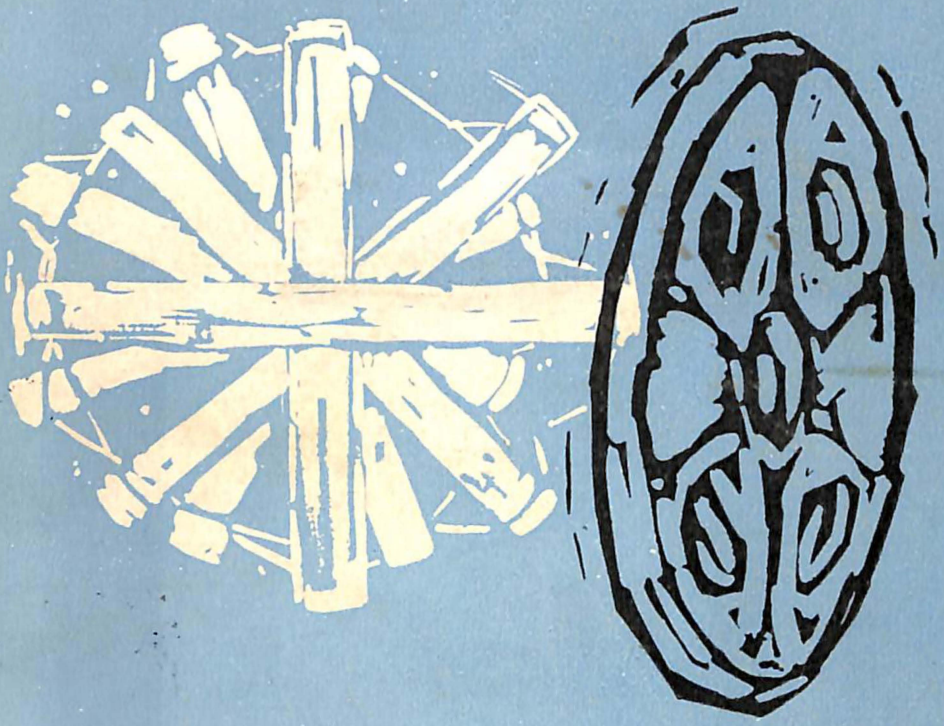
SOCIAL ASPECTS OF SMALL INDUSTRIES IN INDIA



STUDIES IN HOWRAH AND BOMBAY

UNESCO

EARCH CENTRE ON SOCIAL AND ECONOMIC
EVELOPMENT IN SOUTHERN ASIA
UNIVERSITY ENCLAVE, DELHI

SOCIAL ASPECTS OF SMALL INDUSTRIES IN INDIA

Studies in Howrah ... ombay
of Selected Turning Shops, Blacksmithies
and Art Silk Units

UNESCO RESEARCH CENTRE ON SOCIAL AND ECONOMIC
DEVELOPMENT IN SOUTHERN ASIA
UNIVERSITY ENCLAVE, DELHI-6

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FOREWORD

This is the second publication of the Unesco Research Centre on Social and Economic Development in Southern Asia, since it started functioning in Delhi in January, 1961. As the previous volume, *Social and Cultural Factors Affecting Productivity of Industrial Workers in India,* it is a study of selected social aspects of industry and technology in India, forming part of the Centre's current research programme of the changing patterns of social structures and economic development in the Southern Asia region.

The Reports on small-scale engineering industry in Howrah and art silk industry in Bombay were prepared by the research staff of the Centre, then based in Calcutta, under the direction of Prof. C. N. Vakil. These have been subsequently edited with revisions and rearrangements, including a conspectus of the Bombay survey, and a comparative interpretation of the two studies, written by Dr. Ralph Pieris, former Associate Research Officer at the Centre, into the present form.

As mentioned in the Introduction, the full import of this study will not be discernible until the results of similar surveys now in progress are available at the Centre. In the meantime, however, it has been thought advisable to publish the findings at Howrah and Bombay so that they might not lose their value for interested scholars as basic current data. Interpretation has been deliberately kept to a minimum pending further investigation in this field.

PIERRE BESSAIGNET,
Director
Unesco Research Centre on Social and Economic Development in Southern Asia

Delhi,
April 2, 1962

PREFACE

The study carried out by the Centre in Calcutta covers the small engineering industry in Howrah city while in Bombay it covers the art silk industry. The Centre is also associated with similar studies in the Philippines and Pakistan, which cover the same as well as other issues related to small-scale industries. It is also proposed to conduct pilot studies in Hyderabad in the South and in the Punjab in the North and also to carry out a study of Industrial Estates in Gujarat.

The conduct and supervision of the Howrah survey were entrusted to Dr. P. B. Medhora and Mr. A. P. Murdeshwar, the Junior Officers of the Centre. They were ably assisted by two Research Assistants: Mr. B. K. Aich Sarkar and Mr. R. K. Ganguly, who worked throughout the period of the study, and two research investigators: Mrs. R. Mitra and Mr. A. B. Roy, who worked during a part of the period. The processing and tabulation of the data collected were done by Mr. A. P. Murdeshwar, being assisted, in the case of the data on employees, by Mr. B. K. Aich Sarkar and Mr. R. K. Ganguly. The first draft on employers was prepared by Dr. P. B. Medhora. The draft on the employees and the presentation of the first draft report were prepared by Mr. A. P. Murdeshwar.

Our grateful thanks are due to the following who helped us with their suggestions and co-operation at various stages of the study:

Mr. K. S. Roy Chowdhury, Director;
Mr. D. D. Bose, Deputy Director;
Mr. R. W. Davenport, Consultant;
(Small Scale Industries Service Institute, Calcutta)
Mr. S. N. Paul, Hony. General Secretary;
Mr. N. Pal, Joint Secretary and Editor,
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Mr. C. C. Roy, Chief Inspector of Factories, West Bengal, Calcutta;

Mr. N. Chakravarti, Joint Secretary, Indian Statistical Institute, Calcutta; and

Dr. Ramakrishna Mukherjee, Professor of Sociology, Indian Statistical Institute, Calcutta.

The conduct and supervision of the Bombay survey were entrusted to Dr. (Miss) P. C. Kerawalla. She was ably assisted by Mr. P. N. Vesuwalla, Research Assistant-cum-Field Supervisor and by four research investigators: Mr. G. N. Gawankar, Mr. G. S. Shah, Mr. D. D. Senawane and Mr. B. R. Patel. We greatly appreciate the help rendered by several persons at various stages of the study and are indeed thankful to all of them and in particular to: Dr. M. R. Mandlekar, Director, Department of Industries, Bombay; Mr. M. V. Pandit, Industrial Statistician, Department of Industries, Bombay; Mr. M. L. Gadkiri, Chief Inspector of Factories, Bombay; Mr. V. S. Gandhi, Director, Small Industries Service Institute, Bombay; Mr. M. A. Telang, Director, Bureau of Economics and Statistics, Bombay; Mr. G. Parikh and Mr. D. B. Ketkar, Silk and Art Silk Mills Association, Bombay.

And many others including the selected entrepreneurs and workers, whose names have not been given for want of space.

It must be emphasized here that the broad objectives of the Unesco Research Centre are to study the nature of social response to industrialization to a limited extent and to stimulate research on the subject. The Centre's resources are not large enough to carry out any study in a big way. Hence this is a pilot study. The conclusions arrived at should, therefore, be interpreted bearing in mind the limitations noted in the Introduction of the report.

C. N. VAKIL
Director
Unesco Research Centre on the Social Implications of Industrialization in Southern Asia

Calcutta,
August 30, 1960

CHAPTER I

INTRODUCTION

The Unesco Research Centre on Social and Economic Development in Southern Asia covers a region which is undergoing a rapid process of industrialization. A problem for social scientists is to perceive and project the impact of this technical change upon the existing social systems. The experience of Western societies over the past two hundred years does not always offer an adequate guide in this respect because of historical and other differences; social transformation in Asia will apparently not be a replica of what was brought about by the industrial revolution of the West.[1] It is one of the functions of the Centre to focus attention and stimulate further research on this question.

A significant area of studying the social response to technological advancement in this region is in the field of small-scale industries, which under official encouragement form a major phase of the industrialization effort in many of these countries. In India, for example, there has been a specific financial allocation for small industries in the Government's five-year plans and service institutes have been established to provide assistance to such industries. In Pakistan, the Institute of Development Economics has been engaged in comprehensive studies on small-scale industries.

BASIS OF SMALL-SCALE INDUSTRIES

Small-scale industries are often encouraged on the basis of the economic proposition that these would provide employment to a greater number of persons than large scale industries with the same investment. This might be a partial solution to the major unemployment problem existing in some of these countries; for others it is a chief motivation. There are other socio-economic and political fac-

1. On one aspect of this, cf. J. C. Abegglen, **The Japanese Factory: Aspects of its Social Organisation.** Bombay, Asia Publishing House, 1960.

tors in favour of small industries.[2] The Karve Committee, which submitted a report on the role of small industries in the Second Five-Year Plan, of the Government of India, based its support for them mainly on the social security aspect of such industries.[3] It was suggested by the Committee that in a situation where the State itself was not able to undertake a programme of social security, small industries should be supported in an attempt to provide it by enabling a small income to be obtained where none was earned before. This would not only serve to ease avoidable economic hardship, but also tend to remove geographic disparity of incomes by fostering decentralization of industry since small-scale industries are not always subject to the compulsive factors regarding location that affect many large industries. Thus, small industries could help forward the growth of an economically "equalitarian" society and a politically stable, independent and self-reliant citizen class.

Official encouragement of, and academic interest in, small-scale industries are reflected in the large amount of literature recently issued under the auspices of Government departments and universities, particularly in India. Government publications are mainly in the nature of prospectuses on specific industries or areas of possible location; they are also concerned with policy-issues and the public relations aspects of small industries. University and other non-official studies have a broadly economic orientation, providing and analysing data on such factors as capital requirement and profit rate, capital-output and capital-labour ratios in small industries. The predominance of economics in the existing literature on small industries is indicated in the Centre's publications, *South Asia Social Science Bibliography* and *Research Information Bulletin,* which contain few references to studies approached within the framework of other branches of the social sciences. This is also confirmed by the

2. For a critique of the arguments in favour of small industries, see Chapter II, P. N. Dhar and H. F. Lydall, **The Role of Small Enterprises in Indian Economic Development.** Bombay, Asia Publishing House, 1961.
3. **Report of the Village and Small-Scale Industries Committee,** Government of India, 1955.

Centre's evaluation report on the literature of small industries in India.

SCOPE OF CENTRE'S STUDIES

The Unesco Research Centre has been interested in exploring the social implications of small-scale industry in the region. Since "social implications" was a term wide in its connotation,[4] the scope of the studies had to be narrowed down to a few specific aspects, such as the social and occupational backgrounds of the employers and the workers, factors influencing growth of the establishments, work practices in relation to human engineering within the shop, and general problems of the enterprise. Technical economic aspects such as capital-output and capital-labour ratios, analyses of inputs and outputs, as also the welfare features of small industries were not the primary areas of investigation; the former were being covered by existing research while the latter would normally fall within the purview of government inspectors or social workers. With these considerations in mind, the Centre carried out in 1959-60, within India, studies of small-scale industries in Bombay and Howrah, and was associated with similar investigations in Pakistan and the Philippines. Indeed, the first of these studies had been undertaken in the Philippines.[5] As the concept and the framework of the Philippines project bore some resemblance to those of the Indian studies, the schedule prepared in the Philippines, in consultation with the Unesco Centre, was partly utilized in establishing its counterpart in India. While having the same broad objectives, these studies do not agree in every detail as to the size-groups and the various aspects covered in view of the differing social situations, but taken together, they help to prepare a comparative picture of

4. Cf. International Social Science Council. Bureau International de Recherche sur les Implications Sociales du Progres Technique. **Social, Economic and Technological Change: A Theoretical Approach.** Paris, 1958.
5. Philippines. National Economic Council, and others. **The Survey on the Social Implications of Small-scale Industries in the Philippines:** 1959. Manila, 1960.

the social implications of small-scale industries in Southern Asia which are being further investigated by the Centre.[6]

FRAMEWORK OF THE SERIES

For the present studies, a broad definition of small-scale industries was formulated to include units employing less than 50 workers and using power, or those engaging less than 100 workers without using power, with a capital not exceeding Rs. 5 lakhs (US $105,000). In the individual projects, the definition adopted was kept within these limits. In the Philippines, the work-group studied was related to units having 20 to 50 workers with a capital not exceeding 4,000 pesos per worker (a study of units employing ten or less workers was conducted in 1955). In Pakistan, the study formed part of a larger survey which also covered establishments above the size set out in the basic definition.

Within India, where the Centre itself was responsible for carrying out the study, it was possible to exercise a greater control over the definition. The Factories Act, which applies to all manufacturing establishments hiring ten or more workers and using power, or 20 or more workers without using power, was taken as a line of separation between the *small* and the *smaller* industries. The whole range of the broad definition of the study was covered by taking below-Factories Act-size units in Howrah and Factories Act-size units in Bombay. This reflected the size of the prominent type of unit in the two industries studied in these cities. Out of 2,116 engineering and ancillary establishments in the Howrah municipal area, all but 285 were too small to fall under the jurisdiction of the Factories Act, while almost all the silk and artsilk industries units in Greater Bombay came under its provisions.

The sampling design was to a considerable extent dictated by the nature of, and resources available for, the respective studies. The

6. The Unesco Research Centre has sponsored a series of four studies in India at Hyderabad, Gujarat, Punjab, and Delhi, to be carried out under the direction of Prof. S. V. Ayyar, Prof. M. B. Desai, Prof. S. B. Rangnekar and Prof. M. N. Srinivas, respectively. Two projects are envisaged in Thailand and Viet-Nam.

units in the case of the Howrah study were selected on the basis of the simple random sampling method. In Bombay, the units were picked on the basis of the stratified random sampling method. The procedure with regard to the workers varied according to the size of the units studied. In the case of large units, as in the Bombay study, a sample of workers, on the basis of the stratified random sampling method, was chosen from each sample unit, while in relatively small units, as in Howrah, all the workers working in the sample units were taken up. Thus in Bombay, the workers were a sample from the sample units while in Howrah, since all workers were taken from the sample units, it led to cluster sampling.

* * *

THE HOWRAH REPORT

Howrah, twin city of Calcutta across the Hooghly, developed its importance as a centre of industries built around the ocean-going vessels coming to its shores. Its first large industries were the dockyards and roperies, which led to the establishment through the nineteenth and early twentieth centuries of many iron foundries and engineering works and to a concentration of mills pressing and processing jute, the chief export from this part of the country. All this was facilitated by its proximity to the coal fields and the iron and steel works of the tri-state area of West Bengal-Bihar-Orissa as also its location as the eastern terminal point of two of India's major railway networks.

Under the shadow of these large industries there has developed in Howrah a remarkable aggression of small engineering establishments. It has been estimated that of the small engineering firms situated within a radius of five to six miles from a central point in Calcutta, more than seventy five per cent are located in the Howrah municipal area.[7] These turning shops and petty manufacturing units produce or process a wide range of engineering products.

7. J. Bonnerjee, **Howrah Civic Companion.** Howrah Municipality, 1955. Vol. I, p. 16. The handbook describes Howrah as the Birmingham or Sheffield of Bengal.

They function in their own right and also serve as feeders and ancillaries of the giant industrial machinery in Howrah, thus forming a vital part of its economic organization. It was decided to study the socio-economic content of the small engineering establishments in Howrah, not only because these offered an interesting concentration of small-scale industries within an area of about ten sq. miles but also with regard to their present importance and future potentials in the context of the rapid industrial development in this part of India.

In the course of the preliminary investigations it was found that a large number of blacksmithies existed in Howrah. Blacksmithy is a traditional occupation in India, scattered over almost all its villages. Its concentration in Howrah was essentially a consequence of the market created there for simple products not requiring great precision, combined with the existence of certain facilities, including the easy availability of scrap as raw materials. The turning shops and the blacksmithies were both engaged in work on steel, pig iron and brass. In some cases, for simple products like nails and rivets, they were competitive. The major difference between the two lay in the nature of equipment used; the products of the turning shops were more varied and of a higher precision. The continued survival of a small traditional enterprise based on kin-group relationships in the face of technological advancement and competition presented an interesting aspect of study. A separate but parallel investigation was, therefore, undertaken of the blacksmithy trade in Howrah; it forms an appendix to the main report on small engineering industry. Also included in the appendices are some of the relevant findings of the Centre's study of art silk industry in Bombay together with a comparative interpretation.

THE SAMPLE

A census was taken of engineering establishments in the Howrah municipal area on the basis of municipal records. The Municipality levies a licence fee on all shops and establishments located within its limits and maintains a record of all licences issued under its jurisdiction. The Trade Licence Register is an annual record of the

name, address, nature of business and assessment fee for each establishment. This register provided a basic source for an inventory of all engineering establishments within Howrah. For this purpose, all businesses which had any connection with, or bore some relation to, engineering were noted as general engineering. These included turning shops, pattern shops, foundries, blacksmithies and other trades allied to the engineering industry. Out of a total of about 20,000 licences issued in 1958 there were 2,116 establishments which described themselves as carrying on general engineering and allied trades. A reference to the list of factories registered under the Factories Act showed that 285 amongst them were registered under the Act. It was within the group of establishments not covered by the Factories Act that the present inquiry was carried out.

The remaining list of 1,831 establishments was further reduced to ensure homogeneity within the sample. This was done by taking into account the capital equipment, processes and material employed in the establishments. Thus, pattern shops (which worked on wood), foundries (which did not use lathes), and similar shops (including those carrying on mixed business like blacksmithy and turning) were excluded, and all shops using lathes and working on metals alone were included. Although their methods and products were similar, they qualified themselves variously as turning shops, pipe-fitting, bolts and nuts-manufacturing units, engineering workshops, etc. (the predominant category being turning shops). The number of such establishments was found to be 864, all but 200 of which described themselves as turning shops. And, within the universe of 1,831 establishments, there were 389 blacksmithies.

For the purposes of this study, 40 units from each group were selected by adopting the simple random sampling method. The sample size was thus less than five per cent in the case of turning shops and about ten per cent in the case of blacksmithy shops. Conditioned as it was by the available resources of time and money, this must necessarily restrict the generalizations that can be made from the responses collected. However, this exploratory study was primarily concerned with the determination of the nature of social

and work relationships within the small factories, and not with their extent. For such a pilot study, a sample which would satisfy the requirements of a full survey was not considered essential.

It was, however, felt necessary to interview all workers employed in the units taken up for study. A sample would have been unrepresentative and inadequate for the purpose of the investigation. It was also desired that the experience of individual workers in such small factories should be brought fully into focus because of the closeness and intensity of the work-relationships.

It was not possible to obtain full response from the initial sample. In the case of turning shops and blacksmithies, 15 substitute units had to be selected as the original choices had closed down or proved to be non-cooperative. For workers, there was no possibility of substitution in case of non-response, which would more often reflect the employer's hostility to the idea of their being interviewed than their own reluctance. Out of seven turners who refused interviews with any or all of their workers, it was observed that in all but one case they appeared to be afraid that they would be revealed as employers of ten or more workers and users of power, while avoiding registration under the Factories Act. The remaining turner rejected a request for meetings with his four workers as, according to him, he had earlier got fed up when he was interviewed. Only one blacksmith did not allow any interview of his workers.

When the worker-interviews were taken up after the completion of the employer-interviews, the work-force was not found to be the same in many cases, thus reflecting the high turnover of workers in small engineering units. During the intervening period, the work-force had either increased or decreased within the units. At the earlier series of interviews, workers in the selected turning shops and blacksmithies, excluding sons and brothers of the employers who worked as partners or apparent successors, numbered 199 and 89, respectively. The corresponding figure at the later series was 182 and 91.

THE SCHEDULE

In its preparation of the schedule the Centre was guided by its objective of an exploratory study for determining the social and work relationships within small industry. Informal interviews were held with the employers and the committee members of the Howrah Manufacturers' Association in order to obtain some preliminary information in this connexion. Case studies were also conducted.

The schedules were subsequently framed to gather data regarding the social background of the employers and the workers, their work-practices, social and work relationships between employers and workers, and the role of the Government in providing assistance to small industry. These were pre-tested and sent out for comments, and later revised in that light. Although an interview-guide was adopted from the main schedule in respect of the blacksmithies, an informal approach was made to them, since they represented an unconventional work-group, not formalized in work-practices and organization. This case study-like approach, besides eliminating suspicion and facilitating work, helped to bring out relevant information which a rigid questionnaire might have missed.

METHODS USED

While information obtained through the schedules served as primary data for the study, other supplementary methods were also used. In the early stages of the project, an intensive study of an entrepreneur was undertaken. Informal discussions with knowledgeable persons were held in order to add to, or clarify, the information already obtained through the schedules. Interviewers were allowed to note additional information when relevant and record their observations on specified points.

The field-work took about ten months, from August 1959 to early June 1960. Two Research Assistants worked throughout the period of the study, and two Research Investigators during part of it.

Prior to the field-work, a general letter introducing the Centre and explaining the objects of the study was sent to the employers

of the selected units. The first month was spent in locating the selected units in the ten sq. mile area covered by the Howrah Municipality. Then followed the task of convincing the selected entrepreneurs of the purpose and utility of such a study. A latent suspicion of Government agencies, such as the income-tax and sales-tax departments, made some of them chary of offering forthright cooperation. The usual question asked was of what use the study was to them and whether it would help them get orders and financial aid or permits for raw materials from the Government. A letter appealing for their cooperation was obtained from the Howrah Manufacturers' Association. The entrepreneurs had to be repeatedly visited and persuaded before their support was forthcoming. Once it was available, weather conditions and political disturbances held up the field-work for a considerable period of time. In December, 1959, and January, 1960, it was possible to proceed rapidly and conclude the interviews with the employers. These were spread over a number of sittings, sometimes five or six times, as many of them could not spare more than half an hour at a time during their business operations.

The employee schedules were completed between the months of February and June. Many of the employers allowed interviews with their workers during factory hours or at recess time; about half the workers were interviewed at such times, in a few cases in the presence of their employers. Nearly a quarter of the workers were interviewed in the evenings after work and the remainder contacted in their lodgings, generally on Sundays. The employee-interview in most cases was completed in one sitting.

SOME CHARACTERISTICS OF THE WORK GROUP

The work-group in the units studied was small enough for face-to-face contacts between its members. According to the data obtained from the employers of the 40 turning shops, the number of workers varied from one in three units to ten in one unit. Twenty-four of the 40 units had one to five workers, and the remaining 16 had more than five workers. The average number in the units

studied was five. The work-group thus fell within the size which is considered essential for inter-relationships to be established within the group and for supervision to be established over it. This, according to general acceptance, should not exceed 12 persons.

In fact, the work-group was sufficiently small to include the employer within it in many cases. Thirty-one of the 40 employers knew machine-operation, and 23 amongst them engaged themselves in it regularly or occasionally. The employer's former working-class background made it easier for him to associate and integrate with the primary work-group. The differentiation of function according to hierarchical status was not always established, as the case might have been with large groups. In fact, a definite hierarchical organization did not exist within the units. The range of supervision by one man generally extended to an unstratified small group within which, however, there might be differentiation of functions and a need for coordination. The supervisory task did not constitute a highly specialized function and was generally performed by the employer himself in addition to his other duties, and in his absence, by one of the senior or skilled workers. Thirty-seven of the 40 employers stated that they personally supervised the workers as a rule.

The scope for specialization of functions, as in a large and composite organization, is limited in small operations where a worker has to undertake multiple functions. In some respects, the employer in the Howrah units was functionally more versatile than his workers, since he also had to perform the managerial activities of marketing, financing and accounts. Almost all employers undertook one or all of these functions. These were delegated to a son in cases where he assisted the father; in some other situations, a part-time book-keeper was hired to do the clerical work if the budget allowed it and circumstances such as the illiteracy of the employer forced it.

The form of ownership was primarily personal; as size increased, resources were contributed jointly and risks shared through partnership and later joint-stock ventures. Of the 40 units studied,

more than three-fourths were proprietary concerns (occasionally family rather than individual resources were invested therein), and one-fifth were partnerships (mostly with family members, except in one case with outsiders only, and in another partially). There had been few changes in ownership or product structure over the last five years, reflecting essentially a conservative one man-controlled business organization with a low turnover relying on self-made or second-hand machines.

SOME LIMITATIONS OF THE STUDY

The statistical limitation of the study arising out of a limited sample has been mentioned earlier. Responses might have been coloured by subjective considerations such as hopes and fears of governmental intervention. A certain degree of non-cooperation and the need to substitute some respondents could have introduced a bias in the study. The results of the study have to be read keeping in mind these factors affecting the reponses. These are presented as raw material for social scientists working in this field, in anticipation of other surveys on small-scale industries which are being entered upon in the region, specifically in India under the Centre's auspices, as mentioned earlier. While a general picture of conditions in the small engineering industries of Howrah is now available, any interpretation in depth is not possible at this stage. This pilot study does not exhaust the range of social implications of small industries, nor of methods to sift them. It would indeed be necessary to have parallel and complementary studies in order to cover the subject more meaningfully.

CHAPTER II

SOCIAL BACKGROUND

RELIGION AND CASTE

All employers and employees studied were Hindus, broadly reflecting the population composition of Howrah district, which, according to the 1951 census, was 83 per cent Hindus, 16 per cent Muslims, and one per cent adhering to other faiths. As for their caste, a majority of the entrepreneurs as well as workers were *Mahisyas*, a caste traditionally associated in Bengal with agriculture and marginal fishing and notably concentrated in the urban environs of Howrah district in recent years. In the census of 1931, which was the last time caste distinctions were enumerated, persons calling themselves *Mahisyas* numbered 2,381,300 out of a total population of 51,087,300 in undivided Bengal in that year; they formed the largest single caste. More than ten per cent of them, about 274,000 were living in Howrah district where the population in 1931 was 1,098,900, thus constituting over a quarter of the total number of inhabitants in that district.

