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MANPOWER STUDY SERIES No. 58

A REPORT
ON THE GROWTH OF EMPLOYMENT
IN PUBLIC SECTOR UNDERTAKINGS
DURING THE
SIXTH FIVE YEAR PLAN

DEPARTMENT OF ECONOMICS AND STATISTICS
TRIVANDRUM

MAN POWER STUDIES
No.58

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A report on
the growth of employment
in public Sector undertakings
during the Sixth
Plan period.

PREFACE

In Kerala economy both Public and Private Sectors play important roles in the developmental activities. Data on employment in the Public and Private Sectors reveal that the chances of employment are brighter in the Public Sector Concerns. Since analysis of sex-wise and category-wise distribution of employment in the technical and non-technical cadres and its growth will be useful to the planners, it was decided to conduct a study on the growth of employment in the Public Sector Undertakings in Kerala during the Sixth Plan period.

This study, conducted by the Manpower Division of this Department, is based on the secondary data collected from various public sector concerns. It is hoped that the findings of the study given in this report will be useful to those who are interested in the field.

Trivandrum:
15-12-1986:

K. BALAKRISHNAN NAIR
Director

A study on the growth of employment in Public Sector undertakings during the Sixth Five Year Plan

1. Introduction:

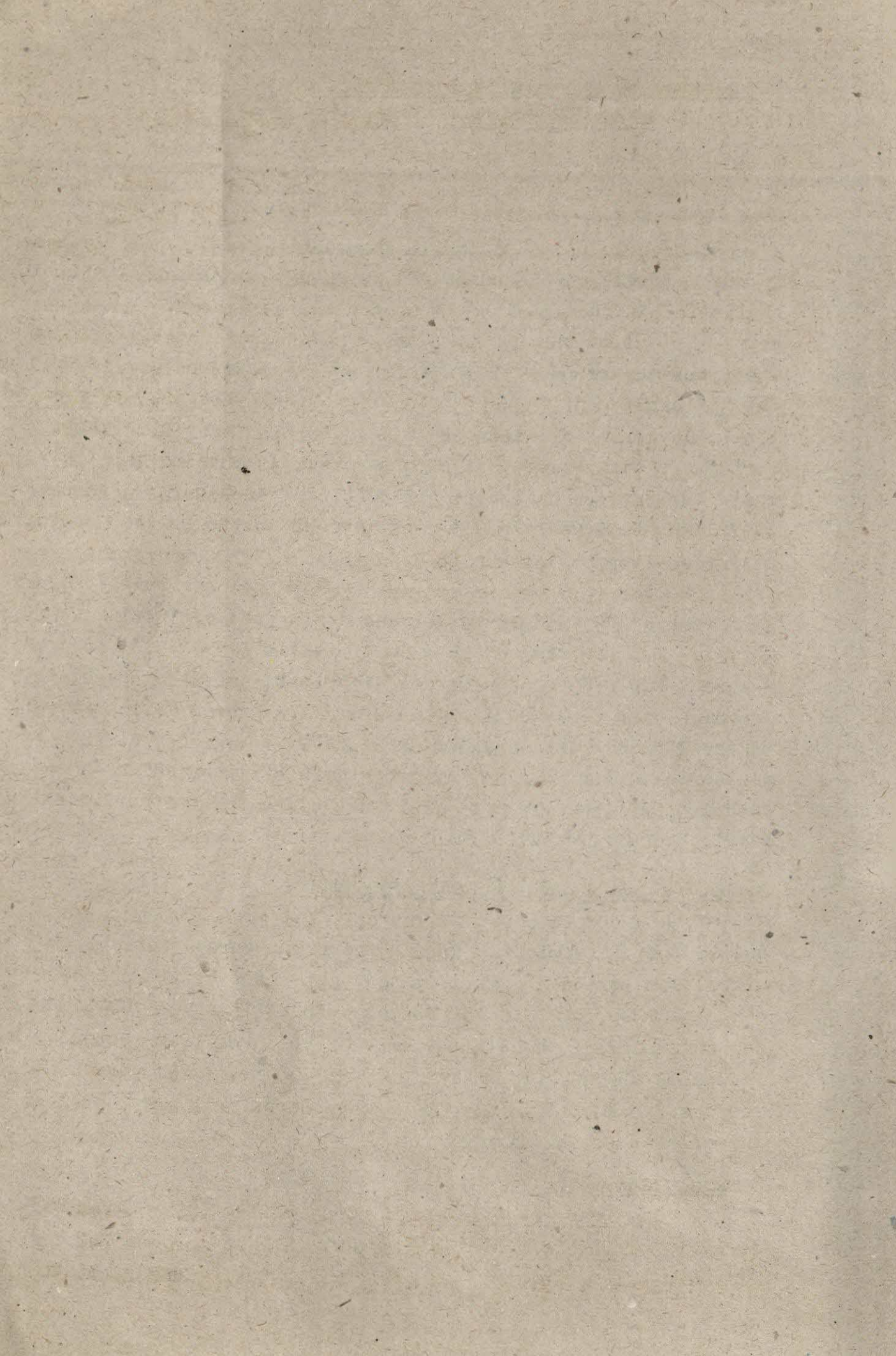
Human resource is one of the pillars of economic development and its crucial role in the wake of economic growth is widely acknowledged in policy as well as academic circles. Thus human resource development assumes due weightage in planning which is manifested in the level of polished manpower reservoir in the country attained through the last many years. Now the crux of the issue is how much of the manpower developed so far is utilised. Data on employment in the Public and Private sectors reveal that the employment has increased from 10.23 lakhs to 10.79 lakhs during the Sixth Five Year Plan period. It also reveals that while the employment in the Public Sector has increased from 4.97 lakhs to 5.66 lakhs, the employment in the private sector has decreased from 5.26 lakhs to 5.14 lakhs. This shows that the Public Sector was able to provide employment opportunities to more than 68900 unemployed persons during the sixth five year plan period. In this regard the role of Public Sector undertakings is unique. Since data showing the distribution of employment in the technical and non-technical wings and its growth will be useful to the Planners for chalking out future programmes, it was decided to conduct a study on the growth of technical and non-technical manpower in the public sector concerns functioning in Kerala during the Sixth Five Year Plan period.

