

CHANGES IN THE EMPLOYMENT PATTERN OF THE INDIAN WORKING FORCE, 1911-1961

JAIPAL P. AMBANAVAR

SOME ATTEMPTS HAVE already been made to analyse the long-term trends in the employment pattern of the Indian working force, covering a period from 1881 to 1951.¹ These investigations devoted much of their attention on rearranging the earlier data into the latest census scheme, and conducted their analysis in terms of broad divisions or expanding and shrinking sectors. Because of the lack of data required for grading the sub-groups of activities in terms of the quality of employment, not much could be said about the changes that might have occurred in the quality of employment within each of the broad divisions. The 1961 census has for the first time collected certain additional data² which are used here for grading each sub-group according to the quality of employment; the quality being indicated, wherever it is possible and appropriate, by the indices such as the proportion of workers in non-household industry or in wage-paid employment or working in urban areas. By making as detailed an industrial classification of the working force as possible and by using the 1961 quality indices for each of the sub-groups, an attempt is made here to examine whether the quality of employment in each of the broad divisions has improved; that is, whether the composition of employment within each of the broad divisions has changed in favour of more productive or remunerative activities. More attention is focussed on the manufacturing division.

The area covered in this study is that of the Indian Union excluding Jammu and Kashmir, Andaman and Nicobar Islands, LM & A Islands, Dadra and Nagar Haveli, Goa Daman and Diu, NEFA, Nagaland, Pondichery, and Sikkim.³ As the partition of the sub-continent into India and Pakistan cut across certain districts in Bengal, the working force data for these districts have been apportioned on the basis of the division of population.

I. REARRANGEMENT OF EARLIER DATA

For the purpose of making comparable estimates of the total working force, persons in receipt of income without working and those in unproductive occupa-

¹ [11] and [13].

² Household and non-household industry classification for major and minor groups in divisions, 0, 1 and 2 & 3; rural-urban classification for major and minor groups in all divisions; and class of worker status (i.e., employer, employee, etc.) classification for major groups in all divisions.

³ These excluded areas contained 1.2 per cent of India's population in 1961.

tions have been excluded from the working force data of the earlier censuses. In 1961, "persons employed before but now out of employment and seeking work" have been treated as workers. In 1931, about 7.2 million housekeeping wives, wrongly entered as working dependants under "domestic service" in some provinces and princely states, have been excluded from the working force. As some of them were probably workers in agriculture, their total exclusion is likely to result in a slight underestimation of the total and agricultural employment in 1931.

In reshuffling the industrial groups of the earlier censuses, B.R. Kalra's "Comparative Chart of Industrial Classification, 1901-1961"⁴ has been used.

The 1951 census left a big gap in so far as it tabulated the industrial distribution of the self-supporting persons (SSPs) but not of earning dependants (EDs). However, the livelihood class (LC) distribution is available for both. B.R. Kalra estimated the industrial distribution of the EDs on the basis of the distribution of family workers in 1961.⁵ His method was found to be defective with respect to the distribution of EDs of LC VIII.⁶ This paper adopts his estimates in so far as they relate to the distribution of EDs of LCs other than VIII. The distribution of EDs of LC VIII has been worked out here on the basis of the sample tabulations that were made for Uttar Pradesh, West Bengal, and Mysore. About 46.3 per cent of the male and 55.9 per cent of the female EDs of LC VIII were allocated to sub-division 9.0 (services otherwise unclassified), 5.6 and 12.2 per cent of the male and female EDs to sub-division 9.1 (domestic service), and 6.8 and 13.8 per cent of the EDs to sub-division 9.3 (laundry services). The remains were distributed in other sub-divisions⁷ on the basis of the pattern of distribution of the SSPs.

General labourers (i.e., groups 167 in 1911, 187 in 1921, and 191 in 1931), workers in services otherwise unclassified (sub-division 9.0) in 1951, and workers in services not elsewhere classified (major group 89) and activities not adequately described (division 9) in 1961, have been treated as agricultural labourers. Many of the earlier censuses and investigations⁸ have pointed out that these workers were largely agricultural labourers though they sometimes undertook miscellaneous

TABLE I

Census Year	General Labourers, etc. (1,000)			As a Percentage of Total Workers		
	Persons	Males	Females	Persons	Males	Females
1911	4,013	2,134	1,879	3.33	2.70	4.54
1921	4,542	2,420	2,122	3.88	3.13	5.33
1931	6,093	3,359	2,734	5.13	4.07	7.53
1951	5,620	3,750	1,870	4.03	3.79	4.63
1961	7,710	5,312	2,398	4.14	4.16	4.08

⁴ [7, pp. 31-64].

⁵ [7, p. 691].

⁶ [12, pp. 273-89].

⁷ Other sub-divisions were: 5.0-5.4, 5.6, 5.7, 8.10, 8.14, 8.16, 8.17, 8.20, 8.5, 9.2, 9.4, 9.5, 9.62, 9.65, and 9.8.

⁸ [13].

manual jobs. Table I gives the numbers of such workers and their percentage to the total working force.