The predominance of *Mahisyas* among the employers (26 out of 40) as also the workers (about 70 per cent of the total number studied) reflects the preponderance of this caste in Howrah rather than the prevalence of a special flair for entrepreneurship within it or the existence of caste-affinity as a determining factor in the recruitment of labour in these factories. In fact, only in 21 out of the 40 units, the owners admitted to having workers of their own caste, the number of such workers being 72 out of 199, which was the total work-force when the study started. A large group comprised those who had no caste affiliation with their employers according to the latter. Moreover, not one employer placed caste as the first preferred basis for hiring a worker.

The presence of a traditionally agricultural caste in the small engineering industries of Howrah is a feature in line with the general loosening in recent times of the formerly rigid correlation bet-

ween caste and occupation in India. The trend towards the adoption of new professions or absorption in parallel trades within an economy that has spread out of the village into a centralized industrially-based system is noted in recent Census data.[1] A comparison of caste and occupations in a number of social surveys also indicates the present-day crossing of traditional boundaries of caste.[2]

CASTE AND OCCUPATION

As has been noted before, 65 per cent of the employers studied, 26 out of 40, were *Mahisyas;* only three were *Brahmins,* an equal number *Kayasthas,* and the remainder belonged to various other castes such as *Subarnabanik* (goldsmith), *Lohar* (blacksmith) and *Jogi* (weaver). Of the 26 *Mahisyas,* only one acknowledged as his traditional occupation fishing, which ranks particularly low in the caste scale; 16 mentioned agriculture, one referred to business, and the remaining eight cited no specific caste occupation possibly out of ignorance or perhaps from a reluctance to admit to a low-status occupation.

A majority of the 182 workers interviewed, in fact more than 70 per cent, were *Mahisyas. Kayasthas* formed about seven per cent and *Brahmins* about five per cent of the total number studied; the remaining belonged to different castes such as *Namasudra, Karmakar, Teli, Beldar,* and *Kahar.* Agriculture or agriculture combined with business or service was the caste or traditional occupation of about 83 per cent of the workers studied, as is seen in the table on the following page:

TREND IN OCCUPATION PATTERN

Generation of Grandfather: The dissociation of occupation from caste was noticeable even in the generation of the grandfather of the entrepreneurs interviewed; for out of three *Brahmins* claiming

1. See, for example, N. K. Bose, "Some Aspects of Caste in Bengal", **Man in India,** 38 (2), April-June, 1958, pp. 73-97.
2. Cf. the Unesco Research Centre's study, **Social and Cultural Factors Affecting Productivity of Industrial Workers in India,** Delhi, 1961.

TABLE 1—**Traditional Occupation of Workers**

(as given by them)

Traditional Occupation		No. of workers
Agriculture	...	133
Agriculture and business, profession, etc.	...	13
Agriculture and service	...	6
Business, profession, etc.	...	9
Business, profession, etc. and service	...	4
Service	...	1
No knowledge	...	16
Total :	...	182

priesthood as their hereditary occupation, the grandfather of only one followed it as the sole vocation, and another carried on supervision of landed property along with his duties of a priest; service had already appeared as a means of livelihood for the grandfather of one. However, the main source of income for that generation was agriculture, in 21 out of 40 cases, and business (rice-dealing, boat construction, etc.) for another eight.

A similar pattern of traditional occupation was noted in the case of the grandfathers of workers. When asked about the occupation of the latter, about 83 per cent of the workers said that it was agriculture or agriculture combined with business or service; six per cent stated that it was business, profession, etc.; for five per cent it was service; and about six per cent had no knowledge of the calling of their grandfathers.

Generation of Father: The occupational pattern shows a remarkable change in the next generation in the case of employers. The fathers of only nine employers followed agriculture (in four cases, along with some other occupation); the number of fathers following business, including an independent craft, and factory service was eleven and eight, respectively.

This conspicuous pattern was repeated in the case of the fathers of the workers interviewed. About 58 per cent of them were in agriculture or agriculture combined with business or service; 12 per cent had business or profession as their livelihood and as many as 30 per cent had switched on to service. From the cross-

tabulation on occupations of father and grandfather, given below, it may be noted that about 58 per cent of the fathers of workers adhered to the occupation of their grandfathers while the remaining 42 per cent departed from their grandfathers' calling, a majority of them having taken to service or salaried employment.

TABLE 2—**Occupations of Grandfather and Father of the Employee**

Grandfather's occupation	Agriculture	Agriculture and business profession, etc.	Agriculture and service	Business Profession, etc.	Business, Profession and service	Service	No knowledge	Total
Agriculture	85	3	8	9	—	32	—	137
Agriculture and business, profession, etc.	2	3	—	1	1	1	—	8
Agriculture and service	1	—	—	2	—	4	—	7
Business, Profession, etc.	—	—	—	8	1	2	—	11
Service	—	—	—	—	—	9	—	9
No knowledge	3	—	—	1	—	6	—	10
	91	6	8	21	2	54	—	182

While there thus seemed to be considerable occupational mobility as between generations, there was apparently little mobility within the span of one lifetime. Of the 40 employers, 34 reported that their fathers' occupation at the end of their career was the same as at its beginning; significantly, of the eight who had started as factory workers, two had changed their career, both of them to independent business, one to his own factory and the other to contract work.[3] The greater inter-generation mobility might be

3. In the strict sense, the unvarying nature of the first and the last occupation may not always imply occupational immobility, for it is possible in a career to have had considerable mobility in between the two. However, the extent of such mobility—particularly, reverse mobility towards the original occupation—would depend upon the character of the occupation (agriculture is mostly amenable to such reverse mobility, but only nine had been following agriculture alone or together with some other business) and upon the existence of job opportunities.

due to the fact that when an occupation failed to provide an adequate means of living, the father would not give it up completely but would expect the son to supplement it from other sources. Occupational mobility then becomes a disjunctive process, more visible between generations than within a single lifetime.

ROLE OF JOB MOBILITY

Occupational mobility needs to be distinguished from job mobility, for even when a person keeps to the same occupation (say, agriculture, business or industry), he may change jobs (from being landowner to an agricultural worker, from one business to another, from one factory to another). The preponderance of independent business (agriculture, trading or small factory) as occupation among fathers shows that possibily even job-mobility was negligible in the earlier generation. As time passes, one notes greater mobility both in occupations and in jobs within a given occupation.

A second feature that may be noted from the ancestral professions is the relative unimportance of the link between the traditional and the present occupations in the case of employers as well as employees. Only two employers belonged to castes connected with metal-working, namely blacksmithy and goldsmithy, the latter being a more refined craft; in the case of the employees only two workers belonged to the blacksmith caste. The small engineering industry in Howrah thus did not represent the continuation of a traditional occupation using modern technology; it was based on work experience, rather than hereditary skill.

This was clear from the job history of the entrepreneurs studied. Only two entrepreneurs claimed no previous turning shop or similar experience, while another two had inherited but not worked in their present shops. Of the other 36, 15 had not served in any turning shops before starting the existing business. Among the 36, seven did not specify the number of past job-separations, calling them "several" (mostly in turning shops). The other 29 had held an aggregate of 75 jobs or independent positions, six of

them still continuing, and 39 of which, or more than half, related to employment in turning shops.

The role of experience as a factor influencing the establishment of turning shops can be seen in a study of the job history of the 40 entrepreneurs. More than half of them—21, to be exact —claimed practical knowledge as workers in turning shops. Fourteen amongst them had worked in at least two turning shops and had a minimum background in this work for ten years. Of the 19 who had no previous experience of work in turning shops, ten had an indirect familiarity by virtue of their former positions as order-suppliers, pattern-shop owners, or iron-and-steel or gun-and-rifle shop owners; two had inherited turning factories; the previous occupation of five (clerical job, ownership of grocery stores, or work in goldsmithy) had no relation to turning shops; and two had carried no other trade or profession before.

NATIVE PLACE

Most of the employers belonged to Howrah and the adjacent areas and had been born there, although there was a sprinkling of outsiders—from East Bengal, Uttar Pradesh, and the Punjab. Unlike the large industries such as jute, cotton textiles and tea, and unlike the related small industry of blacksmithy, which is examined later in detail, turning shops were generally owned and, in fact, established by local people.[4] With the small amount of capital required in turning shops (see the following chapter), capital itself was not a factor inhibiting entry into business, as it would be in some other trades.

Most of the workers in the turning shops studied were also indigenes of Howrah and the adjacent areas; in fact, 91 per cent of the workers were from the Howrah district. The remaining nine

4. This native preference itself may be a reflection of caste bias; engineering was not part of the hierarchy of caste occupations, which would allow *bhadra lok* (high status people) to take up such work, as they could not in the case of weaving or other occupations with a definite caste ranking and low status.

per cent was about evenly distributed between the other districts of West Bengal, and Bihar and Uttar Pradesh. Thus, only about six per cent of the workers studied were non-Bengalis. The birth place in the case of nearly 97 per cent of the workers was the same as their native place.

At this point it would be useful to examine the possible reasons for the preponderance of Bengalis in the small engineering factories in Howrah, which is striking when considered in relation to the large industries of Greater Calcutta, such as the jute and cotton mills where a large majority of the workers are non-Bengalis. In the course of the Unesco Research Centre's study on the social and cultural factors affecting productivity,[5] it was found that in the case of a non-engineering industry as the Kesoram Cotton Mills, workers from Orissa predominated in the spinning sections and Uttar Pradeshis were prominent in the weaving units, while Bengalis preferred the engineering departments. In the jute mills more than 80 per cent of the workers were found to be non-Bengalis. The following extract from an official report of 1946 lays stress upon the prevalence of non-Bengali labour in the jute mills.[6]

> "Bengalis—both Hindus and Muslims—seem reluctant to work in any of the unskilled occupations in the jute mills. Even during the dark days of the Bengal famine, when thousands of people from the surrounding districts flocked to the jute mills for work, they considered it below their dignity to work as coolies, sweepers, etc. Although it is fairly common to find in many industrial centres workers from a particular Province working in a particular department, this tendency is most pronounced in the case of the jute mill industry in Bengal. For instance, the United Provinces provide a large supply of weavers while, in the batching departments of the mills, Oriyas and Biharis are usually to be found. Softener feeders are mostly chamars from Bihar, Bilaspur, etc. Heavy work in the mills such as the lifting of the bales is generally done by men from Gorakhpur and Gaya. The Madrasis dominate the preparing departments of most of the jute mills in Bengal."

One possible explanation for the large numbers of non-Bengali workers may be a prejudice on the part of the big industrialists,

5. *Op. cit.*, **Social and Cultural Factors,** etc.
6. India, Labour Investigation Committee. Main Report, 1946, pp. 69-70.

who are mostly non-Bengalis themselves. Even if exclusion of Bengalis these days could be imputed to the militant Bengali labour movement, it would be unlikely to have been a serious factor in the past when the trade unions were dormant or in their infancy.

Another possibility is that the Sardari system (recruitment through foremen-jobbers) may have largely contributed to the influx and recruitment of non-Bengalis in big industries. In the early stages of industrialization, when free labour was scarce and means of communication not developed, recruitment of labour in factories was left to these labour agents who were mostly from the upcountry and often brought workers from their own villages and districts, with the result that there was often a curious relationship between particular areas and one factory. The Royal Commission on Labour (1931) commented adversely on this system of recruitment, and recommended direct enlisting by factories. Foremen-jobbers have not been common in recent years and since recruitment is increasingly being made through personnel departments in industries, it is difficult to explain the continued shortage of Bengali workers therein in terms of this practice.

A third possible factor would be the inherent liking which certain communities might have for a particular type of work. Thus, Oriyas could be very good in spinning, Uttar Pradeshis in weaving and Bengalis in engineering work. This aptitude might have contributed materially to the large-scale recruitment of non-Bengalis in the basically non-engineering industries such as jute and cotton mills, while Bengalis were mostly hired in their small engineering departments.

A related and important factor is the social attitude to types of work. Engineering work requires, to a considerable extent, intelligence in the person engaged in it. The involvement of brain-work, and not purely musclepower, makes it higher in status when compared with manual labour or jobs demanding less mental exercise. This status consciousness might have contributed to the predominance in engineering industries of Bengalis, who are generally thought to repudiate work involving physical exertion.

On the other hand, lack of such status consciousness induced non-Bengali workers to avail themselves of any job opportunities that came their way. A relevant part of the Royal Commission's Report states:[7]

> "The Bengalis have less inclination for factory work than other Indian races; when the industries of the Hooghly were being built up, their economic position was not such as to make the terms offered by industry attractive. In recent years they, more than most Indian peoples, have been realising the possibilities which industry offers to skill, and their numbers are increasing steadily in the skilled ranks and in the lighter types of factory labour; but in the jute mills they constitute less than a quarter of the workers. A few mills to the south of Calcutta employ Bengali labour; but to the north of the city in most of the mills the proportion of Bengalis is small, and there are large townships of immigrants. The bulk of the jute mill labour comes from the west of Bihar and the east of the United Provinces, a tract lying from 300 to 500 miles away. Other important recruiting grounds are the equally distant districts in the north of Madras Presidency and the east of the Central Provinces, while Orissa, which supplies labour of many kinds to Calcutta and its neighbourhood, is also represented in the factories. Of the jute mills it may be said that, if a circle of 250 miles' radius be drawn round Calcutta, the great majority of the workers come from outside that circle; and in the other factories too, a large proportion of the labour is drawn from these outer tracts."

The presence of Bengalis as entrepreneurs in the small engineering factories in Howrah is a possible outgrowth of the establishment and development in the 19th century by the Europeans of large iron and engineering works, which provided a valuable training ground for the acquisition of skills. Such factories as Albion Foundry, Burn & Co., etc. appear to have kindled the native preference for this type of work and stimulated a spirit of business enterprise. With the requisite experience attained in them, the Bengalis seem to have become the pioneers in establishing small engineering factories in Howrah. And cultural affinity probably led them to employ Bengali workers, for kinship in language and in the ways of life was desired in small undertakings as these. As

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7. **Report of the Royal Commission on Labour in India**, 1931, p. 11.

the occupational history of the employers studied shows, erstwhile workers in such small factories appear to have set up in turn more units in recent years. Thus, the self-generating growth of small engineering industries appears to be a significant phenomenon in the Howrah engineering complex.

EDUCATION AND VOCATIONAL PLAN

Of the 40 entrepreneurs studied, 36 had been educated, mostly in formal schools or colleges; of these literate employers, 12 had either passed the secondary school examination or had gone to college, indicating more than ten years of education. The proportion of literates in the sample was 90 per cent, much higher than in the general population (all India percentage of male literacy is 24.9 according to the 1951 Census). The education obtained was mainly of a general type, only a few claiming scientific or commercial training at the college level, which might have been of specific use in their present occupation. This was confirmed by the fact that only three claimed to have had vocational training in the nature of earlier apprenticeship in factories. The gap between general and vocational education was clearly noticeable, and was filled so far only by experience on the job. Education viewed in its strictly utilitarian qualities did not tend to equip the entrepreneur for his future vocation.[8]

As for the educational background of workers, 13 per cent of the 182 workers studied were illiterate. Among those who were literate, about three per cent did not go to any school but studied at home;

8. This gap is being filled today. In addition to the new vocational orientation that is being given to the educational system and the starting of technological institutions, the Government's aid-programme for small industries includes technical assistance, under which technical skills are imparted, and training in business administration which offers basic knowledge of business accounting and methods. These facilities are available to those already in small industries and to those planning to enter them. In Howrah, the Indo-Japanese Prototype Production and Training Centre has recently been set up. Japanese and Indian experts provide technical training here to selected employees of small-scale industrial units from all over the country, including turners and tool makers.

about 49 per cent had primary school education (Standard I—IV); about 32 per cent had middle school education (Standard V—VII); and the remaining 16 per cent had studied above the middle school level (above standard VII). Only three had matriculated and one of these was studying in the intermediate science class in a college. With the exception of one who had some professional training as a motor mechanic and driver, none of the workers had acquired any vocational education.

Almost all the literate workers were educated in their native place and in their place of birth, or in the neighbouring village schools, in the absence of schools in their localities. More than two-thirds of the literate workers were under 15 years of age at the time they ceased their formal school education.

Of the 36 employers who had acquired formal education, 29 had given up schooling between the ages of 10 and 20 and seven after the age of 20. It is not clear whether all these people had a definite educational or vocational plan. Only two admitted to having completed their education. The main reason quoted for abandoning it before finishing was economic—"the need to maintain family," and so on.

For about 80 per cent of the workers who had formal school education, the reason for giving it up was mainly economic, a majority of them referring to its costs; for the remaining 20 per cent, personal reasons, which were in the main lack of aptitude or ability, and in a few cases these combined with economic factors led them to break off formal school education.

The workers were asked about their vocational plans before entering their present or previous occupations. About 28 per cent of the workers replied that they had no plan at all and about 32 per cent of the workers said they had planned to take up some job of this kind. However, there does not appear to be much difference between the two categories. Pressed hard by the economic circumstances, they wanted any job. In search of employment opportunities, they probably found a large number of their relatives (about 17 per cent of the workers in the units studied said they had rela-

tives working in the same factories) and co-villagers working in the Howrah factories to give them direction or a helping hand. This could have induced them to go in for factory work. About 25 per cent of the workers studied said they had a vocational plan to move into a better technical job; another 13 per cent said they had a vocational plan to go in for an occupation other than factory work. The relevant table in this connection is given below:

TABLE 3—**Vocational Plan before Entering into the Present or Previous Occupation**

Occupation	Number of Workers
No plan	51
Some job of this kind ...	59
Better technical jobs	46
Small business of own	13
Clerical or office job	7
Agriculture ...	4
To continue education	2
Total	182

Without specific educational or career goals to spur them, a situation such as this does not necessarily imply frustration in life. It does, however, reflect the fact that one is often called in India to bear the burdens of life long before he is ready for it, mainly because the margin between income and sustenance is too narrow to enable savings to be built up as a cushion against unforeseen circumstances. Education was, thus, not thought to be of much importance to the respondents' future career. Their economic condition was such that the education of children was regarded as expendable and all attention was diverted to securing an occupation for them so that they could share the financial burden of the family. This is illustrated by the observations of one of the em-

ployers studied, now nearing 70 years. In his boyhood nobody bothered about education. Entrepreneurs who had started their business in those days were mostly illiterate at the beginning. The need for at least an ability to read and write in the day-to-day transaction of business came later, especially when the business expanded. At this stage they started learning, minimally how to read and write, and gave their children, the future heirs to the business, a school education.

Even in recent times, education did not appear to be a matter of great importance to a worker's future career. The fact that nearly three-fourths of the literate workers had an education below the secondary school level pointed to the harsh realities of the economic conditions of their parents, who suspended their schooling. So long as the children could learn how to read and write it was considered sufficient. The availability of increased educational facilities might have prompted the fathers to send their children to schools to a greater extent than in the earlier times. But once the children reached an age when they could earn to supplement the family income, further learning appeared to cease.

AGE STRUCTURE

Of the 40 entrepreneurs interviewed, 36 were below 50 years of age, the concentration being in the age-groups 31-40 and 41-50 years. The urge to take up an independent turning shop business appears to have been predominant among those between the ages of 26 and 30; out of 38 entrepreneurs who had started a turning shop, 13 were in that age-group when they set up their turning shops; in fact, 18 of the 38 had established a turning shop before they were 30 years old.

Of the 182 workers studied, 47 per cent of the workers were 20 or below; another 47 per cent were in the age-group 21-30 years; and in respect of the remaining six per cent, ages ranged between 31-45 years (as shown in table below). The average age of the workers worked out to 21.6 years.

TABLE 4—Age of Workers

Age	Number of Workers
15 years or below	9
16-20	76
21-25	58
26-30	27
31-35	8
36-40	3
41-45	1
Total	182

FAMILY INCOME AND EXPENDITURE: EMPLOYERS

Family responsibilities generally extended to the nuclear family or to relatives one degree removed, for instance, to the brother and the brother's family—in such cases, very often, the brother being a co-owner in the enterprise. Jointness of the family was visible in the fact that in the case of 21 of the 40 entrepreneurs studied, other members of the family contributed to the total expenditure.

Of the 40 entrepreneurs, 35 were married, one a widower and four unmarried. All of them except six stayed with their family; the six—five married and one unmarried—were living in Howrah by themselves or with sons or brothers, their family being in their native place.

The business generally afforded an income above that of the workers, although, it may be noted, no allowance was usually made for interest on the money invested. Five entrepreneurs did not take in any amount from the enterprise; eight drew Rs. 100 or less per month, and 16 between Rs. 101 and Rs. 200 per month while eight took more than Rs. 200 per month; and a small group, reflecting the informality of accounts, drew "as required". However, the amount drawn should not necessarily mean the income afforded by the enterprise; the income afforded might be more than the amount drawn. For 26 of the 40 employers, the turning shop was

the only source of income; and 14 others derived income from other sources, such as from agriculture, rent of property, a second business or another job.

A generally good level of living was reflected in the patterns of expenditure. Twenty-six entrepreneurs reported a monthly expenditure of Rs. 101 to Rs. 250 and nine between Rs. 251 and Rs. 1,200. Twenty-three owned a house, and 14 paid a rental varying from Rs. 20 to Rs. 90. Only one entrepreneur resided in the factory; 16 had two to four rooms to live in, and four had five to eight rooms; and ten stayed in their own storeyed house. Twenty-nine of the entrepreneurs did not make any remittance to family members, probably because their family stayed with them. Only one entrepreneur reported being in debt for household expenses.

FAMILY INCOME AND EXPENDITURE: EMPLOYEES

In the case of workers, about 22 per cent were married and 78 per cent unmarried. More than half the number of married workers stayed with their family. Of the single workers, nearly three-tenths lived alone, often sharing rooms with other workers; the remaining seven-tenths stayed with their family, or their relatives' family, such as an uncle, or took a room with their father, brother or other male relatives, whose womenfolk were living in their native place.

Factory work did not afford an income of more than Rs. 100 for almost all the workers (table given below). In fact, 16 per cent received a monthly income of Rs. 25 or less and 65 per cent between Rs. 26 and Rs. 75. For most of them, their earnings went to supplement the family income. Income from other sources was reported by only one worker, who gave academic tuition and earned Rs. 30 p.m. additionally.

The monthly spending by the workers for their own expenditure (if they lived singly) or as their monthly contribution to family income (if they lived with their family) did not exceed Rs. 50 in the case of nearly 80 per cent of the workers. A regular monthly remittance to their families living in the village was reported by

TABLE 5—Monthly Income from Job in Factory

Income		Number of Workers
Rs. 25 or less	29	
Rs. 26—Rs. 50	55	
Rs. 51—Rs. 75	63	
Rs. 76—Rs. 100	25	
Over Rs. 100	7	
Not fixed so far	3	
Hope to get between Rs. 50—Rs. 100	2	
Trainee boy	1	
Total		182

half the workers; about 14 per cent either sent money occasionally or not at all; and in the case of the remaining 36 per cent, the question did not arise as they stayed with their family. Of the workers reporting a regular monthly remittance, about one half mentioned an amount of Rs. 25 or less and for about one-third, it was between Rs. 26 and Rs. 50. The main purpose for which the regular remittance would be made was for current household expenditure, though in a very few cases they reported items such as construction of houses, repayment of family debts, and current farm expenditure.

From the above data it becomes apparent that the surplus of income over expenditure was very small; only three of the 182 workers reported savings, the amount saved varying between Rs. 50 and Rs. 300. On the other hand, 14 among them stated that they were in debt. It should be noted here that the debt reported was incurred personally by the respondents; loans incurred by the father, or what might be called the family debt, were not recorded (the existence of family debts in respect of at least some of the respondents is clear from the data obtained on how the regular monthly remittance was utilized). The amount of unsettled debts varied from Rs. 10 to Rs. 100 in the case of seven workers, Rs. 200

to Rs. 300 for six workers and the remaining worker reported an outstanding debt of Rs. 1,000. The period of the indebtedness did not exceed three years. Partial repayment was made only by two workers since they had incurred the loan. The debt in all cases was contracted with relatives and friends and hence almost all of it interest-free. The purpose of the debt in the case of 12 workers was current household expenditure; in one case it was marriage, and in another it was construction of a house.

A question on total family expenditure was also asked of the workers. However, many of the respondents could not give the information as according to them the day-to-day expenditure was looked after by an older male member of the family, the father or elder brother. Since more than three-fourths of the workers were not yet over 25 years, they gave whatever they earned to the elder member of the family, if the workers stayed with them; if they stayed away from their family, they remitted the income after keeping a required amount for their own expenditure.

Moreover, in the case of about 58 per cent of the workers, their fathers had, for the greater part of their life, agriculture or agriculture combined with business or service as their occupation; for most of these workers family income and the required evaluation of agricultural income would have been difficult to obtain.

In the absence of these supplementary data, one could not be definite as to whether the economic condition of the workers had improved or not. However, workers were questioned about their economic condition after joining the present factory. About 71 per cent replied that they were better off, 28 per cent asserted that there was no change, while only one of the 182 workers said that economically he was worse off in the present factory, since he was better paid in the previous workshop. But these data do not explain clearly the change in the economic condition of the workers. The 'money illusion' might have coloured their answer to the question on economic betterment—a worker who earned Rs. 0.25 more per day than in his previous job was likely to say that he was economically better off without taking into account the increased

prices. It is appropriate here to refer to the comments of the 1951 Census Howrah District Handbook on the social condition of the people in Howrah.[9]

> "The material condition of the people has been on the whole improving during the last half century. The opening of railways, the erection of new mills and factories, and the establishment of numerous industrial works in Calcutta, Howrah and their suburbs have caused a great demand for skilled and unskilled labour, and have led to a steady rise in wages as well as in the prices obtained for agricultural produce. In former years a labourer or petty agriculturist could scarcely manage to supply himself with the necessaries of life, while in bad seasons, or on other occasions of distress, his destitution was extreme. Now, however, after defraying all his expenses, he manages to save something out of his earnings or from the produce of his fields. It is reported, however, that the middle classes, especially those who reside in the town and have small fixed incomes, do not share in the general prosperity owing to a comparative increase in their expenditure and other causes. This is particularly the case with the middle classes of higher caste. They have appearances to keep up and traditions to maintain, and do not reduce their expenditure on social ceremonies or alter their mode of living. Disdaining manual labour, having little enterprise and less capital, they find it difficult to make ends meet, owing to the increased cost of living, which has been such a marked feature in the economic history of the State of late years."