2. Methodology, coverage and response:

A proforma designed for collecting the category-wise details of the employes during the first three years of the Sixth Plan period and anticipated employment by the end of the sixth plan was sent to 130 concerns functioning in the State since the beginning of the Sixth Plan. Only 105 of them responded by returning the questionnaire, duly filled up. The percentage of response works out to 81 and is considered as a great success in mailed questionnaire system.

3. Analysis:

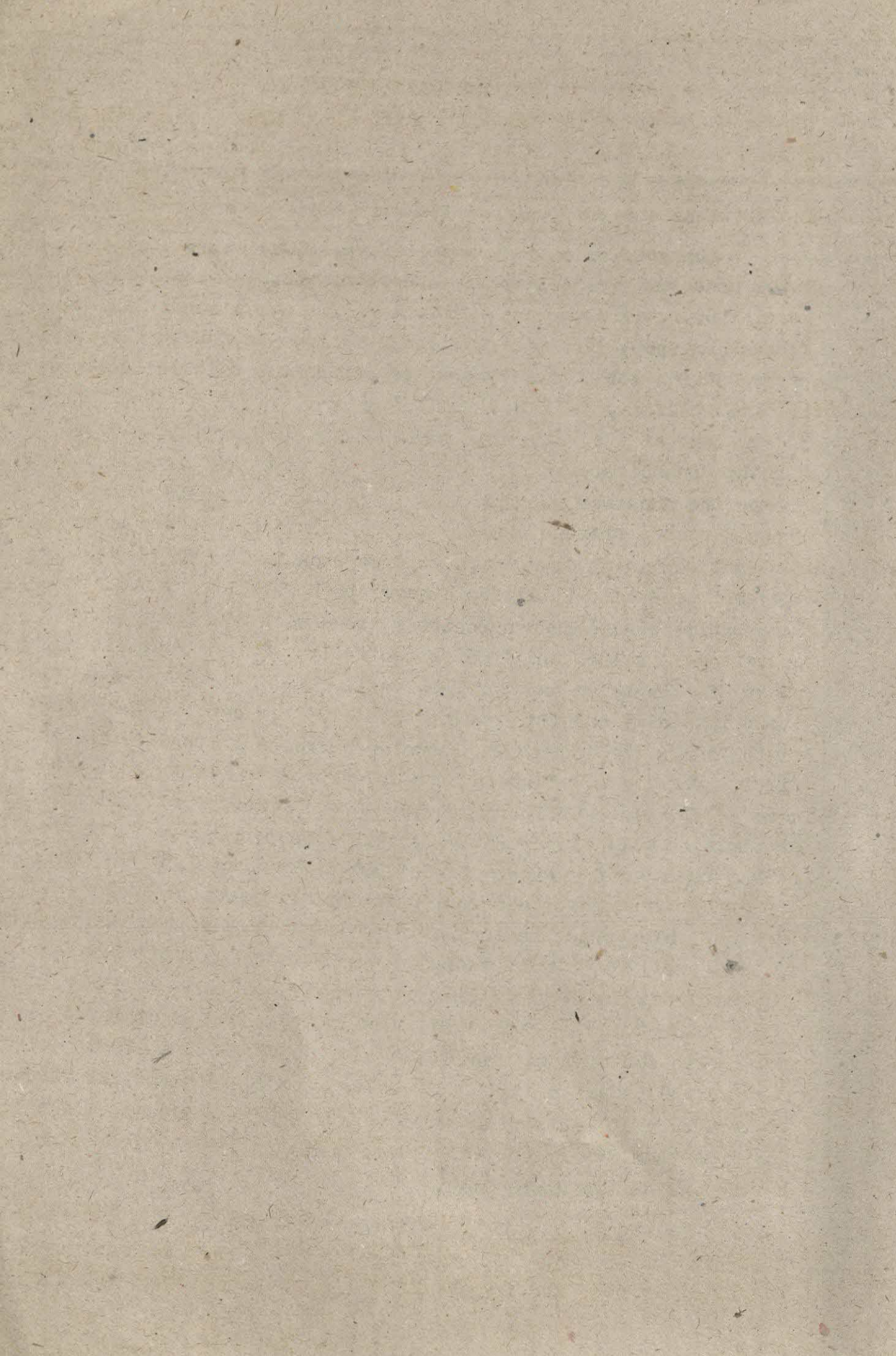
i) Trend in employment: Considering that a group-wise analysis of the growth of employment will be more useful for Planners and Administrators, the Public Sector undertakings have



been broadly classified into the following six groups, viz. Industrial concerns, Public Utilities, Financing and Service Institutions, Trading and Infrastructural Development Institutions, Institutions for Development of Weaker Sections and Others.

Analysis of data (Table I in Appendix) shows that 'Industrial concerns' ranks first in absorbing manpower. Out of the total 75650 persons employed in the whole Public Sector undertakings in 1980, 'Industrial concerns' alone accounted for 35962 persons which works out to about 48 per cent. This is followed by Public Utility Sector with 28827 persons which accounts for 38 per cent of the total manpower. The remaining four groups together constitute only about 14 per cent of the total employment. Though the manpower absorption rate in the 'industrial concerns' shows a steady uptrend through out the period its share shows a