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WORKING PAPER No. 4

# IMPACT OF POLICIES SINCE 1982

# EVIDENCE FROM THE ECONOMIC CENSUS

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# IMPACT OF POLICIES SINCE 1982

# EVIDENCE FROM THE ECONOMIC CENSUS

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WORKING PAPER # 4

# IMPACT OF POLICIES SINCE 1982

# EVIDENCE FROM THE ECONOMIC CENSUS

## 1. Introduction

A major package of incentives to enterprises came in the New Industrial Policy of 1982 (NIP82), which provided generous fiscal, credit, and other incentives to investment, exports, capacity-utilization, indigenous raw material usage, and decentralization. The NIP82 created an environment of free enterprise and started a shift toward liberalization, privatization, relaxation of restrictions, lifting of ceilings on investment, concessions for foreign collaboration, and simplification of sanctioning procedures (see Ch.1). Some of these reforms were substantive, e.g., denationalization/divestment. Others are emerging slowly; while still others seem to be good, at least, on paper.

Little information has so far been collected on the impact of these policies. A survey by the present project is in the process of being assembled. In the meanwhile, an attempt is made to glean out whatever little relevant information is available from the existing data for periods before and after 1982, which may throw light on the effects of NIP82 on industrial expansion in general and the development of small enterprises in relation to large enterprises in particular. Existing data are derived from two sources: (1) The CMI, from which the data for the years 1982-83 and 1983-84 in relation to pre-1982 statistics are relevant, and were analyzed in Ch. 3 above. (2) The Economic Census, 1986, which was carried out primarily to prepare a frame for future surveys. The few variables it has generated for

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# IMPACT OF POLICIES SINCE 1982

## Evidence from the Economic Census

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the purpose can, nevertheless, be manipulated to learn something about the impact of policies.

The variables that are available from the Economic Census and are of interest to the present topic include the number of workers by different categories as of 1986, whether establishments use machinery with power or not, their location, and the year of commencement of operations, among others. In this chapter, these variables are analyzed to determining the impact of NIP82.

Methodology

With a view to analyzing the impact of policies that were introduced in different years, time-series data on changes in different variables are needed. How do you generate a time-series from a cross-section? The key variable manipulated for the purpose is the "year of commencement of operations." From this piece of information, we generated annual time-series of data on the entries of new establishments for 15 years, starting with the variable magnitudes for the pre-1972 period. This procedure has certain caveats which we will discuss in a moment, after describing the substantive contents of the classified data.

Towards that end, special crosstabulations from the 5-percent sample of the Economic Census 1986 were prepared by size-class of non-agricultural permanent establishments using machinery with power, by ecanographic areas, and so forth. Four of these crosstabs appear as Appendix B to this chapter, under the following headings:

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Size-classes are based on the number of persons engaged, denoted here as "workers" [illegible] The size-classes are the following: 1, 2, 3, 4, 5-9, 10-19, 20-49, 50-99, 100-199, 200-and-over.

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The above, detailed crosstabulations are not appended to this chapter, but can be supplied on request.

A copyrighted map of the developed, less-developed, and least-developed areas of Bangladesh is also included in this appendix.

## 2. Some caveats concerning the economic census data

The Economic Census, 1986 (EC), has a more complete and wider coverage of establishments than the CMI has. In this chapter, there will be a few analytical points on which figures from both the EC and the CMI will be used. The main variables involved are the number of establishments, the number of workers, the number of establishments using machinery with power before 1982 and since 1982--all by size-classes of workers. Lest one should get the impression that the EC (which has generated half a dozen or so useful variables) and the forthcoming multisectoral economic survey (which will generate a large number of variables, more or less, co-extensive with those in the CMI) for that matter are superior to the CMI data in all respects, one should also note the drawbacks of the economic census data in comparison to the CMI data. Three drawbacks are of particular significance:

(1) The census cross-section picks up only survivors and is, thus, biased toward success cases. The time-series data of the CMI, on the other hand, enable us to study both success and failure cases. In the CMI data of Ch. 3, it was seen that, on the average, there is one death of an establishment for every 4 newly born.

The bias of omitting the exiters may go either way. On the one side, births for a particular year are known but not deaths of previously existing firms. On the other side, the survivors' sample omits those firms which died out of the respective cohort. In view of this, we did not make any adjustment for either group of exiters.

(2) While information on the expansion of establishments can thus be generated, the same is not possible for employment, which in the economic census is available only as of 1986. The figures on employment will be true only if surviving individual firms stayed put in the same size-classes in 1986 as the ones they started in the initial years. That is not likely to be a fact, as was seen in Ch. 3, where the inter-size-class mobility (whithin the size-classes specified in this study) was found around 14% annually. At the same time, it was also found there that despite large inter-size-class gross mobility from year to year, the inter-class net mobility in manufacturing industries during the 10 years from 1974-75 to 1983-84 was found to be insignificant (see Ch.3, Table 3.9b). As such, the distribution of establishments in 1986 is probably not inordinately different from the distributions of new establishments over years. Accordingly, keeping in mind that the rates of expansion calculated here may be subject to usual standard errors, we will interpret them at their face value, rather than take a negative approach and complain about the lack of foresight on the part of data-generators in not asking the

simple additional question: "with how many workers did this establishment start?". For in fairness to data-generators, that question might not elicit correct information, as not only memories are short, but also some establishments may have changed hands.

(3) The third caveat of the use of the time-series data generated from a cross-section of data is the replacement problem. This is particularly relevant in this study because the major focus of our analysis is on the establishments using machinery with power. This is not to say that establishments using machinery without power or even those not using any machinery are not a part of progress. For instance, two non-mechanized manufacturing firms in the 100-499 worker size-class started production in 1986, not to speak of small firms. Nevertheless, we believe that progress and potentialities of industrialization are better judged by the expansion of mechanized units, even if mechanized units might have replaced non-mechanized ones. At the same time, we also analyze overall numbers of all units.

## 3. Overall expansion of establishments before and after NIP82

Our main interest in analyzing the economic census data is to gauge the impact of NIP82. Detailed crosstabulations appear in appendix B, which, being bulky, is not reported in this chapter, but which can be supplied on request. A few summary tables and second-stage calculations of the Appendix B tables are reported in the text. We start with national aggregates for 13 industries in Table 4.1 (absolute values), Table 4.2 (row percentages of Table 4.1), and Table 4.3 (column percentages of Table 4.1).

The above-average growth rates of establishments are found in wood products, non-metallic minerals, basic metals, and fabricated metal products and machinery or light-mechanical engineering. The industries on the lower end of mechanized establishments' growth are textile, apparel, and leather; electricity; finance, insurance, and real estate; and community, social, and personal services.[4] At the same time, it must be remembered that both the textile and finance sectors are comprised of relatively large establishments. As such, the higher ratios of employment and output per establishment may offset the lower rates of growth of establishments.

It is interesting to note that in two of the high-growth industries (wood products and light engineering), with an employment of 198,831 (16% of total manufacturing employment), growth came through small enterprises; in the other two (non-metallic Minerals and basic metals), the growth took place through large establishments. The growth in the former, small-scale-predominated due, however, is more massive (4,238 new establishments with 48,000 new workers) than the large-scale due (with 217 new establishments and 5,000 workers). Similar contrast is observed among industries with lower-than-average growth rates. The result seems to indicate that expansion is determined, in part, by technologies that are known and available to investors. In any case, relatively higher expansion came through small enterprises. It is not known from the Economic Census data, whether mechanized establishments grew out of erstwhile non-mechanized units, and/or are an upgrade of pre-existing household production units, or are a net addition. While each change indicates progress, it is also useful to know whether that is gross or net addition to employment. That will, however, not be known until the data from both the establishment and the household-based-activity surveys become available.

The highest expansion for 1-4-worker establishments occurred in food and beverages, both in terms of absolute magnitudes and share in total

Four main variables that are analyzed in Table 4.1 and in most of the other tables of this chapter are:

a). establishments using machinery with power (referred to also mechanized establishments) prior to NIP82

b) mechanized establishments since NIP82

c) total of all establishments, including non-mechanized

d) total workers as of 1986

The statistics of Table 4.1 reveal that the number of mechanized establishments in the 5 years since 1982 nearly doubled from 26,600 to 50,200, giving an annual gross rate of increase of establishments (not output or employment) of about 13 percent. This is, indeed, an impressive growth rate. The increase is not matched by employment growth, which recorded an annual expansion rate of about 6 percent since 1982 in the manufacturing sector and 8 percent since 1982 for all establishments. Nevertheless, even that rate is about 3 times the rate of growth of labor force. It is twice that in the CMI industries, which was 3.5% between 1977-78 and 1984-85.

A second noteworthy aspect of the economy since 1982 comes from the size-distribution of establishments. As may be seen from Table 4.2, the row percentages of the post-1981 manufacturing establishments with 1, 2, and 3 workers are 14%, 23%, and 17%, respectively, against 11%, 19%, and 14%, respectively, for the pre-1982 establishments. The post-1981 shares of upper size-classes (with 10 workers or more) were correspondingly lower. The result suggests that mini entrepreneurs are probably undertaking small industrial ventures in large numbers, and thereby getting experience for future expansion.

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expansion (raw percentages Table 4.2). The highest expansion for 5-9-worker establishments took place in textiles. Percentage-wise, the growth in 5-9 size-class is even higher in chemicals, non-metallic minerals, and basic metals, but their weights in overall manufacturing are so low that high values in raw percentages carry little significance. The modal size in textile-apparels-leather products and wood products has in recent years been that of 5-9-workers. Judging from the relative rates of expansion of size-classes, only in finance and electricity-gas-water the 10-49-worker size seems to be more efficient. Mainly in textiles has the 100-worker-plus size come out expansionary since 1982. The share in growth of 1-4-worker establishments has increased in all industries without any exception.

Table 4.3 provides a picture of the growth of establishments from an alternative angle. It may be seen that the column percentages of the "since-1982" row are higher than those of the "pre-1982" row in very small, 1-4-size classes for most industries, particularly manufacturing. The percentage of new mechanized establishments in the 50-and-over size classes has not increased for a single industry. That in the 20-49 class, it has increased only for 3, namely Nos. 34, 37, and 39, which are relatively small among the two-digit manufacturing industries.

There is, thus, substantial prima facie evidence for small establishments with 1 to 10 workers to have done well since 1982. The higher progress could be due to their comparative-cost advantage (being more efficient), or due to their availing themselves of financial and other incentives to a greater degree than other classes, or due to their being the only practical ventures for lack of resources at the command of new investors. Whether or not the

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prima facie evidence stands further tests and, if it does, whether one or the other of these explanations is more valid remains to be seen. There is, however, another candidate standing in the door: the industrial sickness hypothesis.

The establishment-sickness hypothesis.--A hypothesis that is opposite to that of comparative-cost advantage is the industrial-sickness hypothesis. According to this hypothesis, when, for reasons that need not be discussed here, some establishments run at low utilization levels of installed capacity, they lay off their workers. Consequently, while on the basis of their fixed capital, they may not be small, they are categorized as small on the basis of employees. In that case, small establishments do not reflect the health of the economy, rather its weakness.

Industrial sickness has been a recurrent characteristic of this country's economy. It is widespread even today. According to an off-the-cuff remark by the President of Dhaka Chamber of Commerce on July 3, 1988, about 50% of Bangladesh's establishments are running at 30% capacity, and are, therefore, sick.

If that hypothesis held, however, one would expect most affected establishments to contract all along the line, and not necessarily shrink to the lowest size. Moreover, it was seen in Ch. 3 that the total-factor-productivity curve along size-classes is of U-shaped. That is, the 1-9-worker establishments are more efficient than medium-size establishments. In short, industrial sickness is unlikely to inflate the numbers of small establishments by so much as to explain the entire or even a significant proportion of their observed expansion since 1982.

4. Regional expansion of establishments before and after NIP82

A comparison of the expansions of mechanized establishments in the pre- and post-NIP82 periods at the district level is presented in Table 4.4, where several other pertinent district-level variables (from alternative sources) are also given. Possible associations between the variables of this table will be explored in a subsequent section, and causal relationships, including those with policy variables, in a subsequent chapter. In the present section, we simply note a few salient facts about the expansion of mechanized units by district, which, insofar as data permitted, are categorized as developed (Dev), less-developed (LsD), least-developed (LtD), or an admixture of them.

Any evidence for industrial dispersal?--Scanning through Table 4.4, one notices that 13 of the 64 districts attained three percent or higher rates of expansion of mechanized units in relation to overall (mechanized and other) existing units, during the 4 years since 1982 (Col. 11). Almost all of them at least doubled their mechanized establishments during the same period (see parenthetical values of Col. 8). These, with the respective rates of establishment expansion and two other pertinent variables--per capita manufacturing production in CMI and the development status of the district-are reproduced below for quick view:

| District | Development Status | 1982-1986 Expansion Rate w.r. to all Estabs | 1982-1986 Expansion Rate Rate w.r. to Mech Estabs | Per Capita Industrial Prod. from CMI |
|---|---|---|---|---|
| 1. Khagrachari | Ltd | 3.6 | 73 | 1 |
| 2. Brahman Baria | LsD+Ltd | 3.5 | 54 | 55 |
| 3. Maulvi Bazar | " | 3.2 | 42 | 558 |
| 4. Dhaka | Dev+LsD | 5.2 | 49 | 3609 |
| 5. Gazipur | " | 3.2 | 60 | 188 |
| 6. Narayanganj | " | 4.7 | 40 | 1134 |
| 7. Narsingdi | " | 3.5 | 57 | 1190 |
| 8. Jamalpur | LsD+Ltd | 3.5 | 57 | 173 |
| 9. Tangail | " | 3.0 | 46 | 78 |
| 10. Bhola | LtD | 3.2 | 69 | 0 |
| 11. Narail | " | 3.8 | 58 | NA |
| 12. Satkhira | " | 3.3 | 58 | NA |
| 13. Barguna | " | 3.2 | 70 | NA |
| 14. Bogra | LsD+LtD | 3.1 | 42 | 187 |
| 15. Joypurhat | " | 3.6 | 60 | 3 |
| 16. Dinajpur | " | 4.1 | 60 | 105 |
| 17. Nawabganj | Ltd | 3.0 | 60 | 2 |

The first striking result of the district data is a higher rate of expansion of establishments in the least-developed areas (not necessarily those of output, employment, and investment, which cannot be verified from this set of data) than Dev and LsD areas.[5] About half of these districts namely, Khagrachari, Brahman Baria, Gazipur, Jamalpur, Tangail, Bhola, Joypurhat, and Nawabganj--had little or low industrial base as reflected by per capita manufacturing production (Table 4.4, last column). More than half of them are from outside the Dhaka-Chittagong industrial belt. Thirteen out of 17 are categorized either as LtD or as an admixture of Ltd and LsD upazilas. There are 10

other districts outside the Dhaka-Chittagong industrial corridor. All of these are either LtD or LsD+LtD, and have more than doubled their mechanized units during the same 4-year period (though they did not attain a 3 percent rate of expansion of Col. 11). These are Habiganj, Rajbari, Madaripur, Kishoreganj, Jhalkati, Magura, Bagerhat, Patuakhali, Lalmonirhat, and Rangpur. On the face of it, thus, there is some evidence suggesting an upward kink in industrial dispersal in Bangladesh since NIP82. To what extent it is in response to the incentives for industrial dispersion provided in the NIP82 and other policies will be verified in a subsequent chapter.

Expansion rates between and within districts and other ecomographic areas.--In Chittagong, the highest rate of expansion in Dev areas took place in food processing, almost all of them in 9-plus-worker establishments. Other industries with above-average growth in the Dev areas of Chittagong are wood products (all of which in 5-9 size class), light engineering (with made in 5-9-worker size), and trade (almost all of it in less-than-10 worker class). Food-processing, trade, services, and wood products predominate in LsD and LtD areas of Chittagong, and in that order.

In Dhaka Division's Dev areas, textiles, light-engineering, services, and trade stand out among all industries, having more than doubled the number of establishments in 5 years since 1982 (except textiles which increased by 75 percent). Food processing is the largest industry with the highest growth in Dhaka Division's LsD and LtD areas.

Almost the entire growth in Khulna Division has occurred in its LtD areas, 84% of it in the establishments with 5 workers or fewer, and 85% of the total in food processing. Community, social, and personal services are next, but a distant

second, though this subsector and trade are by far the largest twin employers in the division.

Rajshahi has no Dev area. Inter-industry picture is the same as for Khulna, namely food processing with high expansion in LLD (as well as LSD) areas, distantly followed by services and trade.

Food processing with 3% share in overall establishments is responsible for 43% of new establishments. Trade with 28% share and services with 32% share in total account for only 11% and 23%, respectively, of new mechanized establishments. Food processing is, thus, the kingpin among the mid-1980's new establishments. It is located largely in LLD areas, and is concentrated among fewer-than-5-worker establishments. Light engineering and textiles are mostly Dev area industries with modal establishment size of 5-9 workers.

## 5. Interindustry and intersize-class shifts and shares in the post-NIP82 period

Mechanization is a characteristic primarily of manufacturing industries, as was seen above and as may also be viewed from Table 4.5, which gives shares of each industry in the national aggregates of the chosen variables. It may be seen from this table that prior to 1982, manufacturing as a whole accounted for 60 percent of mechanized establishments. Of the new mechanized establishments since 1982, 64 percent have belonged to manufacturing, which sector accounts for only 9 percent of overall (including nonmechanized) units and 25 percent of employment in all nonagricultural establishments (see the first 4 lines of

Table 4.5). A bulk of the rest of mechanized units are in services, but services' share has gone down since 1982. Units using machinery without power or not using any machinery at all belong largely to trade, whose share in mechanization has continued to be 11 percent. Interestingly, trade accounts for 57% of all units and 37% of employment. Whether the marginally expanding share of mechanization in manufacturing is due to incentives to machinery and capital in NIP82 is a general characteristic of industrial expansion, or is due to other reasons cannot be inferred from the simple data of the Economic Census of 1986.

In the 100-and-over-worker class, practically all expansion in mechanized units has been in manufacturing (86%), of which the textile industry alone accounts for 67%. The food and beverage industry has increased its share of mechanization in 1-to-3-worker small units, while the textile industry has done so in large units. The expansion of food industries since NIP82 has been of a shallow U-shape -- the shares of middle size-classes in the 4-99-worker range in mechanized establishments have declined in relation to the end classes. On the other hand, in textiles, the share of new mechanized units has increased almost exponentially along size-classes. The post-NIP82 share of the mechanized large sector of textiles among the entire large sectors has more than doubled from 30% to 67%, which is largely at the cost of the shares of the large sectors of services, paper, chemicals, non-metallic industries, and electricity. There is hardly any change in the shares of very small textile firms.

The shares of food establishments and textile units in total nonagricultural establishments are 3 percent and 2 percent, respectively. Their employment shares, on the other hand, are 6 percent (food) and 11 percent (textiles). This is a reflection of the small size of an average food establishment in food processing and large size in textiles. This fact may explain the observed differences in the relative wage rates of the two growing industries. Thus, in the CMI data for 1981-82, the mean wage rate of production workers in food processing was calculated as Taka 7146 and that in textiles Taka 9453, or 25% lower than in textiles. This is a normal gap between rural-based and urban-based industries on the basis of cost of living. The scrutiny of shifts and shares, thus, supports the earlier finding of a neck-to-neck growth of food-processing establishments in least-developed areas and textiles in developed and less-developed areas. Agro-based food processing relative to import-based textile products seems to have a comparative advantage in rural areas. It is also a small/cottage industry of Bangladesh. Accordingly, notice should be taken of food processing as a suitable candidate that deserves promotion as a rural employment generator.

## 6. Dynamics of different industries by size-class of establishments

The time-series data on the expansion of establishments generated in this chapter comes handy for studying the dynamics of different industries by size-class of establishments. For this purpose, a summary of the relevant statistics for food processing; the textile industry group; manufacturing as a whole; nonmanufacturing, nonagricultural sector as a whole; and overall nonagricultural sector is given in Table 4.6. The emerging structures of these 4

industries by chosen size-classes along with the aggregates of all nonagricultural establishments are sketched in Figs. 4.1 through 4.4.

As stated earlier, the rates of growth of employment of this table are mainly of academic interest, inasmuch as they are based on the number of workers as of 1986, although they can be distinguished by cohorts of different years. While some sense can be made of the thus-generated employment data, for now we draw only passing inferences from employment growth.[6] The results of this chapter are based primarily on the expansion of establishments.

It was seen in Table 4.6, the establishments that are found in size-class 1-4 in 1986 have experienced higher rates of growth since NIP82 than the size-class with 5 to 9 or 10 to 19 workers, or larger size-classes for that matter. Except for the textile industry, the size-class with 10 to 19 workers does not appear to attract investors as much as other size-classes. In this regard, it may be recalled from Ch. 3 that most enterprises tend to start at low sizes; that the net mobility among the establishments with less than 10 workers is upwards, while that of the 10-19 class is downwards; and that in the overall inter-size-class mobility the small size-class is generally the net gainer. It was also seen there that small enterprises probably benefited relatively much less from the NIP82 incentives than large ones. That finding is not contradicted here, but, interestingly enough, the 1-4-worker workshops do not seem to have lost relatively to other size-classes. Rather it is the size-class with 5 to 20 workers that has not done so well after 1982 (see Fig. 4.1-4).