II. GROWTH OF WORKING FORCE: RELIABILITY OF DATA EXAMINED

Table II presents data relating to the growth of total working force, along with the trend in the work participation rates (WPR: workers as a percentage of population) during 1911-61.

TABLE II
TOTAL POPULATION, WORKERS, AND WORK PARTICIPATION RATES

Census Year	Population (1,000)			Workers (1,000)			WPR		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
1911	248,717	126,630	122,088	120,360	79,002	41,358	48.39	62.39	33.88
1921	247,840	126,730	121,109	117,053	77,224	39,829	47.23	60.94	32.89
1931	275,134	141,045	134,089	118,780	82,477	36,303	43.17	58.48	27.07
1951	356,477	183,126	173,351	139,308	98,934	40,374	39.08	54.03	23.29
1961	433,664	223,376	210,288	186,839*	128,048*	58,791*	43.08	57.32	27.96

* Including "persons employed before but now out of employment and seeking work."

The working force has grown slower than the population. Some of the important factors responsible for the decline in WPR are changes in age structure, increasing urbanization, and rising literacy and education, as evident from Table III.

TABLE III
PERCENTAGE OF POPULATION

Census Year	In 15-59 Age Group			Literate		Urban
	Persons	Males	Females	Males	Females	
1911	56.94	56.94	56.95	9.55	0.85	10.29
1921	55.94	56.04	55.84	10.86	1.51	11.18
1931	55.75*	55.85*	55.64*	11.96	1.95	11.99
1951	55.78	56.23	55.30	24.88	7.87	17.29
1961	53.29	53.55	53.00	34.61	13.01	17.97(21.3†)

* Averages of the percentage distributions in 1921 and 1931.

† Estimated on the basis of the earlier definitions of "urban."

It may be noted, however, that the trend in the size of the working force does not bear any reasonable relationship with the trends in population size and characteristics during 1921-31 and 1931-51. The working force increased by barely one and a half million against an addition of 27 million in the population during 1921-31, and by only 21 million during 1931-51 in contrast to an 81 million increase in the population. Even more unbelievable are the data for females, their working force having decreased by a million during 1911-51 while

their population increased by 51 million. These trends are suggestive of the possibility of a heavy undercount of workers in 1931 and 1951. It is unlikely that the undercount is proportionately distributed over all the sectors. It is, therefore, necessary to make a detailed examination of the earlier census data with a view to quantify the extent of undercount. This task was undertaken in an earlier paper⁹ the main points of which are briefly summarized below.

The 1951 census data were examined by comparing (1) census WPRs in ten states with those of the Agricultural Labour Enquiry (1950-51) and the National Sample Survey, ninth round (1955); (2) 1951 WPRs in fourteen reorganized states with those from the earlier and later censuses; (3) 1951 age-specific WPRs in Mysore, Uttar Pradesh, and West Bengal; and (4) rural and urban WPRs in 1951 and 1961. All these comparisons pointed out the possibility of a heavy undercount of the rural working force—to a larger extent among females than males—in 1951.

The working force data of the 1911, 1921 and 1931 censuses were examined by tracing the trends in workers-adults ratios (W-A ratio: workers per 100 persons in the 15-59 age group) in thirty-four smaller areal units comprising India. It was found that in several areas, the W-A ratios fluctuated widely from census to census as also the proportion of working force in the agricultural sector. A few examples are given below to illustrate this phenomenon (Table IV).

TABLE IV

Items	Aurangabad Division of Maharashtra				Andhra Areas from Former Madras State		Baroda State	
	Males		Females		Females		Females	
	1911	1931	1921	1931	1921	1931	1921	1931
W-A ratio*	106	91	80	57	66	50	42	66
% Agri.†	69	53	72	57	83	77	77	83

* Workers of all ages per 100 population in the 15-59 age group.

† Percentage of workers in agriculture (cultivators and agricultural labourers only).

If it is assumed that the highest of the three W-A ratios (i.e., in 1911, 1921 and 1931) represents a more complete count of workers, other ratios much smaller than the highest one may be interpreted as representing incomplete count of workers. According to this interpretation, the undercount appears to have occurred in several areas in 1931. Since the W-A ratios and the proportions of working force engaged in agriculture fluctuated in the same direction, it is fair to assume that the undercount occurred mainly in the agricultural sector.

A rough adjustment of the working force in 1911, 1921 and 1931 was made by replacing the suspected ratios by the highest of the three ratios. For example, in Central India Agency where the W-A ratios for males were 111, 125 and 115 in 1911, 1921 and 1931 respectively, the working force in 1911 and 1931 was adjusted by using the 1921 ratio. Such adjustments were made separately

⁹ [1, pp. 521-40].

for males and females and only in those areas where the ratios fluctuated widely. The results were then summed up to conform to the boundaries of the reorganized states. The 1951 data were roughly adjusted for each of the reorganized states by assuming a linear decline between the adjusted (wherever adjustment was made) or the observed 1931 W-A ratios and those of the 1961.

