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No. 20

Manufacturing Employment in East Pakistan 1960

By

Dr. W.E. Gustafson and A.H. Chaudhry



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This is the first of a series of reports which will be concerned with the evaluation of available statistics on large-scale and small-scale industry in Pakistan. Our findings in this report indicate two things:

1. Independent data on manufacturing employment from the Inspector of Factories in East Pakistan indicate that the Census of Manufacturing Industries' (CMI) coverage of the universe it is intended to cover in East Pakistan is perhaps not too bad, although it is hard to be extremely definite on this point.
2. The universe which the CMI intends to cover is too restricted to make sense for many kinds of economic analysis. We also present data by district in East Pakistan on manufacturing employment, both large- and small-scale.

I. Data

The data presented here are data on employment in large- and small-scale manufacturing industry in East Pakistan. These data -- not available otherwise in detail, as far as we know -- are taken from the District Census Reports of the 1961 Census of Pakistan.

For each district in East Pakistan, the District Census Report (DCR) gives data on "Average Daily Number of Workers Employed in 1960" for large- and small-scale industry separately [5].

The employment is classified by industry on a classification scheme which seems to antedate Partition. We have reclassified these industries into two-digit groups to accord with the Pakistan Standard Industrial Classification [2], used in the Census of

* Dr. Gustafson is a Research Adviser and Mr. Chaudhury a Staff Economist at the Pakistan Institute of Development Economics.

Manufacturing Industries. We have excluded industries which have registered establishments, but are not included in the CMI. The amount of registered employment excluded for purposes of comparison with the CMI was 9059 in large-scale industry and 30 in small-scale industry.

The source of the data is given as Inspector of Factories, Directorate of Labour, East Pakistan. According to the note attached to the tables, "Large-scale industries mean establishments employing 20 and more workers and using power in their manufacturing processes as provided under Factories Act, 1934." [5, p. II-10]. The definition as given in the Act includes all power-using factories with 20 or more workers on any day of the preceding 12 months. [7, p.7]. This is the same definition as that used in the CMI.

Small scale industries are defined as "establishments employing less than twenty workers and not using power in their manufacturing processes as provided under section 5(1) of the Factories Act, 1934." Section 5(1) of the Factories Act in fact, as we read it, seems to call for registration of factories which had more than ten employees at any time during the year, whether using power or not. [7, pp.12-13]. In particular, then, the definition given in the DCR-s is wrong in three respects:

1. under the definition given in the Act, factories having less than ten workers throughout the year would not be required to register, whether or not they use power;
2. under the definition given in the Act, factories having more than twenty workers but not using power would be required to register;
3. under the definition given in the Act, factories with between ten and twenty workers and using power would be required to register.

Presumably these differences merely reflect sloppiness on the part of the person who wrote the footnote, but perhaps one should not exclude the hypothesis that the authorities do not apply the Act

as written. The Draft Directory of Industrial Units in East Pakistan [4], shows instances of all three types of establishments which are registered, although the Draft Directory does not specify the section under which they are registered, so we assume that definition is correctly applied in principle.

II. Comparison with the Census of Manufactures

Table A-1 presents the data on large- and small-scale manufacturing employment as given in the DCR-s, classified by industry. Our reclassification is perhaps a little sloppy at a couple of points, but the numbers involved in potentially erroneous classifications are small, so we have let it stand. This table indicates the average daily registered employment in manufacturing industry in 1960 in both small- and large-scale industry. Table A-1 also includes for comparative purposes the figures from the 1959-60 Census of Manufacturing Industries for two-digit industries.

One would expect these two sets of figures to be close if the Census were well done, since they are supposed to cover the identical universe. In point of fact the DCR-s show 11,097 more employees than does the CMI. Two hypotheses (at least) are possible to account for the difference. One is that average daily industrial employment was larger in the twelve months of 1960 than it was in the last six months of 1959 plus the first six of 1960. This was probably the case. The second is that the Census missed some employment, which is also certainly the case. According to Gustav Papanek, the Central Statistical Office checked the under-coverage of value added in the 1959-60 CMI by actually going out to firms which had not returned their questionnaires and checking on the amount of value added missed. The estimate they came to was nine per cent for East Pakistan [6]. In view of the possibility of growth in manufacturing industry in the six months, and in view of the fact that the CMI for 1959-60 shows only eight per cent undercoverage of employment as compared to the 1960 DC

inconsistent with the hypothesis that CMI undercoverage of registered employment and value-added was reasonably low, on the order of nine per cent. Undercoverage in employment could of course be different from undercoverage in value added, since value added per worker differs by size of establishment.