slight declining trend with an exception in the year 1982. In the case of Public Utilities however both absolute as well as comparative change show a positive trend with 38.11 and 40.89 percentage for 1980 and 1985 respectively. On the other hand the share of 'Financing and Service Institutions' shows an increasing trend initially and then declines to 1.33 per cent by the end of Sixth Plan. The index also shows an increasing trend during the first three years. A steep trend of growth is reflected in the case of 'Trading and Infrastructural Development Institutions' in absolute as well as comparative growth. In percentage terms this sector registered a growth from 1.50% in 1980 to 2.38% in 1985. The index of manpower absorption in 'Enterprises for Weaker Sections' also shows an increasing trend though it became steady in 1983 and 1985. Units included under "other groups" show a general declining trend in comparative as well as absolute values except in the year 1981. The total manpower employed in the Public sector rose from 75650 in 1980 to 93705 in 1985 raising the index to 124. To sum up, the units under the first two groups viz. Industrial concerns and Public Utilities accounted for more than 85% of the total employment in the public sector by the end of the Sixth Plan.

ii) Technical personnel: Analysis of Table II (in appendix) shows that the percentage share of technical personnel has steadily declined from 39.46 to 34.99 during the Sixth Plan



period. In respect of Industrial concerns the share of technical personnel declined from 42.92% in 1980 to 42.57% in 1985 with an exception in 1981.