The results of these adjustments implied that the working force was undercounted by about 4 million in 1911 and 1921, 13 million in 1931, and 26 million in 1951. The undercount was heavier among females, 9 million in 1931 and 13 million in 1951. Earlier researchers had alluded to the possibility of undercount in 1931 and 1951 without probably realizing that it could be so large. In view of such a large undercount in 1931 and 1951, occurring largely in the agricultural sector, the estimates relating to total and agricultural employment and the proportional distribution of the working force in all the divisions are bound to be seriously defective. Since the data relating to non-agricultural sector are fairly reliable, it is advisable to focus more attention on the analysis of changes within each of the important non-agricultural divisions.

III. LONG-TERM TRENDS IN THE BROAD EMPLOYMENT PATTERN

Table V presents the trend in the industrial distribution of the working force during 1911-61. According to these data, the broad employment pattern has remained almost unchanged during the last five decades. The percentage of agricultural population (division 0) has varied within a narrow range of seventy-six to seventy-seven. The proportion in manufacturing decreased slightly during 1911-31 and increased slightly during 1931-61. Mining and quarrying, construction, and transport and communications have improved their share whereas the proportions in water and sanitation (division 5), trade and commerce, and services have declined. It is interesting to note that the percentage of agricultural population increased slightly even during 1951-61, a decade noted for fairly successful efforts at economic development.

The trends differ greatly between sexes. The percentage of agricultural population has moved downward for males and upward for females, the extent of change having been relatively larger for the latter.

These trends are to some extent misleading in view of the undercount of workers in the earlier censuses. If the number of workers missed from the census count (see estimates given in Section II) are included in the total and the agricultural employment, the trend in the percentage of agricultural population would differ from the one presented in Table V (see Table VI).

According to the adjusted set of data, the share of agriculture increased from census to census during 1911-51 and decreased during 1951-61, the percentage in 1961 having been still slightly larger than in 1911. For males, there has been a downward trend in the share of agriculture since 1931. For females, the long-term tendency towards increasing dependence on agriculture appears to have been checked during 1951-61. In the context of the slower pace of urbanization

TABLE VI
PERCENTAGE OF WORKING FORCE IN AGRICULTURE

Census Year	Observed*			Adjusted†		
	Persons	Males	Females	Persons	Males	Females
1911	75.61	74.31	78.10	76.47	74.84	79.44
1921	76.85	75.30	79.86	77.65	75.80	81.10
1931	76.50	74.99	79.93	78.83	76.23	83.83
1951	76.11	72.99	83.74	79.82	76.02	87.72
1961	76.99	72.69	86.32	76.99	72.69	86.32

* From Table V.

† By adding the estimated number of workers missed from the census count to the observed total and agricultural workers.

and the lower volume of rural-to-urban migration¹⁰ during 1951–61, the “adjusted” trend would imply a revival of the village industries and the creation of non-agricultural employment opportunities in the rural areas during this decade. This is not unlikely in view of the efforts made by the Second Five Year Plan (1956–61) towards the promotion of village industries and the implementation of the several rural development projects.

IV. MANUFACTURING

For the purpose of detecting changes in the quality of employment in the manufacturing division, workers have been classified into many detailed sub-groups of activities each of which is graded on the basis of any or all of the three quality indices: proportion of workers in (1) non-household industry, (2) wage-paid employment (i.e., employees), and (3) urban areas. These indices have been prepared on the basis of the 1961 additional data. The assumption is that the work in non-household, wage-paid, and urban-located employment is more regular, organized and productive than in household, rural, and other forms of employment. However, the quality indices of 1961 should not be used for those activities where the long-term changes in the volume of employment were caused by the changes in the organization, location and method of production.

Table VII presents trends in the distribution of workers in major groups of manufacturing, along with the 1961 quality indices for each of them.

The data presented in the right hand corner of Table VII indicate that the share of manufacturing employment in major groups with higher values of quality indices, has been rising during the last five decades, indicating a definite improvement in the composition of employment. The groups responsible for such improvement are: paper, printing and publishing; rubber, petroleum and coal products; chemicals and chemical products; basic metals and their products; transport equipment; and machinery and electrical equipment. These are comparatively

¹⁰ The volume of net rural-to-urban migration decreased from nine million during 1941–51 to five million during 1951–61. [16, pp. 93–106].

TABLE VII
DISTRIBUTION OF WORKERS IN MAJOR GROUPS OF MANUFACTURING

Brief Description of Major Groups	1961		1961 Quality Indices*				Workers of Both Sexes (1,000)				
	Groups	NHI	E	U	1911	1921	1931	1951	1961		
Food, beverages and tobacco	20-22	47	36	34	2,110	1,641	1,568	2,171	3,196		
Textiles and products	23-27	36	34	44	4,498	4,099	4,150	4,996	6,470		
Wood and wooden products	28	27	13	24	1,431	1,292	1,351	1,616	2,158		
Paper, printing and publishing	29-30	94	80	85	42	41	43	165	297		
Leather and leather products	31	28	15	32	1,086	1,033	904	752	804		
Rubber, petrol, coal, etc.	32	97	87	87	Nil	2	3	34	72		
Chemicals and products	33	85	77	70	35	25	54	127	321		
Nonmetallic mineral products	34-35	44	31	26	1,116	1,108	899	993	1,497		
Basic metals and products	36	61	48	55	653	642	625	882	1,197		
Machinery and electrical equipment	37	92	72	79	NC	NC	NC	170	223		
Transport equipment	38	98	85	84	10	14	19	232	573		
Miscellaneous	39	53	33	54	568	561	584	623	945		
Total: Manufacturing	Division 2 & 3	44	35	42	11,549	10,457	10,200	12,761	17,753		
(1) in groups where NHI is over 75 (29, 30, 32, 33, 37 and 38)					0.75	0.78	1.17	5.71	8.38		
50-75 (36 and 39)					10.57	11.50	11.86	12.07	12.06		
(2) in groups where E is over 75 (29, 30, 32, 33 and 38)					0.75	0.78	1.17	4.38	7.12		
(3) in groups where U is over 50 (29, 30, 32, 33, 36-39)					11.32	12.28	13.03	17.78	20.44		