In passing it may be noted that the average rate of growth of employment is about one-half of that of establishments in food processing and overall manufacturing establishments, about one-third in textiles, and about two-fifths in overall manufacturing. Even allowing for the fact that the Economic Census picks up only the survivors, the rates of expansion are impressive: a gross rate of approximately 11 percent for establishments and 6 percent for employment. As noted earlier, they have risen since 1982.

The upward bulges in almost all industries in years 1974-75 and 1980, witnessed in Ch. 3, are also prominent in the present data set. On the whole the trend since the NIP82 has kinked upwards in the major groups of industries as a whole, manufacturing as a whole, and in the overall nonagricultural establishment sector. In Year 1986, however, the trend for manufacturing industries as a whole got interrupted, but it persisted for the textile industry.

From the analysis of both the CMI and the EC data sets, we have found some evidence for an upward shift or kink in the upward trend in TFP and the number of new entries since 1982. In the "new"-establishment sample of the CMI, the TFP curve for 1983-84 lies above that for 1982-83 for all size-classes. In the "old"-establishment sample the TFP curve for 1983-84 lies above that for 1982-83 only for the large size-class. As between size-classes, the TFP curve is U-shaped. The larger size-classes of enterprizes seem to have attained superior performance than middle and small enterprises. Whether these improvements reflect an impact of NIP82 or other factors remains to be seen. That investigation will be made in a subsequent chapter.

## 7. A peep at the growth rates of the large sector before and after 1982

It was seen in Ch. 3 that establishments are constantly entering and exiting the manufacturing industry. It was also seen that, in major part, departures and new arrivals tend to be in the small-establishment size-class. That is, giant firms are born sparsely and they die rarely. Even so, it would be interesting to look at the newly born of the large sector. The relevant statistics are given in Table 4.6b.

Among the main findings of this subsample is a sharp upward shift in new investment in the 1980s, particularly starting around 1982, incidentally the NIP year (see Fig. 4.5). It is realized that to attribute all changes to NIP82 without doing stochastic analysis would be risky. Insofar as the policy impact can be speculated, moreover, the indicated shift is likely to be partly due to the relaxation of legal restrictions (ceiling on investment or the reservation list) and partly due to the responses of entrepreneurs to fiscal, monetary, trade, and other incentives. This distinction is useful, even though both types of environments--legal and economic--came in the NIP82 package. Thus, as may be seen from Table 4.6b, employment (as distinguished from establishments) in the size-class with 100 workers or more increased by twice as much during the 5 years since 1982 as in the previous 10 years (although that was only 0.67 percent of the overall employment expansion of the period).

Over 56 percent of all incremental employment of the 1982-86 came from 3 two-digit manufacturing industries: 31: food-processing, 32: textiles, 36: chemi and 1 one-digit non-manufacturing industry: 9: community, etc., services. Of the: while textiles received a fillip from the quota allotment for ready-made garment

for imports by the U.S.,[8] the other three industries (except the frozen-fish component of food-processing) catered mainly to domestic demand. The high-export-achievers identified in the TIP Project--mainly the textile products and light engineering--thus, are not the only dynamic industries of Bangladesh.

8. Employment characteristics of workers by ecomographic areas

It may be noted to begin with that though Dev areas are comprised of approximately 2 percent of the nation's land (see the map) and 8.3 percent of population (Tables 4.4, Col. 3), they account for 43 percent of persons engaged in manufacturing industries (see the last column and last 4 lines of Table 4.7) and 28 percent of persons engaged in the overall nonagricultural sector (calculated from Tables 4.1 and 4A.1). As may be checked from the map, for all practical purposes, Bangladesh's developed areas (as defined in the national budget document) are confined to the three cities of Dhaka, Chittagonj, and Khulna only. While the three metropoles will remain the dynamic economic and political centers of the country with possible spread effects, a vast potential for growth also lies in the countryside, and the priorities as well. For the mere cost of urbanization, apart from the accompanying employment problems for this thickly populated country, might otherwise start devouring the bulk of the national investment resources if the migration of population to these cities is not checked by a concerted effort for the economic development of the countryside.

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It may be seen that less than 2/3rds of workers in the LtD areas are fully employed. A little more than 2/3rds in LsD areas, and 85 percent in Dev areas across the country are fully employed. Of the remainder, approximately 13 percent are part-time employees in both the LtD and LsD areas and 7 percent in Dev areas. Part-time employment shares in Chittagong's LtD parts (19%) and Khulna's LtD areas (11%) are lower than those in Dhaka (14%) and Rajshahi (19%). A possible explanation for a higher percentage of part-timers in the LtD areas of Dhaka is the probability of a larger availability of part-time jobs for secondary workers in the nation's capital, while the same phenomenon in Rajshahi is likely to be due to seasonal factors. Under-employment may explain (and may be explained by) larger percentages of family labor in LsD and LtD areas.

Particular note should be taken of much larger percentages of labor that working proprietors supply in the LtD and LsD areas, especially in the LtD parts of Khulna. The development of these areas will, thus, depend to a large extent upon the efficiency of these mini entrepreneurs and their capacity to get out of the overcrowded petty trade into more productive industrial vocations.

In summary, the observed high proportions of less-than-fully employed persons in LtD areas indicate a lack of economic opportunities. The presence of a large number of mini entrepreneurs in these areas reflects both problems and opportunities. The problems lie in the lack of market employment in these areas, which pushes people to become self-employed in whatever vocations they expect to earn income. The opportunities for the society lie in harnessing their entrepreneurial capacity for more productive processes of production. Though this is not a new finding, it underscores the policy implication for investment in the capacity-to-invest and training of the mini entrepreneurs of these areas.

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9. A few comparative statistics from the CMI and the EC

By way of a cross-check of the coverage and the magnitudes of available variables for the manufacturing sector, we present a few comparative statistics from the CMI and the EC in Table 4.8. It may be seen that the CMI covers only 2.9 percent of all manufacturing establishments and 36.8 percent of manufacturing employment. At the same time, the CMI accounts for 51.6 percent of all manufacturing employment and 16.17 percent of all units in establishments with 10 workers or more. It covers less than one percent of units and less than 1.3 percent of workers in the $\leq$ 10-worker estabs. Even among the establishments with 100 workers or more it covers only 36.6 percent of units and 73.8 percent of employment. Accordingly, while the CMI source is alright for microbehavioural analysis, particularly the cleaned-up sample prepared in this project, it is not suitable for those purposes for which the figures have to be blown up to match national aggregates, such as national accounts, the I-O table, and the like.

10. International comparisons

Finally, comparative size-class statistics for about 2-dozen developing countries; 8 developed, free-enterprise economies; and 5 socialist countries are assembled in Tables 4.9 and 4.10. Before drawing any conclusions from data, it is important to note the limitations of cross-country comparisons for industrial size-classes. The limitations arise not so much from the classification procedures--for instance, arbitary cut-off lines, or the use of employees instead of capital assets or vice versa--as from measurement

errors, such as the coverage, the enumeration, and the definitions used. Unrealistic values may result from treatment of part-time employees and children; varying levels of the resources and training of surveyors; the inclusion or exclusion of household economic activities; the definition of the workshop, factory, and cottage; and so forth. Subject to these limitations, and basing our judgment momentarily on mere inspection of Table 4.9 (but yet having the benefit of the insight provided by multiple regressions), little correlation between per capita income and small-industry shares is discernible within developing countries (Panels I and II). A significant shift between developing and developed countries is, however, clearly indicated, as may be checked from the sharp contraction of the shares of 1-4-worker establishments in Canada, U.S., and other developed countries (Panel II). The shares of small establishments (defined as those with 100 workers or fewer) of non-OECD economies (Panel III) and socialist economies (Panel IV), too, are, by and large, of equal magnitudes. In short, in cross-section data significant differences are found mainly <u>between</u> developing and developed countries, but hardly any systematic differences <u>within</u> either of the two groups.

The declining shares of cottage and small establishments when a country experiences development over time, on the other hand, are quite conspicuous. This is borne out by the experiences of the countries for which historical data are available (see Table 4.10). Thus, the employment share of 1-4-worker cottage shops in manufacturing industries declined from 3.7% in 1930 to 2.5% in 1959 in Canada, from 61% in 1914 to a surprisingly low of 3% in 1971 in Taiwan, and from 67% in 1944-45 to 50% in 1973 in Colombia. These results

are well-documented already. A new result of this study that should be underscored is that while the average employment per establishment has risen over time in all countries for which data are available (Table 4.10), the reverse has been the experience (so far as the data assembled here go) only in Bangladesh, where the number of workers per establishment has declined consistently as follows:[7]

| Year | Worker/Estab. Ratio in Manufacturing |
|---|---|
| Pre-1972 total | 20.6 |
| Incremental: 1972 | 7.6 |
| 1973 | 7.2 |
| 1974 | 9.2 |
| 1975 | 6.5 |
| 1976 | 8.0 |
| 1977 | 8.0 |
| 1978 | 6.8 |
| 1979 | 7.3 |
| 1980 | 6.1 |
| 1981 | 5.2 |
| 1982 | 6.0 |
| 1983 | 5.7 |
| 1984 | 6.3 |
| 1985 | 5.0 |
| 1986 | 4.5 |
| Mean | 6.6 |

As may be seen in Table 4.6, the rate of increase of employment in Bangladesh's manufacturing establishments with 1 to 4 workers has exceeded the mean rate during each year from 1972 through 1986, except 1980. The mean rate of employment of the 1-4 size-class of establishments (excluding the household sector) over the entire period of 15 years was 9.6% against the mean of 4.1% for overall manufacturing. From this result one tends to conjecture that potentialities in the small sector of Bangladesh exist,

which to some extent are being seized by market forces. The results also tend to presage that Bangladesh's small-establishment sector has probably still to grow relative to large and medium sectors before it might start its historical descent in relative terms.[9]

## II. Conclusions

The findings of this chapter are based on crosstabulations. Econometric analysis remains to be done. Accordingly, the results should be treated as provisional.

Subject to the qualification that the Economic Census has recorded only surviving establishments and that the data for the household sector has still not been edited, the annual rates of expansion of manufacturing establishments have been impressive. Food processing, with a mean annual rate of growth of surviving establishments from 1972 through 1986 of 11.9 percent, has expanded mainly in least-developed areas. Textile products, with mean annual rate of expansion of surviving establishments during the same period of 8.4 percent, have multiplied mostly in developed and less-developed areas. The size-class with 1 to 4 workers has experienced the highest rate of establishment expansion since 1982, except textiles in which industry the size-class with 10 to 19 workers has expanded at a higher rate.

The above result has to be tempered with the facts that most establishments tend to start at low sizes; that the net mobility among the establishments with less-than-10 workers is upwards and that for most upper ones downwards; that some establishments may have appeared as replacement for erstwhile household/cottage shops; and that in the overall inter-size-class mobility, the size-class with less than 5 workers is generally the net gainer.

This is so despite the inference from the total-factor-productivity analysis of Ch. 3 that the smallest size-class probably benefited the least from the NIP82 incentives.

A surprising result of the analysis of the district data is a higher rate of expansion of establishments in the least-developed areas of the country than developed and less-developed areas. Food processing has been the kingpin of establishment expansion in least-and-less-developed rural areas.

The expansion curve for food-processing mechanized establishments has been of a shallow U shape, while that of textile establishments a rising one along size-classes. The share of large, mechanized, textile establishments among their large counterparts in other industries has risen from 30% for pre-1982 units to 67% for the post-1981 units.

The data on worker categorization suggest that the least-developed areas are characterized by high proportions of less-than-fully-employed persons and working proprietors or self-employed producers. The finding reflects a lack of opportunities in these areas, on the one hand, and the presence of a sizeable number of mini entrepreneurs, on the other hand. Though this is not a new finding, it underscores the policy implication for investment in the training and capacity-to-invest of the mini entrepreneurs of these areas.

A comparison of the data of the CMI and the Economic Census indicates that the CMI covers only 16.2 percent of establishments and 51.6 percent of employment in total units with 10 workers or more. While the CMI microdata (even from a partial coverage) are quite appropriate for behavioral and related econometric analysis done (or to be done) in this study, it is not suitable, on the basis of limited coverage alone, for those purposes for which the figures have to be blown up to obtain national aggregates. On that basis, the CMI data are probably not appropriate for estimating national accounts, for constructing the I-O table, and the like.

In international comparisons of about 2 dozen countries, no significant pattern or correlation between per-capita income and small-sector shares has emerged from <u>within</u> the group of LDCs or <u>within</u> the group of Developed Countries. <u>Between</u> the two groups of countries, however, there is a big jump in the mean size of establishments. <u>Within</u> a single country, furthermore, the share of alternatively defined small enterprises has fallen consistently over time. This historical trend has been well documented; our results merely confirm that. We have, however, found an exception to this generalization, and strangely enough that is Bangladesh. The average number of workers per manufacturing establishment in Bangladesh has declined, more or less constantly from 7.6 in 1972 to 4.5 in 1986. The indications are that the small sector of Bangladesh is on its way to expand relative to large and medium sectors for quite sometime to come, before it might assume its historical downward trend relative to other sectors.[6]

## Policy implications

The rising trend of small establishments over the last two decades, an upward kink in the expansion curve since 1982, the expansion of food-processing industry in least-developed districts of Bangladesh, and masses of self-employed, mini entrepreneurs in rural areas suggest more questions than provide answers. The main question suggested is: what are the determinants of the observed large expansion of small enterprises in least-developed areas? Have they grown because of or despite economic incentives? Until that investigation is completed, suitable policy implications cannot be derived. That investigation will be taken up in Ch. 6. Provisionally, increased investment in the training and capacity-to-invest of rural mini entrepreneurs almost suggests itself.

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| CODE | INDUSTRY DESCRIPTION | ALL UNITS | 1 | 2 | 3 | 4 | 5 - 9 | 10-19 | 20-49 | 50-99 | 100 AND OVER |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SIZE OF UNIT (TOTAL PLANT EMPLOYMENT) | | | | | | | | | |
| TOTAL | | | | | | | | | | | |
| 3 | MANUFACTURING | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | | | | | | | | | |
| | NO. OF UNITS : MECH. SINCE 1933 | | | | | | | | | | |
| | ALL UNITS : TOTAL | | | | | | | | | | |
| | NO. OF WORKERS | | | | | | | | | | |
| 31 | FOOD, BEVERAGES & TOBACCO | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | | | | | | | | | |
| | NO. OF UNITS : MECH. SINCE 1933 | | | | | | | | | | |
| | ALL UNITS : TOTAL | | | | | | | | | | |
| | NO. OF WORKERS | | | | | | | | | | |
| 32 | TEXTILE, APPAREL & LEATHER | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | | | | | | | | | |
| | NO. OF UNITS : MECH. SINCE 1933 | | | | | | | | | | |
| | ALL UNITS : TOTAL | | | | | | | | | | |
| | NO. OF WORKERS | | | | | | | | | | |
| 33 | WOOD & WOOD PRODUCTS | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | | | | | | | | | |
| | NO. OF UNITS : MECH. SINCE 1933 | | | | | | | | | | |
| | ALL UNITS : TOTAL | | | | | | | | | | |
| | NO. OF WORKERS | | | | | | | | | | |
| 34 | PAPER & PAPER PRODUCTS | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | | | | | | | | | |
| | NO. OF UNITS : MECH. SINCE 1933 | | | | | | | | | | |
| | ALL UNITS : TOTAL | | | | | | | | | | |
| | NO. OF WORKERS | | | | | | | | | | |
| 35 | CHEMICALS, PETROLEUM & PLASTIC PRODS. | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | | | | | | | | | |
| | NO. OF UNITS : MECH. SINCE 1933 | | | | | | | | | | |
| | ALL UNITS : TOTAL | | | | | | | | | | |
| | NO. OF WORKERS | | | | | | | | | | |
| 36 | NON-METALLIC MINERALS EX. PETROLEUM | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | | | | | | | | | |
| | NO. OF UNITS : MECH. SINCE 1933 | | | | | | | | | | |
| | ALL UNITS : TOTAL | | | | | | | | | | |
| | NO. OF WORKERS | | | | | | | | | | |
| 37 | BASIC METAL INDUSTRIES | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | | | | | | | | | |
| | NO. OF UNITS : MECH. SINCE 1933 | | | | | | | | | | |
| | ALL UNITS : TOTAL | | | | | | | | | | |
| | NO. OF WORKERS | | | | | | | | | | |
| 38 | FABRICATED METAL PROD. & MACHINERY | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | | | | | | | | | |
| | NO. OF UNITS : MECH. SINCE 1933 | | | | | | | | | | |
| | ALL UNITS : TOTAL | | | | | | | | | | |
| | NO. OF WORKERS | | | | | | | | | | |
| 39 | OTHER MANUFACTURING INDUSTRIES | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | | | | | | | | | |
| | NO. OF UNITS : MECH. SINCE 1933 | | | | | | | | | | |
| | ALL UNITS : TOTAL | | | | | | | | | | |
| | NO. OF WORKERS | | | | | | | | | | |
| 4 | ELECTRICITY, GAS & WATER | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | | | | | | | | | |
| | NO. OF UNITS : MECH. SINCE 1933 | | | | | | | | | | |
| | ALL UNITS : TOTAL | | | | | | | | | | |
| | NO. OF WORKERS | | | | | | | | | | |

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[illegible]

[illegible]

| CODE INDUSTRY DESCRIPTION | SIZE OF EMPLOYING ESTABLISHMENT (TOTAL PERSONS EMPLOYED) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | ALL | 1 | 2 | 3 | 4 | 5-9 | 10-19 | 20-49 | 50-99 | 100 & OVER | NOT RPTD |
| 4 WHOLESALE & RETAIL TRADE | | | | | | | | | | | |
| NO. OF UNITS - MECH. BEFORE 1972 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| NO. OF UNITS - MECH. SINCE 1972 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| ALL UNITS - TOTAL | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| NO. OF WORKERS | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 5 FINANCE, INSURANCE & REAL ESTATE | | | | | | | | | | | |
| NO. OF UNITS - MECH. BEFORE 1972 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| NO. OF UNITS - MECH. SINCE 1972 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| ALL UNITS - TOTAL | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| NO. OF WORKERS | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 6 COMMUNITY, SOCIAL & PERSONAL SERVICES | | | | | | | | | | | |
| NO. OF UNITS - MECH. BEFORE 1972 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| NO. OF UNITS - MECH. SINCE 1972 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| ALL UNITS - TOTAL | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| NO. OF WORKERS | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| TOTAL RECORD READ = 0014333 | | | | | | | | | | | |