Percentage share of technical personnel in the Public Utilities has declined from 34.16 in 1980 to 25.46 in 1985. The table also shows the sharp decline in the percentage of technical personnel in respect of 'Trading and Infrastructural Development Institutions' and 'Institutions of Development of Weaker Sections'. But at the same time a positive trend of growth is seen reflected in the other groups. The percentage has increased from 50.63% in 1980 to 51.40% in 1985.

iii) Women employment: Kerala stands in the forefront among other States in the case of literacy. Female literacy is also very high when compared to that of other States. An effort has been made to assess the sex-wise distribution of employees in the technical and non-technical wings.

Analysis of sex-wise distribution of technical personnel (Table III in Appendix) reveals that the percentage of female employment is very low inspite of the high female literacy. It is surprising to note that there is decline in the employment of female in technical wing during the Plan period from 2.90% to 2.59%. It is seen from the table, that no female is employed in the 'Public Utilities' group. This may be due to the non-furnishing of sex-wise distribution in the technical wing in the units included under the above group. The percentage of female employment is comparatively higher in the units engaged in the 'Development of Weaker Sections' and under 'Other' groups. It can be seen that the percentage of female employment in the 'Institutions for the development of weaker sections' has increased from 12.00 to 21.43 by the end of the Sixth Plan. The percentage of employment in 'Financing and Service Institutions' has increased from 4.82 to 8.86 even though there is no growth in the total employment position. In respect of 'Industrial concerns' percentage of women employment has increased from 1.50 to 1.65 by the end of 1983, but declined to 1.58 by the end of the Plan period.

In the case of non-technical personnel, the employment opportunities are brighter for females. This is clear from table IV (given in Appendix). The over-all female representation

registered a small growth from 22.04% in 1980 to 24.01% in 1985. It can be seen that the employment opportunities are more in the units under 'Public Utilities', since about one-third of the total employees in this group are females. The units under 'Trading and Infrastructural Development' ranked second in respect of female employment in the year 1980, but this percentage has declined to 15% by the end of Sixth Plan. In respect of institutions under 'Other' groups the percentage of female employment has increased from 20.48 to 21.39.

iv) Technical personnel: Sex-wise categorisation of technical personnel during the year 1980 and 1983 will give a new colour and shape to the distribution of male - female representation to different cadres. Tables V and VI (given in Appendix) give a clear picture in this regard.

Percentage of male representation in managerial cadre has declined from 7.75% in 1980 to 6.56% in 1983, whereas a noticeable growth of employment is seen in female representation to the order of 2.89% between 1980 and 1983.

Both male and female representation declined in the case of technical supervisory cadre between 1980 and 1983; from 11.39% to 10.96% in the case of males and 3.58% to 3.37% for females. Male representation in middle level technical cadre also declined from 36.56% in 1980 to 33.04% in 1983. On the other hand a sharp increase is noticed in female representation in the middle level technical cadre from 12.02% in 1980 to 16.33% in 1983. In the case of 'lower' category while male representation increased from 39.51% in 1980 to 41.60% in 1983, the female representation declined from 79.88% to 66.33%. In the case of public sector concerns included under 'Other' category, the corresponding percentages increased from 4.79 to 7.84 in respect of males and from 2.67 to 9.23 in respect of females.

v) Non-technical personnel: The category-wise distribution of non-technical personnel shows that a glaring discrepancy prevails over different cadres in male-female ratio. For instance, in all cases except 'Industrial Concerns' male representation in the managerial cadre declined whereas in the case of 'Industrial Concerns' a remarkable growth is noticed. Tables VII and VIII in the Appendix reveal the position clearly.