LIVING CONDITIONS

A question was asked of the workers on the length of their urban residence. Ten per cent claimed urban domicile since birth, and 20 per cent were living in villages near Howrah who came to the city in the morning and went home in the evening after work. Of the remaining workers, 72 per cent had a period of urban residence not exceeding five years while 28 per cent had been living in a city or town for over five years and up to 20 years. However, the period of urban residence cannot be used as an indicator of urban influence. For, as already stated, most of the workers came from villages near Howrah city and although many of them could have returned to their family daily, they might have found it more

9. 1951 **Census Howrah District Handbook.** Alipore, West Bengal Government Press, 1953, p. xviii.

convenient to reside in the city and to visit the family once a week or so. The fact of proximity to the metropolis would already have made urbanism an influential factor in those villages, in which case residence in the city only stabilized an extrinsic influence already felt by the workers.

About 28 per cent of the 182 workers had lived at their present address since birth; the period of such residence was five years or less in the case of 62 per cent, and six to 20 years for the remaining ten per cent. About a quarter of the total number of workers owned the houses where they lived; about half of them were tenants and the remaining quarter stayed with relatives without paying rent or lodged in factories, boarding houses or the employer's home. The rent paid by the occupants of rented accommodation did not exceed Rs. 15 in most cases.

About five per cent of the workers stayed in the factory and 44 per cent lived in homes, which were less than a mile from the factory; in the case of 33 per cent of the workers the distance was between one to five miles and for the remaining 18 per cent it was five miles or over. For nearly 80 per cent of the workers the time spent in going from residence to factory did not exceed half an hour. More than three-fourths of the workers walked to work; about 20 per cent, most of them dwelling in villages close to Howrah city, travelled mainly by train, some by bus and cycle. The monthly expenditure incurred in commuting on bus or train by a majority of the workers was between Rs. 5 and 10.

Workers were asked about the arrangements for their midday meal. About 87 per cent went home for lunch, or brought or got food from home, or took a heavy meal before coming to work; about five per cent cooked and ate in the factory, since they resided in the premises. Only about eight per cent of the workers bought their midday meal in a restaurant or hotel.

Only four per cent of the workers resided in pukka (brick-built) residences, 62 per cent in semi-pukka and the remaining 34 per cent in kutcha (made of straw or mud) habitations. About five per cent of the workers lived in the premises of the factory in which

they worked; 47 per cent lodged in single rooms, more than a quarter of them sharing the room with other workers; 31 per cent were staying in double rooms, while the remaining 17 per cent were housed in buildings with two to seven rooms.

Electricity was used for lighting by nearly 30 per cent of the workers; the rest used kerosene oil. Water from a common tap was available for about 54 per cent of the workers; 37 per cent had access to tube-wells while the remaining nine per cent, living in nearby villages of Howrah, used pond or tank water. Drainage and latrines were available for 65 per cent of the workers; 15 per cent had latrines without drainage, four per cent had only drainage while the remainder had no sanitation facilities at all.

GENERAL CONDITIONS IN HOWRAH

The above data indicate that the situation in respect of housing, water supply and sanitation remains unsatisfactory, being very much the same as it was in 1951, when the last Census was conducted. During this period, in fact over the last five years, approximately half of the workshops had come into existence (see the following chapter). While planned industrial development of the country has given rise to increased urbanization, as reflected in this and other trends of growth in small and large industries, progress in respect of housing, sanitation and water supply has remained static in Howrah if not deteriorated, when compared with the position a decade earlier, which in turn has been pronounced similar to the conditions at the beginning of the century. The following extracts from the 1951 Census Howrah District Handbook, published in 1953, give a glimpse of the situation:[10]

> "With the growth of the (Howrah) city the proportion of the female population has significantly declined. There are many reasons for the growing disparity in the female ratio. The most obvious reason is the overwhelming proportion of immigration of male labour in the industrial area of the city. The other equally important reason is the lack of housing and the enormous preponderance of what are called bustees or slums.

10. **Ibid**, p. xvi, xviii, xx and xxi.

The position of city and village sanitation remains very much where it was in the beginning of this century.

The great sanitary need of the district of Howrah is the improvement of drainage, filling up the numerous unhealthy tanks and the removal of excessive vegetation from the vicinity of dwelling houses. Very little has been done to fill up the large number of unhealthy tanks. Village sanitation is in its infancy, but domestic cleanliness is fairly well attended to; unfortunately, drinking water is taken from polluted wells, tanks and ponds, or, less often, from wells which are not cleaned, from tidal rivers or creeks, which are often contaminated by dead bodies and other organic matter; and in the South from the canal.

A filtered water supply has been provided by means of the Howrah Water Works for the Howrah City. The total number of tap connections in the city, however, is only 11,509 suggesting that the vast majority of the population of the city receive their supply, if at all, from street hydrants. In addition to this water supply there are 688 tubewells in the city maintained by the municipality.

The city of Howrah does not enjoy any underground sewerage. The latrines are serviced and are on the surface and all drainage is surface-bedded.

Some of the workers confirmed from their personal experiences that they lived in a *bustee* (slum) area where there seemed to have been little improvement in housing, water supply and sanitation conditions in the past ten years. In 1949, the State Statistical Bureau of the West Bengal Government published a valuable report —*A Sample Enquiry into the Living Conditions of Bustees of Calcutta and Howrah*, which was conducted in 1948-49. Some findings of the enquiry, on the conditions of housing, water supply and sanitation, are summarized below to describe the conditions that prevailed in *bustee* areas:

"In Howrah 12.3 per cent of the resident families in the bustees are lessees and the rest are tenants; 11 per cent of the total lessees do not live in the bustee. The majority of the tenements are one-roomed, the percentage of one-roomed tenements being as high as 97.6. 80.2 per cent of the tenants are non-Bengalis and only 1.2 per cent hail from East Bengal. Only 36.6 per

cent of the huts of bustees of Howrah have *pucca* floor. Only nine per cent of the huts of bustees of Howrah have *pucca* walls. The bustees of Howrah are apparently better off than those of Calcutta in point of ventilation. Only 15 per cent of the huts have kitchens; 10 per cent of the huts in Howrah have no arrangements for cooking.

"At Howrah a tenant family occupies 1.03 rooms on an average, 97.6 per cent of them living in a single room. A lessee family on the other hand lives in 2.43 rooms on an average, 70.5 per cent of them occupying more than two rooms. As a hut contains 8.73 rooms on an average, the hut-owner lets out the balance of 6.30 rooms which are rented out to six tenant families.

"Arrangement for water supply is bad. The condition of water supply in Howrah bustees can be imagined from the fact that in only 11 out of every 67 huts is there some arrangement for water supply. 83.6 per cent of the huts have no arrangement for water supply, where 66.6 per cent bustee population live, and, in huts having arrangement for water supply, a tap serves 39.1 persons on an average.

"34 per cent of the bustees of Howrah have bad drainage and 15.5 per cent of them have no latrines; 13.4 per cent of the huts in Howrah have no latrines, which means that 5.7 per cent of the bustee population have no latrines whatsoever. Only the 'service' type of latrine was found in the sample bustees surveyed. Each latrine seat serves an average of 21 persons."

RELIGIOUS AND CASTE RESTRICTIONS

Most entrepreneurs were local people who had lived and worked in the same place all their life. The influence of work in small factories in itself was likely to have little bearing on their social life; in fact, work or entrepreneurship in a small factory was not felt to be an independent or major factor making for social change. Of the 40 entrepreneurs studied, 30 said that the factory was a neutral factor in relation to their religious observances and caste practices, while the remaining ten attributed a slackening in these observances to the nature of their work.

In the case of the workers as well, the impact of work in small factories as such was unlikely to have influence on changes in their

social life. Most of the workers were inhabitants of Howrah City or of nearby villages of Howrah, and a large majority of them belonged to the same caste. About ten per cent said that their observance of religious practices and caste regulations had decreased owing to work in factory, while a large majority, nearly 90 per cent, said that it had not affected observance of religious practices and caste regulations.

The workers were asked whether they paid homage to the machines and tools they worked with. More than 90 per cent of the workers said that they did so daily or on particular days, while about eight per cent said that they did not do this at all. Of the workers who paid homage to machines nearly two-thirds did so daily, the remaining on particular days only.[11]

When asked whether they followed restrictions based on caste differences, about seven per cent of the workers replied that they practised all of them, eight per cent said they observed most of them, while the remaining 85 per cent adhered to only some of them. Besides the general query on caste differences, questions were also asked about the observance of particular caste restrictions, and the reasons for doing so (see the table on next page). Almost all workers said they obeyed the sanctions of the caste structure in the matter of marriage with non-caste people, as, according to a majority, it was proper to follow such restrictions. In respect of social intercourse, only about one-third of the workers said they observed the sanctions of caste and nearly three-fourths of these did so because others practised such sanctions. More than 40 per cent of the workers observed caste strictures against drinking water with low caste people and allowing such people to enter their kitchens; the reason given by a majority for following the former discrimination was "others do so," and for the latter "it is proper."

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11. Among Hindus, generally, there is a custom of worshipping implements and machines on a particular day, for example, among the Bengalis on *Viswakarma* (God of machines) day. This tradition, of a different age, has been applied to the modern factory system and is observed in ceremonial style.

TABLE 6 — Caste Restrictions and Reasons for Following or Not

	Fear of ostracization	It is proper	Others follow it	Do not believe in it	Nobody follows now	Matter of convenience	Cannot say	Total
Social intercourse	—	17	46	43	54	7	—	167
Eating with non-caste people (in social functions)	—	47	27	40	44	9	—	167
Marriage with non-caste people	35	103	26	2	—	—	1	167
Drinking water with low caste people	2	27	47	38	49	4	—	167
Allowing low caste people to enter kitchen	1	45	32	48	38	3	—	167
Do not follow any caste restrictions	—	—	—	13	1	—	—	14
Cannot say	—	—	—	—	—	—	1	1

The number of workers studied was not uniformly distributed among the different castes; if that had been so, a general interpretation of the answers on particular caste restrictions would have been difficult as caste sanctions are likely to vary from one caste to another and a particular stricture for one may not be relevant for the other. Among the workers studied, a large majority, over 70 per cent, belonged to the *Mahisya* caste, whose members are traditionally agriculturists. This, added to the finding that about 85 per cent of the total number of workers did not follow all or most of the caste res-

trictions at all. would seem to indicate that caste as a link with the traditions of the past was slowly lossing ground. It might, to a significant extent, be due to the industrialization and consequent urbanization of the district, an amalgam of diverse castes and communities in recent years. The purity of original caste distinctions could not be maintained against all the external conditions and alien influences affecting social behaviour in Howrah.

GROWTH OF ENTERPRISE

SETTING UP THE FACTORY

The interviews of the employers selected for this study were conducted during the last three months of 1959 and the first few days of 1960, and the situation described here relates to that period.

History of the Establishments: Of the 40 establishments 21 were set up during the last five years. This was the period when planning got into pace in India, with a particular emphasis on general engineering.[1] Twelve establishments were set up 6 to 15 years ago. i.e. after World War II and before the years of planned development. A notable fact was that only three establishments had been set up during the years 1939-1944, the war-time period which gave a general impetus to engineering industries. It might mean not so much the slower rate of growth of such industries during the war years but possibly greater mortality among them in the subsequent period. This was confirmed during conversations with small entrepreneurs, who looked back on the war period as a boom time, the personnel of the Howrah Manufacturers' Association, and government officials. Only four establishments were founded before the war, and these ranged between 21 and 30 years of existence.

Valuation of Enterprise: A turning shop is a "small" business, whose limited finance would be the factor least inhibiting its establishment. In the case of 24 of the 39 units answering the question, the original value of the investment was placed at Rs. 4,000 or less; 13 of these had borrowed funds to set up the unit.

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1. This was also the period during which the Government embarked on its present programme of aid to small industries. However, this itself had very little influence on the rapid increase in the number of small turning shops in Howrah, as revealed by the available data, for none of them owed their origin, growth or continued existence to Government aid, as shown later.

A major factor keeping initial capital low was the use of second-hand machines and, very often, of self-made machines. Of the 95 lathe machines owned during the period of the interviews by 36 entrepreneurs who gave detailed information about the machines in their shops, 27 lathes were self-made, 49 obtained second-hand and only 19 were purchased new.

Of the 13 units which had borrowed money at the time of establishment, all except two had got into debts for amounts not exceeding Rs. 3,000; in fact, in respect of six of these units, the pledged funds did not exceed Rs. 1,000. The largest source of such funds was relatives, that being the only source in nine out of the 13 cases; friends were listed as the second most important source.

Ownership Pattern: The informal sources of capital and the smallness of initial investment required were reflected in ownership patterns: of the 40 units studied, 31 were proprietary, eight were partnerships (of which six were partnerships within family members), while the remaining one was taken on lease. Some of the sole proprietary units were in effect family enterprises, where capital and labour were subscribed by members of the household or the larger family and earnings treated as joint income. The nominal form of ownership was a means in promoting the main objective—a family cooperative to maintain its members.

ROLE OF FAMILY IN ENTERPRISE

Status, roles and relationships in business were an extension of those within the family structure and often indefinite or not clearly defined. The entry of an extended or distant family member in a definite subordinate relationship was usually not favoured. Fourteen employers stated that they would like to hire relatives, whose loyalty was described as their major motivation for doing so, and to a lesser extent, out of a sense of family obligation. Of these, 11 expressed a first preference for relatives in recruitment policy, although in fact only seven among them employed two or less relatives in their shops. Seventeen employers, however, expressed a dislike for relatives mainly because of problems of

inefficiency and indiscipline ("the relatives do not work hard" and "it is difficult to order them about"). Family dissension and fear of breach of trust in money matters also featured as their objections to hiring relatives. Nine employers did not express any opinion when asked about their views on relatives working for them.

It may be mentioned here that work in turning shops has no craft element, in the sense that it needs no inherited skill. Proximity of contact with the employers, such as work in close collaboration with a master craftsman would involve, therefore did not form an essential part in work and work-relationships. Hence, relatives enjoyed no special advantage or disadvantage in work in the turning shop. Two of the employers who hired relatives found them as efficient as other workers.

EASE OF ENTRY IN BUSINESS

A small capital, some of it often obtained from relatives or friends, facilitated entry into the turning shop business. Previous experience had often provided the technical know-how required for the trade. The relative ease of entry into a comparatively attractive means of livelihood was an important consideration. Economic betterment and a desire for an independent means of livelihood were given most frequently as the reasons for taking up the existing business; in most of these cases, they appeared as a combined motive. As indicated earlier, the monthly income of a turning shop employee was between Rs. 50 and Rs. 100. There was, therefore, a narrow range of gradations or inequality in the small factory: the highest grade was not only low but was reached soon though, as will be seen later, not without involving many job-changes. The ladder did not reach far up and could be climbed fast. An avenue of further improvement of one's status was by starting a new enterprise; in the process, setting up another ladder for others to climb. The other major alternative in India is employment in larger factories, where the upper limit of wages is a little higher; but such employment opportunities are few and highly competitive. Moreover, the effective ceiling in large factories is set at the foreman

level, and a higher position would often be out of the question for the workers handicapped by their lack of education and status. Easy entry into a small business often may have appeared as the most convenient means of breaking through this income-ceiling inherent in wage-employment.

RATE OF GROWTH

Accounting System: An integral characteristic of small enterprise was the inexactitude in their methods of account. This emanated from the very size of the operations in which the entrepreneurs were involved. Generally, the transactions never produced a sufficient surplus to enable an accountant to be employed, although a few of the employers reported having part-time clerks or accountants. The entrepreneur performed multiple functions, one of which was accounting. Thirty of the 39 entrepreneurs answering the question said that they notionally kept the accounts of the establishment separate from those of their household; 34 entrepreneurs said they kept formal books of account for their enterprise.[2] The entrepreneurs' own background hardly gave promise of recognised accounting procedures. Formalized accounts often seemed merely the keeping of vouchers for receipts and expenditure in separate files, or the recording of these entries in a book.

Price-fixation procedures possibly induced the maintenance of accounts; 27 entrepreneurs said that in undertaking orders they calculated their costs and added a fixed margin, and only 12 said they accepted the prevailing price. It is doubtful if the entrepreneurs who fixed price at costs plus margin would have adhered to them, if pressed. Of the 40 entrepreneurs studied, 22 said there was very much competition, and 14 felt it was average, while only four affirmed that their products were not subject to it at all. Among those who said there was competition, 26 said the main rivals were small manufacturers like themselves; nine identified the competitors as both

2. These proportions, however, did not seem to be a result of tax requirements; only six of the 39 reporting on the point admitted to paying income tax and nine to paying sales tax.

large and small manufacturers, and only one claimed that large manufacturers were his only competitors. Of those reporting competition, 28 admitted that such rivalry affected business adversely and for all but five of them, prices had to be lowered to meet such competition; for seven, it influenced their business in general and for the remaining one, the competitive nature of the business did not touch him.

The maintenance of formalized accounts was also inhibited by certain investment characteristics peculiar to small enterprises. A large proportion of the machines owned by the establishments were either self-made (about one-fifth), or purchased second-hand (more than one-half). Despite the fact that they were capital-conscious in the acquisition of machines, small industrialists lacked a similar consciousness in their use; only five of the 39 answering the question admitted to setting aside sums for depreciation out of their annual profits. Depreciation was thus not a very important concept in the context of the asset-structure of these small enterprises.

The absence of conditions making for the maintenance of proper account books and the entrepreneurs' own lack of training for the performance of this function reduce the value of the economic data for the determination of significant economic questions like capital-output or capital-labour ratios, which, in any case, were not the objects of inquiry. However, the economic data do lead to some broad conclusions which are of significance for the present study.

Indices of Growth: One such broad conclusion than can be drawn is that over their life-span till 1959, most of the establishments had grown in value. As the following table would show, the number of establishments with a value up to Rs. 5,000 had decreased from 26 at the time of the start to 11, whereas the number of units with a valuation above Rs. 10,000 increased from three at the time of establishment to 17 in 1959.[3]

3. This represents necessarily a cross-sectional growth in time: the original values referred to are related to different points of time ranging over 30 years during which period the establishments were started; the present values relate to a much more uniform point of time, falling somewhere towards the end of 1959.

TABLE 7—Growth of Size

Value	Number of establishments at the time	
	of start	at present
Rs. 5,000 or less ...	26@	11
Rs. 5,001—Rs. 10,000	10	11
Above Rs. 10,000	3	17@
Not reporting	1	1
	40	40

@ Including the value of a foundry in one case

These values were to some extent subjective and therefore notional. Due allowances being made for the reliance on self-made and second-hand machines and the lack of formalized accounts and of provision for depreciation, the data can be used only to determine the fact of growth, which is clearly visible, and not in any case to define its precise extent.

This fact of growth can be corroborated by reference to another factor, namely, the number of machines within the establishments. Given the capital-consciousness of the entrepreneurs arising out of capital-shortage, an increase in the number of machines is directly related to expansion in business.[4]

4. Two factors again need to be kept in mind here: an investment in machinery is only one, and perhaps the last, means of meeting additional business: earlier to this, overtime and faster running of machines would be resorted to in order to satisfy increased demand: it is only when such additional demand is foreseen as likely to continue for a long time and cannot be met by overtime alone—there being no shift-working at all—that an additional machine is purchased or new type of machinery considered necessary. Secondly, the existence of a machine in 1959 need not imply its use in that year; many units may have expanded in the past, for example, during the war period, and later found themselves without work for the machines which were not easy to dispose of, when not required, as they were self-made or second-hand. Which introduces another proviso: the figures in reference to the number of machines do not reflect the nature or quality of them.

By the index of units in existence and of machines owned by them, the number of units, as the following table shows, almost doubled between 1955 and 1959 while the number of machines more than doubled during the same period. The growth was not merely in the number of units or machines—it was also visible in the size of the establishment, the average size of which increased from about 4.19 machines in 1955 to 4.75 machines in 1959.

TABLE 8—**Growth of Enterprises**

Year	Number of units in existence	Number of machine @
1955	21	88
1956	... 26	104
1957	... 33	137
1958	39	163
1959	... 40	190

@ This excludes electric motors and small tools, and includes lathes, drilling, shaping and other machines.

Prosperity was shared by both the pre-1955 units and those set up in or since 1955. On an average the number of machines per unit increased from about four in 1954 to slightly above five in 1959 for the former category of units; in the case of the latter, the number increased from about three per unit in 1955-56 to about 4.5 in 1959.

Source of Growth: This growth of assets had been generally financed from internal sources only. Of the 39 units giving information, one-third had started their life with borrowed funds: in 1959, only six of the units were using funds in pledge. The average amount borrowed also appeared to have declined, there being no outstanding debt above Rs. 4,000 in 1959 against one loan of about Rs. 7,500 taken at the time of the start of the business.

This pattern of growth is perhaps inherent in the nature of small industry. One of the important means of birth and growth in small engineering industry in Howrah is labour; when a small

unit is started in Howrah, very often the initial machines, particularly lathes, are self-made, built with the minimum of purchased material, such as castings, during after-work hours by an entrepreneur often working full-time elsewhere. This practice will also be continued once the unit gets started, since in job-work the flow of orders is not always constant, and there are many intervals without work. These intervals are often tided over, as will be shown later, by informal practices amounting to a lay-off. They are also, however, filled in by subsidiary lines of work, one of these being the manufacture of machinery for sale or for internal expansion as circumstances require. Expansion of assets would be highly correlated with increase in business and not in anticipation of it. Even while the entrepreneurs mentioned lack of finance as a factor in hindering expansion, they were afraid of incurring a debt to bring it about, particularly as business itself, being dependent on job-work, was a fluctuating affair and a loan liability might prove burdensome in times of slack business. Moreover, while capital might be available from informal sources, such as relatives and friends, at the time of establishing the business, it would be less so after a business was started: at the same time, the business was not sufficiently large or organized to benefit from the formal sources of capital in the market. Under these various influences expansion in small industry has to evolve mainly from its own resources, as it appears to have happened in small engineering units in Howrah.

Business Conditions: The growth of assets was clearly influenced by expansion in business. Of the entrepreneurs studied, 23 said their business had expanded during the last five years and only three reported contraction in business during the period; of the remaining 14, ten said that the business was static and four asserted that it was fluctuating.

Business conditions had been favourable during the year previous to the inquiry. Of the 40 entrepreneurs, 24 said that the market for their work was very good or sufficient during the previous year and 16 complained that it was moderate or poor. Eighteen

entrepreneurs said that they had worked to full capacity throughout the previous year and eight entrepreneurs said they had worked less than full capacity during the same period, while the other 14 said that they had worked full capacity at some periods of the year. Only 15 entrepreneurs said they did not work overtime on any occasion in the previous year.

General satisfaction with business was expressed by 25 entrepreneurs though a much larger number, 34 in all, expressed dissatisfaction with the income earned. The conclusion that may be drawn from this is that contentment in business was not identified with a fully satisfying income.

Pattern of Growth: There had, however, been few changes in the ownership structure or manufacturing pattern of the units. Only four units reported changes in ownership, generally involving extension of partnership to a family member. Only two units reported changes in products although most varied their jobwork according to the demands of the market. Possibly, this immobility was a result of good business and a proof of satisfaction with it. It, however, also reflected lack of experimentation and of attempts to branch out into new lines.

When asked, 23 entrepreneurs declared that they had concrete plans for expansion in the near future—mostly in the same business, which signified a lack of desire to diverge into other lines and usually meant the addition of more machines and men, implying lack of spare apparatus in the establishments. Of these 23 units, 17 apparently would have no difficulty in spreading forth, and six referred to difficulties, mainly financial, which were in the way. Almost all the other 17 who had no plans for expansion referred to lack of finance as a major factor inhibiting it; some of them also referred to factors such as marketing difficulties, lack of space, or new problems arising if they were to come under the Factories Act.

PROBLEMS OF GROWTH

Of the 40 units selected for this study, 13 had been in existence for more than ten years, and of these, four for more than 20 years.

These units had shown some stability by continuing to exist so long. At the same time, they appeared to have come up against a barrier which they had been unable to cross. It was a case of stability without growth—stability within small and fixed dimensions. An attempt to identify all the factors making for the size-barrier will not be made here. But some of the relevant ones which were noted during the study are discussed below.

Background of Employers—Lack of Training and Business Experience: Most of the employers had been workers or had contact with the engineering industry before they assumed entrepreneurship. Their earlier formal training had not been oriented towards preparing them for the substantive functions which they were to undertake as employers about two-thirds of them had not gone beyond the secondary school level, and only one-fifth had attended college. For most employers, therefore, the educational level was inadequate, and even for those who had studied further, their training was hardly related to their subsequent career. The lack of technical training facilities until recent times left a big gap in the professional background of the employers. The only practical training that most of the employers had received was in the form of job experience in turning shops. This was, however, confined to technical knowledge in production, which had usually been obtained over a period exceeding one year during which a trainee boy or unskilled worker gradually rose to be a skilled operative. Such proficient workers also acquired some managerial experience, as they would be some times responsible for supervision while acting as foremen; they would also be consulted on how a new job could be done (about half of the total number of employers consulted their workers on this matter), and, to a smaller extent, about the price at which it would be undertaken (about one-third of the employers took counsel with their workers on this subject). It might be noted that such consultation would be more common in the case of employers who had had no previous work-experience in turning shops and who would have to depend on *mistries* (trusted or experienced skilled workers) for such advice. For an employee

in a shop owned by a former turning shop worker, the chances of such consultation, and thus of learning some managerial functions and making indirect contact with order-suppliers or of knowing the sale price of products made by them, would be fewer.