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Table 1.2.--Row percentages of Table 1.1 Size-Class of Workers

| Industry Code (1) | All Units (2) | 1 (3) | 2 (4) | 3 (5) | 4 (6) | 5-9 (7) | 10-19 (8) | 20-49 (9) | 50-99 (10) | 100 & Over (11) | Not Reported (12) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3: Manuf. | 100 | 11 | 19 | 14 | 11 | 24 | 11 | 5 | 2 | 0.2 | 3 |
| | 100 | 14 | 23 | 17 | 11 | 22 | 6 | 3 | 1.0 | 0.2 | 2 |
| | 100 | 14 | 20 | 16 | 11 | 22 | 9 | 3 | 1 | 1 | 2 |
| | 100 | 1 | 4 | 5 | 5 | 15 | 12 | 10 | 8 | 41 | 0 |
| 31: Food | 100 | 14 | 25 | 16 | 10 | 19 | 9 | 3 | 1 | 0.03 | 3 |
| | 100 | 19 | 30 | 20 | 10 | 13 | 3 | 0.7 | 0.2 | 0.03 | 3 |
| | 100 | 16 | 26 | 17 | 10 | 81 | 6 | 2 | 0.5 | 0.6 | 4 |
| | 100 | 3 | 8 | 8 | 7 | 18 | 13 | 8 | 5 | 29 | 0 |
| 32: Textile | 100 | 3 | 2 | 4 | 10 | 28 | 22 | 24 | 4 | 1 | 0.9 |
| | 100 | 8 | 5 | 5 | 9 | 35 | 17 | 16 | 4 | 2 | 0 |
| | 100 | 6 | 8 | 11 | 7 | 30 | 21 | 11 | 2 | 3 | [illegible] |
| | 100 | 0.3 | 0.6 | 1 | 1 | 9 | 12 | 12 | 7 | 56 | 0 |
| 33: Wood | 100 | 4 | 2 | 8 | 9 | 56 | 19 | 0.6 | 0.6 | 0.2 | 0.5 |
| | 100 | 3 | 6 | 3 | 10 | 57 | 15 | 0 | 0 | 0 | 1 |
| | 100 | 11 | 15 | 17 | 16 | 31 | 7 | 0.9 | 0.05 | 0.1 | 2 |
| | 100 | 2 | 6 | 10 | 14 | 39 | 17 | 6 | 0.5 | 5 | 0 |
| 34: Paper | 100 | 1 | 9 | 9 | 15 | 45 | 16 | 2 | 2 | 0.3 | 0 |
| | 100 | 4 | 10 | 15 | 13 | 41 | 11 | 5 | 2 | 0 | 0 |
| | 100 | 7 | 17 | 12 | 14 | 34 | 10 | 2 | 1 | 0.6 | 2 |
| | 100 | 0.7 | 3 | 4 | 6 | 23 | 14 | 8 | 8 | 34 | 0 |
| 35: Chemical | 100 | 6 | 6 | 20 | 8 | 23 | 11 | 12 | 11 | 0.6 | 2 |
| | 100 | 2 | 2 | 14 | 9 | 53 | 16 | 2 | 0 | 0 | 0 |
| | 100 | 7 | 3 | 16 | 13 | 31 | 13 | 6 | 3 | 2 | 1 |
| | 100 | 0.5 | 1 | 3 | 3 | 13 | 11 | 10 | 10 | 43 | 0 |
| 36: Non-Metal-lic | 100 | 11 | 0 | 0 | 0 | 23 | 0 | 24 | 25 | 5 | 11 |
| | 100 | 13 | 0 | 0 | 0 | 51 | 0 | 24 | 13 | 0 | 0 |
| | 100 | 8 | 8 | 6 | 7 | 18 | 7 | 14 | 13 | 12 | 7 |
| | 100 | 0.2 | 0.4 | 0.5 | 0.8 | 3 | 2 | 11 | 27 | 54 | 0 |
| 37: Basic Metals | 100 | 0 | 7 | 7 | 0 | 20 | 12 | 13 | 39 | 3 | [illegible] |
| | 100 | 0 | 7 | 0 | 7 | 49 | 0 | 22 | 14 | 1 | 0 |
| | 100 | 4 | 14 | 13 | 12 | 25 | 5 | 7 | 12 | 3 | [illegible] |
| | 100 | 0.1 | 0.9 | 1 | 2 | 5 | 3 | 9 | 23 | 56 | 0 |
| 38: Machinery | 100 | 7 | 7 | 15 | 17 | 32 | 8 | 6 | 3 | 0.3 | 3 |
| | 100 | 4 | 16 | 18 | 16 | 32 | 9 | 4 | 1 | 0.07 | [illegible] |
| | 100 | 12 | 25 | 21 | 13 | 19 | 4 | 2 | 0.3 | [illegible] | 2 |
| | 100 | 2 | 8 | 10 | 9 | 19 | 8 | 9 | 9 | 27 | 0 |
| 39: Other Manuf. | 100 | 8 | 15 | 11 | 21 | 26 | 8 | 3 | 0 | 0.3 | 9 |
| | 100 | 5 | 9 | 13 | 32 | 18 | 9 | 9 | 0 | 0 | [illegible] |
| | 100 | 31 | 29 | 18 | 10 | 9 | 1 | 0.3 | 0.1 | 0.1 | 1 |
| | 100 | 12 | 22 | 20 | 15 | 19 | 5 | 3 | 2 | 3 | 0 |
| 4: Electricity | 100 | 7 | 13 | 12 | 7 | 22 | 7 | 15 | 4 | 0.8 | 11 |
| | 100 | 23 | 30 | 0 | 0 | 2 | 21 | 21 | 0 | 0 | 3 |
| | 100 | 13 | 15 | 6 | 4 | 20 | 12 | 16 | 3 | 3 | 8 |
| | 100 | 0.8 | 2 | 1 | 1 | 8 | 10 | 29 | 13 | 35 | 0 |
| 6: Trade | 100 | 12 | 26 | 15 | 10 | 22 | 6 | 3 | 1 | 0.02 | 5 |
| | 100 | 19 | 25 | 16 | 10 | 20 | 5 | 3 | 0.2 | 0.02 | 2 |
| | 100 | 36 | 32 | 14 | 7 | 7 | 0.9 | 0.2 | 0.02 | 0.2 | 4 |
| | 100 | 16 | 28 | 18 | 12 | 18 | 5 | 2 | 0.5 | 2 | 0 |

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Table 4.2--Cont'd.

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 8: Finance | 100 | 13 | 12 | 4 | 4 | 24 | 20 | 14 | 1 | 0.3 | 8 |
| | 100 | 11 | 26 | 15 | 7 | 12 | 21 | 8 | 0 | 0 | 0 |
| | 100 | 16 | 11 | 6 | 4 | 18 | 17 | 6 | 0.7 | 0.5 | 20 |
| | 100 | 2 | 3 | 2 | 2 | 16 | 28 | 20 | 6 | 20 | 0 |
| 9: Services | 100 | 15 | 71 | 16 | 8 | 15 | 31 | 7 | 3 | 0.2 | 6 |
| | 100 | 15 | 21 | 18 | 12 | 18 | 6 | 4 | 1 | 0.06 | 4 |
| | 100 | 34 | 20 | 9 | 8 | 9 | 4 | 1 | 0.4 | 0.2 | 13 |
| | 100 | 10 | 11 | 8 | 9 | 16 | 16 | 12 | 7 | 11 | 0 |

Table 4.3.--Column percentages of Table 4.1 Size Class of Workers

| Industry Code (1) | | Size-Class of Workers[a] All Units (2) | 1 (3) | 2 (4) | 3 (5) | 4 (6) | 5-9 (7) | 10-19 (8) | 20-19 (9) | 50-99 (10) | 100 & Over (11) | Not Reported (12) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3: | Pre-1982 | 21 | 16 | 19 | 18 | 20 | 23 | 26 | 28 | 34 | 4 | 24 |
| | Since 82 | 18 | 19 | 21 | 20 | 18 | 18 | 13 | 13 | 13 | 3 | 19 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 31: | Pre-1982 | 41 | 37 | 39 | 39 | 41 | 43 | 56 | 63 | 66 | 2 | 37 |
| | Since 82 | 36 | 43 | 41 | 42 | 35 | 27 | 19 | 15 | 16 | 2 | 33 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 32: | Pre-1982 | 9 | 4 | 3 | 4 | 12 | 8 | 9 | 19 | 15 | 5 | 9 |
| | Since 82 | 7 | 9 | 5 | 3 | 9 | 8 | 5 | 10 | 10 | 5 | 0 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 33: | Pre-1982 | 9 | 3 | 1 | 4 | 5 | 15 | 24 | 5 | 1 | 13 | 2 |
| | Since 82 | 8 | 6 | 3 | 1 | 5 | 15 | 18 | 0 | 0 | 0 | 5 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 34: | Pre-1982 | 27 | 6 | 15 | 20 | 30 | 36 | 44 | 25 | 62 | 14 | 0 |
| | Since 82 | 22 | 13 | 13 | 27 | 20 | 26 | 25 | 42 | 40 | 0 | 0 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 35: | Pre-1982 | 22 | 20 | 17 | 28 | 14 | 17 | 18 | 49 | 1 | 6 | 25 |
| | Since 82 | 15 | 5 | 4 | 13 | 11 | 26 | 18 | 6 | 0 | 0 | 0 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 36: | Pre-1982 | 4 | 5 | 0 | 0 | 0 | 5 | 0 | 6 | 7 | 2 | 6 |
| | Since 82 | 4 | 6 | 0 | 0 | 0 | 11 | 0 | 6 | 4 | 0 | 0 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 37: | Pre-1982 | 22 | 0 | 10 | 11 | 0 | 17 | 49 | 39 | 76 | 9 | 0 |
| | Since 82 | 20 | 0 | 9 | 0 | 13 | 39 | 0 | 61 | 24 | 7 | 0 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 38: | Pre-1982 | 14 | 8 | 4 | 9 | 17 | 24 | 28 | 48 | 50 | 5 | 19 |
| | Since 82 | 16 | 4 | 10 | 13 | 19 | 27 | 33 | 37 | 22 | 2 | 3 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 39: | Pre-1982 | 2 | 0.6 | 1 | 1 | 5 | 7 | 15 | 20 | 0 | 10 | 14 |
| | Since 82 | 1 | 0.2 | 0.4 | 1 | 5 | 3 | 10 | 41 | 0 | 0 | 4 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 4: | Pre-1982 | 38 | 21 | 33 | 68 | 68 | 41 | 23 | 36 | 49 | 10 | 55 |
| | Since 82 | 27 | 46 | 53 | 0 | 0 | 3 | 48 | 36 | 0 | 0 | 9 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 6: | Pre-1982 | 0.6 | 0.2 | 0.5 | 0.7 | 0.9 | 2 | 4 | 13 | 39 | 0.9 | 0.6 |
| | Since 82 | 0.5 | 0.3 | 0.4 | 0.6 | 0.7 | 2 | 3 | 9 | 7 | 0.9 | 0.2 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 8: | Pre-1982 | 4 | 3 | 4 | 2 | 3 | 5 | 4 | 8 | 7 | 2 | 1 |
| | Since 82 | 3 | 2 | 6 | 6 | 4 | 2 | 3 | 3 | 0 | 0 | 0 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 9: | Pre-1982 | 3 | 1 | 2 | 5 | 3 | 4 | 7 | 11 | 23 | 3 | 1 |
| | Since 82 | 2 | 0.8 | 2 | 4 | 3 | 3 | 3 | 5 | 6 | 0.7 | 0.5 |
| | Total all | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

[a] The respective percentage may not add up to 100. The gap is accounted for by nonmechanized units, not reported in this Table.

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Table 4.4.--Pre-1982 and post-1982 manuf. establishments by district and a few other pertinent district-level variables[a]

| Div, Reg, & District | Econ Area[b] | Popu-lation 1981 (000) | GRP 82-83 in Rs Mil (% Share Total) | VA in Ag 82-83 (% of GRP) | Per Cap VA in Ag (Rs) | No. of Mechanized Establishments Pre-1982 | Post-1982 (% of 7+8) | Total All Units | Workers in Manuf Estabs (% of Population) | 8/9 (%) | Col. 9 as % of Grand Total | Col. 10 as % of Grand Total | Per Capita GNP Prod. 82-83 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
| I. Chittagong Div. | | 23522 | 12373-(29) | 58520 (47) | 3287 | 8335 | 6234 (43) | 35938 | 352320 (2) | 17.3 | 2.5 | 7.1 | 764 |
| | Dev | | | | | 1580 | 904 (9) | 7151 | 159310 | 12.6 | 0.5 | 3.2 | |
| | LsD | | | | | 3071 | 2262 (42) | 12746 | 77065 | 17.7 | 0.8 | 1.6 | |
| | LtD | | | | | 3664 | 3072 (46) | 16041 | 115945 | 19.1 | 1.1 | 2.4 | |
| 1. Chittagong Reg. | | 5664 | 37291 (9) | 12676 (34) | 2052 | 4753 | 3282 (39) | 134814 | 563005 | 2.4 | 9.5 | 11.4 | |
| 1. Chittagong | Dev+LsD | 4407 | | | | 4233 | 3045 (42) | 118306 | 515956 (11) | 2.6 | 8.3 | 10.4 | 3957 |
| 2. Cox's Bazar | LsD+LtD | 1057 | | | | 520 | 237 (31) | 16508 | 47049 (4) | 1.4 | 1.2 | 0.9 | n.a. |
| 2. Ctg. H. Tracts | | 792 | 13304 (3) | 9729 (73) | 11500 | 555 | 551 (50) | 20945 | 103605 | 2.6 | 1.5 | 2.1 | |
| 3. Bandarban | LtD | 180 | | | | 244 | 50 (17) | 7816 | 32259 (18) | 0.6 | 0.5 | 0.6 | 157 |
| 4. Rangamati | LtD | 313 | | | | 206 | 132 (39) | 5317 | 44096 (14) | 2.5 | 0.4 | 0.8 | 3917 |
| 5. Khagrachari | LtD | 299 | | | | 105 | 279 (73) | 7812 | 27253 (9) | 3.6 | 0.5 | 0.5 | 1 |
| 3. Comilla | | 7103 | 30094 (7) | 14370 (48) | 1857 | 3132 | 2193 (41) | 107725 | 308661 | 2.0 | 7.6 | 6.3 | |
| 6. B. Baria | LsD+LtD | 1784 | | | | 791 | 925 (54) | 26367 | 84121 (5) | 3.5 | 1.8 | 1.7 | 55 |
| 7. Chandpur | LsD+LtD | 1854 | | | | 976 | 332 (25) | 27985 | 78290 (4) | 1.2 | 1.9 | 1.6 | 129 |
| 8. Comilla | LsD+LtD | 3465 | | | | 1365 | 936 (41) | 53373 | 146250 (4) | 1.7 | 3.7 | 2.9 | 107 |
| 4. Noakhali | | 3938 | 16104 (4) | 8012 (50) | 1867 | 2528 | 2052 (45) | 83990 | 210514 | 2.4 | 5.9 | 4.3 | |
| 9. Feni | LsD+LtD | 927 | | | | 901 | 488 (35) | 18652 | 46884 (5) | 2.6 | 1.3 | 0.9 | 112 |
| 10. Laksmipur | LsD+LtD | 1157 | | | | 718 | 668 (48) | 24922 | 63640 (6) | 2.7 | 1.7 | 1.3 | n.a. |
| 11. Noakhali | LsD+LtD | 1854 | | | | 909 | 896 (50) | 40316 | 99990 (5) | 2.2 | 2.8 | 2.0 | 115 |
| 5. Sylhet | | 5835 | 26941 (6) | 13733 (51) | 2159 | 2218 | 1822 (45) | 72047 | 234171 | 2.5 | 5.1 | 4.8 | |
| 12. Habiganj | LsD+LtD | 1317 | | | | 177 | 300 (63) | 11667 | 38715 (3) | 2.6 | 0.8 | 0.8 | 145 |
| 13. Mot. Bazar | LsD+LtD | 1209 | | | | 792 | 570 (42) | 17622 | 75690 (6) | 3.2 | 1.2 | 1.5 | 553 |
| 14. Sunamganj | LsD+LtD | 1474 | | | | 511 | 257 (33) | 15899 | 43893 (3) | 1.6 | 1.1 | 0.9 | 117 |
| 15. Sylhet | LsD+LtD | 1835 | | | | 738 | 695 (48) | 26859 | 79873 (4) | 2.6 | 1.9 | 1.6 | 566 |
| II. Dhaka Div. | | 27091 | 119337 (30) | 53567 (44) | 1997 | 9266 | 8539 (48) | 46625 | 502397 (2) | 18.5 | 3.2 | 10.2 | 485 |
| | Dev | | | | | 5385 | 4387 (45) | 23233 | 336527 | 18.8 | 1.6 | 6.8 | |
| | LsD | | | | | 2220 | 2007 (45) | 13918 | 111231 | 14.4 | 0.9 | 2.2 | |
| | LtD | | | | | 1661 | 2045 (55) | 8874 | 54639 | 23.0 | 0.6 | 1.1 | |

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Table 1.6--Contd.

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bangladesh | T | 69932 | 4187-6(100) | 207795(50) | 2121 | 44648 | 36987 (45) | 1419708 | 4922732(5) | 2.5 | 100.0 | 100.0 | 4-1 |
| | D | 7487 | | | | 13017 | 10621 (45) | 245472 | 1408717 | 4.3 | 17.3 | 28.6 | |
| | LsD | 28457 | | | | 13226 | 10081 (43) | 393655 | 1343120 | 2.6 | 27.8 | 27.3 | |
| | LtD | 53968 | | | | 18405 | 16285 (47) | 780581 | 2170895 | 2.1 | 54.9 | 44.1 | |
| a) All Nonag. | T | | | | | 18011 | 13381 (42) | 1290659 | 3668555 | 1.0 | 90.9 | 74.5 | |
| | D | | | | | 5571 | 5019 (47) | 213495 | 868175 | 2.3 | 15.0 | 17.6 | |
| | LsD | | | | | 5291 | 4279 (45) | 353833 | 1004814 | 1.2 | 24.9 | 20.4 | |
| | LtD | | | | | 7149 | 4083 (36) | 723333 | 1795566 | 0.6 | 50.9 | 36.5 | |
| b) Manuf. | T | | | | | 26637 | 23606 (47) | 129049 | 1254177 | 18.3 | 9.0 | 25.5 | |
| | D | | | | | 7446 | 5602 (43) | 31979 | 540542 | 17.5 | 2.2 | 10.9 | |
| | LsD | | | | | 7935 | 5802 (42) | 39222 | 338306 | 14.5 | 2.8 | 6.8 | |
| | LtD | | | | | 11256 | 12202 (52) | 57248 | 375329 | 21.3 | 4.0 | 7.6 | |

[a]Cols. 7-10 are from the Economic Census, 1985. The rest of data are from Statistical Yearbook of Bangladesh, 1986.

[b]The symbols have the following meaning: Div = division; Dev = developed area; LsD = less-developed area; and LtD = least-developed area.

[c]In the economic census data of Cols. 7-10, the figures against divisions are for manufacturing units only; against districts, they are for all nonagricultural establishments.

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Table 4.5.--Shares of different industries in total nonagricultural pre-1982 mechanized establishments, post-1981 mechanized establishments, total of all establishments, and workforce, by size-classes of workers, Economic Census, 1986

Line 1: Share in establishments using machinery with power prior to 1982
Line 2: Share in establishments using machinery with power since 1982
Line 3: Share in total establishments
Line 4: Share in total workers

| Industry Code | Line | Total | 1 | 2 | 3 | 4 | 5-9 | 10-19 | 20-40 | 50-99 | 100 & Over | Not Reported |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Establishments by No. of workers | | | | | | | | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
| 3: Manuf. | 1 | 60 | 54 | 59 | 58 | 65 | 68 | 59 | 53 | 53 | 65 | 42 |
| | 2 | 64 | 61 | 64 | 64 | 64 | 69 | 61 | 61 | 61 | 86 | 60 |
| | 3 | 9 | 4 | 7 | 12 | 13 | 22 | 26 | 31 | 43 | 59 | 3 |
| | 4 | 25 | 4 | 7 | 12 | 13 | 23 | 26 | 31 | 42 | 68 | 0 |
| 31: Food | 1 | 41 | 47 | 54 | 45 | 41 | 35 | 32 | 19 | 17 | 6 | 34 |
| | 2 | 43 | 53 | 56 | 51 | 39 | 28 | 22 | 9 | 14 | 10 | 56 |
| | 3 | 3 | 1 | 3 | 4 | 4 | 6 | 7 | 5 | 7 | 11 | 2 |
| | 4 | 6 | 1 | 3 | 4 | 4 | 6 | 7 | 5 | 6 | 10 | 0 |
| 32: Textile | 1 | 5 | 1 | 0.6 | 1 | 5 | 6 | 9 | 21 | 9 | 30 | 1 |
| | 2 | 4 | 2 | 1 | 1 | 4 | 7 | 11 | 22 | 21 | 67 | 0 |
| | 3 | 2 | 0.3 | 0.5 | 1 | 2 | 5 | 12 | 18 | 17 | 25 | 0.2 |
| | 4 | 11 | 0.3 | 0.5 | 1 | 2 | 6 | 12 | 17 | 17 | 41 | 0 |
| 33: Wood | 1 | 4 | 1 | 0.5 | 2 | 3 | 9 | 6 | 0.4 | 1 | 3 | 0.6 |
| | 2 | 4 | 2 | 1 | 0.7 | 4 | 12 | 9 | 0 | 0 | 0 | 2 |
| | 3 | 1 | 0.5 | 0.7 | 2 | 3 | 5 | 3 | 1 | 0.3 | 1 | 0.4 |
| | 4 | 2 | 0.5 | 0.7 | 2 | 3 | 4 | 3 | 1 | 0.2 | 0.6 | 0 |
| 34: Paper | 1 | 3 | 0.3 | 1 | 2 | 5 | 6 | 4 | 1 | 3 | 4 | 0 |
| | 2 | 3 | 0.2 | 1 | 2 | 3 | 6 | 5 | 4 | 7 | 0 | 0 |
| | 3 | 0.3 | 0.07 | 0.2 | 0.3 | 0.6 | 1 | 1 | 0.8 | 1 | 1 | 0.1 |
| | 4 | 0.9 | 0.07 | 0.2 | 0.3 | 0.6 | 1 | 1 | 0.9 | 2 | 2 | 0 |
| 35: Chemical | 1 | 1 | 0.7 | 0.5 | 2 | 1 | 2 | 1 | 3 | 7 | 4 | 0.6 |
| | 2 | 1 | 0.2 | 0.1 | 0.9 | 1 | 3 | 3 | 0.9 | 0 | 0 | 0 |
| | 3 | 0.2 | 0.04 | 0.06 | 0.3 | 0.3 | 0.7 | 0.9 | 1 | 2 | 3 | 0.04 |
| | 4 | 0.9 | 0.04 | 0.04 | 0.3 | 0.3 | 0.7 | 0.9 | 1 | 2 | 3 | 0 |
| 36: Non-Metallic | 1 | 1.2 | 0.2 | 0 | 0 | 0 | 0.2 | 0 | 0.8 | 2 | 4 | 0.5 |
| | 2 | 1.2 | 0.2 | 0 | 0 | 0 | 0.5 | 0 | 2 | 3 | 0 | 0 |
| | 3 | 0.2 | 0.04 | 0.05 | 0.07 | 0.1 | 0.3 | 0.4 | 2 | 8 | 11 | 0.2 |
| | 4 | 2 | 0.04 | 0.05 | 0.07 | 0.1 | 0.3 | 0.3 | 2 | 9 | 6 | 0 |

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Table 4.5--Cont'd.