The unwary should take no comfort from this weak finding.

A subsequent Research Report will demonstrate that the registration system is poor and allows a large amount of industrial employment to escape unregistered. If it does not get registered, then it has no chance of being in the CMI.

Preliminary estimates suggest that this undercoverage may be sizeable.

III. Small Industry

Manufacturing enterprises do not cease to be manufacturing enterprises when they have fewer than 20 employees or do not use power. The CMI misses a very substantial volume of manufacturing employment registered under Section 5(1) of the Factories Act rather than Section 2(j). The CMI includes only firms registered under Section 2(j). Table A-1 shows 86,767 employees in such small manufacturing establishments for 1960, or 62 per cent of the employment shown for large-scale industry in the CMI. The missed employment is substantial in tobacco, cotton textiles, and to a much lesser extent in chemicals. The unduly restrictive intended coverage of the CMI clearly deprives us of much information.

There is every reason to think that the coverage of the registration system is much worse for Section 5(1) than it is for Section 2(j). Section 2(j) has been in force for years and the Inspector of Factories has had time to assemble a reasonably comprehensive list of the larger establishments. But registration under Section 5(1) was made mandatory in East Pakistan only in the middle of 1958 [7, p. 18], which allowed only a relatively short period of time before the end of 1960 for establishment of a register. However, the Labour and Social Welfare Division

indicates 933 factories reporting under both sections of the Factories Act for 1958, more than double that number (1961) in 1959 and again almost a doubling in 1960 (3371) [3, p. 46].

We should also note that even including employment registered under Section 5(1) does not complete the picture by any means, since establishments with fewer than 10 employees throughout the year are not required to register. The employment in such establishments is doubtless substantial; the value-added involved would be less important, since small establishments generally have low value-added per worker.

Further investigations of the statistics for the small-scale sector are underway in the Institute.

IV. Data by Districts

We have presented in Table A-2 the totals for manufacturing for each district, both for large-scale and small-scale. The industries included are the same as those covered in Table A-1, those which appear in the CMI. Since the CMI does not break its data down geographically within the province, these numbers may prove of some use. Industrial detail for each district is of course available in each district's DCR. (Beware of totals for industry groups in the DCR-s, since the addition is frequently wrong.)

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- [2] Pakistan Central Statistical Office. Pakistan Standard Industrial Classification (Karachi: Government of Pakistan Press, 1956).
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- [4] Pakistan, East. Directorate of Commerce and Industries. Draft Directory of Industrial Units in East Pakistan (Corrected up to 30th November, 1961) (Dacca: East Pakistan Government Press, 1962).
- [5] Pakistan, Ministry of Home and Kashmir Affairs, Office of the Census Commissioner. Population Census of Pakistan, 1961, District Census Report, Dacca (Karachi: Manager of Publications, no date.) We use the Dacca volume as a prototype. Volumes for other Districts are identical.
- [6] Papenek, Gustav F., "Industrial Production and Investment" The Pakistan Development Review, Fall, 1964.
- [7] Shafi, M., Factories Act, 1934 with Commentary (Karachi: Bureau of Labour Publications, 1964).

Table 1-1, Average Daily Manufacturing Employment in East Pakistan, 1960
 Compared to Census of Manufacturing Industries Figures for 1959-60

	From District Census Reports		(3) Total	(4) CMI	(5) (1) minus (4)
	(1) Large- scale	(2) Small- scale			
20. Food Manufacturing Industries	19,274	963	20,237	13,421	5,859
Food canning and bottling	49	-	49	-	-
Flour mills (G & IF)	436	-	436	-	-
Rice Mills	3,281	85	3,366	1,174	2,192
Bakeries, biscuit, and confectionery	6,726	408	7,134	6,424	710
Sugar (Seasonal)	1,449	399	1,848	1,848	0
Oil mills	6,700	17	6,717	6,717	0
Tea (Seasonal)	209	14	223	223	0
Misc. food, drink, & tobacco					
21. Beverage Industries	287	67	354	159	70
Beverages and distilleries	60	-	60	-	-
Ice and aerated water	177	67	244	-	-
22. Tobacco manufactures	398	65,970	66,368	478	- 75
Tobacco	398	65,970	66,368	478	- 75
23. Manufacture of textiles	79,790	10,443	90,233	81,954	- 2,164
Cotton (Spinning, weaving, & other) factories	28,313	10,393	38,706	28,246	- 2,164
Woolen mills (G & IF)	344	-	344	-	-
Jute mills	55,542	-	55,542	56,810	1,268
Silk mills	25	-	25	-	-
Misc. textiles (perennial)	566	50	616	-	-
24. Manufacture of footwear, other wearing apparel, and made-up textile goods					
25. Manufacture of leather and leather products, except footwear and other wearing apparel	2,365	1,242	7	2,606	- 241