* Based on data for all-India as of 1961.

E: Percentage of workers recorded as employees.

NC: No classification available.

NHI: Percentage of workers in non-household industry.

U: Percentage of workers who are in urban areas.

Percentage of Manufacturing Workers

new industries, with a higher level of capital and output per worker. The volume of employment in these groups has grown faster since 1931, particularly during 1951-61.

However, the improvement in the quality of employment is likely to be greater than the data in Table VII suggest because the organization and location of production in several major groups have improved over time, as is evident from the analysis of further details in some of the major groups employing large numbers of workers.

A detailed breakdown of employment in "food, beverages and tobacco" manufacturing is presented in Table VIII. The 1961 data relating to the percentage

TABLE VIII
EMPLOYMENT IN MINOR GROUPS OF "FOOD, BEVERAGES AND TOBACCO" MANUFACTURING

1961 Groups	Production or Processing of	1961 NHI*	Workers of Both Sexes (1,000)				
			1911	1921	1931	1951	1961
200	Foodgrains processing	54	876	582	419	411	630
201-202	Sugar, gur, molasses	62	42	28	27	186	347
204	Meat, fish preservation	61	121	113	94 ²⁾	59	50
205	Bread, biscuit, bakery	77	376	317	273 ³⁾	121	64
206	Butter, ghee, dairy	13	6	15	NA	124	150
207-208	Vegetable oils	28	534 ¹⁾	482	511	286	321
203 & 209	Sweetmeats, condiments	42	106	60	97	239	482
210-213	Brewers and distillers	83	18	6	5	170 ⁴⁾	112
214-216	Areated mineral waters	73	2	3	6	11 ⁵⁾	38
217-219	Others†	92	—	—	22	—	31
22	Tobacco, opium, ganja	43	30	33	113	562	973
20-22	Food, beverages, tobacco	47	2,110	1,641	1,568	2,171	3,196

¹⁾ Including mineral oils which in 1961 employed only two thousand workers.

²⁾ Excluding fish curers.

³⁾ Excluding biscuit makers.

⁴⁾ Including toddy drawers, processing of tea and coffee in factories, and production other than beverages.

⁵⁾ Excluding areated mineral waters but including ice cream.

* Percentage of workers in non-household industry in 1961.

† Processing of tea and coffee in factories, and production of other beverages.

of workers in non-household industry are also given for the sole purpose of understanding the organization of production in 1961, but they should not be used as in Table VII because of the limitation mentioned earlier.

There has been a long-term decline of employment in the processing of foodgrains as a result of mechanization. Table IX shows how the growth of mills displaces a large number of workers from unorganized employment while creating a negligible volume of employment in the mills sector.

The expansion of employment in foodgrains processing during 1951-61, a large part of which might have occurred in the household sector, may be attrib-

TABLE IX

Province	Population Supported by Rice Pounding, Flour Grinding			Employees in Power-Using Mills			
	1901	1911	1921	Rice Mills		Flour Mills	
	1901	1911	1921	1911	1921	1911	1921
Bombay	133,879	103,076	49,328	1,039	3,566	1,143	1,450

Source: *Census of India, 1921*, Vol. VIII, Bombay Presidency, Part I Report, p. 229.

uted to increased food production,¹¹ and also to a policy of encouraging hand-pounding of rice, etc., in the rural areas covered by the Community Development programs.

A decline of employment, moderately up to 1931 and rapidly since then, has occurred in the production of bakery products, vegetable oils, and slaughter and preservation of meat and fish. The decline of bakery employment is entirely due to mechanization, resulting in the transfer of activity from households to factories. In the case of vegetable oils, the decline is due partly to mechanization (i.e., oil mills replacing the bullock driven *ghanies* or pressing units) and partly to the reduced demand resulting from the substitution of kerosene in the place of vegetable oils for lightening purposes.¹²

The four groups discussed above employed 1,907 thousand (constituting 90 per cent of the total in food, beverages and tobacco) in 1911 in contrast to 877 thousand (40 per cent) in 1951 and 1,065 thousand (33 per cent) in 1961.