Most of the entrepreneurs studied were first-generation practitioners with workers' background and training. At the second-generation level, the scope for educational opportunities, with a larger income, would be greater, and the possibility of directing it towards a particular career-goal more common, as was reflected in the present employers' educational and career plans for their sons. It would be difficult to say whether this change in background and training could help to break through the size-barrier, which has been referred to earlier. The influence of other obstacles, noted below, would also have to be considered.

Growth in Number rather than Size — Role of Fission: The primary function that an entrepreneur was capable of performing was work on the machines, a skill which was acquired in about a year or a little longer time. The initial capital requirement was not large: as mentioned earlier, three-fifths of the 40 entrepreneurs studied had started with an original investment of Rs. 4,000 or less. These low requirements, both in terms of capital and labour, made for fission of enterprises and, thus, for the insecurity of the employer. An employee would often turn out to be a potential competitor of his employer, as many of the present-day employers in fact had become for their past employers.[5]

Many other factors in Howrah seemed to favour this fission. Howrah offered scope for many external and internal economies which helped to simplify the entrepreneurial function and reduce its risks. It is possible, in Howrah, to start a small engineering enterprise without any initial investment by taking some existing business or machinery on lease. Raw materials and castings can be

5. This movement, however, did not appear to be in a circle. The traffic was apparently in one direction—from employee-status to employer-status, as shown by the occupational histories of the employers and the employees interviewed.

bought from shops around. A large supply of unskilled and semi-skilled labour, and a relatively smaller supply of skilled labour are readily available. Even the market for products is automatically created by comparison buying among middlemen for the cheapest quotations. Howrah, therefore, can be considered to be a large factory with competing sub-units, where risks are divided.

All this has led to a proliferation of small engineering units in Howrah. Expansion of business took more the form of addition to the number of units than that of increase in their individual size. This was revealed, for example, by the fact that during the period of expansion since 1955, the 19 units in existence in that year added 24 machines (their machine-stock went up from 72 in 1954 to 96 in 1959). In the same period, 21 new units were started and, excluding their first year's machine-stock, i.e. the capital goods investment with which they started, the increase was of 46 machines (the initial inventory of the 21 units was 48, and the stock of all these units in 1959 totalled 94 machines). An indirect cause of this proliferation would be that most of the potential employers considered small units as their major rivals; the competition could easily be met by new enterprises with lower prices or an inferior quality of goods, implying the minimal nature of profits or the lack of quality-tradition in the business. In many existing shops, profits seemed to be kept at a relatively small level, since any increase above a certain line would bring about its own corrective in the form of fission, consequently increased competition and still lower prices.

A breakdown in organizational structure might be expected to arise in view of the lack of a controlling agency like a guild which would restrict entry into the trade. Among the balancing influences preventing such a breakdown, the natural factor appeared to be the growth in demand. The markets for the products of the Howrah engineering industry are impersonal and expanding, enabling newcomers to come in without impairing the existing structure. On the other hand, whenever such expansive tendencies are in abeyance as was the case during the post-war period, mortality

rates are likely to show a rapid increase, although no actual figures were collected or available on this point.

Financial Barrier to Growth: Expansion, when desired, also appeared to have come up against a financial barrier. While most enterprises were started with a small stock and were able to extend business in the early stages without enlarging financial investment, perhaps by resort to self-made machinery, capital became an important element in expansion beyond a certain size. Of 23 entrepreneurs who wanted to make their shops bigger, six referred to the lack of finance to carry out their plans for development; of the 17 who had no such plans, almost all referred to the same problem as a barrier to growth. Additional financial investment may have been necessary to buy better machines or to be able to hold larger inventories as requisites for the expanded business. Finance would then appear to be essential, or negatively, a bottle-neck appearing only when a certain minimum size was reached. However, at that stage, the size would not be sufficient to generate the necessary surplus internally to finance such expansion, while the informal sources of capital would prove too small and inadequate for it, and the size of the establishments would be too petty to enable them to come within the range of formal sources of capital, as banks, etc. There would thus appear to be a paradoxical barrier at the size-range where capital had to be increased for the unit to expand but could not be raised.

Job-work (specialization) as Barrier to Growth: The nature of work and of the market-mechanism appeared to militate against a growth in the size of the turning shops. Almost all the units taken up for study did job-work, that is, work according to orders received by them. Some of the consequences were that work could not be organized on production-assembly lines, the rate of work-pressure was uneven and discontinuous depending upon the flow of orders, and there were frequent changes in operations and the type of work done and in the organization of responsibilities. Turning shops were not identified with any single product on which they worked throughout the year. A prerequisite for expansion of business

would be uninterrupted flow of work for a growing market; but in this case, orders could not be expected to come in continuously nor for the same goods. There was, therefore, a pressure towards keeping overheads low (the impact of job-work on work practices is discussed elsewhere) and against a planned expansion of the establishment in anticipation of demand.

Market-Mechanism as Barrier to Growth: The nature of the market-mechanism that had sprung up seemed also to hinder the growth of the small units. The marketing function—as is generally true of marketing in the case of all small enterprises—was not an internally-developed integral part of the establishments' organizational structure; rather, it was taken as an externally-determined parameter, over which the small entrepreneurs felt they had no control. This was so not merely in the sense that an entrepreneur had little or no control over the total size of the market or his share of it; it was true in the more immediate sense that the entrepreneur had no direct contact with, or access to, his market.

A detailed description of this market-mechanism is necessary to assess its implications for the growth of small establishments. Of the 40 units, there were only two or three which manufactured products like nails, screw-drivers, drilling machines directly, though generally not identified by their name, for the market. For others the market consisted of middlemen, including manufacturers, wholesalers and retailers. The manufacturers from whom they got orders were located in Howrah, who in turn obtained orders mainly from the Government and the railways and sub-contracted to the small establishments. The wholesalers and the retailers, usually carrying on hardware business, were generally located in Clive Street and Canning Street, Calcutta; more than two-thirds of the employers mentioned Calcutta, besides other places, as the centre of major buyers. These middlemen generally secured their orders from the Government, the railways, major industries, particularly jute mills and tea gardens, etc. Then they shopped around among the various Howrah establishments, either with a sample or design or description of the product, trying to obtain the lowest quotation for it,

often sub-dividing the order according to the production-and-delivery capacity of the Howrah establishments. In the case of product-manufacturers, the process was reversed. The manufacturer would take his freelance production of nails or screw-drivers to the hardware shops in Canning Street or elsewhere and try to sell them to the middleman at the highest price he could get. In either case, it was the middleman, with his order or his money, who had a stronger bargaining position.

In this situation, the middleman appeared much more as an entrepreneur in his own right than as an agent bringing together the buyer and the seller of the product at a fixed fee for himself. It appeared that the middlemen were numerically few and their contact with the order-givers sufficiently close to preclude undue competition from newcomers. They, therefore, did not lose their bargaining power in mutual competition as the Howrah manufacturers did; on the other hand, they represented a unifying factor in the chaotic manufacturing situation in Howrah.

The relationship between the middleman and the Howrah manufacturer was not exactly defined; it might be called semi-personal in nature. The former generally shopped around for the lowest quotation although, perhaps, in practice he would first contact some familiar dealers with whom he had had business dealings in the past. The manufacturer, on the other hand, seems to have been restricted in his contacts to only a limited group of middlemen with whom he had done business. When an order in hand would near completion, the manufacturer would go to the offices of already known middlemen and inquire whether they had any fresh orders to give him.

This division of functions had its obvious impact on growth in the size of small engineering establishments in Howrah. A lack of continuous assured orders induced a desire to keep overheads low and thus reduced the scale of investment; an absence of loyalty on the part of the middlemen prevented the building up of stable marketing relationships. Middlemen who acted as entrepreneurs in business had a vested interest in keeping competition acute in

Howrah; production was sufficiently general-purpose to prevent a manufacturer from holding a monopoly advantage in selling. Finally, there was no guild-organization of small manufacturers to match the limited number of middlemen, and, in the organizational situation of Howrah, none appeared to have a chance of being established successfully.

Lack of Motivation for Expansion: It was also doubtful if the motivation for expansion always existed or was strong enough to overcome the obstacles noted earlier. It was observed that about three-fourths of the employers had been workers themselves or had contact with the engineering industry as order suppliers, etc., in their earlier career. "Economic betterment and desire for independence" was given most frequently as the justification for setting up the business. With the low ceiling of income that could be earned as a worker, economic betterment by itself did not imply a very high degree of motivation; also, it was more reflective of a desire for personal improvement than for business expansion. The combined reason of "desire for independence" strengthened this interpretation of motivation—the impelling factor was primarily personal, and not related to the size of the business or to a pride in ownership. Motivation for business expansion was low, the reason being the worker-background of the employers which led to satiation at a level of income that was high only in relation to a worker's income, although even this did not appear to have been reached by many.

The lack of drive for business was also evidenced by other responses. While most employers considered government aid necessary and wanted it, only two had secured such help—others did not report any steps taken to obtain government assistance. Similarly, although a large number of employers mentioned various ways in which a manufacturers' association could help small industrialists and considered the existing body as meant for bigger business people only, they did not report having taken steps to join it and express their views or to create their own groups for their purposes. It was clear that there was no internal drive for expan-

sion, although there was a general desire to achieve it with the aid of external agencies.

This was also confirmed by the fact that only two or three employers reported that they read technical papers or reports and journals regularly. Nor were any market inquiries made for products in demand; indeed, as was noted earlier, there was dependence on known middlemen for orders. This was in marked contrast to the situation noticed by James McCrory in a North Indian town, where the entrepreneurs constantly searched for new product opportunities which would prove profitable.[6]

This lack of internal business drive appeared to be a result of the lack of product-identification in the case of the Howrah manufacturers. They considered themselves primarily as anonymous order-receivers than producers of specific goods associated with brand names. The nature of their business made them dependent on an indirect market mechanism and failed to give them a personal interest in the products of their enterprise. Concentration on one product at a point of time need not have impaired versatility when required by market changes over a period of time, as the McCrory study shows. Such specialization would have provided an identification with a name and a motivation for expansion, which were institutionally inhibited in the context of the existing business practices.

6. James T. McCrory, **Small Industry in a North Indian Town.** New Delhi, Ministry of Commerce and Industry, Government of India, 1956.

WORK PRACTICES

WORKING CONDITIONS

As already pointed out, more than 2,000 engineering and ancillary establishments such as pattern shops and blacksmithies are concentrated in Howrah city within an area of ten square miles. The factories appear to have been established haphazardly. In the absence of any definite scheme for the orderly growth of the city, the residential quarters and the factories exist side by side, and it is difficult to make out the former from the latter. Turning shops and foundries are found on both sides of some of the main roads and by-lanes. The din of the factories, the dust raised by the passing vehicles, and the crowded side-walks where the workers of the road-side factories cut an iron rod to carve out a circular ironplate by acetylene gas and to weld the iron plates, combine to make it extremely hazardous and uneasy to walk on the streets. In the hot weather, heat and the dust cause the greatest inconvenience and during the monsoon, the rains flood the streets on account of bad drainage and open sewerage. Winter appears to be the most suitable season for work.

Working Space: The floor area of 14 of the 40 turning shops was below 250 sq. ft.; in the case of 13, the floor area was between 250 and 500 sq. ft., while in the remaining 13, it exceeded 500 sq. ft. The average area of the turning shops studied was about 415 sq. ft. The sheds housing the turning shops were mostly found to be semi-*pucca*. Some of the turning shops were long and narrow, and inside these factories it was dark and grimy, the entrance being the only passage for sunlight; there were electric lights covered on one side, often dim, located near the lathe machines to make possible work on them. Uneven floors, unplanned spacing of machines, and dumping of raw materials and finished goods wherever space was available made it all the more difficult for workers to function and to move about in many of the factories.

Adequacy of Facilities: Workers were asked about the adequacy of facilities regarding lighting, ventilation, working space and first aid. Almost all said that no first aid facility was available in their factories (table given below). In respect of working space, about 54 per cent said that it was fully adequate; 40 per cent reported that it was fair enough, while the remaining workers complained that it was unsatisfactory. For about 45 per cent of the workers lighting and ventilation were fully adequate; for more than 40 per cent they were fairly so, while the remaining 15 per cent said that they were insufficient. The generally unrepining attitude of the workers might have been formed out of their resignation to the conditions, which would strike an outside observer or a research interviewer as little short of deplorable. It was also likely that in life and particularly in these matters their expectations were of the least possible.

TABLE 9—**Adequacy of Facilities in the Factory**

Facilities	Number Of Workers				
	Non-existent	In-adequate	Fairly adequate	Fully adequate	Total
Lighting	—	28	73	81	182
Ventilation	—	22	79	81	182
Working space	—	10	73	99	182
First aid	178	2	2	—	182

Hours of Work: Establishments in Howrah normally worked an eight-hour day, from 8.00 or 8.30 a.m. to 4.30 or 5.00 p.m., with a half-hour or one-hour lunch break.

Workers were asked whether the timings suited them. About 84 per cent answered the question in the affirmative. Of the remaining 16 per cent who stated that the hours did not suit them, a majority preferred a later start in the day's work. This might be because many workers lived in their villages or at a considerable distance from the factory.

Wage Rates: The workers, excepting trainee boys and some unskilled workers, were generally daily-rated. According to the workers, in about two per cent of the cases the wage-rate had not been fixed at the time of the interview; about 16 per cent said they were paid by the month and the remaining 82 per cent said they were daily-rated workers.

Wage-rates varied according to the skill involved, although, as is indicated later, the relation between wages and skills might not have been precise, particularly in the lower categories of jobs. The minimum and the maximum range for skilled workers, according to the employers, varied between Rs. 2 and Rs. 4 per day. More than one-third of the employers did not have workers in the "semi-skilled" category, which seemed to confirm the impression that this class had a higher status within the wage-promotion system than within the work-skill classification of the factory; the other employers paid Re. 1 to Rs. 3 per day as the minimum and maximum range of wages for semi-skilled workers. The range of wages for unskilled workers and trainee boys was between Rs. 10 and Rs. 30 per month.

According to the workers, 30 of the 182 workers were monthly rated; 20 of these workers drew a monthly wage of Rs. 25 or less; and for the remaining ten workers, it ran between Rs. 26 and Rs. 125. About ten per cent of the 149 daily-rated workers earned a daily wage of Re. 1 or less; 81 per cent received between Re. 1 and Rs. 3; and only nine per cent got more than Rs. 3 with a maximum of Rs. 4.50 per day.

On the basis of the nature of work done in the factory, as described by the workers, 36 per cent of them were found to be skilled, 35 per cent semi-skilled and 29 per cent trainee boys or unskilled. In the absence of any vocational training, every worker had regarded his initial factory service as an apprenticeship. This category of "trainee boys" was obviously not defined clearly, since it partook far more than the "training within industry" function. For the employer, it was an opportunity to obtain raw labour cheaply and to utilize it gradually for higher jobs, ostensibly as part of training,

while wages lagged behind. For the worker, it represented a chance to learn a skill which lack of educational opportunities and financial resources prevented him from acquiring otherwise, even as it meant underpayment for the services rendered. This link between the interests of the employer and the employee remained only for the duration of the latter's apprenticeship. Once this period was over, the relationship had either to be re-established on the basis of proper payment according to work done, or had to be severed. This question will again be discussed at a later stage.

The employers mostly considered the wages paid by them to be adequate, though a substantial minority regarded them as high, perhaps in relation to their own production costs and capacity to pay.

Increment: There did not appear to be generally prevalent a regular system of increment. Of the 25 employers who stated that they paid increments, less than half did so regularly. The rate of increment varied from 12 nP. to 50 nP. per day. The others reported that they did not give any raise at all or had not so far. The answers obtained from the workers substantiated this as is seen from the table given below:

TABLE 10—**Rate of Increment**

Increment	**Number of Workers**
Given regularly	7
Given but not regularly	112
Nil or not given so far	20
Cannot say, not fixed	43
Total :	182

Overtime: Of the 38 employers with paid workers, 22 reported they had worked overtime during the previous year. While all of them had paid overtime, the rate of payment corresponded with that of the regular wages in the case of 18 of them and was more than

proportional in the case of the remaining four. About 63 per cent of the workers said that they had worked overtime during the preceding year. Except in the case of a few workers who claimed to have got overtime payments at one-and-a-half to two times the ordinary rate of wages, most of the other workers received such amounts proportionately to the ordinary rate of wages. In a few cases, the workers did not obtain any cash payment at all for overtime work done.[1]

Bonus: Only ten employers reported that they paid bonus, mostly equivalent to up to 15 days' wages. About 15 per cent of the workers said that they had received gratuities, the extent of which ranged from Rs. 10 to one month's wages. In India the bonus system is, in labour relations, regarded as the differential between a living wage and a fair wage. In large scale industry it is generally based on the profits of the enterprise and is often subject to a labour-management agreement on the scope of the earnings or the reserves of the enterprise. In small industry, where a formal system of accounts does not exist, the payment of a bonus as a regular system of making up a deficiency in wage, or of sharing in the prosperity of the employer, is not commonly expected. Here the bonus is more in the nature of an *ex gratia* payment, often intended as a token of appreciation, and either to win loyalty or to demonstrate the prosperity of the business. This was apparent from the fact that many employers gave small presents in cash or kind, such as clothings, to their workers on the major festive occasion (*Puja*) of the Bengalis.

Holidays: Sunday was not a paid holiday in all establishments though it was an unpaid holiday. Therefore, under normal circumstances, an employee should have the right not to come on a Sunday. The effect of not granting a paid holiday on Sunday was

1. In the case of factories registered under the Factories Act, Section 59(1) of the Act lays down: "Where a worker works in a factory for more than 9 hours in any day or more than 48 hours in any week, he shall, in respect of overtime work, be entitled to wages at the rate of twice his ordinary rate of wages."

to reduce the basic wage-rate by one-sixth, if an attempt were made by the workers to exercise their right to a weekly holiday. The basic principle enunciated often by the employer in regard to payment was "no work, no pay"; this covered the system of daily wage-rate, weekly and other holidays and leave periods on account of sickness, etc.

Paid holidays, however, were not entirely unknown. Significantly, such holidays were generally related to religious festivals. All but one employer gave paid religious holidays, while 27 also gave paid State holidays, which were of a non-religious character. Among these employers, 26 said they gave up to eight paid religious holidays in the year, generally varying between six and eight; and 18 said that they gave two or three paid State holidays, on occasions of national importance such as Republic Day and Independence Day. If the employers could afford, from the surplus of the enterprise, to make payment for a certain number of days without getting work in return, they selected these holidays on the basis of their religious significance. Usually, the religious holidays required the performance of some rites to a deity; the employer perhaps felt it was morally bad to deny wages to his workers who had kept away from work so as to be able to observe them; the employer himself would be too busily involved in the religious ceremonies to supervise over the workers even if they came for work. On the other hand, the weekly holidays and, to some extent, the State holidays were in no way linked with such rituals or the traditional and religious observances of the people; consequently, it was easier to keep such holidays unpaid.

There was neither a system of paid sick leave nor of paid annual vacation; only one or two employers reported that they granted such exemptions if the circumstances warranted. A few workers mentioned that they had been given sick leave or privilege leave.

Absenteeism: Of the 38 employers with paid workers, 25 said that their workers rarely absented themselves; 11 said that they were sometimes absent; and two said that they often kept away

from work. Workers were also asked whether they had been absent from their job during the previous year. About 41 per cent of the workers answered in the affirmative. Their absences were mostly casual, the reasons being illness and personal or domestic work. Most of the workers who had reported absence during the past year did not ascribe it to factory work. To the question whether factory service had affected their health, only nine per cent said that it had deteriorated; while for another 17 per cent it had improved and the remaining 74 per cent reported no change. Absenteeism, a serious problem among employees in large scale industry, was apparently not a major factor in the small scale engineering industry in Howrah.

Termination Notice: There was no standard provision for a notice of the termination of service; a large number of employers mentioned one week as a practice which would be generally observed. When the workload was insufficient, an employee would be asked not to come for a few days, in an informal system of lay-off adhering to the principle "no work, no pay". Very often the workers themselves quit service, by just "stopping to come". When questioned whether they had been asked during the past year not to report at their job because of lack of work in the factory, one-eighth of the workers said that they were told so sometimes and in one case, frequently. No wage payment was made to the workers for those days.

Some general conclusions may be drawn from the wage and working conditions in Howrah's small engineering industry, which have been described above. The standard of living that is possible for an employee in small industry, even at the skilled level, is relatively low. The wage-rate of skilled workers appeared to be about three-fourth of the average wage-structure in an organized factory.[2]

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2. According to **A Sample Survey of Manufacturing Industries: 1951** conducted by the National Sample Survey Unit of the Indian Statistical Institute, the average earnings which includes wages and other benefits, in cash and in kind, of a worker in the sector using power was Rs. 3.99 per day. See page 19, table 4.7.

Further down the work-hierarchy, it was lower still. The only compensation in small-scale industry was the chance of going up in the skill or class ladder on account of the greater degree of horizontal mobility.

A second characteristic was the almost complete absence of fringe benefits—weekly holiday, privilege and sick leave, or even right to a period of notice. The establishments studied here were not covered by the Factories Act. The limits of contractual relations between the employers and the employees were, therefore, not laid down by law. The obligations agreed upon between the parties were those mutually and minimally acceptable and to a certain extent determined by external market forces, depending upon the relative supply and demand for job opportunities in the area. Conditions set down by law had only an indirect moral force in this situation, representing a standard that should be achieved as a minimum. Essential factors determining the contractual relations were the market supply of labour and the demand for its services, with the upper limit or terms set by the employers' ability to pay.

An extension of factory legislation to these units would not necessarily lead to an improvement in working conditions, unless there was provided an economic basis for making them better. At the current wage-rate, an extension of fringe benefits would lead to a leave allowance of about 67 days—52 weekly holidays plus the usual 15 days' privilege leave as vacation—in addition to the existing facilities. However, the first reaction to an externally determined change such as legislation is generally to avoid it, particularly where there is no material prosperity to pay for the innovation. In this case, for example, a 25 per cent reduction in the daily wage rate would be necessary in order to neutralize the cost to the employer of such benefits. In fact, there was a tendency for employers to put themselves beyond the pale of law by evading registration under the Factories Act so far as practicable; these were, incidentally, the same employers who were least eager to permit the Centre's investigators to interview their workers. An employer generally registered himself only when he had crossed substantially

the minimum limit of ten workers for quite some time and felt that his business at that level had stabilized sufficiently not to go down in the foreseeable future.

An attempt in itself to bring the small industries within the authority of the Factories Act legislation would seriously affect their competitive position both among themselves, to the extent that some establishments would be forced to reduce their wage-rates in order to counter-balance the benefits, and against large manufacturers, many of whom were engaged in similar work. This would directly affect their ability to pay or their demand for labour.

An indirect measure of the financial competency to pay was discussed in the previous chapter. While the employers usually earned more than the skilled workers, it was doubtful if many earned substantially more. Of the 39 employers answering the question, 33 did not pay income tax in the previous year, suggesting that their total personal income did not exceed Rs. 250 to Rs. 300 per month, and 30 did not pay sales tax indicating that their annual turnover did not surpass Rs. 10,000 per year. There might be elements of understatement, but even with due allowances, these figures were indicative of the limited economic horizons of the employers. A constant complaint of financial stringency, which did not allow any expansion of business, confirmed this picture.[3] Moreover, the ease of entry into the trade tended to erode excessive profits. High returns, and therefore, the ability to improve wages, were remarkably scarce in the small scale engineering network in Howrah.

A third characteristic was that not only were the salaries and working conditions inferior but that they were marked by a measure of laxity. There was far more of a discretionary element in the wages and stipulations of employment in this small-scale industry in Howrah than would exist in the larger establishments. While there appeared to be fairly definite ranges which set the limits for

3. Past growth was, as noted earlier, often based on self-made machines; the profits were a product of labour, obtained in kind rather than as an addition to the finances of the entrepreneur.

the worker's general expectations about wages and other working conditions, these left a wide area of discretion to the individual employer. He usually determined wage-rates, the hierarchy of job openings and the working conditions he would offer. A vagueness in contractual relations and an absence of a legal formality to the rights and obligations of the employer and his workers seemed to be characteristic of the small shops in Howrah. However, as was indicated by the data relating to absenteeism, this should not imply a lack of discipline or a breakdown of organizational inter-relations. The cash relationship which was the most definite element in an otherwise indefinite structure, the principle of "no work, no pay" seemed to be a compelling force binding the whole unit together.

RECRUITMENT AND DISMISSAL

In a country where disguised underemployment and unemployment are so widely prevalent and even employment does not necessarily mean the bare minimum of a living standard, working conditions and wages would not be the sole determinants—or deterrents—to employment. As was shown above, the rewards and conditions of work in the turning shops in Howrah were inferior to those in large scale industry, although this, to some extent, was compensated by better prospects of promotion or opportunities of entrepreneurship in small industry on the one hand, and on the other, by the tensions and strict controls of work in a big factory.

Only one employer said that he faced difficulty in recruiting raw workers. On the other hand, 16 employers complained that it was hard to find skilled workers. As a result of the high turnover of labour, which is referred to below, recruitment of skilled workers did not seem to present many problems. Ideas as to what constituted a fair wage varied from employer to employer, and it is likely that those who experienced difficulty in recruiting skilled labour had lower limits of fair wages for the job.

Usually, there appeared to be existing an informal procedure for recruitment of workers, though it was done purely on a formal efficiency basis and there appeared to be no preference for caste

or other relationships. The presence of a large number of petty engineering establishments in Howrah and the high turnover and lay-off of workmen produced a constant supply of "free" labour trained in mechanical skills. These persons generally moved around from shop to shop for work. When they were in need of labour, the employers would put up a sign-board or ask their workers to bring in somebody who was in need of a job and was suited for it. This was the mode of recruitment for the largest number of employers. There was hardly any system of competitive interviewing; in the case of semi-skilled and skilled workers, the man was put to a trial on the job itself.

