,557	12,893	
	ood & wood products, furniture & fix-	12,88,677	484	6,237	1,95,900	818	1,602	7,839	
5. pa list	per & paper products & printing, pub- hing and allied industries	5,555	589	33	14,274	1,155	165	198	
	ther & leather & fur products (except pair)	3,66,803	395	1,449	77,946	1,119	872	2,321	
7. rul	bber, plastic, petroleum & coal products	6,840	927	63	4,043	1,554	63	126	
8. cha	emicals & chemical products (except troleum & coal)	13,921	353	49	16,315	522	85	134	
-	on-metallic mineral products	7,31,943	334	2,445	81,707	684	559	3,004	
10. ba	sic metal & alloys industries	12,801	268	34	2,408	839	20	54	
11. mé	etal products & parts except machinery transport equipment	4,22,173	553	2,335	69,850	1,202	840	3,175	
12. ma	achinery, machine tools & parts (except extrical machinery)	72,630	601	437	6,156	1,264	78	515	
	ctrical machinery, apparatus & ap-	2,578	1,184	31	1,565	2,131	33	64	
14. tra	insport equipment & parts .	10,825	955	103	13,807	1,372	52	155	
15. oth	ner manufacturing industries	4,41,018	922	4,066	1,37,565	1,101	1,515	5,581	
16. rep	pair services	1,28,770	524	675	44,136	1,591	702	1,377	
17. tol	tal	67,67,858	452	30,602	17,47,875	829	14,485	45,087	

APPENDIX 6.5: GROSS VALUE ADDED FROM HOUSEHOLD MANUFACTURING, 1974-75 (at current prices)

	rural			urban			total gross	
industry group	total workers (nos.)	gross value! added per worker (Rs.)	gross value added (Rs. lakhs)	total workers (nos.)	gross value added (per worker (Rs.)	gross value added (Rs. lakhs)	value added (Rs. lakhs) col. (4)+ col. (7)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1. food products	3,66,072	1,148	4,203	76,773	3,219	2,428	6,631	
2. beverages, tobacco & tobacco products.	7,35,724	719	5,290	2,03,907	986	2,010		
3. textiles	23,82,569	671	15,987	9,24,804	1,707	15,786	-	
4. wood & wood products, furniture & fix- tures	14,75,862	780	11,512	2,15,879	2,087	4,505	-	
5. paper & paper products & printing, publishing and allied industries	8,251	2,154	178	16,058	3,214	516	694	
6. leather & leather & fur products (except repair)	3,94,803	882	3,482	86,591	1,899	1,644	5,126	
7. rubber, plastic petroleum & coal product	4,686	4,756	223	5,438	5,837	317	540	
8. chemicals & chemical products (except petroleum & coal)	13,023	2,089	272	16,798	4,916	826		



APPENDIX 6.5 : Concld.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
9. non-metallic mineral products	8,47,273	647	5,482	99,628	3,734	3,720	9,202
10. basic metal & alloys industries	13,519	1,011	137	2,847	934	26	163
11. metal products & parts except machinery & transport equipment	4,09,419	1,003	4,106	82,291	3,382	2,783	6,889
12. machinery, machine tools & parts except electrical machinery	80,629	986	795	7,234	4,738	343	1,138
31. electrical machinery, apparatus & appliances	4,361	2,150	94	1,605	5,248	84	178
14. transport equipment & parts	10,767	1,131	122	4,186	6,828	286	408
15. other manufacturing industries	4,91,467	982	4,826	1,56,734	3,928	6,157	10,983
16. repairservices	1,13,583	1,097	1,246	50,008	1,799	901	2,147
17. total	73,52,008	788	57,955	19,50,861	2,170	42,332	1,00,287

APPENDIX 6.6: GROSS VALUE ADDED FROM NON-HOUSEHOLD MANUFACTURING, 1960-61

		rural		urban			
industry group	working force (nos.)	gross value added per worker (Rs.)	gross valuc added (Rs. lakhs)	working force (nos.)	gross value added per worker (Rs.)	value added	total gross value added (Rs. lakhs) col. (4) +col. (7)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. food products	1,12,614	1,869	2,105	3,36,047	3,976	13,361	15,446
2. beverages, tobacco & tobacco products*	2,86,865	600	1,721	2,48,628	2,223	5,527	-
3. textiles*	5,94,036	1,155	6,859	9,94,791	2,602	25,959	-
4. wood & wood products, furniture & fix- tures*	2,90,761	1,572	4,571	3,50,696	3,023	10,€02	•
5. paper & paper products & printing, publishing & allied industries*	24,230	1,425	345	1,26,030	3,959	4,990	5,335
6. leather and leather & fur products (except repair)*	71,183	833	593	1,27,089 •	3,203	4,071	4,664
7. rubber, plastic, petroleum & coal products*	6,980	1,620	113	43,204	4,050	1,750	1,863
8. chemicals & chemical products (except petroleum & coal)	48,226	2,719	1,311	91,967	5,036	4,631	5,942
9. non-metallic mineral products	2,54,614	911	2,320	2,06,685	2,071	4,280	6,600
10. basic metal & alloys industries	27,846	1,134	316	2,126	5,401	115	431
11. metal products & parts except machinery & transport equipment	91,261	1,390	1,269	2,27,619	3,474	7,907	9,176
12. machinery, machine tools & parts except electrical machinery	57,134	1,853	1,059	1,16,600	4,520	5,270	6,329
13. electrical machinery, apparatus & appliances	7,303	1,872	137	65,071	5,672	3,691	3,828
14. transport equipment & parts	16,452	2,310	380	1,16,613	4,358	5,082	5,462
15. other manufacturing industries	34,979	1,555	544	1,98,815	3,792	7,539	8,083
16: repairservices	1,18,623	1,029	1,221	2,69,667	3,117	8,406	9,627
17. total	20,43,107	1,217	24,864	35,24,348	3,211	1,13,181	1,38,045

^{*}For these groups indicators were constructed to move forward these estimates to other years.