Employment in other groups has increased rapidly since 1931. The sugar industry grew rapidly since 1932 when it received protection. The number of sugar factories increased from 32 in 1931-32 to 132 in 1938-39 and 166 in 1956-57,¹³ and the output of sugar (in thousand tons) from 162 in 1931-32 to 1,147 in 1936-37, 1,518 in 1951-52 and 3,029 in 1960-61.¹⁴ Closely associated with this development is the growth of employment in the making of sweetmeats, jams, condiments, etc. The growth of employment in dairy products and areated mineral waters is associated with the growth of urban population. The most remarkable of all is the growth of tobacco industry where the employment has increased from barely 30 thousand in 1911 to 973 thousand in 1961. Of these workers in 1961, about 885 thousand were engaged in *bidi* (leaf-bound country cigarettes) making alone. The rapid growth of this industry reflects the fast changing habits and tastes of the Indian population.

Thus, changes in the methods of production in such industries as foodgrains processing, oil pressing, production of bakery, etc., have brought about an improvement in the quality of employment in the manufacture of foodstuffs.

A detailed breakdown of employment in textiles and their products is given in Table X, along with certain data relating to the organization and location of production in 1961.

¹¹ Estimates of long-term trends since 1906 indicate that food production increased for the first time during 1951-61. [14, pp. 104, 123].

¹² [5, p. 166].

¹³ [2, p. 358].

¹⁴ [3, pp. 40-41] and [8, p. 135].

TABLE X

1961 Groups	Brief Description of Groups	1961			Workers of Both Sexes (1,000)				
		NHI	M ⁷⁾	U	1911	1921	1931	1951	1961
231	Cotton ginning, etc.	66	—	56	247	213	228	145	100
23 ¹⁾	Cotton textiles*	31	24	44	2,702	2,400	2,483	2,882	3,827
24 ²⁾	Jute textiles	95	87	80	228	296	272	395 ³⁾	252
25 ³⁾	Wool textiles	17	10	21	157	107	107	117 ⁹⁾	135
26 ⁴⁾	Silk textiles	37	27	68	120	57	74	75 ¹⁰⁾	181
	⁵⁾ Dying, bleaching, etc.	39	—	53	110	90	93	124 ¹¹⁾	146
	⁶⁾ Textile products	39	—	37	934	936	893	1,258†	1,830
23-27	Textiles and products	36	—	44	4,498	4,099	4,150	4,996	6,470
	Jute textiles including dying, bleaching and printing, and jute products							395	417

¹⁾ 23 except 231, 233, 237, 238 and 239.

²⁾ 24 except 242, 243, 244.

³⁾ 25 except 256.

⁴⁾ 26 except 261, 265 and 266.

⁵⁾ 233, 237, 242, 243, 261 and 265.

⁶⁾ 27, 238, 239, 244, 256 and 266.

⁷⁾ Spinning and weaving in mills.

⁸⁾ Including dying, bleaching and printing, and jute products.

⁹⁾ Including embroidery and art work.

¹⁰⁾ Including dying, bleaching and printing, and silk products.

¹¹⁾ Of cotton textiles only.

* Spinning and weaving only.

† Miscellaneous textiles, cotton nets, ropes, etc. (27, 238 and 239).

NHI: percentage of workers in non-household industry.

M: percentage of workers in mills (spinning and weaving only).

U: percentage of workers in urban areas.

The employment in the spinning and weaving of cotton textiles decreased during 1911-21. This decrease must have occurred in the household sector because the employment in the mill sector increased by about 93 thousand. The entire increase during 1921-31 and a large part of the increase during 1931-51 appear to have occurred in the mill sector (see Table XI).

TABLE XI
NUMBER OF WORKERS (1,000) IN COTTON TEXTILE MILLS (SPINNING AND WEAVING)

1901 ¹⁾	1913 ¹⁾	1923 ¹⁾	1933 ¹⁾	1943 ¹⁾	1952 ²⁾	1960 ²⁾
156	251	344	435 ³⁾	625 ⁴⁾	656	790

¹⁾ S. D. Mehta, *The Cotton Textile Mills of India, 1854-1954* (Bombay: Textile Mills Association of India, 1954), p. 233.

²⁾ India, C.S.O., *Statistical Abstract of the Indian Union, Issues for 1952-53 and 1962*.

³⁾ Adjusted for employment on the second shift.

⁴⁾ Adjusted for employment on the second and third shift.

A large part of the increase in employment in the spinning and weaving of cotton textiles during 1951-61 appears to have occurred in the production of

handloom and *khadi* textile. During this period, the Government adopted certain measures to promote the development of these industries by limiting the mill production and subsidizing the handloom products. As a result, the production of handloom cloth (in million yards) increased from 742 in 1950-51 to 1,450 in 1955-56 and 1,900 in 1960-61.¹⁵ The production of *khadi* increased from 7 million yards in 1950-51 to 48 million yards in 1960-61. A considerable additional employment seems to have been created in the production of these textiles.¹⁶ A large part of this increase in employment might have occurred in rural areas.

Thus, it appears that the handloom industry "must have suffered a decay whenever it first met the competition of mill-made goods, but after losing a certain amount of ground its position has almost everywhere been stabilized."¹⁷ In fact, it appears to have grown slightly during 1931-51 and considerably during 1951-61.

If there has been any decline in the quality of employment due to the large additions to employment having occurred outside the mill sector during 1951-61, it must have been offset by the considerable improvements in the handloom weavers' methods of production (such as the adoption of fly shuttle), and the growth of employment in silk textiles and textile products industries.