The workers were asked as to how they secured their present job. Thirteen per cent said they had applied for the current job; nearly six per cent had been offered the position; and 81 per cent had obtained the present employment through relatives, co-villagers, neighbours, etc. Most of the workers who had applied for or had been offered the existing position had previous factory experience to their credit, while the majority of the workers who had obtained the present job through intermediaries had little or no background in a workshop. Fifteen per cent of the workers said that they were acquainted with the current employer before they had joined the present factory; six per cent said that they were related to the employer; and 17 per cent working in 14 establishments reported that relatives were among their colleagues in the same factories.

Recruitment was generally on the basis of efficiency. Of the 40 employers studied, nine had relatives as workers. Twenty-one reported that they had workers of their own caste, and 19 said that their employees were not in any way related to them, either by blood ties or village kinship. However, most of the workers reported to be unconnected to the employers were of the same caste or locality as that of the latter. Expectation of loyalty and a feeling of family obligation had much to do with employment of relatives; 11 gave relatives first preference for employment, and 21 were indifferent about hiring them. Caste and village affinity as such did

not seem to have a determining influence on the selection of workers. There was no first preference declared for caste, only one for village, and about three-fourths of the employers expressed indifference to hiring workers on the basis of caste or village affiliation. As noted earlier, the presence of a large number of workers of the same caste as the employer was mainly due to the concentration of the *Mahiśya* caste in Howrah.

As the level at which a new recruit was taken increased, the employers seemed to prefer those with a general school education. While seven employers would wish even an unskilled worker to have some general school education, 13 desired it for semi-skilled workers, and 18 for skilled workers. In the absence of technical education facilities, general school education was the most that could be expected from the workers. It is difficult to say how far this helped in work of a constantly changing character, which required new instructions regularly.

The number of workers studied, it might be remembered, was 182. Almost all these workers had served for not more than five years in the current job; about 46 per cent of the workers had worked for one year or less in the present position; for as many as 89 per cent of the workers, the number of years of such service did not exceed three years (see table below). The average number of years of service in the present factory, as reported by the workers, amounted to 1.7 years.

TABLE 11—**Period of Service in the Present Factory**

Period of Service	**Number of Workers**
1 year or less	84
1—2 years	60
2—3 years	18
3—4 years	5
4—5 years	10
More than 5 years	5
Total :	182

The low duration of the average period of service was mostly due to frequent job-separations in the small establishments, mainly brought by the workers themselves. Twenty-five employers reported that the workers voluntarily left the establishments, mainly for economic reasons; the total number of job-separations was placed at about 71 during the past two years, a rate of about 18 per cent per annum. Employers had no definite information about what the workers did after leaving their service, a procedure which very often needed no formality but that they just stopped coming to work. Eight of the 25 employers claimed no knowledge of where the workers went. Others mentioned employment in a small or large factory or the establishment of their own factory as the most likely subsequent occupation of the workers; a small factory was most frequently mentioned as the likely place of employment.

The high labour turnover in the small engineering industries of Howrah can also be studied by reference to the total period of factory employment and the occupational history of the workers. About a quarter of the 182 workers said that their length of factory service had been one year or less; nearly half had between one to five years of service, and the remaining quarter had more than five years of such experience to their credit (table given below). The average period of factory service was 3.9 years.

TABLE 12—**Total Period of Factory Service**

Period of Service	Number of Workers
1 year or less	46
1—2 years	36
2—3 years	26
3—4 years	15
4—5 years	12
5—10 years	33
Over 10 years	14
Total :	182

The data relating to occupational history revealed that for a majority of the workers, the present job was not the first workshop experience. About 64 per cent of the workers had done previous factory work before joining the present shop. Of these workers 57 per cent had worked in only one factory and almost all of them had served there for five years or less; the remaining 43 per cent of the workers had worked in two to five or 'several' factories and the period of service in those places did not exceed ten years in most cases. Among the workers who entered factory service from other jobs, about a quarter had previously worked as shop assistants or domestic servants, or assisted their family business. For a majority of the workers, the factory job was their first employment, indicating that it was not very hard to obtain.

The easy availability of employment opportunities in this trade in Howrah is supported by the data on the age of workers when they started their earliest factory job (see table below).

TABLE 13—**Age of workers when first factory job was accepted**

Age	Number of Workers
Less than 14 years	8
14 and less than 18 years ...	89
18 and less than 20 years	36
20 and less than 25 years	42
25 and less than 30 years	6
30 years and over ...	1
Total :	182

About four per cent of the workers studied were less than 14 years when they accepted their first factory job; nearly half of them were in the age group 14-18 years, and nearly 20 per cent were between 18-20 years at the time. Thus, nearly three-fourths of them made their first appearance in factory work while still in their teens. Unlike the situation in the larger factories, a majority of the workers (53 per cent) were less than 18 years when they started

their first factory job.[4] The average age of the workers was 17.8 years at the time.

The high rate of change of jobs generally reflected the unsatisfactory terms of employment prevalent in small industry. On the other hand, frequent switches from one unit to another indicated some variation in the cash wages offered by different establishments for the same skill; in other respects the units varied little in what they could hold out. It was also likely that although the acquisition of skill in the job did not take very long, usually not exceeding one year, the step-up within the organization was slow. For instance, 67 of the 199 men working at the time of the interviews with the employers, were according to the latter, recruited as skilled workers, 28 as semi-skilled and 104 as unskilled or trainee boys, while the work-force was at that time distributed between 94 skilled, 61 semi-skilled and 44 unskilled workers. Promotion to the semi-skilled category occurred more easily than to the skilled category. Considering the slower rate of vertical mobility within the establishment, job-separation and fresh enlistment in a higher category might have appeared to the workers as a more rapid means of advancement. The absence of a system of regular increments would have prevented internal wage-rates from rising to a level higher than the initial wage-rate offered for the next grade. A system of rapid turnover would also be an inhibiting factor in the development of close ties among workers within the unit. Personal relationships were of a transitory nature and were not a factor restraining the rate of job separation.

Employers themselves were aware of the increasing difficulty of retaining workers as they became more skilled. Whereas only

4. Sections 67 and 68 of the Factories Act prescribe that no child who has not completed his 14th year shall be required or allowed to work in any factory, and a child who has completed his 14th year or an adolescent (age: over 15 years and below 18 years) shall not be required or allowed to work in any factory unless (a) a certificate of fitness granted with reference to him under Section 69 is in the custody of the manager of the factory, and (b) such child or adolescent carries while he is at work a token giving reference to such certificate.

two employers stated that it was not easy to retain unskilled workers, ten found it hard to keep in service skilled workers, and 21 found it difficult not to lose skilled workers. While small scale establishments in Howrah appeared to have succeeded in imparting skills to raw workers, they seemed to have failed to create employer-loyalty among them. The labour market was purely contractual and did not establish more than a temporary commitment on the part of the worker.

Termination by Employers : Employers were less often responsible than the workers in taking the initiative for job separation. Only six employers had dispensed with their workers' services during the two years previous to the interview, four of them because of less work in the factory. The total number of jobs terminated was placed at about 22. The notice given was mentioned as one day by three employers and one week or more by the other three.

The most important characteristics that emerge from the recruitment and dismissal data are the informality of these procedures and the relatively short job-duration of the workers in one factory. The casualness in recruiting and dismissal procedures was particularly suited to the nature of work done by the small engineering industry in Howrah. Job-work is intermittent in nature, and work plans are closely related to periodical demands. Freedom to recruit and dismiss workers almost at will enabled the employer to adjust his staff continuously, according to the volume of work in hand. With a large supply of floating labour, a heavier pressure of work could be met by taking on more men, if the machines existed, or as an alternative by sub-contracting the excess work at times.[5] A slack period was generally met at first by lay-off, and if it continued, by termination of service. Expenditure was adjustable almost from day to day, and with the very nearly total absence of a system of depreciation, it was possible to reduce overheads with perhaps the exception of rent, to zero, as it were. Such flexibility

5. This was a rare practice. Only four of the 40 employers reported that they sometimes shared orders with other manufacturers.

seemed to be an essential condition for survival in small industry.

This adaptability, as was noted earlier, extended also to the wage-rate which was the most important, if not the only relevant variable among those included in the comprehensive term "working conditions".

EMPLOYER-WORKER RELATIONS

The essential feature to note about employer-worker relations in the small engineering industry in Howrah is the largely transitory nature of these relationships. About 23 per cent of the workers separated from their employers each year, approximately three-fourths of them voluntarily. Moreover, at the time of the employer-interviews, about 87 per cent of the workers had been with the establishment for less than three years. It is in this context that the relationship between the employer and his workers is to be interpreted. It was untouched by any direct outside force or influence. On the one hand, governmental authority was lacking, since factory legislation did not in any way govern the rights and the liabilities of the employer and his employees. On the other hand, no trade union sought to enforce obligations on the employers.

None of the employers claimed knowledge of their workers belonging to trade unions, and 36 affirmed that they knew for a fact that their workers were not members of any trade union. Only four of those employers with a working-class background had belonged to a trade union when they had worked elsewhere. About half of the employers (19) said that they were indifferent to the workers' union membership; about 35 per cent (14) did not approve, while the rest did.

The non-existence of trade union influence in the small engineering industry in Howrah was not surprising. None of the employers referred to a labour dispute as having taken place in the preceding three years. Job definitions were so uncertain and terms of employment so completely at the employer's discretion that it would have been difficult to formalize any difference between an

employer and one of his employees as a labour dispute, or to generalize it into a matter of principle covering all workers. Not only would it be impossible in these circumstances to define a labour dispute, but it would also be impracticable to carry it to a settlement by the normal means. The employer's right to dismiss without notice, a "free" supply of labour in search of work, and the employer's capacity in most cases to manage without any worker, if necessary, are factors which considerably restricted the use of the normal trade union methods in seeking a redress of the workers' grievances.

The absence of trade unionism did not, however, lead to a personal tyranny of the employer over his workers. A worker had the freedom to move from job to job, a privilege which he did in fact exercise. Informal harmonious relationships appeared to have been worked out; investigators who often visited the establishments generally found the relations between employers and their workers amicable. Responses of the workers confirmed this; 38 per cent of the workers referred to the good treatment they received or the agreeable atmosphere when asked to cite the major aspect liked most in the factory.

Employers were generally satisfied with their work-force. About 85 per cent of them found their workers average or better in co-operativeness, efficiency and discipline.

Duties of Workers: The co-operation between the employers and the workers extended to what might be considered management functions. About half of the employers reported that they consulted their workers on how a job was to be done and one-third even about the price which was to be charged. Since almost all the entrepreneurs were engaged in job work which involved the acceptance of different orders at intervals, such consultations were perhaps more frequent than would be the case if the employer had specialized on a single product. It was also likely that entrepreneurs who themselves had no previous experience in turning shops took counsel more often than those who had this background.

About half of the employers welcomed at all times suggestions for improvement from workers and encouraged them to offer more. About one-third did not care for the workers' suggestions, and the remainder liked them only at times. Personal knowledge and supervision by the employer of the work, and the extent of informality of relationships might also have determined the employer's attitude in reacting to suggestions from the workers.

Assistance from Employers: Employers also often went beyond their customary obligations in their relations with the workers. During the previous two years, 29 of the employers paid an advance on wages to their workers. Fourteen employers paid wages beforehand which had not accrued to the workers; the amount advanced might perhaps more appropriately be called a personal loan to an acquaintance repayable by services. Nineteen employers reported that they had lent larger sums of money.

This practice might have arisen partly out of certain aspects of the relationships between an employer and his workers which were external to the work. Half of the 38 employers to whom the question was applicable said they encouraged their workers to discuss personal or family problems with them. Nine reported that the workers always went into these with them, and ten said that such problems were ventilated by the workers only at times.

Social Relations between Employers and Employees: Questions were included in the schedule about social relations between the employers and their workers, generally relating to social calls and dinner invitations. The answers rendered below have to be interpreted in the light of the social situation and prevalent customs in India. Caste often acts as an insulating agent, inhibiting the establishment of certain social relationships.[6] A less distinguishable factor might have been considerations of social status arising from the assumption that social disparity was a natural consequence of

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6. This factor may not have been so important in the existing study, as in a large number of cases, there existed besides linguistic and social similarities, also caste affinity between the employers and the workers.

the economic inequality between employers and workers. These would have particular relevance for an employer in relation to his own men. The hierarchy of status in the workshop was two-levelled, and for the worker, the employer was only his immediate superior; the distance would be equivalent to that between a worker and his foreman in a large factory. The employers' working-class background might have influenced their attitude to the workers either in making them identify themselves with the latter in acknowledgment of their past, or in turning them away from their workers so as to emphasize their increased social status. Finally, social familiarity in India has its own forms of expression. In a poor country dinner invitations are not always extended to assure friendly relations, and social visits are often confined to relatives or neighbours. The great socially unifying occasions are the festivals, but during these festivals all inequalities are generally forgotten or passed over. The responses to the questions, even when graded and of a probing nature, have therefore to be interpreted with care.

About a third of the employers said that they requested their workers to pay social calls on them with their families, and to dine with them. Twenty-two per cent of the total number of workers said their employer invited them for dinner and all of them accepted such invitations. About two-thirds of the employers, who did not invite the workers, explained that it was not proper socially or "they had no time", which was perhaps another way of putting the same justification. Caste did not figure independently as a factor restraining social relationships. More than one-third of the employers said that workers paid social calls on them and a little less than a quarter said that workers dined with them. Three-fourths or more of the employers stated that they did not object in principle to workers visiting socially or dining with them, although in practice invitation was not extended in as many cases.

About eight per cent of the workers said that they invited their employers to dine with them and 11 per cent to pay social calls on them. More than two-fifths of the workers who did not invite mentioned that it was not proper socially, or not sanctioned

in terms of caste restrictions; nearly one-fifth said that they had no time; and the rest referred to various other reasons such as poverty, residential inconveniences, and general unconcern about such matters.

More than a quarter of the employers reported dinner invitations from their workers, and all said that they accepted. Almost two-thirds of the others said that they would respond to such requests, if asked.

About one-fifth of the workers said that the employer paid social calls on them and more than one-tenth said that the employer ate with them, exclusive of the factory-hour meals. About 85 per cent of the workers did not object to the employer paying social calls on them; about 58 per cent nor to dining with them.

If a general conclusion might be drawn from the above data, it would be that the social barrier between the employer and the employee was not very wide. The factors making for this situation could be many. Both the employer and the employee generally belonged to a homogenous group, with the same language, caste and often social background as well. Neither the economic nor the functional distance between them was very far. Frequently the employer belonged to the primary working group because he too would work on the machine. The distinction between the two also tended to be blurred inasmuch as there appeared to be continuous mobility from the employee to the employer class. The latter class did not appear to be an exclusive, impenetrable, self-perpetuating category.

WORK ATTITUDES AND MOTIVATION

ATTITUDE TO WORK

What was the aspect liked most in the factory by the workers? Thirty-eight per cent of them cited the feeling of good treatment or harmonious relations; 28 per cent favoured the work-activity or nature of work, while 25 per cent mentioned the present or future economic aspects of the job, a large majority of them referring to the scope for training and consequent opportunities for economic betterment. The relevant table is given below :

TABLE 14—**Aspect Liked Most in the Present Factory**

Aspect Liked		**Number of Workers**
No aspect is liked ...		2
Nature of work : ...		51
Varied ...	11	
Not strenuous	9	
Skilled	31	
Good treatment ...		46
Harmonious relations ...		23
Training/opportunity for advancement		27
Good/regular wage		13
Security ...		6
Other responses (like the job, near native place, etc.)		4
Cannot say ...		10
Total :		182

On the other hand, when asked about the feature disliked most in the present factory, more than half the number of workers referred to unsatisfactory wages, and more than one-fourth to related economic aspects, such as lack of opportunity for advancement and of security (table given below). Distance from native place and the

character of work were objected to by five per cent of the workers in each case, while about another five per cent recorded no particular aversion.

TABLE 15—**The Aspect Disliked Most in the Present Factory**

Aspect Disliked		Number of Workers
No aspect disliked		10
Unsatisfactory wage		94
Lack of security		26
No opportunity for advancement		22
Distance from native place/family		10
Nature of work ...		9
Not varied	2	
Strenuous	7	
Indifferent		2
Cannot say		9
Total :		182

When asked how, on the whole, they felt about the present job, 45 per cent of the workers said that they liked it, mainly because of training opportunities, good treatment and harmonious relations, and present and future economic prospects; about 40 per cent were indifferent, regarding themselves as indefinitely obliged to work for a livelihood, or until a better job came along. Fifteen per cent of the workers really disliked the present job, taking all its aspects into consideration, particularly the poor wages.

Workers were requested to list in the order of preference six aspects of their job expectations. These were: wage rates and other monetary benefits; security of service; nature of work or work-activity; good relations with fellow workers and supervisors; opportunity for advancement; and nearness to native place and family. Almost all the workers placed top importance upon wage-

rates and other monetary benefits, and most workers gave second priority to security of service or opportunity for advancement.

What did the relatives and friends of the worker think of his present work? Almost every second person said that they were unconcerned about his status. Two-fifths of the workers said that their social position remained unchanged; while seven per cent said that it was considered high, and nearly three per cent thought it to be rather humiliating.

When the workers were asked if they were looking for another job, 46 per cent answered affirmatively, the remaining in the negative. Sixteen per cent of the workers said they had thought of setting up a business of their own, most of them referring to turning shops. However, a majority of them reported that they had not taken any particular step in that direction.

PREFERENCE FOR OCCUPATION

Workers were also asked which occupation they would prefer, if they were to receive the same income as at the present factory. More than one-third of them said that they would prefer to run a business, mostly referring to turning shops. Their motives were, in most of the cases, its professional independence or the future prospects that it offered. Nearly one-fourth favoured employment in a large factory because of future expectations or security; nearly one-fifth would rather retain the present job because of its training opportunities, future prospects, or familiar nature; and less than two per cent liked agriculture better. Nearly one-tenth of the workers were indifferent as at the same income any occupation was good enough for them.

One-third of the workers were prepared to work in their villages if they could obtain a higher amount, and more than one-third at the same income, while only about one-eighth were prepared to accept even lower earnings.

Of the 182 workers studied, 115 said that they had worked overtime during the past year. Among them, all but three were on the job on working days although 13 were disinclined to stay

overtime; 93 had worked on weekly holidays though 40 did not like to do so; 78 had worked on State holidays though 12 had no desire to work on such days; and 43 workers had worked overtime on religious holidays, although all but three did not care to work on such days.

The examination of the above data in conjunction with the findings on the occupational history of the workers reveals that initially the economic position of the worker is such that he has no choice but to accept any employment that comes his way. In fact, before he is given an opportunity to formulate a vocational plan, he is forced by pecuniary pressures to plunge into any available occupation. In this situation, a job in a small engineering factory gives him an opportunity not only to earn but also to learn. Unlike a large factory where the worker is usually a cog in the machine, the nature of work in the small engineering factories of the type found in Howrah does not normally make him lose his identity. He gets an opportunity to do various kinds of mechanical work, processing the raw materials into finished products. In general, the training and experience thus gained, the satisfactory treatment extended by the employer possibly because he too was a worker earlier in his occupational career, and the happy family atmosphere among the workers largely on account of the smallness of the factory—all these make the employee stick on to his present line of work. But the economic motive which is dominant throughout does not let him rest contented. The poor wages and the absence of vertical mobility within the factory spur him to move from factory to factory in search of better prospects.

As a result of frequent transfers from one factory to another, the worker comes across small industrialists. With this contact and his past work-experience, he learns the know-how of the business. There arises then a desire to start a similar business of his own. About 16 per cent of the workers stated that they had thought of establishing a business of their own, preferably turning shops for most of them. This percentage in the present context does not appear to be a small proportion. It might be remembered that

about 78 per cent of the workers fell in the age group 25 years and below, and the total period of factory service in the case of nearly three-fourths of the workers did not exceed five years. As the data on the age of employers when they had set up the present factory would indicate, all but five among the 38 entrepreneurs had done so when they were 26 years or more (two others had inherited their workshops). Thus, the experience gained by the other workers might not have been enough yet to inspire them to start a business on their own.

However, the aspiration to found a business of one's own is one thing and the realization of it another. All the workers who had thought of setting up a business, when asked about the steps taken to fulfil their ambition, reported that either they had not taken any particular steps or that they had been trying to save some capital or get a loan. It may be noted here that only three workers reported savings ranging from Rs. 50 to Rs. 300, while 14 workers reported that they were indebted to the extent of Rs. 10 to Rs. 1,000 and the loans, largely interest-free being from relatives and friends, were mostly incurred for day-to-day household expenditure. Although it might be difficult to vouch for the correctness of the data collected, especially on savings, it revealed a situation which would suggest that only a vigorous effort on the part of the worker and some fortunate circumstances could make him achieve what he aspired to. There was the case of an entrepreneur who said that he had started his factory after his marriage; the dowry and the jewellery brought by his wife served as an investment in the present factory. There was another employer who was given by an industrialist a large amount of capital as a loan to start his present factory. In the case of several employers, the factory was started with finance obtained through the sale of their ancestral property or out of their own savings. Borrowed funds from relatives and friends constituted part of the initial capital for many of the entrepreneurs. Similar propitious circumstances would be necessary for the present-day workers before they too could fulfil their desire for entrepreneurship.

GENERAL INTERESTS AND PLANS FOR CHILDREN

Twenty of the 36 literate entrepreneurs claimed that they regularly read newspapers; 11 occasionally. So far as the workers were concerned, although half of the literate among them reported reading these, only about one-fifth admitted regular habits while the remaining four-fifths read them now and then. Seven entrepreneurs and two workers declared that they kept themselves acquainted with trade papers or technical journals, etc. Thirteen entrepreneurs and one worker reported that they did technical work and undertook other activities in their spare time. About two-thirds of the entrepreneurs and nine-tenths of the workers stated that factory work was a neutral factor in relation to leisure time activities; only nine entrepreneurs out of 40 and 17 workers out of 182 reported that factory service affected unfavourably their general interests and off-duty hours.

Entrepreneurs were questioned on their aspirations for the career of their children. Experience in small industry appeared to have some effects on their attitude about the childrens' future in so far as many revealed a definite career-plan for their offspring. About half the entrepreneurs had either no children or no definite education or career plan for them. Almost all the others intended to give their sons a technical education, and their daughters at least a school education. More than half of them wanted to see their sons established in their existing workshops and others wished to set them going in this or a similar trade or in an independent business. In a traditional society, forces of stability always tend to reassert themselves. The father's—and in some cases the grandfather's generation—had to bear the impact of technical change by taking to another occupation. Once the transition had been made and a stabilizing anchor found, traditionalism again favoured the passing on of the new vocation from one generation to another.

GOVERNMENT AND SMALL INDUSTRY

RAW MATERIAL

The requirements of raw material for a small engineering establishment in Howrah were not large. An indication of this is the annual expenditure on crude supplies. In response to the queries on the economic data sheet, six units did not specify the amount paid under this head; eight units had not made any purchase during the previous year as they were working on materials supplied by contractors or manufacturers, or were doing repair jobs. Ten had spent Rs. 5,000 or less, four from Rs. 5,001 to Rs. 10,000, seven from Rs. 10,001 to Rs. 20,000. These are indications of the order of requirements rather than their actual extent.

The predominant source of supplies was middlemen and not manufacturers. Only four units obtained their raw materials from manufacturers, often along with open market purchases; 15 procured them from wholesalers, six from retailers, seven from the open market, which would include both wholesalers and retailers; eight were engaged in repair jobs or work on customers' material and did not have to do their own shopping. Such purchases were generally on credit, extending up to three months. Two-thirds of those who received goods on credit considered the financial arrangements satisfactory, and one-third did not find them so.

Sixteen employers said that a permit was necessary to secure a quota of raw material. However, only one had in fact acquired it. Among the remaining 15, all but four referred to procedural difficulties, involving governmental tardiness and the time-consuming efforts to obtain a permit, and to financial problems since they would have to buy the quota allotted in one instalment and pay for it in cash in full. Four felt a permit was not absolutely necessary since the supplies could be collected from the bazaar as well. All these units purchased their requirements in the commodity market, at a price which was 25 to 100 per cent above the controlled price;

apparently, they preferred this high cost of the right to buy freely to the bureaucratic and financial problems involved in getting and using a permit. The lone permit-holder who had been sanctioned a quota considered it inadequate for his needs. This additional expenditure must have cut into the profit margin of the small manufacturer or reduced his competitive capacity, particularly in relation to large manufacturers who inevitably worked with authorized quotas.

MARKETING

Some aspects of the marketing mechanism, particularly its impact on the growth of a small unit, were discussed earlier. This section deals mainly with the problems of selling and the role of the Government in this sphere.

The sales turnover, reflecting the size of the establishments, was small, being Rs. 10,000 or less for 20 units, between Rs. 15,001 and Rs. 50,000 for 16 units, and over Rs. 50,000 in the case of only three units. The main outlet for their output was middlemen who were generally wholesalers, retailers, large manufacturers and contractors. Most employers did not create a product independently, even in anticipation of an order, or market it directly under their own name.

Orders came from all over India, the major ultimate buyers being the Government, the railways, and the construction industry. The nature of goods ordered would vary from time to time, and the scope for repeat orders and for specialization in a few products was limited. As regards the Government and railway contracts, the orders would be for large quantities and given only to those who were listed as approved on the basis of their manufacturing capability. Consequently, a small manufacturer could only depend upon an approved contractor to turn over part or all of the work to him, which appeared to be a fairly common practice. Occasionally, for example, as in four of the units studied, it was found that the small manufacturers themselves shared their orders with others, possibly owing to the pressing load of work. In

other cases the lack of recurring orders from the same source enabled the middlemen to obtain a strong hold over small manufacturers by acting as channels for the distribution of fresh orders amongst them.

The middlemen were generally hardware dealers, wholesalers and retailers, located mainly in Clive Street and Canning Street, Calcutta. They provided the link between the manufacturing units and the ultimate consumers. They sought out the orders and farmed them to the small engineering industry in Howrah. Their functions were, however, wider. They were dealers on their own, maintained stocks, and bore the risk of loss on the goods. When the orders were secured, they would often shop around in Howrah with the sample or design, trying to obtain the lowest quotation, manoeuvring with one manufacturer vis-a-vis another.