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 37: Basic Metals | 1 | 0.1 | 0 | 0.1 | 0.2 | 0 | 0.3 | 0.4 | 0.8 | 6 | 4 | 0 |
| | 2 | 0 | 0 | 0.1 | 0 | 0.2 | 0.9 | 0 | 3 | 7 | 5 | 0 |
| | 3 | 0.05 | 0.01 | 0.05 | 0.05 | 0.07 | 0.1 | 0.09 | 0.3 | 2 | 2 | 0 |
| | 4 | 0.[illegible] | 0.01 | 0.05 | 0.05 | 0.07 | 0.1 | 0.1 | 0.5 | 2 | 2 | 0 |
| 38: Machinery | 1 | 1 | 3 | 2 | 5 | 9 | 8 | 4 | 6 | 7 | 7 | 3 |
| | 2 | 7 | 2 | 5 | 8 | 11 | 11 | 10 | 10 | 10 | 5 | 1 |
| | 3 | 1 | 0.5 | 1 | 2 | 2 | 2 | 2 | 2 | 4 | 5 | 0.3 |
| | 4 | 2 | 0.5 | 1 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 0 |
| 39: Other Manuf. | 1 | 0.8 | 0.5 | 0.8 | 0.8 | 2 | 1 | 0.6 | 0.4 | 0 | 1 | 2 |
| | 2 | 0.[illegible] | 0.2 | 0.2 | 0.5 | 2 | 0.5 | 0.8 | 2 | 0 | 0 | 0.9 |
| | 3 | 1 | 1 | 1 | 2 | 1 | 1 | 0.5 | 0.3 | 0.3 | 0.4 | 0.2 |
| | 4 | 0.8 | 1 | 1 | 2 | 1 | 0.9 | 0.4 | 0.3 | 0.3 | 0.2 | 0 |
| 4: Electricity | 1 | 1 | 0.7 | 0.7 | 0.8 | 0.9 | 1 | 0.8 | 3 | 2 | 4 | 3 |
| | 2 | 1 | 2 | 1 | 0 | 0 | 0.1 | 3 | 7 | 0 | 0 | 1 |
| | 3 | 0.1 | 0.04 | 0.06 | 0.05 | 0.05 | 0.2 | 0.4 | 2 | 1 | 2 | 0.1 |
| | 4 | 0.5 | 0.04 | 0.06 | 0.05 | 0.05 | 0.2 | 0.4 | 2 | 1 | 1 | [illegible] |
| 6: Trade | 1 | 11 | 10 | 15 | 11 | 11 | 11 | 6 | 7 | 5 | 1 | [illegible] |
| | 2 | 11 | 14 | 12 | 10 | 10 | 11 | 9 | 10 | 3 | 2 | 8 |
| | 3 | 57 | 62 | 67 | 63 | 50 | 41 | 18 | 9 | 4 | 5 | 34 |
| | 4 | 37 | 62 | 67 | 63 | 50 | 40 | 18 | 9 | 4 | 4 | 0 |
| 8: Finance | 1 | 2 | 2 | 1 | 0.4 | 0.6 | 2 | 3 | 4 | 1 | 2 | 3 |
| | 2 | 1 | 1 | 2 | 1 | 0.9 | 0.8 | 4 | 3 | 0 | 0 | 0 |
| | 3 | 1 | 0.7 | 0.5 | 0.7 | 0.8 | 3 | 8 | 9 | 4 | 4 | . |
| | 4 | 1 | 0.7 | 0.5 | 0.7 | 0.8 | 3 | 8 | 8 | 4 | 4 | . |
| 9: Services | 1 | 27 | 33 | 24 | 29 | 22 | 18 | 31 | 33 | 39 | 27 | 35 |
| | 2 | 33 | 23 | 21 | 24 | 25 | 20 | 23 | 28 | 36 | 12 | 31 |
| | 3 | 33 | 34 | 25 | [illegible] | 35 | 34 | 48 | 50 | 48 | 30 | 59 |
| | 4 | [illegible] | [illegible] | 25 | [illegible] | 35 | 34 | 49 | 50 | 48 | 23 | 0 |
| All manag. (%) | 1 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | 2 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | 3 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| | 4 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| All manag. (No.) | 1 | [illegible] | [illegible] | 8517 | [illegible] | [illegible] | [illegible] | [illegible] | 2385 | 950 | 89 | 737 |
| | 2 | 36976 | 5027 | 8523 | [illegible] | [illegible] | 7618 | 2343 | 1156 | 268 | 42 | 571 |
| | 3 | 1419703 | [illegible] | 377371 | [illegible] | [illegible] | 129849 | 42237 | 14071 | 3398 | 2325 | [illegible] |
| | 4 | 4922736 | [illegible] | 754742 | [illegible] | [illegible] | [illegible] | [illegible] | 397522 | 228651 | 760701 | -- |

Table 4.1.--Annual rates of expansion of new mechanized establishments with employment n. of 1980, pre-1972 period through 1986, Economic Census, 1986[a]

| Sector | Year | Annual Rates of Expansion by Size-Class of Workers: 1-4 Units | 1-4 Workers | 5-9 Units | 5-9 Workers | 10-19 Units | 10-19 Workers | Rest Units | Rest Workers | Total Units | Total Worker |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
| Food Processing | Pre-1972 | .. | .. | .. | .. | .. | .. | Not given here for simplicity of table. For size-class exceeding 19 workers, see Table 4A.2. | | .. | .. |
| | 1972 | 8.2 | 7.6 | 13.6 | 9.2 | 14.4 | 10.4 | | | [illegible] | [illegible] |
| | 1973 | 4.5 | 4.2 | 5.2 | 6.1 | 8.6 | 6.7 | | | 5.2 | 2.1 |
| | 1974 | 4.9 | 5.5 | 6.9 | 6.3 | 12.0 | 13.1 | | | 6.2 | 5.3 |
| | 1975 | 15.4 | 14.1 | 15.1 | 11.5 | 12.8 | 13.3 | | | 14.1 | 4.9 |
| | 1976 | 8.7 | 8.5 | 10.8 | 8.3 | 3.1 | 7.1 | | | 8.8 | 4 |
| | 1977 | 6.9 | 6.3 | 3.4 | 21.1 | 3.0 | 2.6 | | | 5.1 | 3.5 |
| | 1978 | 9.1 | 10.4 | 12.8 | 13.5 | 9.6 | 7.9 | | | 10.5 | 4.8 |
| | 1979 | 7.3 | 6.6 | 4.4 | 3.8 | .8 | 2.5 | | | 5.8 | 2.9 |
| | 1980 | 25.7 | 24.3 | 22.8 | 20.7 | 22.3 | 24.0 | | | 23.6 | 10.5 |
| | 1981 | 9.7 | 8.8 | 5.8 | 6.0 | 12.9 | 12.1 | | | 8.9 | 4.5 |
| | 1982 | 12.7 | 12.9 | 10.0 | 9.1 | 8.9 | 10.0 | | | 11.2 | 5.2 |
| | 1983 | 12.0 | 11.9 | 9.7 | 8.4 | 3.9 | 3.4 | | | 10.8 | 5.2 |
| | 1984 | 14.5 | 15.3 | 13.5 | 10.5 | 11.8 | 11.7 | | | 13.6 | 7.3 |
| | 1985 | 19.5 | 18.5 | 10.7 | 10.1 | 3.5 | 5.9 | | | 16.3 | 7.5 |
| | 1986 | 18.7 | 16.5 | 7.1 | 8.8 | 1.4 | 5.5 | | | 15.3 | 7.5 |
| | Mean | 11.9 | 11.4 | 10.2 | 10.3 | 8.7 | 9.0 | | | 10.7 | 5.4 |
| Textiles | Pre-1972 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | 1972 | 3.4 | 4.5 | 0.0 | 11.7 | 24.7 | 14.3 | .. | .. | 6.5 | 3 |
| | 1973 | 3.7 | 1.1 | 0.0 | 4.6 | 15.3 | 3.1 | .. | .. | 7.5 | 1.1 |
| | 1974 | 0.0 | 3.8 | 16.7 | 2.0 | 3.9 | 4.5 | .. | .. | 7.4 | 1.4 |
| | 1975 | 3.2 | 8.0 | 8.2 | 8.2 | 0.0 | 10.1 | .. | .. | 7 | 2.7 |
| | 1976 | 0.0 | 6.4 | 5.1 | 5.9 | 0.0 | 12.4 | .. | .. | 4.9 | 3.1 |
| | 1977 | 3.4 | .5 | 0.0 | 0.0 | 12.8 | 3.2 | .. | .. | 6.5 | 1.0 |
| | 1978 | 6.0 | 12.8 | 19.8 | 6.9 | 32.1 | 15.8 | .. | .. | 15.3 | 2.1 |
| | 1979 | 14.5 | 6.0 | 1.9 | 6.4 | 0.0 | 1.6 | .. | .. | 5.8 | 1.9 |
| | 1980 | 10.1 | 13.7 | 18.3 | 12.0 | 22.3 | 13.7 | .. | .. | 22.8 | 4.8 |
| | 1981 | 0.0 | 4.1 | 3.2 | 3.6 | 2.0 | 2.6 | .. | .. | 2.4 | 1.1 |
| | 1982 | 0.0 | 6.9 | 7.8 | 6.4 | 10.8 | 9.1 | .. | .. | 6 | 2.3 |
| | 1983 | 11.4 | 9.1 | 14.0 | 14.5 | 8.2 | 7.1 | .. | .. | 10 | 3.1 |
| | 1984 | 17.3 | 8.8 | 21.9 | 13.4 | 11.2 | 5.9 | .. | .. | 15.6 | 4.4 |
| | 1985 | 16.7 | 13.9 | 11.4 | 11.4 | 10.3 | 5.5 | .. | .. | 13.2 | 3.2 |
| | 1986 | 35.9 | 18.7 | 16.7 | 6.5 | 7.7 | 2.4 | .. | .. | 15.9 | 3.3 |
| | Mean | 8.4 | 8.0 | 9.7 | 7.6 | 10.8 | 7.5 | .. | .. | 9.7 | 2.6 |
| All Manuf. | Pre-1972 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | 1972 | 8.0 | 8.7 | 12.9 | 10.9 | 14.5 | 11.6 | .. | .. | 10 | 3.6 |
| | 1973 | 4.4 | 4.0 | 5.4 | 5.9 | 9.0 | 4.2 | .. | .. | 5.5 | 1.7 |
| | 1974 | 4.4 | 4.0 | 7.8 | 3.7 | 8.3 | 6.0 | .. | .. | 5.8 | 2.2 |
| | 1975 | 1.5 | 12.1 | 13.6 | 10.7 | 7.6 | 11.3 | .. | .. | 13.2 | 4 |
| | 1976 | 7.5 | 8.2 | 9.1 | 8.0 | 3.5 | 10.2 | .. | .. | 7.9 | 3.6 |
| | 1977 | 6.9 | 3.0 | 4.3 | 2.1 | 5.3 | 4.6 | .. | .. | 6.3 | 1.6 |
| | 1978 | 9.0 | 8.8 | 14.0 | 10.1 | 14.1 | 13.2 | .. | .. | 10.8 | 3.6 |
| | 1979 | 7.0 | 5.4 | 5.4 | 6.6 | 3.3 | 3.9 | .. | .. | 5.1 | 2.4 |

BEST AVAILABLE

Table 4.6--Cont'd

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1980 | 23.8 | 2.0 | 20.3 | 17.3 | 21.5 | 17.5 | .. | .. | 21.9 | 7.7 |
| | 1981 | 9.4 | 7.4 | 7.9 | 7.4 | 9.4 | 5.3 | .. | .. | 8.6 | 2.8 |
| | 1982 | 12.5 | 14.8 | 13.6 | 11.8 | 11.5 | 10.1 | .. | .. | 12 | 4.8 |
| | 1983 | 11.5 | 11.8 | 11.0 | 12.3 | 6.8 | 6.4 | .. | .. | 10.6 | 4.5 |
| | 1984 | 14.7 | 14.4 | 14.4 | 12.5 | 11.4 | 8.6 | .. | .. | 13.2 | 6.3 |
| | 1985 | 19.0 | 19.3 | 12.3 | 13.8 | 7.9 | 7.9 | .. | .. | 15.8 | 6.2 |
| | 1986 | 20.1 | 19.7 | 11.2 | 12.8 | 5.3 | 5.9 | .. | .. | 15.8 | 6.3 |
| | Mean | 10.7 | 9.6 | 10.9 | 9.9 | 9.3 | 8.4 | .. | .. | 10.9 | 4.1 |
| Non-Manuf. | Pre-1972 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | 1972 | 10.2 | 8.5 | 12.9 | 8.6 | 10.3 | 7.6 | .. | .. | 10 | 6 |
| | 1973 | 5.3 | 4.5 | 5.9 | 49.2 | 6.3 | 3.9 | .. | .. | 6 | 3 |
| | 1974 | 5.3 | 4.6 | 6.7 | 3.0 | 6.6 | 4.5 | .. | .. | 6 | 3 |
| | 1975 | 12.0 | 9.3 | 12.6 | 5.6 | 7.1 | 5.8 | .. | .. | 11 | 6 |
| | 1976 | 7.2 | 5.6 | 9.2 | 3.7 | 3.7 | 4.8 | .. | .. | 7 | 4 |
| | 1977 | 5.5 | 2.6 | 4.1 | 2.3 | 6.8 | 4.6 | .. | .. | 6 | 3 |
| | 1978 | 13.0 | 7.4 | 15.6 | 5.7 | 10.8 | 5.9 | .. | .. | 13 | 5 |
| | 1979 | 6.2 | 4.3 | 5.6 | 2.3 | 3.3 | 3.2 | .. | .. | 5 | 3 |
| | 1980 | 20.8 | 16.7 | 17.8 | 7.2 | 14.3 | 9.1 | .. | .. | 18 | 10 |
| | 1981 | 8.2 | 63.1 | 7.9 | 4.6 | 6.5 | 4.9 | .. | .. | 8 | 5 |
| | 1982 | 12.2 | 6.8 | 12.6 | 6.9 | 8.8 | 6.4 | .. | .. | 11 | 7 |
| | 1983 | 10.9 | 5.9 | 11.2 | 6.9 | 8.1 | 6.1 | .. | .. | 10 | 6 |
| | 1984 | 14.2 | 7.0 | 11.1 | 4.9 | 9.5 | 6.5 | .. | .. | 13 | 8 |
| | 1985 | 16.7 | 7.1 | 12.5 | 8.2 | 7.6 | 5.9 | .. | .. | 14 | 9 |
| | 1986 | 19.3 | 9.0 | 12.0 | 8.7 | 7.2 | 6.1 | .. | .. | 15 | 8 |
| | Mean | 11.1 | 10.1 | 10.6 | 8.6 | 8.9 | 5.8 | .. | .. | 10.2 | 5.7 |
| All Nonag. | Pre-1972 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | 1972 | 13 | 9 | 13 | 8 | 6 | 6 | .. | .. | 11 | 5 |
| | 1973 | 6 | 4 | 7 | 57 | 4 | 4 | .. | .. | 6 | 4 |
| | 1974 | 6 | 5 | 4 | 30 | 5 | 4 | .. | .. | 5 | 4 |
| | 1975 | 8 | 9 | 10 | 5 | 7 | 4 | .. | .. | 8 | 6 |
| | 1976 | 6 | 5 | 9 | 5 | 4 | 3 | .. | .. | 6 | 4 |
| | 1977 | 3 | 2 | 6 | 2 | 8 | 5 | .. | .. | 5 | 3 |
| | 1978 | 19 | 7 | 18 | 5 | 7 | 4 | .. | .. | 16 | 6 |
| | 1979 | 5 | 4 | 6 | 3 | 3 | 3 | .. | .. | 5 | 3 |
| | 1980 | 17 | 16 | 13 | 6 | 6 | 8 | .. | .. | 13 | 11 |
| | 1981 | 6 | 68 | 8 | 4 | 3 | 5 | .. | .. | 6 | 6 |
| | 1982 | 12 | 6 | 10 | 5 | 5 | 5 | .. | .. | 10 | 8 |
| | 1983 | 10 | 5 | 11 | 6 | 12 | 7 | .. | .. | 10 | 7 |
| | 1984 | 13 | 6 | 4 | 3 | 7 | 6 | .. | .. | 12 | 8 |
| | 1985 | 13 | 7 | 13 | 7 | 7 | 5 | .. | .. | 12 | 8 |
| | 1986 | 18 | 8 | 14 | [illegible] | 10 | 6 | .. | .. | 15 | 9 |
| | Mean | 10.3 | 10.7 | 9.7 | 10.2 | 6.3 | 5 | .. | .. | 9.3 | 6.2 |

[a] Note that the number of workers reported are as of 1986 irrespective of the year of the commencement of operations of different cohorts of establishments. The rates of growth of employment will be relevant only if the number of employees of the initial year happened to be identical to the number in 1986. Since that is highly unlikely to be the case, the results concerning employment growth rates should either be ignored or analyzed cautiously. For more details, see Appendix 4B, Crosstab 3.

Table 4.6--Cont'd

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1980 | 23.8 | 2.0 | 20.5 | 17.3 | 21.5 | 17.5 | .. | .. | 21.9 | 7.7 |
| | 1981 | 9.4 | 7.4 | 7.9 | 7.4 | 9.4 | 5.3 | .. | .. | 8.6 | 2.8 |
| | 1982 | 12.5 | 14.8 | 13.6 | 11.8 | 11.5 | 10.1 | .. | .. | 12 | 4.8 |
| | 1983 | 11.5 | 11.8 | 11.0 | 12.3 | 6.8 | 6.4 | .. | .. | 10.6 | 4.5 |
| | 1984 | 14.7 | 14.4 | 14.4 | 12.5 | 11.4 | 8.6 | .. | .. | 13.2 | 6.3 |
| | 1985 | 19.0 | 19.3 | 12.3 | 13.8 | 7.9 | 7.9 | .. | .. | 15.8 | 6.2 |
| | 1986 | 20.1 | 19.7 | 11.2 | 12.8 | 5.3 | 5.9 | .. | .. | 15.8 | 6.3 |
| | Mean | 10.7 | 9.6 | 10.9 | 9.9 | 9.3 | 8.4 | .. | .. | 10.9 | 4.1 |
| Non-Manuf. | Pre-1972 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | 1972 | 10.2 | 8.5 | 12.9 | 8.6 | 10.3 | 7.6 | .. | .. | 10 | 6 |
| | 1973 | 5.3 | 4.5 | 5.9 | 49.2 | 6.3 | 3.9 | .. | .. | 6 | 3 |
| | 1974 | 5.3 | 4.6 | 6.7 | 3.0 | 6.6 | 4.5 | .. | .. | 6 | 3 |
| | 1975 | 12.0 | 9.3 | 12.6 | 5.6 | 7.1 | 5.8 | .. | .. | 11 | 6 |
| | 1976 | 7.2 | 5.6 | 9.2 | 3.7 | 3.7 | 4.8 | .. | .. | 7 | 4 |
| | 1977 | 5.5 | 2.6 | 4.1 | 2.3 | 6.8 | 4.6 | .. | .. | 6 | 3 |
| | 1978 | 13.0 | 7.4 | 15.6 | 5.7 | 10.8 | 5.9 | .. | .. | 13 | 5 |
| | 1979 | 6.2 | 4.3 | 5.6 | 2.3 | 3.3 | 3.2 | .. | .. | 5 | 3 |
| | 1980 | 20.8 | 16.7 | 17.8 | 7.2 | 14.3 | 9.1 | .. | .. | 18 | 10 |
| | 1981 | 8.2 | 63.1 | 7.9 | 4.6 | 6.5 | 4.9 | .. | .. | 8 | 5 |
| | 1982 | 12.2 | 6.8 | 12.6 | 6.9 | 8.8 | 6.4 | .. | .. | 11 | 7 |
| | 1983 | 10.9 | 5.9 | 11.2 | 6.9 | 8.1 | 6.1 | .. | .. | 10 | 6 |
| | 1984 | 14.2 | 7.0 | 11.1 | 4.9 | 9.5 | 6.5 | .. | .. | 13 | 8 |
| | 1985 | 16.7 | 7.1 | 12.5 | 8.2 | 7.6 | 5.9 | .. | .. | 14 | 9 |
| | 1986 | 19.3 | 9.0 | 12.0 | 8.7 | 7.2 | 6.1 | .. | .. | 15 | 8 |
| | Mean | 11.1 | 10.1 | 10.6 | 8.6 | 8.9 | 5.8 | .. | .. | 10.2 | 5.7 |
| All Nonag. | Pre-1972 | .. | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| | 1972 | 13 | 9 | 13 | 8 | 6 | 6 | .. | .. | 11 | 6 |
| | 1973 | 6 | 4 | 7 | 57 | 4 | 4 | .. | .. | 6 | 4 |
| | 1974 | 6 | 5 | 4 | 30 | 5 | 4 | .. | .. | 5 | 4 |
| | 1975 | 8 | 9 | 10 | 5 | 7 | 4 | .. | .. | 8 | 6 |
| | 1976 | 6 | 5 | 9 | 5 | 4 | 3 | .. | .. | 6 | 4 |
| | 1977 | 3 | 2 | 6 | 2 | 8 | 5 | .. | .. | 5 | 3 |
| | 1978 | 19 | 7 | 18 | 5 | 7 | 4 | .. | .. | 16 | 6 |
| | 1979 | 5 | 4 | 6 | 3 | 3 | 3 | .. | .. | 5 | 3 |
| | 1980 | 17 | 16 | 13 | 6 | 6 | 8 | .. | .. | 13 | 11 |
| | 1981 | 6 | 68 | 8 | 4 | 3 | 5 | .. | .. | 6 | 6 |
| | 1982 | 12 | 6 | 10 | 4 | 5 | 5 | .. | .. | 10 | 8 |
| | 1983 | 10 | 5 | 11 | 6 | 12 | 7 | .. | .. | 10 | 7 |
| | 1984 | 13 | 6 | 4 | 3 | 7 | 6 | .. | .. | 12 | 8 |
| | 1985 | 13 | 7 | 13 | 7 | 7 | 5 | .. | .. | 12 | 8 |
| | 1986 | 18 | 8 | 14 | 8 | 10 | 6 | .. | .. | 15 | 9 |
| | Mean | 10.3 | 10.7 | 9.7 | 10.2 | 6.3 | 5 | .. | .. | 9.3 | 6.2 |

[a] Note that the number of workers reported are as of 1986 irrespective of the year of the commencement of operations of different cohorts of establishments. The rates of growth of employment will be relevant only if the number of employees of the initial year happened to be identical to the number in 1986. Since that is highly unlikely to be the case, the results concerning employment growth rates should either be ignored or analyzed cautiously. For more details, see Appendix 4B, Crosstab 3.