Another important major group which has experienced a significant improvement in the quality of employment is that of the nonmetallic mineral products. A detailed breakdown of employment is given in Table XII, along with the 1961 quality indices. The methods of production have not changed much during the period under consideration.

The employment in earthenware and earthen pottery making has decreased as a result of competition from brass and copperware industry.¹⁸ This activity is

TABLE XII
EMPLOYMENT IN MINOR GROUPS OF NONMETALLIC MINERAL PRODUCTS

1961 Groups	Brief Description of Groups	1961		Workers of Both Sexes (1,000)				
		NHI	U	1911	1921	1931	1951	1961
340	Structural clay products*	78	31	87	115	86	215	379
341-342	Cement, lime, etc.	78	48	22	35	NCC	NCC	111
350	Earthenware and pottery	6	12	875	773	768	608†	709
351-352	Chinaware and porcelain	94	56	2	4	NCC	8	18
Others	Porcelain and glass goods	76	43	130	180	NCC	136	279
34-35	Nonmetallic mineral	44	26	1,116	1,108	899	993	1,479

* Such as bricks and tiles.

† This figure might be an undercount. This industry employs a large number of unpaid family helpers some of whom might have been counted as non-earning dependants in the 1951 census.

NCC: No comparable classification, though included in the total.

¹⁵ [10, p. 309].

¹⁶ [9, p. 429].

¹⁷ [5, p. 290].

¹⁸ [5, pp. 164-65].

quite less remunerative, and its decline accompanied by the growth of employment in others such as structural clay products, cement, china, porcelain, glass goods, etc. (all of which are highly organized) points out to an improvement in the quality of employment.

The decline of employment in leather industry has been mainly due to mechanization. The industry was passing from village artisans to factory sector, and this transfer was greatly assisted by the disintegration of the village communities.¹⁹

Employment in basic metals and their products has increased. The growth of employment in "rolling, forging, refining, smelting of iron and other metals" (minor groups 360-361) during 1951-61 was due to the establishment of three large steel mills. This industry is highly organized and capital intensive (see Table XIII).

TABLE XIII

1961 Groups	Brief Description of Groups	Workers of Both Sexes (1,000)					
		1961 NHI	1911	1921	1931	1951	1961
360-361	Smelting, refining, rolling, etc.*	87	7	42	31	134	259
Others	Metal products	54	645	599	594	748	938
36	Basic metals and products	61	653	642	625	882	1,197

* Smelting, refining, rolling, forging, etc., of iron and other basic metals.

Thus, the failure of the manufacturing sector to make any significant impact on the broad employment pattern is mainly due to the technological improvements which resulted in a considerable displacement of low productive employment in the traditional industries. As a result, although the proportion of the working force engaged in manufacturing has remained almost constant, the quality of employment in manufacturing has greatly improved.

Low figures for industrial [manufacturing] employment in less developed countries do not necessarily imply that there has been no industrial growth in those countries. On the contrary, it is known that industrial production has expanded significantly in a number of them. But if employment in modern factory-type industry has grown (more slowly than output), this growth has apparently been accompanied by decline of employment in small-scale handicrafts and cottage industries [as in India up to 1931].²⁰

V. SERVICES

Table XIV presents details of employment in major groups of services.

The employment in better-paid services such as public administration, educational and scientific, medical and health, legal and business, etc., has grown faster than in the less remunerative services, particularly during 1951-61.

The hotel services show a remarkable expansion of employment, from barely 36 thousand in 1911 to 799 thousand in 1961. Rapid growth occurred during 1941-51 and is associated with rapid urbanization and increasing concentration

¹⁹ [5, p. 165].

²⁰ [15, p. 126].

TABLE XIV
EMPLOYMENT IN MAJOR AND SOME MINOR GROUPS OF SERVICES

1961 Groups	Brief Description of Groups	Workers of Both Sexes (1,000)				
		1911	1921	1931	1951	1961
80	Public administration	1,743	1,668	1,617	2,231	3,293
81	Educational and scientific	227	279	417	776	1,794
82	Medical and health	198	185	229	459	638
83	Religious and charitable	944	793	802	474	441
84-85	Legal and business	147	148	127	259	260
87	Recreation	319	219	220	279	246
880-881	Domestic services	2,377	2,073	2,718	1,768	1,532
882	Hotel services	36	72	122	579	799
883	Laundry services	1,115	1,034	1,041	950	1,170
884	Hair-dressing services	839	740	760	642	640
86 & 885	Others*	—	—	—	31	181
Div. 8	Services†	7,945	7,211	8,052	8,450	10,993
		Percentage of Services Workers in				
Better-paid (80, 81, 82, 84-85, 86, 885).....		29	32	30	44	56
Low-paid services (83, 880-881, 883, 884) ...		66	64	66	45	34

* Community services and trade and labour associations (86), and services rendered by portrait and commercial photographic studios (885).

† Excluding general labourers and similar groups (see Section I).

of population in bigger cities. It also reflects the changing habits of the Indian population. Even in rural areas, hotel-going is fast becoming popular, as the rural folk have taken to tea.