Terms of payment and the fixation of prices further helped the middlemen. Only two employers said that they were paid immediately after the delivery of goods, 12 within a month, and almost all of the others between one and three months. Even counter-balanced by the credit terms on which raw materials were obtained and which did not always prove advantageous to the employer as credit charges were usually higher than cash prices, the conditions of payment were felt to be generally harsh in view of the negligible holding capacity of the small manufacturers. Depending upon a discontinuous market for products, the small engineering industry in Howrah appeared to face its major problem in finance. There was one shop which complained of deliberately slow payments by a wholesaler, so as to extract more goods from it on favourable terms. Financial austerity, as noted earlier, seemed to inhibit expansion; delayed payments led to a continuous shortage of working capital, resulting in a temporary stoppage of work till money came in to pay for raw materials, fuel and other essentials.

Price-fixation was dealt with earlier. The main feature to note was that the use of "cost plus" formula in a highly competitive market, a market in which cost categories themselves were ill defined, was purely speculative. Undercutting was fairly common

and was reflected in the employers' submission that they were generally satisfied with the business, but not with the income derived from it.

GOVERNMENT AID

The Government has become conscious of the need to promote small industry for various reasons, mainly to relieve unemployment in the country. Assistance covers almost all aspects of small industry—providing capital and capital goods, arranging for raw material supplies, imparting technical help, and furnishing of marketing facilities.

The machinery through which such help was sought to be provided in Howrah was composed of two institutions: the Small Industries Service Institute (West Bengal) and the Central Engineering Organization. Both these agencies were set up with the objective of making available comprehensive aid. The area of operations of the Central Engineering Organization was restricted to engineering industries in Howrah, that of the Small Industries Service Institute (West Bengal) to all small-scale industries in West Bengal. In this part, the impact of governmental assistance on the small units studied is noted.

Of the 40 employers interviewed, only five said that they needed no helping hand from the Government for development. Others mentioned various kinds of aid, the predominant requirement being finance according to 31 units. This question preceded those relating to assistance in general, mainly in order to determine the reality of needs irrespective of the agency which might provide such help.

Among the 40 employers, 26 were aware of governmental assistance being rendered. Almost all units approved in principle such support to small industries. However, only two units had obtained governmental aid—one in the form of Central Engineering Organization membership, and the other in the shape of a permit for raw material. Of the different types of assistance cited, 30 expressed willingness to accept financial aid, 12 technical assistance

and three marketing help. Small industrialists said that they were handicapped in respect of finance, raw materials, marketing, orders, in fact in every sphere of their enterprise, and that this justified governmental patronage. Almost three-fourths of the manufactureres studied were of the opinion that the Government's policy did not serve to restrict growth; the others mentioned import regulations, taxation and factory legislation as obstructing development.

It was clear that despite a comprehensive programme of the Government for relief, which included an office in the area to help the general engineering industries, its impact on small industries of the type studied was little; perhaps to some extent, it had apparently even failed to make small industrialists aware of its services. The basic thinking prevalent in Howrah seemed to accept the policy of governmental assistance and to accept it in practice. The need for nourishment, particularly financial, was felt widely.

BLACKSMITHIES IN HOWRAH

A Study in Kin-Group Work-Organization

Since ancient times, blacksmithy, in India, has been carried on by particular castes, such as the *lohars* in the North. The trade tended to be hereditary, passed on from father to son, as in other countries. Occupational immobility in such situations helped to create economic stability. Caste in India had two further effects on the traditionally associated vocation. It defined social status, rights and obligations as attached to particular persons and pursuits and thus created an additional ground for distinction upon that basis; secondly, it strengthened professional differences by creating caste sanctions so that occupational variability came to be interpreted as a transgression of caste rules.

Blacksmithies were traditionally linked with agriculture. Every village in India had its blacksmith who made and repaired the various farming implements. In fact, since earlier days, the customary mode of paying the blacksmith has been not in cash for the services rendered, but with a fixed share of the harvest. His prosperity was thus not only intervolved with that of the agricultural community, but he formed an integral part of it. A movement away from the calling could be made only if there was a vacancy in the traditional occupational structure or if a livelihood was otherwise assured by an unsatisfied demand for products of a new trade. A shift from the previous locale of operation would have meant giving up an assured, even if small, means of support in expectation of a doubtful future.

The essential precondition for the geographical movement of the people in the same occupation was the establishment of a direct correlation between work done and payment made for it. This happened in India when, for example, foreign and city-made goods began to be sold in the villages. The cost of paying the artisan on the traditional basis was compared with the price of the exter-

nal product; this was, however, not possible in the case of services which had to be done on the spot. An artisan like a blacksmith who was so far paid for his integrated work—both products and services—faced a new aspect in his relationship with the community. With the purchase of outside products, necessitating a recalculation of payment for the services part of the work, an appraisal of the latter, and not the adequate maintenance of the artisan, became the basis for remuneration. Under the new system, the artisan, instead of continuing as an integrated part of the village society, turned a seller of products and services which were judged and valued on an impersonal and sometimes competitive basis. Thus uprooted, the blacksmith became mobile.

A second factor favouring such movement in India was the population growth and the rising incapacity of the village economy to provide livelihood to an expanding community. A village would always need one blacksmith and, usually, not more than one. If there were two sons, they could only hope to divide the work without expecting greater income. In agriculture, the source of income for all village occupations, the surplus for the farmer declined with the pressure on his land and an increase in the size of his family. The prosperity of the village declined, and a section of the population was forced to seek sustenance outside the rural context.

While the above two factors may be held to be responsible for the exodus of artisans from the village, the reallocation of the blacksmiths in a particular place such as Howrah needs to be explained. Firstly, there is a large amout of hardware required in modern industry which does not have to be of a high precision type. Raw workmanship, even with hand, can satisfy specifications for big nails, rivets, almirahs, etc. Secondly, located in a centre of large and small engineering workshops, the blacksmithies in Howrah enjoy the economies of integration in the general industrial structure of the city. These include the opportunity to use comparatively cheap scrap and other materials and facilities, such as casting or drilling, created by the engineering workshops, and at

the same time to satisfy the demand for rough ironware required by those units.

Blacksmithy was thus a traditional occupation carried on in the urban and industrial setting of Howrah. It would be wrong, however, to say that technological change had not affected the trade in any way. The need to cater to an industrial market had, as mentioned earlier, influenced the product-structure of the business. The products were not scythes or sickles; they were bolts and nuts, railway door locks and keys, springs and similar goods. A change in product-structure had also altered the equipment-requirements of the industry. While the original equipment—the blower, the anvil and the hammer—of a blacksmithy remained basic to the trade, some ancillary needs had arisen, mainly dies, so as to satisfy the new demands by increasing the versatility of the basic apparatus. The cost of the dies often formed part of the running expenses of an establishment, or rather of each order executed with their help, since the jobs performed by a blacksmithy varied one from another, and those for a certain order would hardly be suited for the next.

THE SAMPLE

For the purpose of this study, 40 blacksmithies from the universe of 389 were selected by the simple random sampling method; thus the sample size worked out to about ten per cent. In keeping with the unconventional nature of the blacksmithies in their work-practices and organization, they were interviewed in an informal manner without any formalized questionnaire but with the help of an interviewer's aide memoire adapted from the main schedule prepared for the employers of the turning shops. The study also covered all the employees working in the 40 selected units; they were interviewed through the same questionnaire as used for the factory workers.

Of the 40 blacksmithies originally selected, nine were found closed, four had shifted their location or could not be traced, two were non-cooperative, and one was found to come under the

Factories Act. Consequently, 16 substitute units and operators had to be selected. For the workers, there was no possibility of substitution in case of non-response; in fact, only one blacksmithy employer did not allow any interview of his workers. Another factor to be noted here is that as the worker-interviews were taken up after the completion of the employer-interviews, the work-force in many cases was not the same. Thus, in the case of ten blacksmithies the complement of workers had increased, and in three others it had increased during the intervening period. At the earlier series of interviews, the number of hired workers, excluding relatives of the employers who did not draw any wages but considered the total income from the factory as their family earnings, was 87. The corresponding number at the time of the employee-interviews was 91.

THE BLACKSMITHS IN HOWRAH

For most blacksmiths in Howrah was it the continuation of a traditional occupation in a new industrial environment. About three-fourths of the sample claimed blacksmithy as family trade; others represented the *Mahisya* and the *Kayastha,* the *Brahmin* and the *Baisnab,* the fisherman and the barber classes with a title to the corresponding professions. For the latter, blacksmithy was not a way of life but a source of livelihood; they learnt the trade by training and experience, rather than as an inheritance from their forefathers.

Of the 91 workers studied, 54 or nearly 60 per cent were born into the caste of blacksmiths, 16 were *Mahisya,* three each were *Kayasthas* and *Goalas,* two were *Namasudras* and the remaining 13 belonged to as many different castes. If it were to be determined by their caste, as traditions required, their occupation should have been ironmongering for 54 workers, agriculture or agriculture together with profession or employment for 16 workers, and profession or employment for the remaining 21 workers. Blacksmithy was, however, reported to be their traditional occupation by 30 workers, for 20 of them together with agriculture; agriculture or

agriculture together with business for 55, that is 60 per cent of the total number; and trade or service for four; while two were unable to cite their hereditary livelihood. There was thus an apparent inclination on the part of some members of the blacksmith castes to claim cultivation of the soil and related professions as their traditional occupation, possibly because agriculture enjoyed a higher status than blacksmithy.

So far as the entrepreneurs were concerned, 19 out of the 40 said that they had taken it up as it was the caste profession; 13 said that they had had earlier training in the profession as workers; two said that they were blacksmiths because they did not have enough resources to start a turning shop; two considered their business not to be blacksmithies, since they were also doing motor repairs or carpentry work; and four gave other reasons such as that the business offered independence and that agricultural income was not sufficient.

However, for the employers as well as the workers the profession did not go back many generations. Thirteen employers claimed blacksmithy as an occupation of the grandfather (for nine of them along with agriculture); and 22 said that the livelihood for that generation was agriculture. One generation back, 12 claimed ironmongering as the first occupation of their fathers (for six of them together with agriculture), and 15 fathers (for seven of them along with agriculture) followed it as the last calling in their career; in fact, agriculture had decreased in importance during this generation as the only means of living, was followed by 23 as their first occupation and by 18 as their last. The immobility in occupation was also evidenced by the fact that more than three-fourths of the employers said that their fathers had the same first and last occupation.

The actual occupations of the grandfathers of the workers were: blacksmithy for 16 (for nine of them along with agriculture); agriculture for 70 (for four of them together with business); other trades for two and services for the remaining three. A similar trend is noted in the actual paternal occupations of the workers;

17 in blacksmithy (for eight of them together with agriculture); 58 in agriculture (for three of them along with other business and for two with service); five in other trades (for one together with service); and 11 in salaried employment.

A noticeable factor indicated by the data on the occupations of fathers and grandfathers of the employers and the workers was the limited degree of occupational mobility between the two generations. On a cross-tabulation, it was found that for 34 of the 40 employers and for 67 of the 91 workers studied, the fathers had the same occupation as the grandfathers and among those who showed a change in occupation, more took up agriculture, blacksmithy or other business than salaried employment. This is quite in contrast with the occupational pattern in these two generations, found in the main study of the turning shops. In the turning shops the career mobility from grandfather's to father's lifetime tended to be greater than in the blacksmithy shops. Also, while the variability between the two generations in the case of the turners involved a switch to a salaried job, the change was to either agriculture, ironmongering or other trades in the case of the blacksmiths. This difference between the turners and the blacksmiths is more pronounced when the present calling of the workers is compared with their caste occupation. Over 70 per cent of the workers in the turning shops were agriculturists by caste, and in the blacksmithy shops, about 60 per cent were ironmongers by caste. This indicated that blacksmithy had deeper roots as an occupation; turning shops were a new avenue of employment for those who worked in them.

Blacksmithy appeared essentially to be an immigrant occupation in Howrah. Of the 40 employers, 25 had come from Chapra of Saran district in Bihar, and ten claimed Howrah district as their native place; four were from different districts of Uttar Pradesh and one was a refugee from Dacca, East Pakistan. Of the 91 workers studied, 52 were Biharis (mostly from Chapra of Saran district), 33 were Bengalis and six were Uttar Pradeshis. As in the case of the employers, a large majority of the workers was non-

Bengalis. Their predominance might be partly explained by the fact that the profession involved strenuous work; even in the Bengali-owned blacksmithies, one or two workers were often from Bihar or Uttar Pradesh who appeared to be most suitable as hammermen. Moreover, some Bengalis with a background in blacksmithy seemed to have graduated to the turning shop.

The reason for not setting up the business in their native place was, according to 32 of the 40 employers, lack of scope, market or facility; seven were from nearby villages of Howrah or had settled in Howrah, and hence there was no question of migration in their case. The basic reason for moving away from home was the inadequacy of an agricultural economy to create a demand for, or to support, a large number of artisans of this class. Technological change, in this case, had not yet superseded this occupation, but rather in an urban and industrial setting, appeared to have maintained and fostered it.

Education: A blacksmith was oftener likely to be illiterate or less literate than a turner. Of the blacksmithy employers interviewed, 22 were illiterate; 15 had gone to school for five years or less; two had for nine years; and one had studied up to the Inter Arts. Of those who had acquired formal school education, six had given it up by the time they were ten years old. They submitted that family circumstances would have allowed for further education, but that they stopped it voluntarily.

Of the 91 workers studied, 54 were illiterate; among the 37 literate workers, 27 had studied up to Standard IV or below, and seven between Standard V and VII, while three said they had learnt how to read and write without attending a school. Almost all the literate workers were educated in their native village. The 34 workers who had gone to school gave up their formal education at the age of 16 years or below. The reason for abandoning it was economic for 28 (expensive, need to maintain family, etc.); personal for five (lack of aptitude or ability); and unwillingness of parents in the case of the remaining worker.

Career Plan: When asked about their vocational plan before

entering the present or previous occupation, 35 of the 91 workers reported that they had not formulated it; 25 had planned for 'some job of this kind'; 15 thought of agriculture or agriculture along with some business or service; seven workers had in mind better technical jobs; another seven wished for a small business of their own; one wanted to keep up his father's grocery business and another to continue his education. Thus, in the case of two-thirds of the workers, including those who vaguely hoped for work of this nature, there was no definite career plan.

Age: The present age of the employers ranged from 21 to 65 years. Twenty-two were in the age-group 40 or below while the remaining 18 were above 40. The age of the employers when they had set up the present establishment or entered their fathers' blacksmithy was 25 or below in the case of 15, between 26-40 years for 19, and over 40 years for the remaining six. Only four of the 40 employers had no work experience in a blacksmithy or direct connection with the trade before they set up the present establishment; on the other hand, 35 had previously worked for one year to over 30 years (more than half of them had experience of ten years or below); and the remaining employer had indirect contact with the trade as an order supplier.

All the workers were below 40 years, more than half of them being in the age group 25 or below. About three-fourths of the total number started their work career when their age was 20 years or below. Prior to accepting the present service, 47 of the 91 workers had served in one or more than one smithy and 33 had earlier forging experience of one to five years. For nearly three-fourths of the workers, factory employment, present or previous, was the first job in their work career; the others had been shop assistants, domestic servants, daily labourers and so forth, before they started their first job in a workshop.

The period of total factory service in the case of 52 (57 per cent) of the 91 workers did not exceed five years. The length of present employment was two years or less for 56 workers (62 per cent), and it was over five years in the case of 20 workers (22 per cent).

The occupational mobility within the past two generations, the low level of literacy, and the career history of the employers and the employees reveal certain interesting features, especially in the case of the immigrants from Bihar and Uttar Pradesh. They mostly came from rural areas with a subsistence economy. Consequently, the job openings and the scope to improve their economic lot were limited. Their professions were dictated by caste. In any case, agriculture in general offered the only opportunities available to them in their villages; these were not sufficient when the family expanded. Moreover, when machine-made building materials and agricultural implements started to be sold in the rural areas, the blacksmiths faced unemployment and under-employment and struggled to make both ends meet. To them technological change was not a blessing. The intense population pressure, the uncertainties of agriculture, the consequences of industrial progress, the absence of non-agricultural employment opportunity, all combined to make them migrate to the city in search of job openings to supplement their family income or to earn their means of living.

Difference between Bengali and Immigrant Blacksmiths: Some other features in the case of the immigrant blacksmiths were also noted. While most of them produced nails and such other articles which remained the time-worn requirements of house-building, cart-making, etc., the Bengali blacksmiths produced nuts, bolts, springs and so on to suit the modern needs. The Bengali owners looked forward to conversion of the present blacksmithy into a turning shop in the future by installing a lathe machine; in the case of the immigrant owners, there was no continuous flow of work, the margin of profit was low and the income too small for them to hold aspirations for a lathe.

There are other reasons for the differences noted above. Unlike the Bengalis, the rural orientation of the immigrants appeared to have unassimilated them in the urban industrial environment; in the country, the uncertainties of nature and agricultural conditions had ingrained in them a philosophy of taking from life whatever it offered. This fatalistic attitude seemed to have taken such a hold

on them that the determination to push forward to reorient their activities so as to suit modern requirements, and to look forward to better things—a spirit essential for advancement in the urban technological setting—was somewhat lacking.

INCREASE IN NUMBER AND SIZE

There appeared to have been a regular growth of blacksmithies, which was not noticed in the case of the turning shops. Of the 40 blacksmith shops, 18 had been set up since 1951; 19 during the period 1934-50; and three claimed to have been established before even the great depression. The average durability and stability of a blacksmithy seemed to be greater than that of a turning shop. Thirty-two had been set up by the present owners, seven inherited and one purchased. As in the turning shops, the predominant form of title was sole proprietorship, only four units being partnerships (two with relatives only as co-owners). As in the case of the turning shops, the blacksmithies had been started mostly from internal funds or with help from fellow villagers; only five said they had borrowed money to set up business. The size structure of the blacksmithies was shown by various indicators. Of the 40 blacksmithies, four did not have any paid workers; 26 engaged three or less workers each; seven hired five to seven workers; one employed 10, one 12 and one 16 workers.[1] A second indicator of size was the net earnings of the enterprises. Of the 40 entrepreneurs, 18 said that they earned per month Rs. 100 or less, another 18 between Rs. 101 and Rs. 200, three between Rs. 201 and Rs. 300, and the remaining between Rs. 301 and Rs. 400. The entrepreneur's income from blacksmithy, in most cases, was hardly large enough to distinguish him either from his employees or from the workers in large factories.

In fact, there did not appear to exist any factor making for a status difference. The employer and his employees often belonged to the same kin-group, lived in the same place, ate and worked

1. The blacksmithies did not use power; consequently, the Factories Act applied to them only if they employed 20 or more workers.

together. Only six of the blacksmithies were not used as residence; in the others the employers, or the workers, or both in most cases, lived. As individuals, the employer and his employee appeared to be upon even terms. This degree of equality between the two was not noticed in the turning shops.

THE EMPLOYER AND THE EMPLOYEE IN THE BLACKSMITHY

Social Distance: Indeed, one basic difference between a turning shop and a blacksmithy was in the relationship between the employers and the employees. In the case of the non-Bengali owned blacksmithies particularly, there existed a rapport, extending to association beyond the working hours and outside the scope of the job. In fact, the work relationship was a part—an overflow —of a general affinity between the employer and the employee, which amounted to more than the boss-worker tie bound by impersonal, contractual obligations.

The development of such a relationship began at the beginning, in the source of the work-force. Fifty-three of the 121 workers, salaried and unsalaried, in the blacksmithies at the time of the employer-interviews were, according to the employers, relatives of the latter and 41 were co-villagers, only 27, or less than one-fifth, being outsiders. Of the 91 hired workers studied, 20 said that they were related to the employer,[2] 34 had been acquainted with the employer before they joined the present factory; 26 reported their relatives as colleagues in the same factory. When asked as to which category most workers in the factory belonged, 15 said that most were relatives, 65 said that mostly they were members of the same caste or came from the same locality or State, and nine said that the workers consisted of diverse elements. It was also noted that most of the workers in the Bengali-owned smithies were Bengalis and in almost all the non-Bengali-owned shops they were correspondingly non-Bengalis.

2. Relative workers, such as sons and brothers of the smithy owner, who did not draw any wages but considered the total earnings as their family income, were excluded from the study.

This relationship did not come to pass by chance or otherwise; it was brought about by the recruitment policy of the employers. Among the 40, four did not employ any workers; of the remaining, 11 said that they hired and worked with relatives; 12 said that they engaged co-villagers, who were either sought out by the employer or introduced to him by others, or were direct applicants who had come asking for work; three said that they looked for people on their own or those they already knew; and ten said that they took door-bell candidates or sought them through others. The employees in their interviews confirmed this picture. To the question as to how the present job was secured, 80 (88 per cent) of them said that it was obtained either through co-villagers, the present employers, relatives or co-workers. It should be noted that individual introductions appeared to be favoured by the parties themselves and were not prompted by the nature of work, as would be the case where team-work was required in an enterprise involving some physical danger and where personal confidence among members of the team might supersede skill-requirements in forming it. In blacksmithy work, there was neither a special problem of dexterity nor a hazard element involved which might explain the emphasis on personal relationship or kin-group or village-affinity in recruitment.

The homogeneity, based on kin-relationship or village ties, was expressed, as mentioned earlier, in close contact between the employer and the employee outside the working hours. Of the 36 wage-paying employers, 14 had on their payroll only relatives with whom they lived, ate, celebrated religious and social functions, and otherwise carried on leisure-time activities together. Of the 22 remaining, nine said that they lived with their employees, 11 dined together; 15 went out along with their employees to religious and social ceremonies, nine of them going out with employees only occasionally; and 13 said that they shared their spare time activities with their employees.

Similar questions were also asked of the 91 workers in order to appraise employer-employee relations from the other side.

Fifteen said that they were invited by the employer to dine and all accepted such invitations; 36 said that they were not invited and in the case of the remaining 40, there was no occasion as they stayed with the employer. Eight workers invited their employers to dine and nine to pay social calls; 41 did not invite their employer to dine, nor did 40 to pay social calls. The main reasons for not inviting were given as caste restrictions and 'not proper socially'. In the case of 42 the question of inviting the employer to dine or to pay social calls did not arise as they lived with the employer.

Eight workers reported that their employer paid social calls and five had meals with him outside duty hours; 37 said that the employer did not pay social calls and 43 did not have meals with him; and in the case of the remainder the question did not arise. Eight workers did not like that the employer should pay social calls and 25 disapproved that he should dine with them; the remaining workers all favoured the idea.

The above data revealed, and it was confirmed by observation, that the social distance between the employer and the employee in the non-Bengali-owned blacksmithies appeared to be less when compared with the situation in shops under Bengali owners. This is mainly because none of the latter lived with their workers in the shop. On the other hand, almost all the non-Bengali owners stayed with their workers in the factory premises. In addition, the cultural affinity, the absence of status consciousness, an unpretentious nature and above all the lack of marked differences in income, all contributed in varying degrees to bring about a cordiality among the migrant employers and their employees.

The predominantly small size of the establishments, which was referred to earlier, served as a conducive factor for such relationship. Blacksmithy work is generally done by two workers harnessed together—one heats the metal and holds it on the anvil with the die, if necessary, and the other operates the blowers and later hammers the metal. The employer, being invariably a worker, was one member of the team.

Even when the workshop was larger, employing, say, 10 or 12

or 16 workers, the form of work-organization and the duties and role of the employer were the same as in the smaller units. Combined effort was still essential, and the number of workers formed themselves into half as many teams; the employer again was a worker, often also repairing the blower, obtaining the dies, besides doing other work such as procuring raw materials and orders.

The nature of the skill hierarchy was not complex in a blacksmithy. The use of dies had only increased the shape-forming capacity of the equipment; it had not changed the nature of the fundamental operations—blowing, heating, hammering—which were done with the basic equipment, or of the power and the skill required to carry them out. In the dual type of operations, those involving blowing and hammering were considered to require less skill, though more strength. In fact, the skill difference involved was not wide and the roles were inter-changeable, and often alternated. When asked, the employers listed 84 workers as skilled and 37 as unskilled among the total of 121 workers. It is important to record the notional character of this distinction, arising from the limited range of the skill-gap between the two kinds of workers, and the problem of differentiation according to skill because of the smallness of the gap.

Social Relations: The informality of relationship between the employer and his employees was seen in the working conditions of the latter. As regards payment of wages, for example, 12 of the 36 employers who had workers said that they did not hire them (they apparently shared the earnings of the workshop jointly with the workers who were their relatives; the enterprises were thus in the nature of a joint family business); another ten provided their workers with accommodation and food and cash payments ranging from Rs. 20 to Rs. 50 per month; and the rest paid their workers a daily rate or, rarely, a monthly amount. Board and lodging facilities, as noted earlier, were generally shared with the employer; 29 employers said that they resided within the factory premises.

The irregularity of wage standards, especially in the case of the non-Bengali-owned blacksmithies, was noted in the responses of

the workers. Of the 91 workers, 51 (56 per cent) were daily rated, 14 getting a cash wage of Re. 1.50 or less, 31 between Re. 1.51 and Rs. 2.00 and six between Rs. 2.51 and 3.50; 40 (44 per cent) workers were monthly-rated. All except one reported that no regular increment was given or that no such system existed at all.

A second factor reflecting the casualness in the employer-employee relationships was the uncertainty of the working hours in the blacksmithies. Of the 40 employers, 16 said that there was no fixed hour for starting, and for 20 no definite time for stopping the work. Eleven did not shut the establishment once a week; three closed for half day only; for nine, the weekly closure was uncertain, depending on work, and 17 did not open the establishment once a week.