Table 4.9.--Distribution of manufacturing employment by size-class of establishments: international comparisons

| Country | | Per Capita Income (US$ 1982) | Below 10 Workers (%) | 10-49 Workers (%) | 50 or More Workers (%) |
|---|---|---|---|---|---|
| **I. Developing Countries: Size-Classification 1** | | | | | |
| 1. Bangladesh | | 139 | | | |
| Estab Sector 1986 | | | 29 | 21 | 50 |
| H'hold Sector | | | 45[a] | | |
| Total | | | 74 | | |
| 2. India | | 260 | | | |
| Estab Sector[b] 1971 | | | 42 | 20 | 38 |
| Nonh'hold, non-factory | | | 32[c] | | |
| H'hold: Uncorrected | | | 36[c] | | |
| Corrected | | | 45[c] | | |
| Total | | | 77 | | |
| 3. Tanzania | 1967 | 280 | 56 | 7 | 37 |
| 4. Ghana | 1970 | 360 | 84 | 1 | 15 |
| 5. Kenya | 1969 | 390 | 49 | 10 | 41 |
| 6. Sierra Leone | 1974 | 390 | 90 | 5 | 5 |
| 7. Indonesia | 1977 | 580 | 77 | 7 | 16 |
| 8. Honduras | 1979 | 660 | 68 | 8 | 24 |
| 9. Thailand | 1978 | 790 | 58 | 11 | 31 |
| 10. Philippines | 1974 | 820 | 66 | [illegible] | [illegible] |
| 11. Nigeria | 1972 | 860 | 59 | 26 | 15 |
| 12. Jamaica | 1978 | 1330 | 35 | 16 | 49 |
| 13. Colombia | 1973 | 1460 | 52 | 13 | 35 |
| 14. Korea | 1975 | 1910 | 40 | 7 | 53 |

**II. Developing Countries (and Some Developed Countries): Size-Classification 2**

| | | Per Capita Income (US$ 1985)(1) | 1-4 Workers (2) | 5-99 Workers (3) | 100-and-Over Workers (4) |
|---|---|---|---|---|---|
| 1. Bangladesh | 1986 | 150 | 15.0 | 43.1 | 41.9 |
| 2. Tanzania | 1967 | 290 | 55 | 8 | 37 |
| 3. Kenya | 1969 | 290 | 49 | 10 | 41 |
| 4. Ghana | 1970 | 380 | 78 | 7 | 15 |
| 5. Indonesia | 1975 | 530 | 76 | 12 | 12 |
| 6. Philippines | 1967 | 580 | 77.8 | 7.2 | 15.0 |
| 7. Nigeria | 1972 | 800 | 59 | 15 | 26 |

Table 4.9.--Contd.

| | | | (1) | (2) | (3) | (4) |
|---|---|---|---|---|---|---|
| 8. | Taiwan | 1920 | .. | 60.6 | ( 39.4 ) | |
| | | 1940 | .. | 25.3 | ( 74.7 ) | |
| | | 1966 | .. | 4.0 | 39.0 | 57.0 |
| 9. | Japan | 1955 | 11300 | 20 | 40.2 | 39.8 |
| 10. | Colombia | 1964 | 1320 | 51.4 | 25.9 | 23.7 |
| | | 1978 | | 45.0 | 29.3 | 25.7 |
| 11. | Canada | 1930 | 13680 | 3.7 | 35.5 | 60.8 |
| 12. | U.S.A. | 1947 | 16690 | 1.1 | 23.9 | 75.0 |

III. Free-Enterprise Developed Economies

| | | Per Capita Income (US$ 1985) | 1-100 | 6-100 | 101-500 | 501-10000 | 1000 & over | Av.No. of Workers per Estab. |
|---|---|---|---|---|---|---|---|---|
| 1. Bangladesh | 1986 | 150 | 58 | 40 | ( 42 ) | | | 9 |
| 2. Belgium | 1910 | 8280 | .. | ( 72.7 ) | | ( [illegible] ) | | 40 |
| 3. U.K. | 1935 | 8460 | .. | 25.6 | 39.0 | 13.9 | 21.5 | 105 |
| 4. France | 1906 | 9540 | .. | 41.0 | 31.7 | 10.7 | 16.6 | 61 |
| 5. Germany | 1907 | 10940 | .. | 44.7 | 33.1 | 9.5 | 12.7 | 35 |
| | | | | (11-100) | | | | |
| 6. Denmark | 1914 | 11200 | 72.9 | ( 27.1 ) | | | | .. |
| | 1906 | | .. | 66.0 | ( 34.0 ) | | | .. |
| 7. Japan | 1930 | 11300 | .. | 41.1 | 29.5 | ( 29.4 ) | | 28 |
| 8. Switzerland | 1923 | 16370 | 62.6 | .. | 36.8 | ( 20.6 ) | | 43 |
| 9. U.S. | 1914 | 16690 | 34.8 | .. | 34.1 | 13.2 | 17.9 | 66 |

IV. Socialist Economies

| | | Per Capita Income (US$ 1985) | 6-100 | 101-500 | 501 and + | 1001 and + | Av.No. of Workers per Estab. |
|---|---|---|---|---|---|---|---|
| 1. Bangladesh | 1986 | 150 | 40 | ( 42 ) | | | 9 |
| 2. Hungary | 1938 | 1950 | 27.0 | ( 44.0 ) | | | 27 |
| | | | (10-100) | | | | |
| 3. Poland | 1937 | 2050 | 32.7 | 26.6 | ( 40.7 ) | | 54 |
| | | | (11-100) | | | | |
| 4. Romania | 1930 | .. | 38.6 | 31.1 | ( 30.3 ) | | 36 |
| | | | (11-100) | | | | |
| 5. Czechoslavakia | 1930 | .. | 41.1(11-100) | 29.5 | ( 29.4 ) | | 40 |
| 6. Austria | 1902 | 9120 | 47.8 | | ( 52.2 ) | | 31 |

Table 4.7.—Different categories of workers as percentages of total workers in manufacturing industries by econographic areas, Econ. Census, 1986

| Division and Econographic Area (1) | Category of Worker: Full Time (2) | Part Time (3) | Family Labor (4) | Working Proprietors (5) | Total (6) | Total Workers (000) (7) |
|---|---|---|---|---|---|---|
| I. Chittagong | | | | | | |
| 1. Dev | 87 | 7 | 1.4 | 4.5 | 100 | 159 |
| 2. LsD | 66 | 12.4 | 5.6 | 16 | 100 | 77 |
| 3. LtD | 74 | 9 | 5 | 12 | 100 | 116 |
| 4. Total | 78 | 9 | 3.5 | 10 | 100 | 352 |
| II. Dhaka | | | | | | |
| 1. Dev | 84 | 6.5 | 2 | 7 | 100 | 337 |
| 2. LsD | 72 | 9.6 | 7 | 12 | 100 | 111 |
| 3. LtD | 62 | 14 | 8 | 17 | 100 | 141 |
| 4. Total | 79 | 8 | 4 | 9 | 100 | 503 |
| III. Khulna | | | | | | |
| 1. Dev | 87 | 8 | 1 | 4 | 100 | 45 |
| 2. LsD | 78 | 10 | 3 | 9 | 100 | 41 |
| 3. LtD | 56 | 11 | 8 | 25 | 100 | 56 |
| 4. Total | 72 | 10 | 4.2 | 14 | 100 | 141 |
| IV. Rajshahi | | | | | | |
| 1. Dev | .. | .. | .. | .. | .. | .. |
| 2. LsD | 69 | 14.2 | 7.4 | 9.4 | 100 | 110 |
| 3. LtD | 60 | 19 | 6.7 | 13 | 100 | 149 |
| 4. Total | 64 | 17 | 7 | 12 | 100 | 258 |
| V. Bangladesh | | | | | | |
| 1. Dev | 85 | 7 | 2 | 6 | 100 | 540 |
| 2. LsD | 70 | 12 | 6 | 12 | 100 | 338 |
| 3. LtD | 64 | 14 | 7 | 15 | 100 | 375 |
| 4. Total | 75 | 10 | 4.5 | 10.5 | 100 | 1255 |

Table 4.8--A few comparative statistics for manufacturing industries from the CMI and Econ. Census, 1986

| Variable | No. of Estabs by Size-Class of Workers | | | | | |
|---|---|---|---|---|---|---|
| | 1-10 | 10-19 | 20-49 | 50-99 | 100 & + | Total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| A. CMI | | | | | | |
| 1. "Old" Estabs | | | | | | |
| a. Estabs of 1974-75 which survived through 1983-84 | 44 | 109 | 149 | 100 | 268 | 670 |
| b. Of which analyzed | 26 | 65 | 93 | 53 | 155 | 392 |
| 2. "New" Estabs | | | | | | |
| a. Estabs which did not exist in 1974-75 but entered the industry by 1983-84 | 306 | 569 | 674 | 186 | 260 | 1,995 |
| b. Of which analyzed | 257 | 476 | 556 | 160 | 164 | 1,615 |
| c. Estabs which entered after NIP82: | | | | | | |
| a) 1982-83 | 21 | 94 | 102 | 21 | 21 | 259 |
| b) 1983-84 | 51 | 95 | 137 | 31 | 28 | 342 |
| 3. "Moribund" Estabs | | | | | | |
| a. Estabs of 1974-75 or 1975-76 which exited by 1983-84 | 107 | 145 | 186 | 64 | 39 | 541 |
| b. Of which analyzed | 106 | 143 | 182 | 63 | 37 | 531 |
| 4. Total all units: | | | | | | |
| a1. 1982-83 (Published Report) | 629 | 1,138 | 997 | 319 | 500 | 3,583 |
| a2. 1983-84 (Special Tabulation) | 457 | 823 | 1,009 | 350 | 567 | 3,206 |
| b. Of which analyzed | 389 | 686 | 831 | 276 | 356 | 2,538 |
| 5. Total employment: | | | | | | |
| a1. 1982-83 (Published Report) | 4,827 | 18,536 | 31,231 | 23,769 | 381,380 | [illegible] |
| a2. 1983-84 (Spl. tab) | 4,453 | 16,827 | 47,563 | 33,851 | 343,013 | 445,706 |
| b. Of which analyzed | 3,525 | 13,321 | 37,653 | 26,798 | 271,542 | 352,839 |
| B. Econ. Census | | | | | | |
| a. Mechanized prior to 1982 | 21,238 | 2,846 | 1,252 | 501 | 58 | 25,895 |
| Mechanized since 1982 | 20,769 | 1,448 | 594 | 177 | 36 | 23,024 |
| 7. Total all units, 1986 | 104,698 | 11,034 | 4,408 | 1,456 | 1,369 | 122,965 |
| 8. Total employment, 1986 | 369,618 | 144,797 | 123,295 | 96,917 | 516,516 | 1,251,263 |
| C. Coverage of CMI | | | | | | |
| Line 5a1 as % of Line 7 | 0.6 | 10.3 | 22.6 | 22.0 | 36.5 | 2.9 |
| Line 5a1 as % of Line 8 | 1.3 | 13.0 | 25.3 | 24.5 | 73.9 | 36.8 |

V. Free-Enterprise Developed-Countries: Small Type Economies (Austria, Belgium, France, Italy, Japan, Sweden), Chosen Industries, 1970[a]

| | 10-100 | 101-500 | 501-1000 | 1001 & + | Average No. Workers per Estab. |
|---|---|---|---|---|---|
| V.1 Small Type European | | | | | |
| Total manufac. | 35 | 33 | 13 | 19 | 80 |
| Heavy industries | 27 | 30 | 13 | 30 | 89 |
| Light indsutries | 45 | 38 | 10 | 7 | 55 |
| Food Processing | 43 | 41 | 13 | 3 | 65 |
| V.2 Japan | | | | | |
| Total manufac. | 46 | .. | .. | .. | 50 |
| Heavy Industry | 36 | .. | .. | .. | 67 |
| Light industry | 60 | .. | .. | .. | 38 |
| Food Processing | 57 | .. | .. | .. | 39 |
| Bangladesh (1986) | | | | | |
| Total manufac. | 29 | ( | 42 | ) | 10 |
| Heavy industry | 22 | ( | 38 | ) | 6 |
| Light industry | 28 | ( | 43 | ) | 7 |
| Food Processing | 26 | ( | 30 | ) | 11 |

[a]Assuming the same as for India. No estimates exist for Bangladesh. An economic survey of Bangladesh's household economic activities is scheduled to be carried out by BBS in 1991. All figures for Bangladesh are for the establishment sector, unless otherwise stated.

[b]From Source No. 5 below.

[c]From Source No. 4 below, namely Little, Mazumdar, and Page, Jr. (1987), Ch. 6, especially pp. 72-73.

Sources:- The data of this table are collected mostly from secondary sources, as follows:

1. Panel II: Cortes, Berry, Ishfaq (1987), Table 1.1.

2. Panels III, IV, and V: Ehrlich (1985), Tables 1, 2, 3.

Notes to Table 4.9--Contd.

4, and 6.

3. Bangladesh: This study: special tabulations of the 5% 5-percent sample of the Economic Census 1986.

4. India: Figures for the household sector (uncorrected and corrected for the underestimation of secondary workers) as well as nonhousehold, nonfactory sector from Little, Mazumdar, and Page, Jr. [1987]. Their corrections are explained on pp. 72-73, where they also report some data on other countries in the text (without giving a table). For instance, they report that "household and workshop (less than 5 employees) constitute over half of manufacturing employment in Ghana, Kenya, Nigeria, and Tanzania." They further surmise that "this was probably true of almost all African countries" (ibid., p. 72).

5. Panel I: Xerox copy of a table from a World Bank publication. The origin of this table is not traceable, but the basic data sources are given in the footnotes to this table, which are the following:

Africa: Tanzania, Ghana, Kenya, Nigeria: computed from Page [1979]; Sierra Leone: Chuta and Liedholm [1985].
India: Mazumdar [1980]
Indonesia: computed from Snodgrass [1979].
Honduras: Stallmann [1984].
Thailand: Estimated from data provided by National Statistical Office, Thailand.
Philippines: Anderson and Khambata [1981].
Jamaica: Fitzsoka [1982].
Colombia: Berry and Pinell-Ollea [1979].
Korea: Ho [1980].

manufacturing sectors: interna-
comparisons

| Year | Cottage Shop (1-4 Workers) | | | | | Average Employment of Establishments with 1 Worker or More | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Colombia: % of | | | | |
| | Canada | Japan | Taiwan | Output | Employment | U.S. | Romania | Czechoslovakia |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| 1899 | | | | | | 22 | | |
| 1914 | | | | | | 29 | | |
| 1920 | | | 61 | | | | | |
| 1921 | | | | | | 37 | | |
| 1930 | 3.7 | | | | | | | |
| 1937 | | | | | | 51 | | |
| 1940 | | | 25 | | | | | |
| 1939-41 | | | | 3[illegible] | | | | |
| 1944-45 | | | | | 67 | | | |
| 1950 | 2.9 | | | | | | | |
| 195[illegible] | | | | 26 | 59 | | | |
| 195[illegible] | 2.8 | 20 | | | | | 536 | |
| 1959 | 2.5 | | | | | | | |
| 196[illegible] | | | | | | | 849 | 1767 |
| 1964 | | | | 22 | 51 | | | |
| 196[illegible] | | 16 | | | | | 1133 | 1864 |
| 1969 | | | 4 | | | | | |
| 19[illegible]-71 | | | | 20 | | | | |
| 197[illegible] | | | | | 54 | | 1264 | 2020 |
| 1971 | | | 3 | | | | | |
| 197[illegible] | | | | | 50 | | | 2040 |
| 1975 | | 19 | | 15 | | | | |

Sources of data: Cortes, Berry, and Ishaq [1987] for Colombia: Tables 2.1 and 2.2; for Japan, Taiwan, and Canada: Table 1.1.
Ehrlich [1985], for U.S.: Table 1; for Rmania and Czechoslovakia: Table 9.

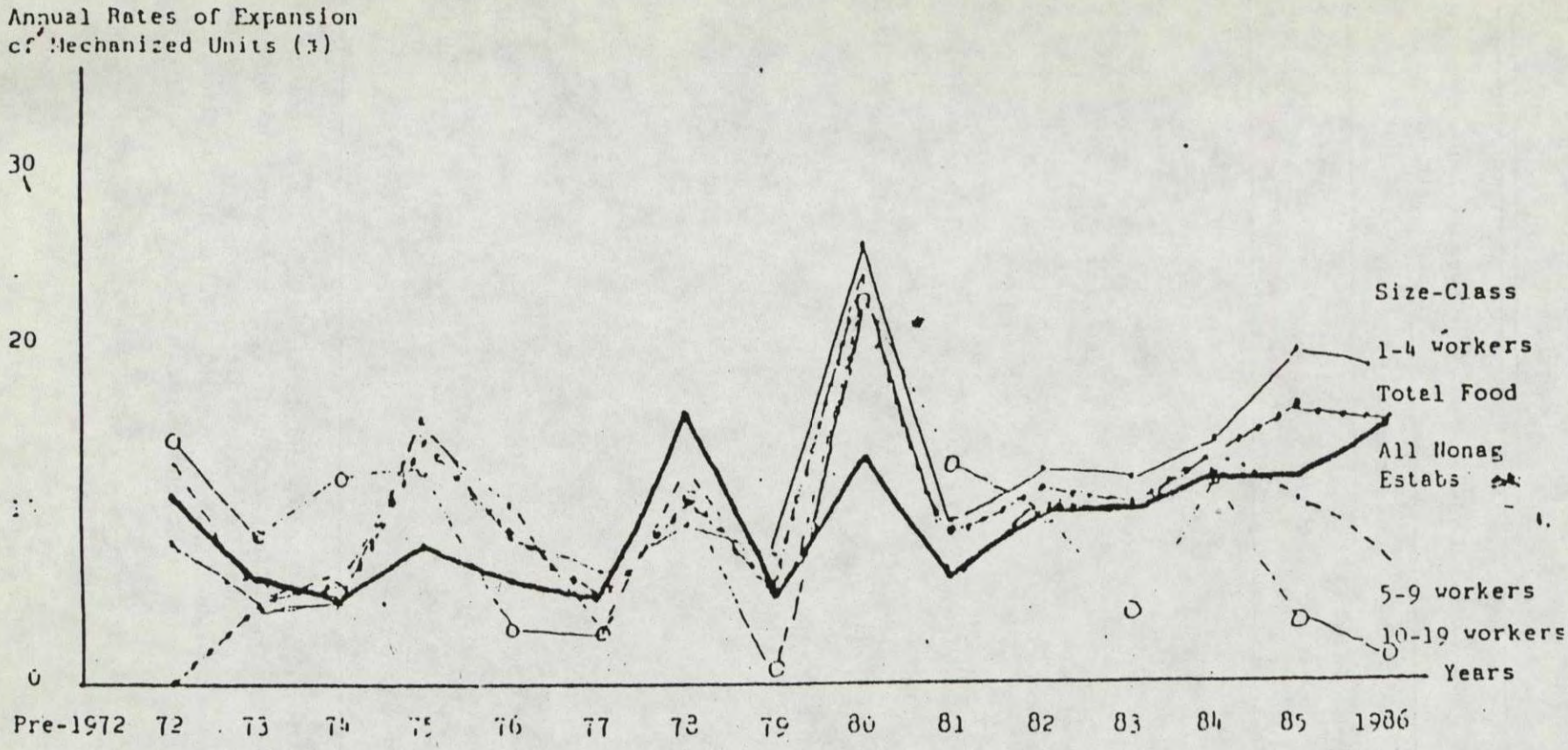


Fig. 4.1.--Annual rates of expansion of permanent establishments in food industry, by chosen size-classes, the Economic Census 1986.