The decline of employment in religious and welfare (i.e., charitable) services is mainly due to the diminishing importance of the ritualistic element in all the occasions of life and festivals. "Many princely, landed and rich households used to have Brahmins attached to them. Nowadays, however, the charity has taken new directions and has become functional."²¹ Changes in the land tenure systems have also adversely affected the number engaged in religious services.²²

There has been a long-term decline in the number of domestic servants, from 2.38 million in 1911 to 2.07 million in 1921, 1.77 million in 1951 and 1.53 million in 1961. The number of domestic servants per ten thousand population decreased from 96 in 1911 to 84 in 1921, 50 in 1951 and 36 in 1961. In 1931, there were about 2.72 million domestic servants or 99 per ten thousand population. The high figure for 1931 can be explained in terms of the effects of the Economic Depression which reduced the employment opportunities in important sectors of the economy. The causes of the long-term decline in the number of domestic servants can be traced largely from the demand side. In the urban areas, with the cost of living increasing, the full-time domestic servant is being increasingly

²¹ [11, pp. 424-27].

²² [6, p. 526].

replaced by part-time help.²³ The increasing pressure of population on land and the land reforms implemented after 1947 have reduced the number of landed classes and large cultivating households which are usually the largest employers of domestic servants. The disappearance of the princely class has also adversely affected the demand for such workers. The several rural development projects—undertaken during 1951–61—involving construction and rural industrialization, seem to have absorbed several workers from the agricultural labour families²⁴ which are usually the sources of supply of domestic servants.

The decline of employment in recreation services is due to the decay of unsophisticated forms of entertainment.²⁵ Growth of cinema industry (which is now the largest, second only to that of Hollywood) has dealt a blow to the numbers engaged in dramatic theatres.

The number employed in laundry services has remained around a million. However, the number per ten thousand population has decreased from 45 in 1911 to 27 in 1961. In urban areas, the laundry services are getting mechanized. In the rural areas and small towns, the washermen have lost heavily due to the decline of princely and landed classes to whom they were attached.²⁶ The decline of *purdha* system which prevented women from washing clothes on public sites must have affected the washermen adversely.

The number employed in hair-dressing has also decreased. In rural areas, this occupation used to be hereditary. With the disintegration of the village communities, this hereditary occupation is slowly disappearing. In urban areas, the practice of calling the barber at home for having the hair-cut is getting out of fashion. The increasing use of safety razors and blades has also adversely affected the barbers.²⁷

VI. TRANSPORT, STORAGE AND COMMUNICATIONS

Table XV presents details of employment in transport and communications.

With the exception of "transport by man," all other unsophisticated means of transport have lost employment. Employment in the highly organized means of transport such as railways, motor vehicles and air has increased rapidly after 1931. Thus, the quality of employment in transports, etc., has significantly improved.

VII. OTHER INDUSTRIAL DIVISIONS

Other industrial divisions are mining and quarrying, construction, electricity, etc., and trade and commerce. The work activity in mining and quarrying is highly organized. The employment in this division has increased nearly three-fold during 1911–61, in spite of mechanization of operations such as carrying of coal to containers, etc.

²³ [11, pp. 422–24].

²⁴ [4, pp. 91–109].

²⁵⁻²⁷ [11].

TABLE XV
EMPLOYMENT IN MINOR GROUPS OF TRANSPORT, STORAGE AND COMMUNICATIONS

1961 Groups	Brief Description of Groups	Workers of Both Sexes (1,000)				
		1911	1921	1931	1951	1961
700	Railways	306	280*	285*	583	1,002
701-702	Trams, buses, motor vehicles	NCC	15	67	NCC	569
703-704	Bullock carts, horses, etc.	NCC	366	411	NCC	293
705	Transport by man	250	151	152	NCC	554
706-707	Transport by water	215	161	202	235	202
708	Transport by air	NCC	Neg	Neg	14	19
73	Communications	62	60	67	155	289
Div. 7	Transport, communications, etc.	1,311	1,034	1,183	2,129	2,984
		Percentage of Transport (Div. 7) Workers in				
Highly organized groups (700, 701-702, 708, 73)		34	35	—	—	63
Unsophisticated forms of transport (703-705)		50	48	—	—	28

* Excluding porters.

NCC: No comparable classification, though included in the total.

Neg: Negligible.

A large part of the increase in construction employment has occurred in the construction and maintenance of buildings. The growth of employment, therefore, is associated with the growth of the urban population.

The employment in "electricity, gas, water and sanitation" has shown a long-term decline. However, the decline is confined only to sanitation which is a low-paid activity.

In urban areas, the use of tractors and trucks for carrying garbage and the use of flush system wherever modern water supply is provided, have reduced the requirement of sweepers.²⁸ The disintegration of the village communities has also affected the class of village menials.