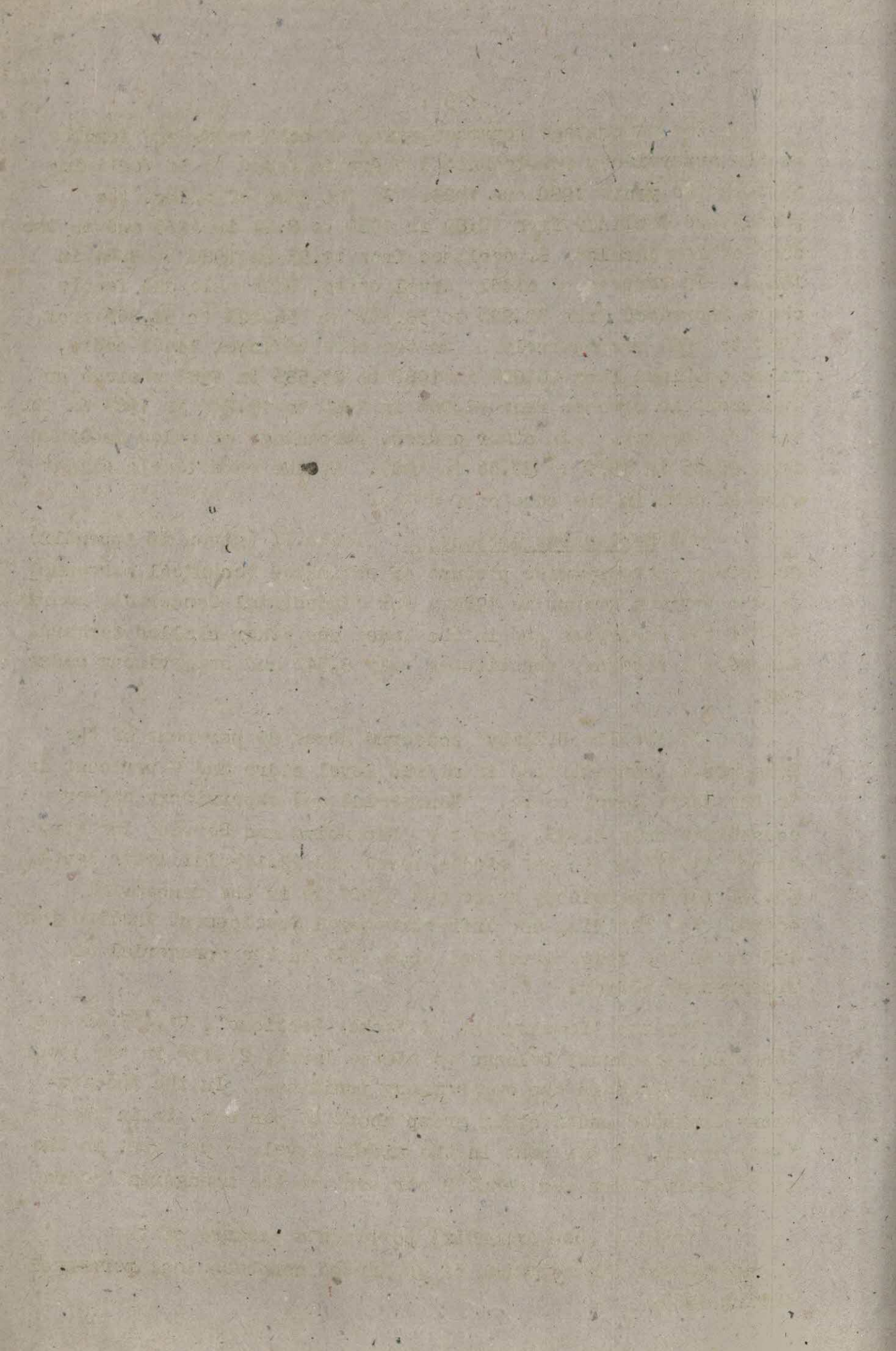
The percentage representation of both males and females in the supervisory non-technical cadre is found to be declining between the years 1980 and 1983. In the case of males, the percentage declined from 10.89 in 1980 to 8.04 in 1983 and in the case of females also it declined from 11.53 in 1980 to 8.04 in 1983. In respect of middle level cadre, both male and female share increased from 32.82% to 38.20% and 56.42% to 58.86% from 1980 to 1983 respectively. In the case of lower level cadre, males declined from 26.82% in 1980 to 23.58% in 1983 whereas an increment is noticed from 18.92% in 1980 to 19.20% in 1983 in the case of females. In other cadres, percentage of males declined from 28.05 in 1980 to 27.56 in 1983. At the same time a slight rise is seen in the case of females.

vi) Employment projection: Table IX (given in Appendix) depicts a category-wise picture of estimated technical personnel in the various groups in 1985. For 'Industrial Concerns', nearly 65% of the employees are in the lower and other skilled workers. Managerial category constitutes only 8.34% and supervisory cadre 18%.