Source: Text Table 4.6.

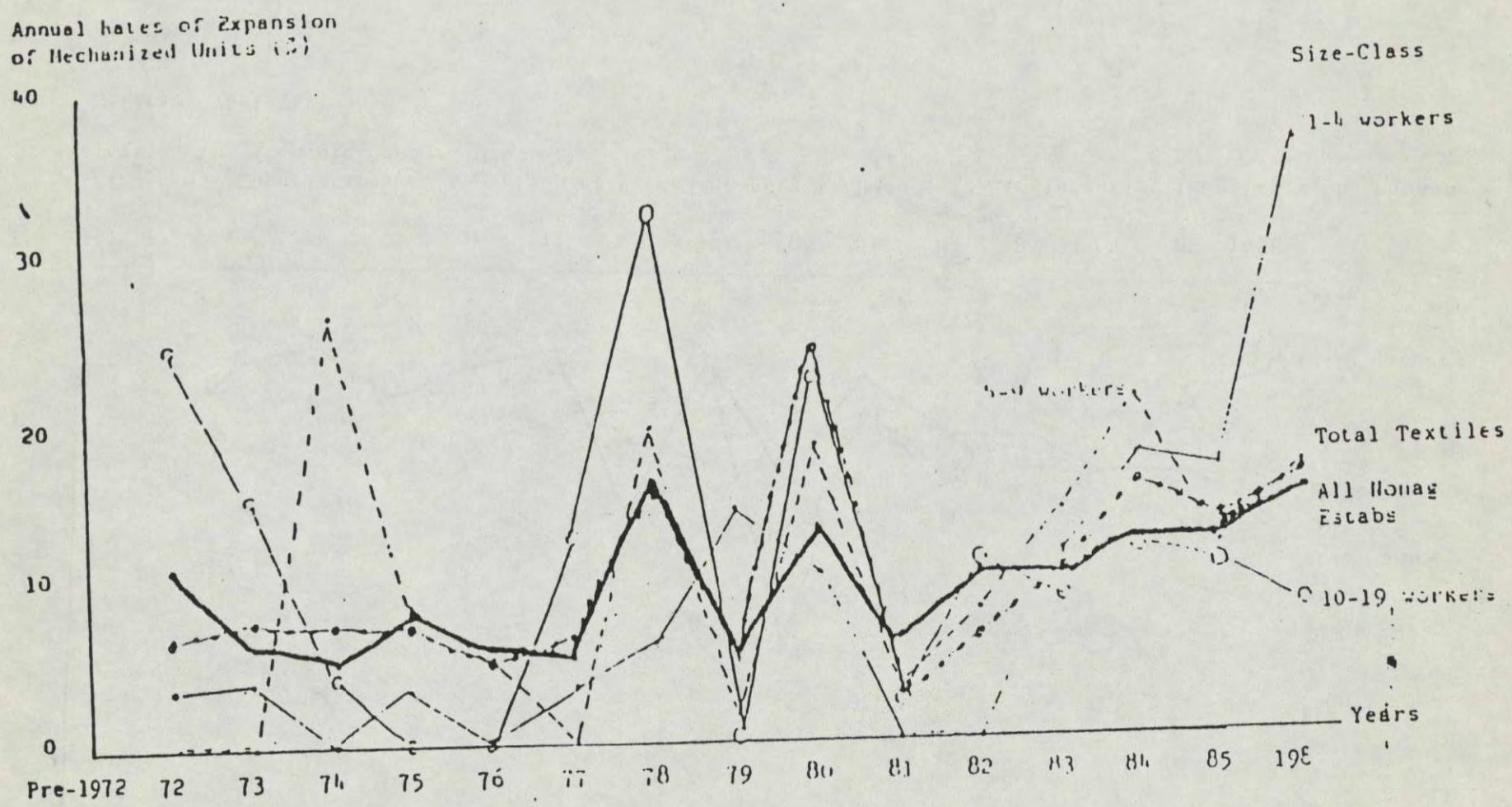


Fig. 4.2.--Annual rates of expansion of permanent establishments in textile industry, by chosen size-classes, the Economic Census 1986.

Source:- Text Table 4.6.

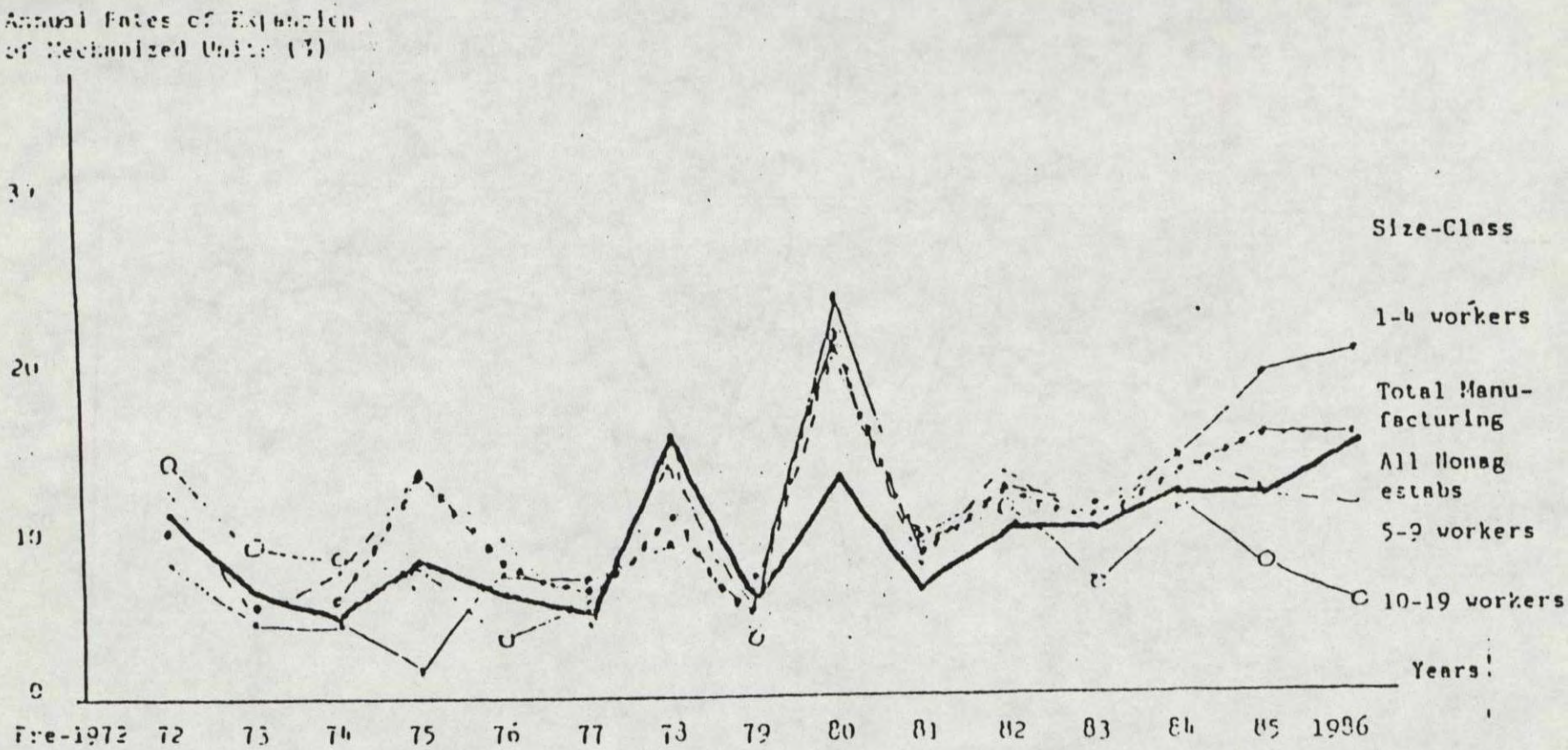


Fig. 4.3.--Annual rates of expansion of permanent establishments in manufacturing industries, by chosen size-classes, the Economic Census 1986.

Source:- Text Table 4.6.

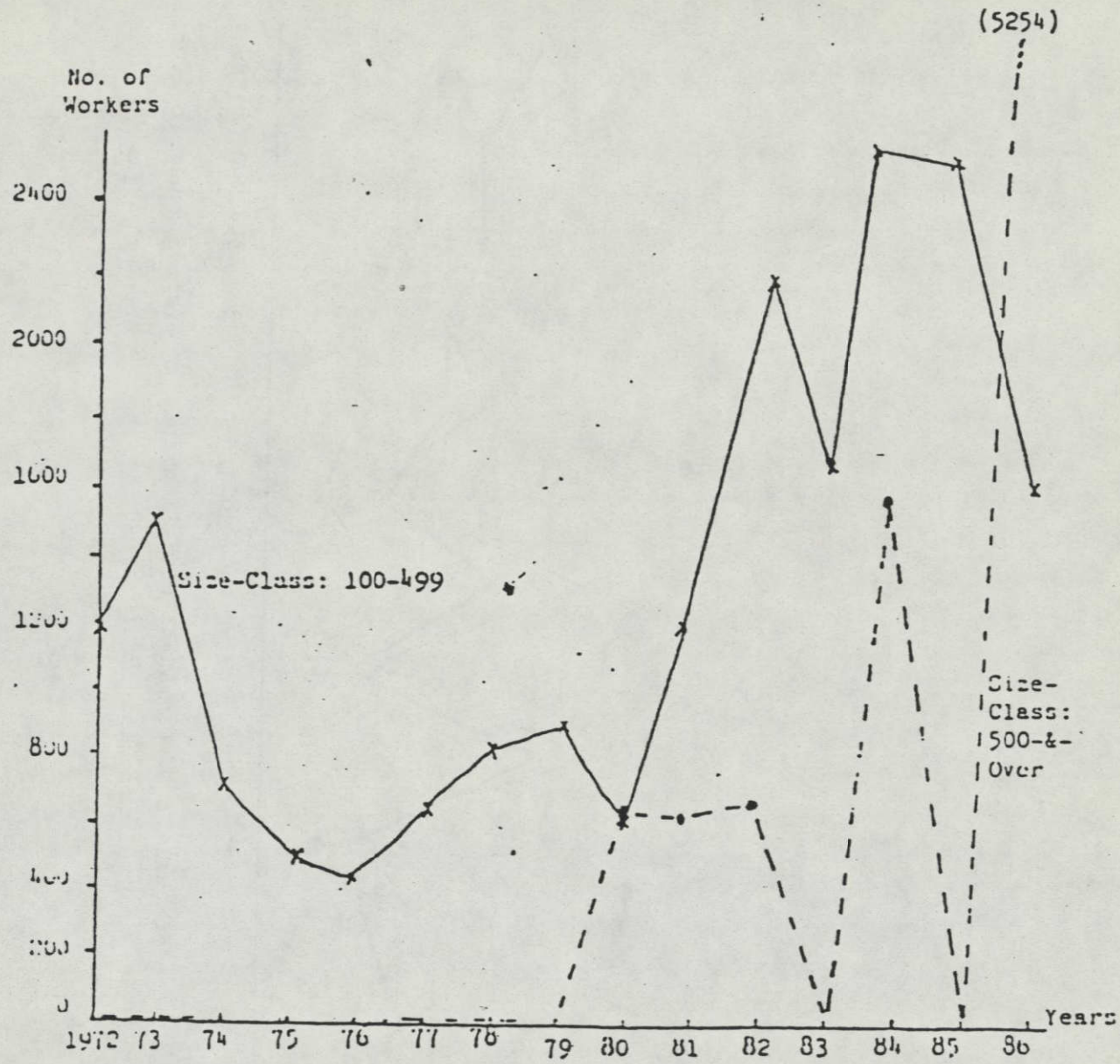


Fig. 4.5.--Growth of employment in Bangladesh's large establishments since 1972, Economic Census 1986

Source:- Table 4.6b.

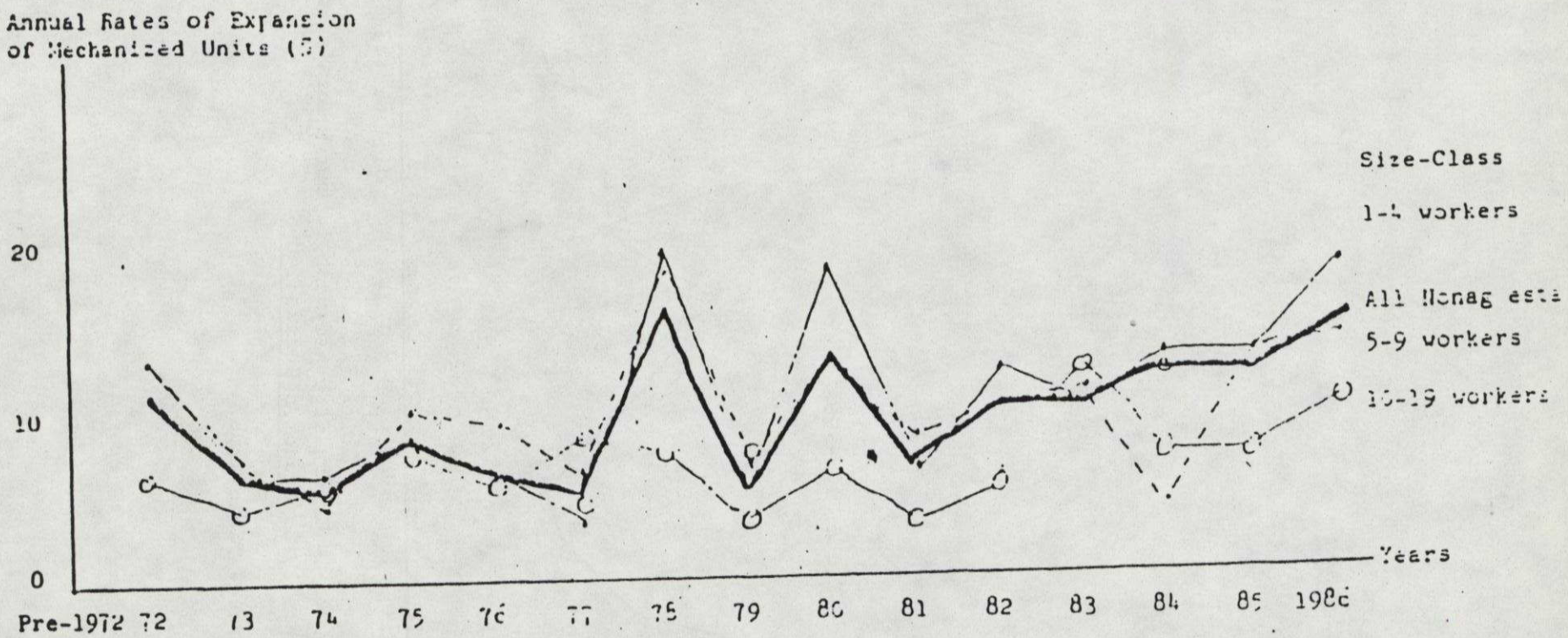


Fig. 4.4.--Annual rates of expansion of permanent establishments in overall nonagricultural establishments, by chosen size-classes, the Economic Census 1986.

Source:- Text Table 4.6.

APPENDIX 4A

## ADDITIONAL TABLES

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| Table 4A.1 | Number of nonagricultural permanent establishments using machinery with power prior to and since 1982, total units, and workers, by econographic area, by indsutry, and by size-class of unit, Economic Census; national aggregates | |
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The complete set of the following 4 crosstabulations can be supplied on request:

| | | |
|---|---|---|
| Crosstab 1 | Number of workers, number of mechanized units prior to and since 1982, and total units; by one-digit sectors and two-digit manufacturing industries; by size-class of workers; for developed, less-developed, and least-developed areas at the division level | 40 |
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| Crosstab 3 | Annual data for mechanized units, total units, and workers as of 1986; prior to 1972 and annually since 1972 through 1986; 1-digit sectors and 2-digit manufacturing industries; and by size-class of workers | 32 |
| Crosstab 4 | Number of workers--full-time, part-time, family-labor, and working-proprietors--mechanized units prior to and since 1982, and total units; by developed, less-developed, and least-developed areas | 16 |
| | A copyrighted map of the developed, less-developed, and least-developed areas of Bangladesh is also included in this appendix. | |

Table 4A.1.--Number of nonagricultural permanent establishments using machinery with power prior to and since 1982, total units, and workers, by economic area, by industry, and by size-class of unit, Economic Census, Bangladesh, 1986: national aggregates