The number engaged in trade and commerce per ten thousand population has decreased from 259 in 1911 to 232 in 1931, 205 in 1951 and 176 in 1961. The decline is largely confined to trading in foodgrains which claimed nearly half of the total employment in trade and commerce in 1911. The fact that the Government has always exercised control over the trade in foodgrains, sugar and kerosene whenever the country experienced shortages, has resulted in the lack of growth of employment in the trading of these articles.²⁹

TABLE XVI

Type of Service	Workers of Both Sexes (1,000)				
	1911	1921	1931	1951	1961
Electricity, gas and water	7	11	20	159	254
Sanitation (mostly scavengers)	673	618	585	473	373

A further examination of the figures reveals that the number of females engaged in trade and commerce has decreased from 2.16 million in 1911 to 2.07 million in 1921, 1.76 million in 1931, 1.15 million in 1951, and 0.81 million in 1961. In contrast, the number of males has increased from 4.28 million in 1911 to 6.78 million in 1961. These trends indicate that there was a tremendous change in the organization and location of trade and commerce activities. In the earlier decades, a large part of the rural trade was carried at the weekly village fairs where the small traders used to bring their goods for selling. But with the increasing growth of transport facilities and the growth of towns as convenient centres of trade and commerce, a number of small traders have lost their business to the large-scale traders in towns. There has been in recent decades an almost total disappearance of the weekly village fairs. The rural population now goes to urban areas for the purchase of their requirements. These trends indicate that the quality of employment has been improved greatly.

VIII. FEMALE WORKERS

A gradual decline in the relative share of females in the non-agricultural avenues of work has been an important feature of the employment trend during the last five decades. The number of female workers per a thousand male workers in the non-agricultural sector decreased from 446 in 1911 to 231 in 1961, and in the agricultural sector from 550 to 547. The details are presented in Table XVII.

An examination of the detailed data in 1961 indicate that females are engaged to a larger extent than males in low-income activities such as agriculture, household industry and personal services. Since these activities are largely carried out in household enterprises, it is easier for them to work as well as to take the respon-

TABLE XVII
NUMBER OF FEMALE WORKERS PER 1,000 MALE WORKERS IN INDUSTRIAL DIVISIONS

Industrial Divisions	Females per 1,000 Male Workers				
	1911	1921	1931	1951	1961
Total working force	524	516	440 ³⁾	408 ³⁾	461 ⁴⁾
Agricultural and allied activities ¹⁾	550	547	469 ³⁾	468 ³⁾	547
Non-agricultural activities ²⁾	446	421	353	246	231
1. Mining and quarrying	489	539	378	230	225
2 & 3. Manufacturing	561	498	419	323	372
4. Construction	333	376	289	203	135
5. Electricity, gas, water, sanitation	870	846	836	535	334
6. Trade and commerce	504	472	380	187	120
7. Transport, storage and communications	58	66	37	59	22
8. Services ²⁾	332	319	299	235	195

¹⁾ Including "general labourers" in 1911, 1921 and 1931, and similar groups in 1951 and 1961 (see Section I).

²⁾ Excluding "general labourers" and similar groups.

³⁾ Unreliable because of the undercount of agricultural workers (see Section II).

⁴⁾ Excluding "persons employed before but now out of employment and seeking work."

sibility of household duties and child care. They are less educated than males, and cannot compete them for better-paid jobs in the non-agricultural sector. Their share in the non-household, the urban-located and the wage-paid jobs is quite low. Therefore, the decline of the share of females in the non-agricultural employment is suggestive of the increasing transfer of these activities from household to non-household sector, from rural to urban areas, and from self-employment to wage-paid employment. It is also, therefore, suggestive of the improvement in the quality of employment in the non-agricultural sector.

IX. URBANIZATION AND THE TREND IN THE EMPLOYMENT PATTERN

The process of urbanization is usually associated with the process of industrialization and a structural change in the employment pattern in favour of the non-agricultural sector. An examination of the trend in urbanization and the trend in the employment pattern does not show such an association in India. In 1911, the percentage of population living in localities of twenty thousand or more inhabitants was 5.35 and the percentage of the working force engaged in the non-agricultural sector and in manufacturing were 24.4 and 9.6. In 1961, the corresponding figures were 13.75, 23.0 and 9.5 respectively. Thus, the level of urbanization has risen without being accompanied by a significant change in the broad employment pattern. One possible explanation is that the growth of employment in the organized sector in the urban areas has been accompanied by a nearly equal decline of employment in the village industries and services. At least during the pre-independence years, there was a tendency for the country-side to become cleared of the artisans and the cottage industry workers, and become increasingly agriculturalized.³⁰ There is also a possibility that the non-agricultural activities shifted from rural to urban areas, and from unorganized to organized sector. These trends are suggestive of the improvement in the quality of non-agricultural employment.

CONCLUSION

Although the broad employment pattern of the Indian working force has almost remained unchanged during the last fifty years, there has been a considerable improvement in the quality of employment in the non-agricultural sector as a result of changes in the organization, location, and methods of production, decay of traditional low-income activities, and the growth of new capital intensive industries. It is likely, therefore, that the output in manufacturing and other branches of the non-agricultural sector has grown more rapidly than employment.

³⁰ According to V. N. Kothari's estimate, agricultural population as a percentage of rural population increased from 79.3 in 1911 to 81.7 in 1921, 85.1 in 1931, 86.1 in 1941 and 87.2 in 1951. Similar estimate for 1961 cannot be made. [11].

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