	(1)	(2)	(3)	(4)	(5)
Hosiery	551	651	1,202		
Tanneries (G & LF)	40	-	40		
Tanneries	1,670	206	1,876		
Leather & shoe	104	385	489		
<u>25. Manufacture of wood & cork, except manufacture of furniture</u>					
<u>26. Manufacture of furniture and fixtures</u>	266	135	401	1,079	- 613
Saw mills	69	39	108		
Carpentry and cabinet making	197	96	293		
<u>27. Manufacture of paper and paper products</u>	4,687	-	4,687	3,278	1,409
Paper mills	4,687	-	4,687		
<u>28. Printing, publishing, and allied</u>	3,084	611	3,695	3,716	- 632
Printing, bookbinding, etc.,	1,705	363	2,069		
Printing presses (G & LF)	1,230	15	1,245		
Misc. paper and printing	148	233	381		
<u>30. Manufacture of rubber products</u>	1,031	45	1,076	147	884
Rubber goods	1,031	45	1,076		
<u>31. Manufacture of chemicals and chemical products</u>	8,165	2,682	10,847	9,275	-1,110
Chemicals	783	558	1,341		
Bone and manure	137	46	183		
Paints	130	98	228		
Soap	296	1,008	1,304		
Matches	6,518	-	6,518		
Misc. chemicals, dyes, etc.	301	972	1,273		

	(1)	(2)	(3)	(4)	(5)
<u>33. Manufacture of Non-metallic mineral products</u>	4,345	422	4,767	3,182	1,163
Cement, lime, and potteries	259	86	339		
Bricks and tiles	465	62	527		
Glass	2,619	65	2,678		
Misc. processes relating wood, stone, and glass	1,014	209	1,223		
<u>34. Basic metal industries</u>	702	-	702	393	309
Iron & steel smelting and rolling mills	702	-	702		
<u>35. Manufacture of metal products</u>					
<u>36. Machinery, except electrical machinery</u>	9,541	1,655	11,196	6,260	3,281
Metal stamping	1,661	-	1,661		
Steel, trunk, lock, and cutting	-	175	175		
Xerosene tinning and packing	846	-	846		
General engineering	4,747	591	5,338		
Engineering (Genl.) (G & LF)	1,018	20	1,038		
Misc. engineering	1,269	869	2,138		
<u>37. Electrical machinery</u>	477	84	511	362	115
Electrical engineering	30	34	64		
Electrical engineering (G & LF)	477	-	447		
<u>38. Manufacturing of transport equipment</u>	1,507	24	1,531	2,547	- 1,040
Shipbuilding and engineering	1,038	24	1,062		
Coaching and motor-car repairing	469	-	469		
<u>39. Miscellaneous manufacturing</u>	14,238	2,474	16,712	10,158	4,080
Cotton ginning and baling (seasonal)	147	-	147		
Cotton ginning and baling (perennial)	117	-	117		
Jute presses (seasonal)	12,726	1,227	13,953		
Kapok mills (seasonal)	68	-	68		
Miscellaneous manufacturing	1,180	1,247	2,427		
GRAND TOTAL	150,107	86,767	236,874	139,010	11,097

Note: "G & LF" means Government and Local Fund Industry and / 1 /
 Report calculated from District Census Reports 1957 and / 1 /

TABLE A-2. Distribution of Manufacturing Employment by District, East Pakistan, 1960.

	Large- Scale	Small- Scale	Total
Dacca Division:			
Dacca District	73,693	23,651	97,344
Mymensingh District	2,876	5,370	8,246
Faridpur District	124	2,494	2,618
CHITTAGONG DIVISION:			
Chittagong District (incl. Chittagong Hill Tracts)	26,644	12,304	38,948
Noakhali District	229	4,487	4,716
Comilla District	1,595	8,499	10,094
Sylhet District	6,897	4,112	11,009
KHULNA DIVISION:			
Khulna District	23,494	2,485	25,979
Barisal District	238	3,122	3,360
Maghata District	3,660	843	4,503
Jessore District	26	381	407
RAJSHAHI DIVISION:			
Rajshahi District	1,842	2,561	4,403
Pabna District	1,044	5,378	6,422
Bogra District	1,562	2,539	4,101
Rangpur District	2,117	8,028	10,145
Dinajpur District	4,066	513	4,579
Total for East Pakistan	150,107	86,767	236,874

Source: Calculated from the District Census Reports for East Pakistan. See [5].

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