| CODE | INDUSTRY DESCRIPTION | ALL UNITS | SIZE OF UNIT (TOTAL PERSONS ENGAGED) 1 | 2 | 3 | 4 | 5 - 9 | 10-19 | 20-49 | 50-99 | 100 AND OVER | NOT REPTD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DEVELOPED AREAS | | | | | | | | | | | |
| 3 | MANUFACTURING | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | [illegible] | 515 | 746 | 527 | 717 | 2116 | 1042 | 654 | 343 | 40 | 165 |
| | NO. OF UNITS : MECH. SINCE 1982 | [illegible] | 516 | 687 | 411 | 364 | 1969 | 638 | 334 | 157 | 30 | 62 |
| | ALL UNITS : TOTAL | 3197 | 1176 | 4759 | 4696 | 4369 | 8566 | 2934 | 1175 | 720 | 745 | 62 |
| | NO. OF WORKERS | 543542 | 2776 | 9514 | 14370 | 17476 | 57638 | 38392 | 39784 | 50664 | 310224 | 0 |
| 31 | FOOD, BEVERAGES & TOBACCO | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 2748 | 395 | 507 | 463 | 149 | 335 | 222 | 138 | 68 | 0 | 31 |
| | NO. OF UNITS : MECH. SINCE 1982 | 1145 | 201 | 323 | 112 | 131 | 210 | 40 | 39 | 39 | 0 | 50 |
| | ALL UNITS : TOTAL | 4656 | 721 | 1150 | 621 | 416 | 862 | 403 | 233 | 108 | 40 | 140 |
| | NO. OF WORKERS | 39810 | 721 | 2300 | 1863 | 1664 | 5756 | 5349 | 6547 | 7018 | 8592 | 0 |
| 32 | TEXTILE, APPAREL& LEATHER | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 1456 | 37 | 19 | 73 | 83 | 531 | 331 | 325 | 59 | 20 | 18 |
| | NO. OF UNITS : MECH. SINCE 1982 | 1150 | 130 | 61 | 18 | 107 | 387 | 193 | 148 | 60 | 26 | 0 |
| | ALL UNITS : TOTAL | 6354 | 442 | 471 | 626 | 689 | 2065 | 844 | 629 | 138 | 382 | 74 |
| | NO. OF WORKERS | 280767 | 442 | 942 | 1860 | 2756 | 13746 | 11345 | 17661 | 10215 | 221800 | 0 |
| 33 | WOOD & WOOD PRODUCTS | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 633 | 38 | 20 | 48 | 47 | 345 | 123 | 40 | 10 | 2 | 0 |
| | NO. OF UNITS : MECH. SINCE 1982 | 359 | 19 | 48 | 10 | 29 | 246 | 39 | 0 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | 5651 | 393 | 719 | 907 | 739 | 1863 | 446 | 220 | 10 | 14 | 116 |
| | NO. OF WORKERS | 28072 | 395 | 1438 | 2721 | 3036 | 10488 | 5757 | 847 | 491 | 3099 | 0 |
| 34 | PAPER & PAPER PRODUCTS | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 737 | 9 | 48 | 159 | 77 | 347 | 135 | 29 | 29 | 4 | 0 |
| | NO. OF UNITS : MECH. SINCE 1982 | 181 | 28 | 75 | 96 | 77 | 347 | 100 | 39 | 19 | 0 | 0 |
| | ALL UNITS : TOTAL | 2507 | 150 | 421 | 366 | 310 | 1104 | 377 | 78 | 47 | 22 | 29 |
| | NO. OF WORKERS | 31574 | 150 | 842 | 1098 | 1240 | 7275 | 4935 | 2465 | 3528 | 10045 | 0 |
| 35 | CHEMICALS, PETROLEUM & PLASTIC PROD. | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 540 | 39 | 30 | 176 | 39 | 137 | 68 | 67 | 60 | 4 | 10 |
| | NO. OF UNITS : MECH. SINCE 1982 | 387 | 9 | 10 | 58 | 39 | 203 | 56 | 10 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | 2254 | 126 | 166 | 407 | 339 | 720 | 262 | 106 | 60 | 52 | 20 |
| | NO. OF WORKERS | 32216 | 126 | 332 | 1221 | 1356 | 4416 | 3454 | 2867 | 3664 | 14785 | 0 |
| 36 | NON-METALIC MINERALS EX. PETROLEUM | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 57 | 9 | 0 | 0 | 0 | 18 | 0 | 9 | 20 | 1 | 0 |
| | NO. OF UNITS : MECH. SINCE 1982 | 29 | 10 | 0 | 0 | 0 | 0 | 0 | 19 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | 510 | 58 | 79 | 10 | 37 | 85 | 19 | 38 | 163 | 84 | 27 |
| | NO. OF WORKERS | 28030 | 58 | 58 | 30 | 148 | 500 | 220 | 835 | 12770 | 13411 | 0 |
| 37 | BASIC METAL INDUSTRIES | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 81 | 0 | 10 | 10 | 0 | 0 | 9 | 0 | 49 | 3 | 0 |
| | NO. OF UNITS : MECH. SINCE 1982 | 42 | 0 | 0 | 0 | 0 | 57 | 0 | 20 | 19 | 2 | 0 |
| | ALL UNITS : TOTAL | 517 | 29 | 53 | 90 | 59 | 152 | 19 | 20 | 68 | 42 | 0 |
| | NO. OF WORKERS | 18314 | 29 | 116 | 270 | 236 | 894 | 336 | 952 | 4277 | 11203 | 0 |
| 38 | FABRICATED METAL PROD. & MACHINERIES | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 1363 | 64 | 105 | 155 | 255 | 327 | 135 | 116 | 48 | 6 | 59 |
| | NO. OF UNITS : MECH. SINCE 1982 | 1454 | 49 | 193 | 145 | 343 | 432 | 188 | 69 | 30 | 2 | 0 |
| | ALL UNITS : TOTAL | 3719 | 344 | 715 | 434 | 1113 | 1521 | 470 | 222 | 116 | 105 | 117 |
| | NO. OF WORKERS | 65653 | 344 | 1430 | 2868 | 4452 | 9736 | 5797 | 7111 | 8193 | 26712 | 0 |
| 39 | OTHER MANUFACTURING INDUSTRIES | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 234 | 19 | 45 | 9 | 27 | 76 | 15 | 10 | 0 | 3 | 31 |
| | NO. OF UNITS : MECH. SINCE 1982 | 115 | 10 | 0 | 15 | 41 | 39 | 20 | 10 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | 7514 | 271 | 1020 | 713 | 671 | 810 | 111 | 35 | 10 | 9 | 91 |
| | NO. OF WORKERS | 15033 | 271 | 2063 | 2159 | 2523 | 4327 | 1159 | 634 | 553 | 577 | 0 |
| 4 | ELECTRICITY, GAS & WATER | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 144 | 25 | 19 | 30 | 10 | 29 | 13 | 9 | 0 | 0 | 15 |
| | NO. OF UNITS : MECH. SINCE 1982 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | 291 | 42 | 28 | 35 | 17 | 60 | 19 | 14 | 10 | 22 | 25 |
| | NO. OF WORKERS | 6155 | 42 | 56 | 117 | 76 | 408 | 257 | 561 | 853 | 4169 | 0 |

BEST AVAILABLE

Table 44.1--Contd.

BEST AVAILABLE

| CODE | INDUSTRY DESCRIPTION | ALL UNITS | SIZE OF UNIT (TOTAL PERSONS ENGAGED) 1 | 2 | 3 | 4 | 5 - 9 | 10-19 | 20-49 | 50-99 | 100 AND OVER | NOT REPTD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LESS DEVELOPED AREAS | | | | | | | | | | | |
| 29 | PETROLEUM REFINING | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1932 | [illegible] | [illegible] | [illegible] | [illegible] | 677 | 2136 | 955 | 411 | 105 | 9 | 235 |
| | NO. OF UNITS : MECH. SINCE 1932 | [illegible] | [illegible] | [illegible] | [illegible] | 555 | 1295 | 374 | 153 | 10 | 1 | 194 |
| | ALL UNITS : TOTAL | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 8730 | 4154 | 1652 | 300 | 295 | 413 |
| | NO. OF WORKERS | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 52433 | 55074 | 46140 | 13166 | 104257 | 0 |
| 31 | LEAT. BINDERIES & TANNING | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1932 | [illegible] | [illegible] | [illegible] | 601 | 311 | 1151 | 612 | 251 | 41 | 0 | 256 |
| | NO. OF UNITS : MECH. SINCE 1932 | [illegible] | [illegible] | [illegible] | [illegible] | 378 | 633 | 173 | 7 | 0 | 1 | 175 |
| | ALL UNITS : TOTAL | [illegible] | [illegible] | [illegible] | 2137 | 1690 | 2240 | 1037 | 251 | 41 | 63 | 541 |
| | NO. OF WORKERS | [illegible] | [illegible] | 3490 | 6361 | 4120 | 13917 | 14255 | 6822 | 2363 | 13725 | 0 |
| 32 | GLASS, STONE & CLAY PRODUCTS | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1932 | [illegible] | 3 | 31 | 0 | 113 | 50 | 121 | 124 | 29 | 6 | 0 |
| | NO. OF UNITS : MECH. SINCE 1932 | [illegible] | 0 | 0 | 60 | 29 | 155 | 72 | 62 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | [illegible] | 456 | 949 | 1355 | 706 | 2575 | 2381 | 581 | 172 | 105 | 80 |
| | NO. OF WORKERS | 15741 | 456 | 949 | 4077 | 2824 | 17665 | 31697 | 25667 | 8096 | 65836 | 0 |
| 33 | WOOD & WOOD PRODUCTS | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1932 | [illegible] | 31 | 13 | 28 | 60 | 348 | 116 | 0 | 0 | 0 | 10 |
| | NO. OF UNITS : MECH. SINCE 1932 | [illegible] | 53 | 230 | 23 | 41 | 299 | 58 | 0 | 0 | 0 | 9 |
| | ALL UNITS : TOTAL | [illegible] | 637 | 1014 | 1023 | 973 | 1956 | 375 | 81 | 0 | 5 | 131 |
| | NO. OF WORKERS | 30651 | 637 | 2028 | 3059 | 3972 | 12262 | 4853 | 2859 | 0 | 930 | 0 |
| 34 | PAPER & PAPER PRODUCTS | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1932 | [illegible] | 10 | 50 | 30 | 105 | 192 | 57 | 0 | 0 | 0 | 0 |
| | NO. OF UNITS : MECH. SINCE 1932 | [illegible] | 0 | 0 | 40 | 48 | 41 | 9 | 0 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | 1320 | 126 | 276 | 137 | 287 | 437 | 66 | 27 | 0 | 4 | 30 |
| | NO. OF WORKERS | 6523 | 126 | 452 | 411 | 1148 | 2671 | 715 | 729 | 0 | 736 | 0 |
| 35 | CHEMICALS, PETROLEUM & PLASTIC PROD. | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1932 | [illegible] | 0 | 10 | 0 | 10 | 10 | 0 | 5 | 10 | 0 | 0 |
| | NO. OF UNITS : MECH. SINCE 1932 | [illegible] | 0 | 0 | 0 | 0 | 10 | 10 | 0 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | [illegible] | 29 | 50 | 10 | 19 | 112 | 80 | 39 | 10 | 9 | 10 |
| | NO. OF WORKERS | 6722 | 29 | 100 | 30 | 76 | 823 | 964 | 1097 | 451 | 3172 | 0 |
| 36 | NON-METALIC MINERALS EX. PETROLEUM | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1932 | [illegible] | [illegible] | 0 | 0 | 0 | 0 | 0 | 10 | 0 | 1 | 5 |
| | NO. OF UNITS : MECH. SINCE 1932 | [illegible] | 0 | 0 | 0 | 0 | 31 | 0 | 0 | 10 | 0 | 0 |
| | ALL UNITS : TOTAL | [illegible] | [illegible] | 23 | 23 | 102 | 190 | 0 | 155 | 79 | 97 | 19 |
| | NO. OF WORKERS | 24543 | 70 | 53 | 84 | 408 | 1323 | 0 | 5025 | 5573 | 17405 | 0 |
| 37 | BASIC METAL INDUSTRIES | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1932 | [illegible] | 0 | 0 | 0 | 0 | 30 | 9 | 19 | 10 | 1 | 0 |
| | NO. OF UNITS : MECH. SINCE 1932 | [illegible] | 0 | 9 | 0 | 0 | 10 | 0 | 10 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | [illegible] | 0 | 40 | 0 | 10 | 40 | 14 | 29 | 10 | 4 | 0 |
| | NO. OF WORKERS | [illegible] | 0 | 82 | 0 | 45 | 237 | 299 | 552 | 510 | 426 | 0 |
| 38 | FABRICATED METAL PROD. & MACHINERIES | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1932 | [illegible] | 61 | 45 | 85 | 42 | 327 | 30 | 29 | 19 | 0 | 0 |
| | NO. OF UNITS : MECH. SINCE 1932 | [illegible] | [illegible] | [illegible] | [illegible] | 35 | [illegible] | 40 | [illegible] | 0 | 0 | 10 |
| | ALL UNITS : TOTAL | [illegible] | [illegible] | [illegible] | [illegible] | 435 | [illegible] | 157 | 65 | 19 | 9 | 45 |
| | NO. OF WORKERS | 20115 | 714 | [illegible] | 2238 | 1740 | 5855 | 2041 | 2347 | 1333 | 1532 | 0 |
| 39 | OTHER MANUFACTURING INDUSTRIES | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1932 | [illegible] | 5 | 5 | 12 | 24 | 14 | 10 | 0 | 0 | 1 | 0 |
| | NO. OF UNITS : MECH. SINCE 1932 | [illegible] | 0 | 0 | 12 | 23 | 0 | 0 | 10 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | [illegible] | [illegible] | [illegible] | 816 | 515 | 337 | 20 | 24 | 0 | 2 | 0 |
| | NO. OF WORKERS | [illegible] | [illegible] | [illegible] | 2445 | 2516 | 1710 | 250 | 447 | 0 | 424 | 0 |
| 4 | ELECTRICITY, GAS & WATER | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1932 | [illegible] | 5 | 23 | 0 | 20 | 5 | 5 | 10 | 10 | 4 | 0 |
| | NO. OF UNITS : MECH. SINCE 1932 | [illegible] | [illegible] | 3 | 0 | 0 | [illegible] | 22 | [illegible] | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | [illegible] | [illegible] | [illegible] | 12 | 20 | 57 | 131 | [illegible] | [illegible] | 19 | 0 |
| | NO. OF WORKERS | [illegible] | [illegible] | 65 | 30 | 80 | 947 | 1563 | 3621 | 1324 | 3667 | 0 |

Table 4A.1--Contd.

NATIONAL

| CODE | INDUSTRY-DESCRIPTION | ALL UNITS | SIZE OF UNIT (TOTAL PERSONS ENGAGED) 1 | 2 | 3 | 4 | 5 - 9 | 10-19 | 20-49 | 50-99 | 100 AND OVER | NOT REPTD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | WHOLESALE & RETAIL TRADE, RESTAURANTS | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | 1973 | 152 | 377 | 405 | 205 | 484 | 125 | 56 | 49 | 0 | 3 |
| | NO. OF UNITS : MECH. SINCE 1933 | 1246 | 356 | 499 | 298 | 171 | 308 | 128 | 76 | 9 | 1 | 4 |
| | ALL UNITS : TOTAL | 159707 | 41107 | 95163 | 28683 | 14884 | 17036 | 2733 | 675 | 96 | 73 | 429 |
| | AV. OF WORKERS | 457261 | 41107 | 93336 | 85985 | 59534 | 104050 | 34159 | 18354 | 6538 | 19801 | |
| 8 | FINANCE, INSURANCE & REAL ESTATE | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | 135 | 14 | 9 | 15 | 28 | 30 | 39 | 29 | 10 | 2 | |
| | NO. OF UNITS : MECH. SINCE 1933 | 122 | 5 | 33 | 18 | 15 | 9 | 27 | 0 | 0 | 0 | |
| | ALL UNITS : TOTAL | 4247 | 270 | 351 | 371 | 703 | 722 | 953 | 365 | 122 | 75 | 55 |
| | AV. OF WORKERS | 44641 | 270 | 454 | 1113 | 1132 | 4362 | 12992 | 11272 | 8353 | 26065 | |
| 9 | COMMUNITY, SOCIAL & PERSONAL SERV. | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | 3235 | 336 | 497 | 687 | 254 | 682 | 365 | 157 | 125 | 14 | 16 |
| | NO. OF UNITS : MECH. SINCE 1933 | 2001 | 208 | 562 | 607 | 350 | 767 | 103 | 48 | 37 | 4 | 13 |
| | ALL UNITS : TOTAL | 50441 | 10169 | 10712 | 7750 | 5119 | 7631 | 2461 | 1423 | 450 | 353 | 301 |
| | AV. OF WORKERS | 327064 | 10159 | 21544 | 23310 | 20416 | 47861 | 32660 | 41040 | 30470 | 98330 | |

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TABLE NA.1--Contd.

BEST AVAILABLE

| CODE | INDUSTRY DESCRIPTION | SIZE OF UNIT (TOTAL PERSONS ENGAGED) 1 | 2 | 3 | 4 | 5 - 9 | 10-19 | 20-49 | 50-99 | 100 AND OVER | NOT APPLIC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | LEAST DEVELOPED AREAS | | | | | | | | | | |
| 2 | MANUFACTURING | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 2203 | [illegible] | [illegible] | 49 | 0 |
| | NO. OF UNITS : MECH. SINCE 1982 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 1559 | [illegible] | [illegible] | 0 | [illegible] |
| | ALL UNITS : TOTAL | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 10037 | [illegible] | [illegible] | [illegible] | 0 |
| | NO. OF WORKERS | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 68297 | [illegible] | [illegible] | 152152 | 0 |
| 21 | FOOD, BEVERAGES & TOBACCO | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 1493 | [illegible] | [illegible] | [illegible] | [illegible] |
| | NO. OF UNITS : MECH. SINCE 1982 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| | ALL UNITS : TOTAL | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 30206 | [illegible] | [illegible] | 56522 | 0 |
| | NO. OF WORKERS | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 22 | TEXTILE, APPAREL & LEATHER | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 80 | 12 | 0 | 12 | 10 | 0 | 0 | 41 | 0 | 0 |
| | NO. OF UNITS : MECH. SINCE 1982 | 36 | 0 | 0 | 0 | 9 | 9 | 0 | 14 | 0 | 0 |
| | ALL UNITS : TOTAL | 7894 | 605 | 842 | 571 | 269 | 2391 | 1817 | 910 | 305 | 96 |
| | NO. OF WORKERS | 116219 | 639 | 1684 | 1711 | 1076 | 17385 | 24923 | 24018 | 19914 | 25458 |
| 23 | WOOD & WOOD PRODUCTS | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 341 | 0 | 0 | 51 | 40 | 212 | 68 | 9 | 0 | 0 |
| | NO. OF UNITS : MECH. SINCE 1982 | 651 | 50 | 43 | 5 | 87 | 346 | 100 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | 7466 | 827 | 1072 | 1272 | 1175 | 2239 | 435 | 68 | 0 | 0 |
| | NO. OF WORKERS | 33271 | 827 | 2140 | 3814 | 5504 | 13588 | 5012 | 1916 | 0 | 595 |
| 24 | PAPER & PAPER PRODUCTS | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 13 | 0 | 14 | 27 | 20 | 45 | 20 | 0 | 0 | 0 |
| | NO. OF UNITS : MECH. SINCE 1982 | 171 | 33 | 31 | 15 | 9 | 36 | 13 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | 671 | 85 | 161 | 73 | 76 | 100 | 53 | 9 | 0 | 0 |
| | NO. OF WORKERS | 2241 | 85 | 248 | 219 | 304 | 586 | 674 | 372 | 0 | 4183 |
| 25 | CHEMICALS, PETROLEUM & PLASTIC PROD. | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | NO. OF UNITS : MECH. SINCE 1982 | 17 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | 1[illegible] | 33 | 1[illegible] | 4[illegible] | 0 | 27 | 23 | 10 | 0 | 0 |
| | NO. OF WORKERS | 3433 | 33 | 38 | 170 | 0 | 164 | 352 | 155 | 0 | 2550 |
| 26 | NON-METALLIC MINERALS EX. PETROLEUM | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 1[illegible] | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | NO. OF UNITS : MECH. SINCE 1982 | 1[illegible] | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | 8[illegible] | 50 | 115 | 8[illegible] | 9 | 103 | 13[illegible] | 10[illegible] | 5[illegible] | 7[illegible] |
| | NO. OF WORKERS | 20415 | 50 | 230 | 2[illegible]4 | 36 | 255 | 170[illegible] | 25[illegible] | 2562 | 11332 |
| 27 | BASIC METAL INDUSTRIES | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | NO. OF UNITS : MECH. SINCE 1982 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| | ALL UNITS : TOTAL | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| | NO. OF WORKERS | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 28 | FABRICATED METAL PROD. & MACHINERY | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 115 | 2[illegible] | [illegible] | [illegible] | [illegible] |
| | NO. OF UNITS : MECH. SINCE 1982 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 137 | [illegible] | [illegible] | [illegible] | [illegible] |
| | ALL UNITS : TOTAL | [illegible] | [illegible] | [illegible] | [illegible] | 2915 | 4293 | 933 | 21[illegible] | [illegible] | 11[illegible] |
| | NO. OF WORKERS | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 29 | OTHER MANUFACTURING INDUSTRIES | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | [illegible] | 0 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| | NO. OF UNITS : MECH. SINCE 1982 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 17[illegible] | [illegible] | [illegible] | [illegible] | 5[illegible] |
| | ALL UNITS : TOTAL | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| | NO. OF WORKERS | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| 3 | ELECTRICITY, GAS & WATER | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1982 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 77 | [illegible] | [illegible] | [illegible] | [illegible] |
| | NO. OF UNITS : MECH. SINCE 1982 | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |
| | ALL UNITS : TOTAL | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | 1133 | [illegible] | [illegible] | [illegible] | [illegible] |
| | NO. OF WORKERS | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] | [illegible] |

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Table 4A.1--Cont'd.

N A T I O N A L

| CODE | INDUSTRY DESCRIPTION | | ALL UNITS | SIZE OF UNIT (TOTAL PERSONS ENGAGED) 1 | 2 | 3 | 4 | 5 - 9 | 10-19 | 20-49 | 50-99 | 100 AND OVER | ALL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | WHOLESALE & RETAIL TRADE ESTABLISHMENTS | | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | 1137 | 154 | 246 | 172 | 77 | 357 | 73 | 25 | 0 | 1 | 16 |
| | NO. OF UNITS : MECH. SINCE 1933 | | 1324 | 136 | 173 | 157 | 129 | 323 | 31 | 15 | 0 | 0 | [illegible] |
| | ALL UNITS : TOTAL | | 23,415 | 26,451 | 71,493 | 30,033 | 16,261 | 16,137 | 3,533 | 313 | 25 | 23 | [illegible] |
| | NO. OF WORKERS | | 55,115 | 26,451 | 143,723 | 60,155 | 65,572 | 67,261 | 35,367 | 8,838 | 2,262 | 4,652 | [illegible] |
| 8 | FINANCE, INSURANCE & REAL ESTATE | | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | 234 | 0 | 43 | 5 | 3 | 74 | 13 | 52 | [illegible] | 0 | 1 |
| | NO. OF UNITS : MECH. SINCE 1933 | | 136 | 20 | 26 | 13 | 15 | 3 | 23 | 4 | 0 | 3 | [illegible] |
| | ALL UNITS : TOTAL | | 2,123 | 403 | 681 | 316 | 204 | 437 | 407 | 343 | 13 | 15 | [illegible] |
| | NO. OF WORKERS | | 35,651 | 932 | 1,362 | 987 | 832 | 5,311 | 13,823 | 9,343 | 1,134 | 4,833 | [illegible] |
| 9 | COMMUNITY, SOCIAL & PERSONAL SERV. | | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | | 3,755 | 315 | 693 | 610 | 455 | 535 | 405 | 277 | 66 | 5 | 23 |
| | NO. OF UNITS : MECH. SINCE 1933 | | 3,155 | 213 | 594 | 532 | 323 | 451 | 173 | 144 | 37 | 1 | 117 |
| | ALL UNITS : TOTAL | | 115,331 | 3,551 | 23,119 | 9,525 | 8,563 | 11,355 | 5,333 | 1,546 | 544 | 185 | [illegible] |
| | NO. OF WORKERS | | 423,651 | 3,551 | 46,238 | 29,757 | 35,453 | 73,136 | 67,412 | 55,661 | 36,307 | 44,625 | [illegible] |

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TABLE 4A.1--Contd.