Nearly two-fifths of the 91 workers reported that there were no fixed hours and most of the others stated that they worked for eight hours, from 8 a.m. to 5 p.m., with a break for recess. Almost all the workers maintained either that the timing suited them or that the nature of work was such that the question of their convenience did not arise. All reported that Sunday was an unpaid holiday, but the workers staying with the employers also stated that if occasion arose they would work on Sundays without extra remuneration; nearly half of the workers studied were living in the factory premises. Paid religious holidays and paid State holidays were reported by 75 workers and 72 workers, respectively, but there was no clarity in the responses, particularly in the case of the monthly-rated workers who formed about 44 per cent of the total number studied. Only one to six workers reported that they received some facilities of paid, privilege, or sick leave, bonus and compensations for accident.

The laxity in working relationships was also apparent from the responses of the workers who were questioned about absenteeism. Thirty-three (36 per cent) reported that they were absent during the last year; the period of absence was long for two, short for 20, and occasional for 11. The reasons for staying away from the job were

agricultural work in their native place (for 13 workers), domestic or personal reasons (for 11), and illness (for nine). Only three of the workers who reported absence during the past year attributed it to factory work. To the question whether the employer told them not to come for work in order to lay them off when there was not sufficient work, 24 of the 91 workers said that the employer sometimes (in the case of 22 workers) or often (in the case of two workers) did so. All but three of them reported that they were not paid for these periods of forced absence. In the case of a majority of the remaining 67 employees, this question did not arise as they stayed in the factory and worked whenever there was a job to do.

Stability of Relations: It appeared that the kin-group relationship among the employers and employees within a blacksmithy had not led to greater stability in the work-force. According to the employers studied, about one-fourth of the workers had served for less than one year in the establishments, more than half for less than three years, and only about one-tenth for five years or more. This was all the more noticeable in view of the steady growth in the number of blacksmithies over a period of time, unlike turning shops which had sprung up in a bunch in the last five years. Compared to the turning shops, the average period of service of workers in the blacksmithies, in relation to the longer life of the latter, appeared to be small.

This situation can be explained in various ways. Firstly, it is likely that among the blacksmithies, the continuity of work-force may have been greater in shops with relatives and fellow-villagers on the roster than in those lacking workers with kin or village affinity.

Secondly, there appeared to exist, especially among the immigrant-owned blacksmithies, a practice of resting their workers in the village and exchanging them for new workers. A slack period in the blacksmithy would be used by the worker for a holiday and a visit to the native village. If the inactivity continued, the worker remained in the native village. If the work picked up, it was not

always the same worker who returned but some other male member of the kin or village group might come from the village to fill the gap. As no questions of skill were involved, such substitution would not present problems of integration in the work-force either on the ground of the capacity to work or of the ability to mix with other members of the group, since there already existed a fellow-feeling.

Of the 40 blacksmiths studied, 13 reported voluntary job termination by the workers and five dispensation of their services by the employers. Those from whom the workers had separated willingly said that the latter, according to their knowledge, had joined other factories, started new shops or returned to the village. Those who had let off workers on their own said that this was mainly due to lack of work, and that they had gone either to other factories or back to the native place.

Stability in a kin-group or or village-group form of labour force was also induced by the natural restriction on movement within or without it. An inward movement would necessarily be subject to the elementary requirement that the workers should, besides having a minimal ability to do the work, also meet the condition of sharing a common affinity. A difficulty in inward movement, by restricting the freedom of the labour market—the labour-contract was not merely an agreement about wages but covered a wider area of human relationships—would also restrain outward movement. The labour market would tend to become sticky.[3] The extent of the stickiness or restriction would depend upon how narrowly or widely the kin-group or village-group was defined in the particular work-context. The prevalence of the joint family system among blacksmiths in their native place, their large concentration in Howrah from one particular district, and the extent of voluntary job-separation by the workers appeared to show that the definition was not so narrow as to restrict all mobility.

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3. R. C. James, "Labour Mobility, Unemployment and Economic Change: an Indian Case," **Journal of Political Economy,** 67 (6) Dec. 1959, pp. 545-559.

Coal and other raw materials required by blacksmithies were generally available under restrictions. Twenty-five blacksmiths said that they had no difficulty over coal, and 19 had none in procuring raw materials. Others complained, to a greater extent, about the higher prices than the physical shortages. Seven blacksmiths also referred to the supply of raw material as one aspect in which the Government could help.

The market for the products of the blacksmithies in Howrah was mainly the Howrah factories, although a few reported sales to railway and government contractors and to the merchants of Calcutta's Clive and Canning Streets. The essential feature, as in the case of the turning shops, was the lack of direct contact between the blacksmith and the eventual user of the product and the existence of an indirect marketing channel. The consequences in relation to the continuity of work and the stability and profitability of an enterprise were similar to those in the turning shops.

The main problem in running the establishments was that they were short of finance. Of the 40 entrepreneurs studied, nine said that they secured prompt payments for goods supplied or were at times paid later; 21 received them in about four weeks, and seven within one to three months. Almost all the entrepreneurs said that delayed payment affected work adversely; this was confirmed during the field work when many establishments were found to be idle as they had no money to buy coal. Moreover, on the subject of government aid, 38 wanted such help and all these establishments wished that assistance to be financial.

The state of business was generally poor among the blacksmithies. In the course of the study, units in the sample initially selected had to be replaced by substitutes as the original ones were found closed; the temporary shut-down of establishments owing to lack of finance has been referred to earlier. Of the 40 units, only 17 reported that they were busy throughout the year previous to the inquiry.[4] Furthermore, during the last two years, 28 stated that

4. This, of course, is to be interpreted in relation to the flexible hours of work followed by most blacksmithies.

things had remained static, five reported shrinking business and seven said that it had in fact expanded. To the question on overtime, 36 (40 per cent) of the 91 workers said that during the last year they had stayed beyond regular hours on working days and weekly days off and on religious and State holidays, the overtime payment in almost all cases being proportional to their ordinary wages. Fifteen did not work extra on any day during the last year and in the case of 40 the question did not arise as they worked whenever required without any extra remuneration.

The dissatisfaction among the blacksmiths was not so much with the nature of the trade as with the income it afforded. As regards general aspects of the business, 29 employers said that they were fully satisfied, six not fully, and five not at all. On the other hand, only one was fully pleased, 32 not fully contented and seven not at all satisfied with the income. There was a craft-pride shown by the blacksmiths in their work. Despite their disgruntlement with the income, 27 employers said that given a choice they were unwilling to shift out of the trade. They felt that there was a scope for expansion in the business, or had a sentimental attachment to it ("father started the business") or held that there was no alternative. Of the 13 employers who wanted to make a switch, two wanted to change to a turning shop by installing some machines; three wished to take employment in a factory, large or small; four preferred to return to agriculture as it would enable them to live with their family, and the remaining four referred to motor driving, scrap iron business, and so forth. Loyalty to the trade was also reflected in their replies when asked about future plans. Thirty-two wanted to expand the smithy, 14 to add technical means to it, and only two planned to give it up entirely and take up mechanical operations. So also, as regards plans for their sons, the general response of the employers was a desire that they be established in the same trade or in some other related business; 15 voiced such aspirations, while another 15 responded negatively, and eight reported that their sons were already in work. The physical uncertainty of future prospects in the business and their psychological inability to

formulate defined or definite career plans for their children also may have contributed to a lack of clarity in their answers.

WORKING CONDITIONS

Almost all the blacksmithies are housed in kutcha (not made of brick) sheds and in most cases nearly all sides are open. This arrangement appears to be quite suited to blacksmithy work. Almost all the workers reported that the lighting, ventilation and working space in their blacksmithies were fully or fairly adequate, and all said that there was no first-aid facility.

Among the 91 studied, 49 (almost all the non-Bengali) workers stayed in or very near the factory premises. Of the remaining 42, the distance from their residence to factory was less than a mile in the case of 22, one to five miles for 14, and five miles or over for the remaining six; the time taken by them to go to work was half hour or less for 29, half hour to an hour for ten, and more than one hour for three. Thirty-seven went to factory on foot, three by train and the remaining two by bus; 17 of these 42 workers returned to their residence for the midday meal which the remaining 25 bought or brought from home.

When asked about the feature liked most in the present job, nearly two-thirds of the workers referred to harmonious relations or good treatment; others referred to the nature of work, opportunities for advancement, etc. To the question on what they disliked most in the present job, 14 workers could not specify any point; ten workers said that they liked everything about the present job; 44 (48 per cent) workers mentioned economic hardships such as poor wages and lack of security; 12 cited the strenuous demands of the job, while others referred to sundry aspects.

Workers were asked about what they felt, on the whole, about the present job; 48 (53 per cent) among them said that they liked the present job, the reasons being the training potentialities and consequent future prospects, the existing employment opportunities along with harmonious relationship and good treatment and so on; only three disliked the present job because of poor pay, irregular

timings or the strenuous nature of work; and the remaining 40 were indifferent as until they found a better job they had no choice but to work there for their livelihood. Workers were also asked whether they were economically better off after they had joined the present blacksmithy; 77 (85 per cent) among them said that they were, only one worker thought he was worse off, and the remaining 13 felt that there was no change. Fourteen workers said that their health had deteriorated after they had started factory work, while 13 said that it had improved, and the remaining 64 (70 per cent) reported that there was no change.

Almost all the workers giving definite answers to the question said that they gave first preference to wage rates and other monetary benefits in any job they would consider, while most of the workers assigned second place to security of service or opportunity for advancement. Thus, economic aspects were the main considerations on which their acceptance of a job depended.

Workers were asked which occupation they would prefer if they could maintain the same income. The answers to this question were varied. Of the 91 workers studied, 22 preferred business mainly because of its independence or future prospects; 18 chose employment in a large factory on account of future prospects or security; 15 would rather stick to the present job as they were used to the work or because of future prospects; 17 liked agriculture better since it would offer them independence, future prospects and the possibility of staying with their family; 11 were indifferent as, at the same income, any occupation was good enough; and the remaining said that they favoured employment in an office, artisanship, etc.

Asked about the reactions of their friends and relatives to the current job, 39 workers said that the former were indifferent to their present status; 35 considered that there had been no change in their view; 15 said that their social position was considered to be high and only two said that it was regarded as rather humiliating.

Twenty-three (25 per cent) of the workers were prepared to work longer hours and only three preferred less number of hours, while in the case of the remaining, either they wished to retain the

same hours or the question did not arise as they worked whenever there was work. When asked whether they were on the look-out for another job, 42 (46 per cent) of the workers answered in the affirmative while the remaining said that they were not. Of the 91 workers studied, 27 said that they had thought of setting up a business of their own, mostly referring to a blacksmithy shop; however, nearly all of them took no particular step towards the realization of their objective.

FAMILY AND EXPENDITURE

The blacksmiths, both employers and employees, who were immigrants to Howrah had left their families in the native place. This was evident from family data and from information regarding remittances. Of the 40 employers studied, 38 were married and 2 unmarried; among the former, ten (9 Bengalis and one Uttar Pradeshi) were staying with their family, and one of the two bachelor employers stayed with his family. Of the 91 workers studied, 49 were married and 42 unmarried. Only eight married and nine single workers were staying with their family. The local employers and employees visited their homes daily or weekly, while the immigrants went to their native place once a year or oftener and kept contact through correspondence.

For most employers, blacksmithy offered the only means of earning; five had other incomes from property, business or agriculture. In keeping with the tradtional and home-industry nature of the business, no separate accounts were maintained as transactions were mostly done by word of mouth; in fact, in most cases, it was found that household and business expenditures were generally mixed up. This was inevitable in a number of cases, since some employers paid wages partially in kind in the form of free board and lodging at their premises. Of the clearly identifiable items of expenditure, it might be noted that all except three establishments paid rent for the factory premises, even as these were conjointly used for residence. The main reason for lack of premises owned outright was the immigrant character of the factory-owners, a fact borne out by

the fact that 30 of the 40 employers sent remittances home (24 of them regularly), the amounts being usually between Rs. 20 and Rs. 50 per month. Eight employers reported that they were in debt at the time of the interview for sums ranging from Rs. 50 to Rs. 1,000; four of them had repaid part of the original loan. Four reported that they had incurred the debt for family purposes; the other four had borrowed money for business purposes, in order to start the factory or buy raw materials, etc.

The monthly cash income from the present blacksmithy in the case of any of the 91 workers did not exceed Rs. 100; in fact, 60 (66 per cent) of the workers earned Rs. 50 or less per month. In addition to cash wages, board and lodging was provided by the employers for 38 (42 per cent) of the workers. Only two reported benefits from other part-time jobs. Ten workers dwelled in self-owned houses; 27 were tenants. 16 paying a monthly rent of Rs. 5 or less and the others Rs. 6 to Rs. 15; nine workers stayed with relatives paying mess charges; and 45, all from Bihar and Uttar Pradesh, stayed in the blacksmithy shop.

Seventy-one (78 per cent) of the workers reported regular remittance to their family in the native village; 34 reported that they sent every month Rs. 25 or less, 35 between Rs. 26 and Rs. 50, and two between Rs. 51-75. Two workers reported occasional remittances and another two did not send any amount; and in the case of the remaining 16, the question of payment did not arise as they stayed with their family. The main object of the regular monthly contribution was household expenditure in the case of all the 71 workers; repayment of family debt, house construction or purchase of land were some other objects reported by 11 workers. Only one worker declared cash savings of Rs. 50, and seven workers submitted that they were in debt. The amount of the loan, mostly incurred during the last two or three years from friends and relatives, varied from Rs. 15 to Rs. 100 in the case of three workers, and from Rs. 200 to Rs. 300, in the case of the remaining four workers. Three workers borrowed the money because of their own or family illness, one for his sister's marriage and the remaining three for domestic expenses.

The total period of urban residence for the 91 workers was less than one year in the case of ten, between one and ten years for 58 (64 per cent), and 10-15 years for nine. Seven were born in Howrah city and another seven were residing in the nearby villages of Howrah district with their family. Only one said he was living in pucca house; 27 dwelled in semi-pucca and 63 in kutcha buildings. Forty-five reported their homes to be in the factory itself. Twenty-nine occupied single rooms, 16 of them sharing with others; 16 resided in two or three rooms; and one had the use of five rooms. Electric lighting in their residence was used by 16 workers, the remaining 75 using kerosene oil lamps. Only one worker enjoyed a tap inside the room for drinking water; 56 shared a common faucet, 27 had access to tubewells while the remaining seven drew from wells or ponds. No sanitary facilities were available for 48 (53 per cent) of the workers studied; of the remaining, 32 reported having both drainage and latrine facilities, ten only water closet and one only drainage fixtures. From the above data, it would appear that the conditions of housing, water supply and sanitation for the blacksmithy employers as well as employees were worse than those for the turners.

Of the 18 literate employers, eight did not read newspapers at all; eight occasionally and two regularly did so. Four perused magazines, novels and so forth now and then and the remaining 14 did not do so. Of the 37 literate workers, six said that they occasionally read newspapers only, and three newspapers as also fiction from time to time, while the remaining 28 said that they read nothing. With irregular working hours, leisure time was not set definitely; 28 entrepreneurs said that they did not have enough time free. Spare time activities were relatively simple—paying attention to or holding discussion on family affairs, gossiping and "looking into business matters", which would involve attempts to secure orders by personal calls, and so on. When asked about their leisure time, only one worker reported technical work in addition to other activities, 16 referred to sports, besides other hobbies, and the remain-

ing 74 referred to sedentary interests such as cooking and gossiping. Eight workers said that work in the blacksmithy affected unfavourably their leisure hours, and for the remaining the job was a neutral factor in their spare-time activities.

Neither urban residence nor the blacksmithy trade appeared to have affected noticeably the observance of religious practices or of caste regulations among the employers and employees. To the question on their obeisance to the anvil and tools, 58 workers reported that they offered such homage daily and 31 on particular days, while two did not idolize them. Deference to most caste restrictions was reported by nine workers, 79 (87 per cent) followed some, while three workers reported that they did not obey restraints dictated by caste. Questioned on specific areas of discrimination, almost all the workers reported that they followed sanctions against marriage with non-caste people, their main reasons being fear of ostracization; otherwise, they thought it was quite proper. As regards eating with non-caste people in social functions, or allowing them to enter the kitchen, and such occasions, nearly three-fifths to more than two-thirds of the workers said that they observed such restrictions based on caste differences, as according to a majority of them, it was proper to follow these. With regard to social intercourse, nearly three-fourths of the workers said that they did not follow regulations enjoined by caste since nobody followed them nowadays, or as they had no belief in them. Most of the employers and almost all the workers reported that the blacksmithy work did not affect their observance of religious rites and caste conventions.

Out of the 40 employers studied, seven did not like life in Howrah ("full of troubles", "congested", "not meant for poor people", and so on), and six were neutral in that they would stay wherever they could make a living; the largest group—of 15 entrepreneurs—felt accustomed to life in that city. Two factors appeared to play a large part in Howrah's growing upon them; some had stayed there for long and others felt that they were in the company of "our own people", such as kinsmen and co-villagers. This was presumably an important factor cushioning the propulsion into

urban environment as well as one inducing conservation of traditional living habits and cultural values. To an immigrant blacksmith coming to Howrah, say, from Chapra in Bihar, the local milieu would not always appear entirely new. He would join, on an informal covenanted basis, his own family or village group, which would also be the primary work-group. His introduction to city life, initiation into building of relationships and getting used to new surroundings would be through people whom he knew earlier, and his way of life would hardly undergo a sudden or major change in a strange setting. Consequently, an attitude of acceptance developed with relatively little resistance; the impact of migration in search of a livelihood to an alien city was softened by the fact that the movement was geographical rather than social.

SOCIAL ASPECTS OF ART SILK INDUSTRY IN BOMBAY

ABSTRACT OF A SURVEY

The metropolis of Bombay, a major centre of large-scale industries in India, also offers a striking concentration of small-scale establishments.[1] Traditional base of cotton textile manufacturing in India, it has in recent years emerged as a home of new enterprises built around the development of man-made fibres. It has been estimated, for example, that the highest density of the nation's rayon weaving industry is in the city of Bombay where about one-third of the total number of looms were engaged in the production of rayon fabrics in the year 1958-59; there was a greater if diffused concentration in the former State of Bombay, where 85 per cent of the rayon weaving units in the country were located.[2] The art silk industry in Bombay, which is concerned with weaving new fabrics, particularly rayon, has a vital small-scale sector; 61 per sent of the total number of establishments in the city employed a labour force of 50 or less workers, while all used power.[3]

A recent branch of the textile industry, art silk weaving in India owes its origin to the trade restrictions placed in the 1930's upon Japanese rayon fabrics. Businessmen turned from import of the finished goods to indigenous production with the help of rayon yarn and machinery bought from Japan. The few weaving units, about 20 in number, which had been struggling until the start of World War II got a severe setback when Japanese raw materials could not be imported any longer. In the post-war years, the industry expanded in a

1. An assortment of small-scale industries in greater Bombay city accounted for slightly more than one-third of the total number of small units in the entire Bombay state, which was bifurcated in 1960 into Gujarat and Maharashtra.
2. *Silk and Rayon Industries of India*, Vol. 1, No. 1, January, 1959.
3. Figures obtained from the office of the Chief Inspector of Factories, Bombay.

remarkable way, thanks to the continuation of protective duties on imported art silk fabrics, growing internal demand, shortage of cotton fabrics during and immediately after the war, and development of an export market. Japanese machinery, comparatively low-priced, helped the substantial increase in the total loomage registered in the decade since 1941, during which there was a percentage growth of 681.8. In 1958-59 the total number of rayon weaving units in India stood at 3,700, while the total loomage was 47475.4

The remarkable growth in the number of units, disproportionate as compared to the expansion of loomage, indicates that there has been a strong tendency towards fragmentation. The small-scale structure of the industry is further evidenced by the fact that 75 per cent of the units in India carry on with less than ten looms each. It was decided to study at its geographical base the small-scale component of this growing industry, featuring aspects of big business,[5] competing with the traditional textile products of the country's giant mills, and feeding other developing industries such as heavy chemicals, wood pulp, cotton linters, rayon yarn, etc.

Methods Used

Almost all the art silk establishments in greater Bombay fell within the jurisdiction of the Factories Act, and the universe was determined by taking up the units registered under it. It was found that there were 57 units in the city and 67 in the suburbs, all employing ten or more workers with the aid of power. A stratified random sample of 40 units—17 in the city and 23 from the suburban area—constituting 32.2 per cent of the frame was drawn up for study, which covered units employing less than 50 workers. Substitute entrepreneurs were selected in the case of 16 units, mostly in the suburbs, in order to replace three who had re-

4. *Silk and Rayon Industries of India*, op. cit.
5. The capital invested in it is over Rs. 200 m. and the annual output approximately 300 m. yards. It employs about 100,000 workers and in addition to indirect taxes, contributes to the national exchequer to the extent of Rs. 100 m. in government levies.

fused cooperation, and others which turned out to be large-scale, had closed down, were strongly listed or could not be traced. This could have introduced a bias in the study.

The sample for workers was drawn on a 33 per cent basis of the total of 1,033 workers employed in the 40 units studied. Thus 345 workers were interviewed, covering in each unit all the categories of workers employed—excluding watchmen and non-production clerks—who were selected from the payroll with a random start at random intervals. Weavers naturally comprised a large proportion (43 per cent) of the workers interviewed, amongst whom 30 women figured.

Field investigation was conducted by the personal interview method with the guidance of separate schedules for employers and workers. These had been pre-tested and finally drafted in the light of experience gathered.

THE ENTREPRENEURS

The majority of the 40 entrepreneurs in the small-scale art silk establishments in Bombay were men—there was one woman—below 40 years, married, Gujarati-speaking and advanced caste Hindus with an urban background. Out of the 40 interviewed, 17 were in their thirties and nine in their twenties; 14 fell in the age group 41 to 60 and over. All but four of them were married.

Social and Educational Background

The well-known initiative and enterprise of the Gujaratis and the Jains in Indian business, particularly noted in the western coast, was reflected in the art silk industry of Bombay. Except for two Parsis, and one each Muslim, Christian, Sikh and backward community Hindu,[7] the entrepreneurs were advanced caste Hindus and Jains, constituting 85 per cent of the sample. Gujarati figured prominently as the mother tongue of 25 of the entrepre-

7. As classified by the Backward Class Commission, Government of India.

neurs, Punjabi appeared next (for nine). The remainder claimed Sindhi, Marathi, and English in one instance.

The majority of the entrepreneurs (28) were from pre-bifurcation Bombay State, one-fourth of them being born in Bombay city or its suburbs. Pakistan figured next as the original residence of seven, followed by East Punjab and Bihar. It was noted that a very small proportion—only six—of the respondents were of rural upbringing.

There were a dozen university graduates among the entrepreneurs, including the lady, and five who held diplomas, including three in textile technology. Eleven had completed school but not college education, and ten had not finished their schooling, while one declared himself as literate; another did not specify his level of education. Out of the 24 who stated that they had discontinued their education one-third explained that they left to join the paternal business, and another one-third that they were unable to cope with their studies. Economic necessity accounted for a comparatively smaller proportion (18 per cent).

Ancestral Occupation and Professional Experience

Occupations relating to trade and commerce featured prominently as ancestral pursuits of the entrepreneurs. These formed the livelihood for 60 per cent of their fathers, and 50 per cent in the case of their grandfathers. Production followed next with 22 per cent as the paternal calling and with seven per cent in the generation of the grandfather. It might be interesting to note that the fathers of ten employers were cloth merchants, and the grandfathers of seven were engaged in the same business.

As to the type of experience gained in their own lifetime, 17 entrepreneurs had only industrial experience, while the remaining 23 had gathered non-industrial experience as well. Nine had always been employers in their career; of the rest, 18 enjoyed this status for less than, and 11 for more than, half of their working lives. For a majority—26 entrepreneurs—the present art silk unit was the first independent business attempted. Eight were previously

engaged in trading activities and had switched over to manufacturing, while six had faced complete failure in their earlier ventures. When asked how they were drawn to the art silk industry, the entrepreneurs offered various explanations. Some mentioned that the business initially appeared to be lucrative, others that they were already familiar with the marketing aspects and had the right contacts.

A majority of the entrepreneurs—23—were involved in partnerships, ten of them being confined to the family. Sole proprietors numbered 14, including the lady entrepreneur. Two functioned as managing directors of a limited company, and one as a lessee. The nature of work undertaken by the entrepreneurs varied. Half of them conducted overall supervision of the workshop, and dealt with marketing as well as financing problems. Some (11) looked after the production work; others (7) handled financing and marketing; one was engaged in purchasing alone, and another took no active part in the direction of the business. On the whole, it was noted that the entrepreneurs rarely attended to machine work and a few did not even know much about it.

Three-fourths of the 40 entrepreneurs mentioned that they obtained a profit from the art silk establishments indicating that ten units were operating at a loss. However, this business offered the sole source of income for only 13 entrepreneurs; the remainder drew additional earnings from trading and other manufacturing activities, rent of properties, and employment elsewhere. The total monthly income for the 40 entrepreneurs ranged from less than Rs. 300 to more than Rs. 3,000. Eleven entrepreneurs indicated that they were quite happy with their business; nine with the income it afforded. Except for one who was unable to answer, the others expressed varying measures of dissatisfaction.

Size and Growth

It has already been indicated that the units covered in this study did not exceed 50 workers on the payroll. Eight engaged between 21 and 30 workers, another eight between 31 and 40, and

seven had between 41 and 50. The remainder hired not more than 20 workers apiece, including five which had less than ten. The average labour force of a unit worked out to 25. A majority of the workers was employed in establishments hiring more than 30 men. It was noted that in the sole proprietary concerns, the labour force tended to be smaller, while in the partnership companies, it appeared to be bigger. A majority (23) of the units was not more than a decade old; six of them had been established in the years 1956-58. There was a big cluster of units (15) which were set up in the late forties, shortly after the war; one had been started as early as 1934.

Of the 40 establishments studied, 35 were weaving units; the others mostly processing units, carrying out twisting and doubling operations. In the weaving units, there were in all 731 looms. It was found that 24 per cent of the looms were bought between 1946 and 1950; 33 per cent between 1951 and 1955, and 43 per cent in the three years preceding the study. It was also noted that a large portion of the machinery was bought recently, thus indicating the growth of the establishments in recent years.