A R I Z O N A

| CODE | INDUSTRY DESCRIPTION | ALL UNITS | SIZE OF UNIT (TOTAL PERSONS ENGAGED) 1 | 2 | 3 | 4 | 5 - 9 | 10-19 | 20-49 | 50-99 | 100 AND OVER | NOT REPTD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | WHOLESALE & RETAIL TRADE, RESTAURANTS | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | 1722 | 249 | 554 | 153 | 217 | 220 | 49 | 45 | 0 | 0 | 163 |
| | NO. OF UNITS : MECH. SINCE 1933 | 1123 | 302 | 335 | 221 | 115 | 115 | 14 | 12 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | 51[illegible] | 159135 | 131[illegible] | 51161 | 22[illegible] | 20[illegible] | 2135 | 735 | 0 | 11 | 21771 |
| | NO. OF WORKERS | 334135 | 159135 | 257134 | 159521 | 84960 | 123521 | 26233 | 6561 | 0 | 2474 | 0 |
| 8 | FINANCE, INSURANCE & REAL ESTATE | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | 303 | 72 | 27 | 2 | 0 | 59 | 85 | 13 | 0 | 0 | 42 |
| | NO. OF UNITS : MECH. SINCE 1933 | 215 | 26 | 84 | 29 | 0 | 41 | 14 | 31 | 0 | 0 | 0 |
| | ALL UNITS : TOTAL | 10654 | 1956 | 1[illegible]7 | 515 | 365 | 2102 | 1585 | 457 | 5 | 1[illegible] | 2587 |
| | NO. OF WORKERS | 50049 | 1956 | 2534 | 1545 | 1543 | 14526 | 20265 | 12059 | 721 | 1317 | 0 |
| 9 | COMMUNITY, SOCIAL & PERSONAL SERV. | | | | | | | | | | | |
| | NO. OF UNITS : MECH. PRIOR 1933 | 4254 | 965 | 907 | 641 | 239 | 541 | 732 | 364 | 183 | 5 | 315 |
| | NO. OF UNITS : MECH. SINCE 1933 | 2455 | 505 | 633 | 348 | 243 | 263 | 257 | 117 | 9 | 0 | 56 |
| | ALL UNITS : TOTAL | 253314 | 128513 | 63365 | 24513 | 21621 | 24251 | 12793 | 3337 | 603 | 153 | 40[illegible] |
| | NO. OF WORKERS | 857954 | 128513 | 126733 | 73629 | 94424 | 150584 | 171422 | 103650 | 42459 | 22331 | 0 |

Table 4A.2.--Growth of nonagricultural permanent establishments by industry, year of commencement of operations, and size-class, Econ. Census. 1986

Line 1: New establishments using machinery with power
Line 2: Total new establishments
Line 3: Total persons engaged in new units
Line 4: Line 1 as % of line 2
Line 5: Row % of line 1
Line 6: Row % of line 2
Line 7: Row % of line 3

| Line No. | No. of Persons Engaged | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1-4 | 5-9 | 10-19 | 20-49 | 50-99 | 100-499 | 500* | Not Rept | Total |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| | | | | | Pre-1972 | | | | |
| 1 | 5982 | 2518 | 1145 | 375 | 223 | 27 | 14 | 460 | 10744 |
| 2 | 19177 | 7072 | 3164 | 1184 | 365 | 1089 | 209 | 1219 | 33429 |
| 3 | 46345 | 46279 | 42567 | 32521 | 25260 | 197485 | 297869 | - | 688326 |
| 4 | 31 | 36 | 36 | 32 | 61 | 2 | 7 | 38 | 32 |
| 5 | 56 | 23 | 11 | 3 | 2 | - | - | 4 | 100 |
| 6 | 57 | 21 | 9 | 4 | 1 | 3 | - | 4 | 100 |
| 7 | 7 | 7 | 6 | 5 | 4 | 29 | 43 | - | 100 |
| | | | | | Year-1972 | | | | |
| 1 | 483 | 325 | 166 | 90 | - | 2 | - | 9 | 1075 |
| 2 | 1660 | 798 | 414 | 306 | 18 | 34 | - | 59 | 3259 |
| 3 | 3668 | 5315 | 5439 | 8616 | 1186 | 439 | - | - | 24663 |
| 4 | 29 | 41 | 40 | 29 | - | 50 | - | 15 | 33 |
| 5 | 45 | 30 | 15 | 8 | - | - | - | 1 | 100 |
| 6 | 51 | 24 | 13 | 9 | 1 | - | - | 2 | 100 |
| 7 | 15 | 22 | 22 | 35 | 5 | 2 | - | - | 100 |
| | | | | | Year-1973 | | | | |
| 1 | 287 | 155 | 119 | 60 | 10 | 1 | - | 19 | 651 |
| 2 | 827 | 449 | 179 | 133 | 10 | 2 | - | 38 | 1638 |
| 3 | 2018 | 3082 | 2235 | 3294 | 510 | 678 | - | - | 11867 |
| 4 | 35 | 35 | 66 | 45 | 100 | 50 | - | 50 | 40 |
| 5 | 44 | 24 | 13 | 9 | 2 | - | - | 3 | 100 |
| 6 | 50 | 27 | 11 | 8 | 1 | - | - | 2 | 100 |
| 7 | 17 | 26 | 19 | 28 | 4 | 6 | - | - | 100 |
| | | | | | Year-1974 | | | | |
| 1 | 297 | 234 | 119 | 69 | 10 | 1 | - | - | 730 |
| 2 | 1015 | 350 | 210 | 110 | 81 | 2 | - | 9 | 1777 |
| 3 | 2388 | 2413 | 3074 | 3621 | 4615 | 258 | - | - | 16369 |
| 4 | 29 | 67 | 57 | 63 | 12 | 50 | - | - | 41 |
| 5 | 41 | 32 | 16 | 9 | 1 | - | - | - | 100 |
| 6 | 57 | 20 | 12 | 6 | 5 | - | - | - | 100 |
| 7 | 15 | 15 | 19 | 22 | 28 | 2 | - | - | 100 |

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Year-1975 | | | | |
| 1 | 1048 | 440 | 118 | 79 | 58 | 2 | - | - | 174 |
| 2 | 2830 | 1043 | 412 | 204 | 89 | 2 | - | 41 | 462 |
| 3 | 6739 | 6469 | 5671 | 5181 | 5261 | 636 | - | - | 2995 |
| 4 | 37 | 42 | 29 | 39 | 65 | 100 | - | - | 3 |
| 5 | 60 | 25 | 7 | 5 | 3 | - | - | - | 10 |
| 6 | 61 | 23 | 9 | 4 | 2 | - | - | 1 | 10 |
| 7 | 23 | 22 | 19 | 17 | 18 | 2 | - | - | 10 |
| | | | | | Year-1976 | | | | |
| 1 | 605 | 335 | 58 | 116 | 30 | 3 | - | 31 | 1178 |
| 2 | 1880 | 801 | 484 | 279 | 61 | 3 | - | 31 | 3539 |
| 3 | 4586 | 5027 | 6363 | 7529 | 4345 | 311 | - | - | 28161 |
| 4 | 32 | 42 | 12 | 42 | 49 | 100 | - | 100 | 33 |
| 5 | 51 | 28 | 5 | 10 | 3 | - | - | 3 | 100 |
| 6 | 53 | 23 | 14 | 8 | 2 | - | - | 1 | 100 |
| 7 | 16 | 18 | 23 | 27 | 15 | 1 | - | - | 100 |
| | | | | | Year-1977 | | | | |
| 1 | 602 | 171 | 91 | 81 | 31 | - | - | 40 | 1016 |
| 2 | 955 | 282 | 224 | 81 | 62 | 1 | - | 49 | 1657 |
| 3 | 2334 | 1830 | 2666 | 2784 | 3405 | 269 | - | - | 13273 |
| 4 | 63 | 60 | 41 | 100 | 50 | - | - | 82 | 61 |
| 5 | 59 | 17 | 9 | 8 | 3 | - | - | 4 | 100 |
| 6 | 58 | 17 | 14 | 5 | 4 | - | - | 3 | 100 |
| 7 | 18 | 14 | 20 | 21 | 26 | 2 | - | - | 100 |
| | | | | | Year-1978 | | | | |
| 1 | 846 | 585 | 250 | 77 | 10 | 1 | - | 72 | 1847 |
| 2 | 2143 | 1152 | 695 | 149 | 61 | 1 | - | 101 | 4302 |
| 3 | 5562 | 7358 | 8969 | 4209 | 3195 | 106 | - | - | 29399 |
| 4 | 39 | 51 | 37 | 52 | 16 | 100 | - | 71 | 43 |
| 5 | 46 | 32 | 14 | 4 | 1 | - | - | 4 | 100 |
| 6 | 50 | 27 | 16 | 3 | 1 | - | - | 2 | 100 |
| 7 | 19 | 25 | 31 | 14 | 11 | - | - | - | 100 |
| | | | | | Year-1979 | | | | |
| 1 | 717 | 257 | 69 | 58 | 31 | 3 | - | - | 1135 |
| 2 | 1652 | 707 | 188 | 191 | 50 | 3 | - | 19 | 2810 |
| 3 | 3996 | 4663 | 2697 | 4913 | 3439 | 730 | - | - | 20438 |
| 4 | 43 | 36 | 37 | 30 | 62 | 100 | - | - | 40 |
| 5 | 63 | 23 | 6 | 5 | 3 | - | - | - | 100 |
| 6 | 59 | 25 | 7 | 7 | 2 | - | - | 1 | 100 |
| 7 | 20 | 23 | 13 | 24 | 17 | 4 | - | - | 100 |
| | | | | | Year-1980 | | | | |
| 1 | 2590 | 1019 | 461 | 188 | 59 | 1 | - | 81 | 4399 |
| 2 | 6669 | 2230 | 1168 | 383 | 130 | 1 | 1 | 128 | 10709 |

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| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|
| 3 | 16052 | 14641 | 14428 | 10342 | 9325 | 126 | 631 | - | 65555 |
| 4 | 39 | 46 | 39 | 49 | 45 | 100 | - | 63 | 41 |
| 5 | 59 | 23 | 10 | 4 | 1 | - | - | 2 | 100 |
| 6 | 62 | 21 | 11 | 4 | 1 | - | - | 1 | 100 |
| 7 | 35 | 22 | 22 | 16 | 14 | - | 1 | - | 100 |
| | | | | | Year-1981 | | | | |
| 1 | 1365 | 478 | 245 | 59 | 40 | 2 | 1 | 28 | 2118 |
| 2 | 3158 | 1125 | 411 | 100 | 50 | 3 | 1 | 149 | 4997 |
| 3 | 7215 | 7055 | 5451 | 2228 | 2905 | 572 | 601 | - | 25827 |
| 4 | 40 | 42 | 60 | 59 | 80 | 67 | 100 | 19 | 42 |
| 5 | 60 | 23 | 12 | 3 | 2 | - | - | 1 | 100 |
| 6 | 63 | 23 | 8 | 2 | 1 | - | - | 3 | 100 |
| 7 | 37 | 27 | 21 | 9 | 11 | 2 | 2 | - | 100 |
| | | | | | Year-1982 | | | | |
| 1 | 1335 | 886 | 327 | 68 | 30 | 3 | 1 | 59 | 3209 |
| 2 | 4805 | 1800 | 801 | 169 | 61 | 4 | 1 | 98 | 7739 |
| 3 | 11913 | 11618 | 10458 | 5517 | 4890 | 982 | 655 | - | 46038 |
| 4 | 38 | 49 | 41 | 40 | 49 | 75 | 100 | 60 | 41 |
| 5 | 57 | 23 | 10 | 2 | 1 | - | - | 2 | 100 |
| 6 | 62 | 23 | 10 | 2 | 1 | - | - | 1 | 100 |
| 7 | 36 | 25 | 23 | 12 | 11 | 2 | 1 | - | 100 |
| | | | | | Year-1983 | | | | |
| 1 | 1399 | 819 | 216 | 89 | 39 | 6 | - | 88 | 3156 |
| 2 | 4800 | 2090 | 549 | 176 | 99 | 9 | - | 176 | 7899 |
| 3 | 11220 | 13670 | 6904 | 5067 | 7137 | 1400 | - | - | 45378 |
| 4 | 40 | 39 | 39 | 51 | 39 | 67 | - | 50 | 40 |
| 5 | 60 | 26 | 7 | 3 | 1 | - | - | 3 | 100 |
| 6 | 61 | 26 | 7 | 2 | 1 | - | - | 2 | 100 |
| 7 | 35 | 30 | 15 | 11 | 16 | 3 | - | - | 100 |
| | | | | | Year-1984 | | | | |
| 1 | 4756 | 1186 | 383 | 70 | 21 | 3 | 2 | 72 | 4463 |
| 2 | 6451 | 2451 | 814 | 312 | 175 | 10 | 2 | 240 | 10456 |
| 3 | 10000 | 15699 | 10499 | 9122 | 11652 | 2109 | 1604 | - | 66807 |
| 4 | 42 | 48 | 48 | 22 | 18 | 80 | 100 | 30 | 43 |
| 5 | 61 | 27 | 9 | 2 | 1 | - | - | 2 | 100 |
| 6 | 62 | 23 | 8 | 3 | 2 | - | - | 2 | 100 |
| 7 | 33 | 24 | 16 | 14 | 18 | 3 | 2 | - | 100 |
| | | | | | Year-1985 | | | | |
| 1 | 4031 | 1154 | 300 | 249 | 29 | 9 | - | 166 | 5938 |
| 2 | 9331 | 2929 | 721 | 400 | 70 | 12 | - | 387 | 13840 |
| 3 | 20764 | 18029 | 9747 | 11525 | 4594 | 2552 | - | - | 69211 |
| 4 | 43 | 39 | 42 | 62 | 41 | 75 | - | 43 | 43 |
| 5 | 68 | 19 | 5 | 4 | - | - | - | 3 | 100 |
| 6 | 67 | 21 | 5 | 3 | 1 | - | - | 3 | 100 |
| 7 | 33 | 26 | 14 | 17 | 7 | 4 | - | - | 100 |

FOOTNOTES

Footnotes 1 through 3 have been expunged.

[4] In the case of textile products, the result may strike contrary to the prevailing impression formed by a mushrooming of ready-made garment units. The fact (as coming out of the economic census) is that neither in absolute numbers (Table 4.1) nor in terms of the rates of growth of establishments of the new mechanized units of the textile industry (Table 4.3) reach the corresponding mean values of the manufacturing industry. Read, however, the next sentence of the text.

[5] The comparisons are subject to the fact that the higher rate of expansion of small establishments of LtD areas can evidently not generate the same employment as that of large establishments of Dev areas. As will, however, be seen in the text that follows, the observed post-1981 rate of establishment expansion in LtD areas exceeds the same establishments' pre-1982 rate by more than that for the establishments in the Dev areas.

[6] For instance, the employment level of 1986 would also apply to the initial year of the establishment concerned, had the number of workers remained more or less constant since then.

| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | Year-1986 | | | | |
| 1 | 5074 | 1179 | 217 | 120 | 48 | 6 | 1 | 197 | 6842 |
| 2 | 11963 | 3114 | 601 | 230 | 76 | 8 | 1 | 337 | 16330 |
| 3 | 28243 | 19240 | 7578 | 6823 | 5201 | 1378 | 5254 | - | 73717 |
| 4 | 42 | 38 | 36 | 52 | 63 | 75 | 100 | 58 | 42 |
| 5 | 74 | 17 | 3 | 2 | 1 | - | - | 3 | 100 |
| 6 | 73 | 19 | 4 | 1 | - | - | - | 2 | 100 |
| 7 | 38 | 26 | 10 | 9 | 7 | 2 | 7 | - | 100 |

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[7] As of now, Bangladesh has very little exports of ready-made garments to non-quota markets, for instance, those of the OECD countries.

[8] The ceiling of Taka 3.5 million on private investment in 1973 was raised to Taka 30 million in 1974, Taka 100 million in 1975, and was abandoned in 1978. In the NIP82, many sectors previously restricted to private investment were derestricted. For details, see Ch. 1 above.

[9] Note that Bangladesh's experience has been recorded only for the 1970s and 1980s. During this period, there has occurred a renewed realization of the economic usefulness and desirability of small enterprises, almost all over the world. It is possible that Bangladesh is not an exception. There may be some other countries which are experiencing similar trends. No study, based on time-series analysis of the past 2 decad for other countries, except that by Cortes, Berry, and Ishaq (1987) for Colombia, has come to our notice. The one for Colombia does report the evolution of small enterprises during this period, but that country's growth curve depicts the shape of an inverted U with peak in the late 1970s

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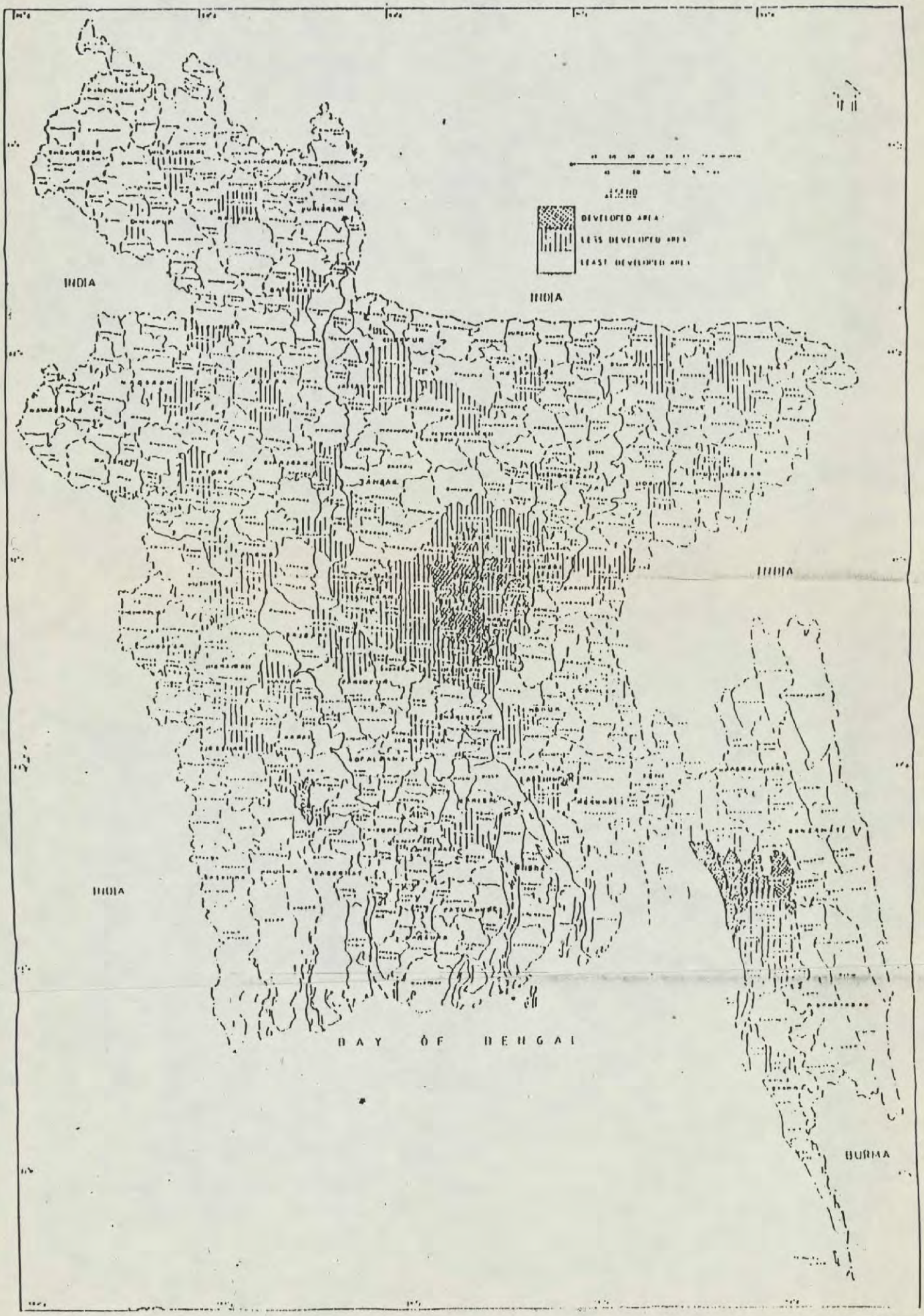
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