The total productive capital invested by the 40 employers varied from less than Rs. 25,000 to more than Rs. 300,000 for each unit. The total capital investment of about 42 per cent of them was less than Rs. 100,000; for 32 per cent it was between Rs. 100,000 and Rs. 200,000; and for the rest it was a bigger amount. The average worked out to about Rs. 81,000. In a majority (60 per cent) of the cases the fixed capital varied between 36 to 50 per cent of the total capital invested; it formed a smaller proportion in the other units. As regards working capital the situation was reversed. It formed more than half of the total capital in as many as 32 establishments.

Lack of capital was mentioned by 18 entrepreneurs as an inhibiting factor in their expansion plans, while lack of space was cited by 25 entrepreneurs. Many referred to government restrictions which, in their opinion, hindered expansion to a considerable extent; others mentioned the shortage of raw materials and machinery, the

competitive market and the low prices obtaining. Only three employers indicated positively that they had plans to expand.

Marketing and Accounting

Twenty-six of the entrepreneurs stated that they manufactured in anticipation of demand while six undertook production only after securing orders. The remainder produced in anticipation of as well as against actual orders. A majority of the 40 entrepreneurs sold their products entirely to wholesalers. For 31 it came from both large and small scale producers, and one specified large-scale producers as the only source of rivalry. The others felt the competitive impact of units which were of a similar size as theirs.

Small-scale art silk establishments were able to offer competition to their larger counterparts because of low production costs and wage bills, price-cutting, and a certain slackness about the quality of their output. In the opinion of the small-scale entrepreneurs, however, the large establishments enjoyed a comparatively lower cost of production and the advantages of modern machinery, skilled labour, better sales organization, and greater banking and credit facilities.

All 40 entrepreneurs maintained regular accounts for their factory, among whom 23 stated that these were examined by private auditors. Most of the enterpreneurs had an office of the establishment away from the factories, which were located in industrial zones excepting three situated in residential areas. A majority of the entrepreneurs (33) maintained combined accounts for the front office and the production workshop, while separate accounts were kept by the others.

Labour Relations

Recruitment in the art silk establishments was generally made on the basis of recommendation made by the jobbers. This method was followed by 18 units, while seven hired direct knockers; the others combined the two practices. It appeared that in the year

prior to this study the most prominent means of recruitment was recommendation by middlemen. Twenty-six of the employers did not hesitate to take raw labour. The time generally taken by the latter to get accustomed to the work was less than three months; a few took longer than six months, possibly in cases involving more skilled operations. Half of the recruits were paid full wages during the period of their apprenticeship. In 16 units training was provided on the job. Eleven of the 40 entrepreneurs had not dispensed with the services of their workers in the year previous to the study. For those who had, various reasons were forthcoming. Misbehaviour on the part of the workers led to dismissal in 64 per cent of the cases. Less work, closure of a particular shift or department, shortage of looms were other factors cited by the employers as forcing them to retrench the staff. The period of notice usually served was a month, but in some cases was a week or a fortnight. In only one instance a worker was dismissed summarily. Half of the total number of workers in the 40 units—517 out of 1,033—had served for one to five years; one-third for less than a year. Seventy-one per cent were permanent, and the rest temporary or casual workers.

The enterpreneurs had little in common, socially and culturally, with the workers whose mother tongue was mainly Marathi, Tamil and other Dravidian languages. Gujarati, the common language among the entrepreneurs, did not appear as the majority language of the work-force in any of the 40 units. Labour was thus largely impersonal. Relatives and caste brethren were found only at the managerial level.

In spite of the social distance, most of the entrepreneurs took apparent interest in the personal problems of their workers. Discussions when the workers had such worries would always be undertaken by 22, sometimes by nine, rarely by four, and never by five. A similar pattern was noticed in the response of the employers to the question if they consulted their workers on production problems. These would always be discussed by 23, sometimes by nine, usually by three, and never by five. Likewise, 36 employers

called for the workers' suggestions about improvement in work; four did not believe in asking for their opinion on the subject.

A majority of the entrepreneurs (31) observed that the degree of efficiency among their workers was just average; four felt that it was high and the rest were of a contrary opinion. These proportions repeated themselves when they were asked about cooperativeness on the part of the employees, and were only slightly different when the question of discipline was referred to. Two entrepreneurs engaging female workers specifically stated that efficiency, discipline and cooperativeness among them were much higher.

A bare majority of the employers voiced their disapproval of trade unionism in their factories; the others were about evenly divided between approval and indifference. A majority (24) observed that trade unionism and consequent legislation led to an increase in the cost of poduction; seven felt no effect, while nine were unable to answer. Five among the 40 were confronted with strikes, two on more than one occasion, during the five-year period 1954-58; one declared a lock-out as a move against the go-slow policy adopted by his workers. Demand for higher wages was the most important cause for these strikes, which invariably resulted in success for the workers. Industrial disputes over a variety of issues, which were referred to the tribunal for adjudication, took place in four of the 40 units during 1954-58. On the whole, industrial unrest did not appear to be a major problem in the small-scale units of the art silk industry in Bombay.

THE EMPLOYEES

The 345 employees selected for the study performed jobs ranging from managerial to unskilled menial duties, such as carrying loads. Slightly more than half of them fell in the age-group 21 to 30, while about one-third were between 31 and 40 years, The female workers, considered separately, showed an almost similar distribution. Three-fourths of the employees, mostly in the majority age-groups, were married; 18.3 per cent were single and the rest widowed or divorced.

Of the 345 employees, 70 per cent were Hindus. Muslims and Christians each comprised 11.9 per cent of the total and the rest were distributed among other minority communities. About 22 per cent of the Hindu workers were from the backward classes;[8] there were nine workers belonging to the scheduled castes, and three to the scheduled tribes. Among the 32 persons in the labour supervisory category, 13 belonged to the advanced and four to the backward Hindu classes; five were Muslims, eight Christians, and two Sikhs. Nine persons were interviewed in the executive cadre, all belonging to the advanced Hindu goups. All the Muslim employees were engaged in supervisory, skilled or semi-skilled work. The 41 Christian employees showed a similar pattern, except for a single worker who was among the total number of 16 unskilled men.

Educational Level

Marathi-speaking workers accounted for almost one-third of the total number; the female workers among them, taken separately, were 70 per cent. Tamil-speaking workers formed the second largest linguistic group with 14.2 per cent. About one-fourth of the workers had attained the middle school level, and one-fifth of them had remained illiterate; the largest group among them (133) had finished primary school education. There were a few cases of clerks and managers, who had studied till graduation and secured some technical education. Nearly 80 per cent of the workers who had to discontinue their education after having started it mentioned economic necessity and family demands or emergencies as compelling factors; only nine per cent said that they disliked, or could not keep pace with, their studies. At the time of giving them up, 41.7 per cent were between 13 and 15, 28 per cent between 10 and 12, and 19 per cent between 16 and 18.

8. As classified by the Backward Class Commission, Government of India.

Rural Background

About three-fourths of the total number of employees came from rural areas. Undivided Bombay State—excluding Bombay city and its suburbs—served as a major source of labour; nearly 38 per cent came from within the state. The distant states of Madras and U.P. accounted for 15 and 13 per cent respectively; greater Bombay city provided nine per cent, while six per cent were drawn from Mysore. Over one-fourth of the workers were assisted by friends and acquaintances, and about one-third by relatives, co-workers and co-villagers, in obtaining their present employment.

Among the factors motivating migration from rural areas, lack of sufficient income in a predominantly agricultural economy appeared to be the most significant one. Meagre earnings in the villages were reported by 37.3 per cent of the workers; complete unemployment by 14.9 per cent; insufficient land-holdings by 12 per cent; and under-employment by seven per cent. Among the women workers, nearly 60 per cent had left their native place as a result of their marriage. About three-fourths of the migrants came directly to Bombay, the rest in a roundabout way. Most of them travelled to Bombay in search of employment or of better prospects; many also wished to settle there because they already had friends or relatives in that city.

Traditional Occupations

Agricultural pursuits and, interestingly enough, handloom weaving were noted as the workers' predominant ancestral occupations, followed by their grandfathers, and their fathers at the beginning as also at the end of the career. About 19 per cent of the workers were unaware of their grandfathers' calling, and a very small percentage about their paternal livelihood. There were 30 workers who did not switch from their fathers' occupation and only five who showed no deviation from the pursuits of the father as also the grandfather. Those who broke away from the two-generation occupational pattern numbered 202; those deviating from the father's occupation were 100, while 73 switched from that of the

grandfather. The female workers of course would not normally be expected to follow their forefathers' professional activities.

The same factors that forced the workers to migrate from rural areas generally obtained in their explanations of the disruption of their traditional professions. Little more than half of the total number of workers claimed that they had actually planned to pursue an occupation similar to the current job. When asked about an alternative occupation, a large majority (62 per cent) showed preference for remaining in the textile industry as such but desired to work in a large mill so as to secure better wages and benefits. About six per cent wished to take up a better technical job, nearly four per cent wanted to be traders. The ambition to be an industrial worker was predominantly noticed among those who had formulated specific vocational plans.

Present Position

The average monthly income of the skilled workers was Rs. 124 and that of semi-skilled or unskilled workers amounted to Rs. 76. The amount for those in the managerial cadre was Rs. 237. Clerks and clerical supervisors drew average monthly earnings of Rs. 158, while labour supervisors earned Rs. 182. The employees were almost equally divided between those who were paid at the time rate and those paid by the piece. Managers, clerks and supervisory personnel were generally paid on time basis; two were paid by piece rate, implying that their wages depended on the production of those working under their supervision. The weavers were invariably paid at the piece rate.

Two-thirds of the employees viewed their present job favourably, largely because the work involved skill and less strain, and brought good wages. Among the rest who disliked it, most felt that wages were not sufficient or work was lacking. However, 88 per cent of the workers preferred the present position to the previous one. Two-thirds among them stated that in the opinion of their friends and relatives, their current job was good enough. About 28 per cent said that it was felt that they deserved a better

job and the rest observed that the present job was considered rather humiliating.

Working and Living Conditions

In response to questions about working conditions, 80 per cent of the employees felt that lighting was adequate; it was inadequate for 11.5 per cent, and fairly adequate for the rest. The corresponding proportions, in the case of ventilation, were 63.4, 25.1 and 11.5 per cent, respectively. Facilities for drinking water were found adequate by 64.6 per cent, inadequate by 19.7 per cent, and fairly adequate by the rest. On the whole, a majority found the working conditions adequate. Between those who held them to be fairly adequate and inadequate, the proportions of the latter were uniformly higher. Over 60 per cent of the workers felt that precautions to prevent accidents—as laid down under the Factories Act—were fully adequate. The others who volunteered an opinion on the subject were almost evenly divided between those who found them fairly adequate and those for whom these were inadequate or absent altogether.

For a majority of the workers, who came from rural areas, adjustment to factory life was a new but not difficult problem. The regimentation of industry requiring rigid discipline was apparently no problem for these erstwhile agricultural labourers, for only seven admitted that it was hard for them to adjust to it. Such features of factory work as the speed and noise of machines, dim or artificial lighting, or interference by supervisors did not appear to pose difficulties for the vast majority of the workers. The single factor that bothered the largest number of workers (23 per cent) was the congested atmosphere.

The type of dwelling most commonly occupied by the workers was a shack—either a hut or a tin-shed. Over 90 per cent of the workers lived in such places; one slept on the side-walk and another below a staircase. Accommodation was an acute problem for the workers, particularly for those who had migrated from places with better living conditions. All but five per cent of the workers

mentioned that they stayed in a single room. Two-thirds of the workers found the ventilation adequate; for the rest it was inadequate. Sixty-three per cent of the workers used kerosene oil for domestic lighting. Most of the managers resided in flats or bungalows.

Fringe Benefits

Seventy-nine per cent of the workers were covered by the Employees' State Insurance Act, providing certain benefits in cases of sickness, maternity and accidents on the job. This Act, based on a tripartite contribution by the employee, the employer and the government, is applicable to establishments with 20 or more workers. In view of this, 12 of the units investigated—and 21 per cent of the workers studied—were not covered by this scheme. Two per cent of the workers were given gratuity in one unit, and four women in one unit among those not covered by the E.S.I. scheme enjoyed maternity benefits separately. It was noted that the proportion of women who took advantage of the E.S.I. scheme was much higher than that of the men; it stood at 95 per cent, while the total average was 77.8 per cent. Provident fund was granted to 20 per cent of the 345 workers in six units; the rest did not enjoy this benefit. There existed no provision for social security benefits in 11 units.

Working Relationships

A large majority (78.5 per cent) of the workers indicated that their employers never discussed production problems with them, contrary to the general impression given by the entrepreneurs during their interviews. Ten per cent mentioned that they were sometimes consulted. About half of the workers stated that they were on formal terms with their employers; about 47 per cent claimed cordial relations with them, while four were indifferent and one showed hostility. A majority of the workers (76.8 per cent) expressed cordiality with their colleagues while the rest stated that their relationship was formal. Relations with the superiors were

mentioned as cordial by 48.9 per cent and formal by 43.8 per cent; the question did not apply to 19, while six expressed indifference.

One-third of the workers were members of trade unions; a majority among them mentioned that they had joined in order to safeguard their interests while some specified bonus and higher wages and allowances as their objectives. Many of those who abstained from joining explained variously that they did not know about or have faith in trade unions; some had no grievance against management and wished to maintain harmonious relations with the latter; others feared disapproval or even retrenchment; some felt that trade unions were ineffective, particularly in small units.

Leisure-time and Religious Activities

Gossiping appeared to be the most common leisure-time activity among the workers studied. About 48 per cent engaged themselves in it to pass their free hours. Reading—of great interest to neoliterates—was mentioned by the next highest proportion of workers (24 per cent). The others mostly followed quiet habits like strolling, visiting friends, studying, listening to the radio, and taking part in religious duties. While the cinema attracted a large number of the workers every month for at least one show, over one-fourth mentioned that they had never seen a movie. Newspapers, magazines, and religious books appeared as materials most frequently read by the workers.

Leaving aside 85 workers who were non-Hindus to whom this question did not apply, the proportion of those among the remaining who observed caste restrictions originally in the village stood at 79.2. In the urban setting this proportion was reduced to 35.4 per cent, only to rise again to 74.1 per cent on the workers' return to village. Those who did not follow caste restrictions in the city stated that industrialization had served to relax them, that in the mixed-up conurbation which Bombay was it became impossible to abide by them, that the city was too overcrowded for such purposes. Back in the village they would again be guided by social injunctions

and fears of being outcast as also positive wishes to maintain friendly relations with other caste members.

Over 300 workers—including some non-Hindus—paid daily homage to the machine. This practice was followed on particular festival days by 22, not at all by 35. A question was asked to determine changes in religious habits on the part of the workers since they had left the villages and been exposed to city life. Of the 345 workers interviewed, apart from 53 workers who came from urban areas or lived in the outskirts of Greater Bombay, 110 reported no change in the frequency of their visits to the place of worship. It was again noted that a major transformation took place when the workers went to their villages. The proportion of workers visiting the place of worship daily in the village stood at 46%, dwindled to four per cent in the city, and rose again to 42% upon their return to the village.

SOME REFLECTIONS ON THE SOCIAL ASPECTS OF SMALL INDUSTRIES

An interpretation based on surveys of small engineering industry in Howrah and of art silk industry in Bombay

The distinguishing feature of the small industries studied in Howrah was that work relationships were determined on a free contractual basis, unaffected by legislative demands or direct trade union pressures. The small engineering shops investigated were face to face groups comprising five persons on an average. The workers were directly supervised by an employer who usually had a workshop background and associated naturally with the primary workgroup, each member of which was a potential entrepreneur. There was little functional differentiation, the employer himself being professionally versatile—a veritable pantopragmatic, working at his lathe, supervising his workers, procuring raw material, soliciting orders from middlemen, marketing his wares, and keeping his own rudimentary accounts, if at all, with a minimum of clerical assistance.

If one is to abstract from the empirical situation an "ideal type" of primary workgroup, the Howrah blacksmithy shops provide an even more appropriate model than the five-man turning shop. In these establishments which represent the persistence of a traditional village skill in an urban-industrial setting, the average size of the workgroup is three. In the shops of the immigrant blacksmiths in particular, the affiliation between the employer and the employee had little resemblance to an impersonal, disparate relationship confined only to working hours. In these smithies it extended to association beyond working hours and outside the scope of the job itself. The workgroup was founded on kinship or village ties. The Bihari and Uttar Pradesh employers worked, dined and lived with their workers in the same premises. They were fellow-villagers, if not kinsmen manning a joint-family or clan enterprise. They worked when there was work, and returned to the village when business was slack,

but when trade was brisk the village would again provide the requisite manpower, recalling the old hands to duty or replacing them with others.

The small size of these ironmongering shops was a factor making for such intimate relationships, the work association and the cash-nexus being only an aspect of a more comprehensive fellowship. A two-man team was common, one heating the metal and holding it on the anvil, with the die where necessary, while his mate worked the blower and later hammered the metal. The latter job was often taken over by a brawny worker, leaving the operation of the blower to a boy, thus making the triad a typical workgroup. The employer was invariably one of the team. Even the few larger smithies having 10, 12 or 16 workers uniformly resolved themselves into dyadic or triadic sub-groups. Although the task of hammering the metal into shape required somewhat more skill and endurance than the other charge, these duties were interchangeable.

The socio-technical system of the Howrah smithies was such that even when there was a larger workforce than the typical triad, the unit segmented itself into dyadic or triadic workteams functioning side by side. Here, proximity rather than team work by the entire workforce is the unifying factor for the establishment as a whole. Vertical stratification does not take place because the nature of the task and the size of the workforce do not call for a specialized supervisory control. In a face to face group, as confirmed by the Howrah turning shops, the supervisory function is performed by the employer in addition to his numerous other duties, and in his absence another worker steps into the gap.

It has been stated by some that groups which do not exceed twelve members can function as unstratified work teams.[1] The question then arises at what size does a primary workgroup become

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1. Cf. the statement by A. K. Rice that the smallest production and satisfactory group is a pair, and the next most satisfactory a group from six to twelve. A. K. Rice, **Productivity and Social Organisation, the Ahmedabad experiment.** London, Tavistock Publications, 1956.

stratified into a two-layer hierarchy because the complement of workers gets so large that a specialized supervisory function is necessary in order to ensure the efficient working of the enterprise. It must be noted that size is correlated with the nature of the task performed and the extent of specialization. It was to be expected that the Bombay art silk units, having an average of 25 workers, would present a different structural model. Concomitantly with an increase in size, therefore, the emergence of specialization and other manifestations of a process, which Weber terms "bureaucratization,"[2] becomes perceptible.

Some indices of this process of bureaucratization of socio-technical systems may now be detailed. There is, first and foremost, a higher division of labour and specialization, which necessitates a policy of recruitment according to considerations of skill—that is, achievement rather than ascription is the basis for rating and remunerating employees.[3] Specialization also entails levels of graded authority—a hierarchy in which "lower" or lesser skilled strata are supervised by "higher" and better-paid personnel. Work performed by each individual is relatively standardized and conduct generally rule-governed, mechanization usually increasing the extent of depersonalization and routinization of tasks. From the point of view of the entrepreneur, economic activity must be systematized according to rational norms geared to profit-maximization; economic decisions are governed by rational, rather than personal or traditional considerations. Finally, in such a system documentation of transactions and preservation of records in files and ledgers are usual, and for this purpose there is a clerical staff working under an appropriate executive officer, constituting the "administration". This gives rise to horizontal differentiation between "management" and "production" sectors, and vertical stratification within each sector. The large corporation perhaps approximates closest to such a bureaucratized socio-technical system, while the Howrah workshops represent its

2. Max Weber, **The Theory of Social and Economic Organization.** Glencoe, The Free Press, 1946.
3. Talcott Parsons, **The Social System.** Glencoe, The Free Press, 1951.

opposite, and the Bombay art-silk factories an intermediate or emergent form of bureaucratized enterprise.

Lack of specialization has already been noticed in the case of the Howrah blacksmithy shops, the tasks in the typical threeman team being relatively undifferentiated and interchangeable. Those who are recruited from the villages have in all probability had some experience in the village smithy. The transition from an apprentice boy to a skilled worker takes only one year, and a fully fledged worker has to undertake multiple functions. In a regime of imprecise job descriptions, the employer is by far the most versatile, for in addition to working on his machines, he undertakes what may be called management functions, sometimes delegating the accounts and records to a son or, in the larger establishments, a part-time clerk or bookkeeper. The reason for this limited specialization is that the size of operations is too small for a man to work whole-time on a narrow range of functions, and to yield a surplus sufficient to engage full professional assistance—a vicious circle.

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The Bihari and Uttar Pradeshi-owned blacksmithies in Howrah represent a peculiar type from the viewpoint of "economic rationality"; they are joint family ventures in which domestic and business budgeting are merged. Rent is paid for the workshop premises which are also used as living quarters. Transactions are purely verbal, and wages partly paid in kind, by way of board and lodging. Of the 36 blacksmiths who engaged workers, one-third stated that they had no hired labour. The distinction was made because they shared the revenue of the workshop with kinsmen who worked with them rather than for them, sending remittances home from their share of the profits. Others gave their workers free board and lodging plus cash payments varying from 10 to 50 rupees per month. About half of the workers interviewed were living in the workshop, worked whenever there was work and continued to receive the favour of board and lodging even when they were idle; but if the slack interval was long, they returned to the village. Indeed, the turnover of labour in the

smithies was high—one-fourth of the workers had worked for less than a year, and more than half for less than three years.

The procedure of accounting also throws light on the degree of rationality of a business establishment. In a rational enterprise a system of double-entry bookkeeping records such items as income, expenditure, profits, and value of capital less depreciation. In the Howrah establishments accounting was of a most rudimentary character. The blacksmiths kept no record of their transactions at all, while the accounts of the turning shops were inexact, and confined to the placing by the employer of vouchers of expenditure and receipts for payments in separate files, or the recording of these amounts in a book. Only the most rationalized of these small engineering works employed the services of a part-time bookkeeper. The capital of a smithy had only a nominal value, while the machinery used in the turning shops was usually purchased second-hand or reconstructed by the entrepreneur himself, so that questions of capital value and depreciation assumed limited significance in the economics of the enterprise.[4]

It was noted that wages in the blacksmithies were not fixed, and that their hours of duty were irregular. The wages of turning shop workers were also variable, although broad distinctions were made between categories of workers in terms of skill, ranging from the unskilled apprentice to the skilled "mistri" or master-craftsman. Increments, where given, were irregular. But the fact that extra payment was made for overtime work indicated that, unlike in the smithies, there was some awareness of the rational-capitalistic principle that "time is money". This was also indicated in the prevalence of a system of daily wages based on the principle of "no work, no pay" [5] and in the absence of a monthly wage which was the form

4. Even in large Indian industries, according to one critic, the design and use of good costing systems and inventory controls are rudimentary or non-existent. See George B. Baldwin. **Industrial Growth in India, Case studies in economic development,** Glencoe, The Free Press. 1959.

5. Needless to say, the application of this economically rational rule is limited nowadays even in the most bureaucratized factories by the

of remuneration received by nearly half of the workers in the smithies.

In terms of the above-mentioned indices, the Bombay art-silk works represented an intermediate type of bureaucratized enterprise, although in some respects they were even behind the small engineering shops in Howrah. Here specialization of workers was insignificant—indeed, over 60 per cent of the firms employed raw recruits and trained them in less than three months. It was not surprising then that rural labour was found to be adaptable to factory work. In the case of "skilled" labour, however, recruitment was, in a majority of cases, on the basis of recommendation of the jobbers, in contrast to the direct recruitment of the "knockers" in Howrah turning shops.

The small industrialist in Bombay was more of a fully fledged "entrepreneur" than his counterpart in Howrah. Unlike the latter he did not inherit a working class past; there was a background of trade, commerce or production for the two previous generations (in the case of 82 per cent of the Bombay art-silk employers their fathers came from that occupational group, while 57 per cent of their grandfathers had a similar calling). The educational level of these Bombay entrepreneurs, mostly Gujarati Hindus, was higher than that of the Bengali employers in Howrah, only one-fourth of the sample being non-matriculates, and none illiterate. With such a background, it was not surprising that they rarely attended to machine work, and a few did not even have any knowledge of the machines used by their workers. Half the employers exercised overall supervision, while nearly one-fourth confined their entrepreneurial activities to finance, purchasing and marketing. Such specialised entrepreneurship was a step removed from the small enterprise in Howrah in which the domestic and business accounts remained undifferentiated. The irrational influence on business of such budgeting could be eliminated by

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provisions of social legislation. Indeed, in under-developed countries with abundant supplies of unskilled labour, small industries often become a device for circumventing the requirements of social legislation.

the incorporation of the family business, giving rise to an economically rational firm distinguished from the sphere of private affairs. The 40 Bombay art-silk firms maintained regular accounts for the factory, of which 23 were certified by private auditors. Most of them had their business office away from the factory—that is, a distinction was made between "management" and "production" functions, although 33 firms maintained combined accounts for office and factory.

It was indicative of the bureaucratization of the Bombay units that their businesses were far in advance of the type of trading in Howrah where production units depended on orders canvassed through middlemen, which created irregular work-schedules, and prevented the retention of a regular labour force. In Bombay, production was in anticipation of demand, for an impersonal market, and only 15 per cent of the units worked on orders. More than half the units sold their products entirely to the wholesalers. The Bombay units were thus in a position to employ a more regular and committed labour force; of the more than thousand workers employed in the firms investigated, half had worked between one to five years, while about one-fourth were temporary or casual employees.

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In tracing the growth of industry in the West, economic historians refer to "stages," the socio-technological system dominant at a given time being conceived as a model, for example, the domestic system, the factory system, etc. The foregoing discussion has attmpted to locate certain models of small industries on the basis of empirical data of selected establishments in Howrah and Bombay.