In 'Public Utility' concerns about 89 per cent of the Manpower is concentrated in middle level cadre and 9 per cent is in the lower level cadre. Managerial and supervisory cadres constitute only 2.15%. For the 'Financing and Service Institutions' 41.77% is in the middle level and 29.11% for lower level, 25.32% for supervisory cadre and 3.80% is in the managerial cadre. For 'Trading and Infrastructural Development Institution' 48% is in the lower level and about 23% in the managerial and supervisory cadres.

For the 'Development of Weaker Sections', 71.43% of the technical personnel belongs to middle level, 21.43% in the lower level and 7.14% in the supervisory positions. In the institutions included under other group about 67 per cent is in the lower level, 17 per cent in the middle level, 5 per cent in the supervisory cadre and about 2 per cent in the managerial cadre.

Table X (See Appendix) portrays a picture of the category-wise distribution of estimated non-technical personnel during 1985.



In 'Industrial Concerns' 54.30% of the non-technical personnel belongs to 'other' category, 28.97% in lower level, 4.50% in middle level, 6.62% in the supervisory cadre and 5.61% in managerial cadre. In the case of 'Public Utilities' when 0.59% and 5.41% are involved in managerial and supervisory cadres respectively, the representation in middle level cadre is 89% and 5% in lower level.

In the case of 'Financing and Service Institutions' only 17.17% employees are in the managerial and supervisory cadres. Category-wise distribution of estimated non-technical personnel in 'Trading and Infrastructural Institutions' shows that more than 87.7% of the employees are in the non-supervisory cadre. In respect of 'Institutions for Development of Weaker Sections' the distribution of manpower in the managerial and supervisory cadres together constitutes only 8.73%. As regards 'Other Institutions' the representation in managerial cadre is 1.13%, supervisory 4.26%, middle level 22.18%, lower level 67.67% and other category 4.76%. Generally speaking only about 9% of the total employees is in the managerial and supervisory cadres, 67% is in the middle and lower level and about 24% in the other cadre.

4. Findings:

- i) A very remarkable increment in manpower absorption has taken place in the Five Year period between 1980 and 1985 in the Public Sector undertakings.
- ii) Industrial Concerns and Public Utility Concerns stand high in manpower absorption.
- iii) A steep rise is noticed in manpower absorption in 'Trading and Infrastructural Development Institutions'.
- iv) Growth rate in technical cadre shows a declining trend.
- v) While male employment is increasing in the technical wing, it is decreasing in the non-technical wing.
- vi) The percentage of females in the technical wing has increased in the managerial and middle level personnel during the first three years of the plan period.
- vii) Regarding the non-technical personnel, while the percentage of female employment shows an increasing trend except in supervisory category, the percentage of males shows an increasing tendency in the managerial and middle level categories.

Table: I. GROWTH OF EMPLOYMENT IN PUBLIC SECTOR UNDERTAKINGS

Activity Groups	1980		1981		1982		1983		1985	
	No.	Index	No.	Index	No.	Index	No.	Index	No.	Index
1. Industrial concerns	35932 (47.54)	100	36806 (47.14)	102	40023 (47.86)	111	40943 (47.06)	114	42585 (45.45)	119
2. Public Utilities	28827 (38.11)	100	29344 (37.58)	102	31057 (37.13)	108	33470 (38.47)	116	38320 (40.89)	133
3. Financing & service Institutions	1073 (1.50)	100	1255 (1.61)	117	1286 (1.54)	120	1244 (1.43)	116	1244 (1.33)	116
4. Trading & Infra-structural Development Institutions.	1127 (1.50)	100	1309 (1.68)	115	1929 (2.31)	170	2025 (2.33)	173	2233 (2.38)	196
5. Institutions for development of weaker section	517 (0.68)	100	689 (0.88)	133	730 (0.87)	141	724 (0.83)	140	724 (0.77)	140
6. Others	8131 (10.75)	100	8681 (11.11)	107	8607 (10.29)	106	8599 (9.88)	106	8599 (9.18)	106
Total:	75650 (100)	100	78084 (100)	103	83637 (100)	111	87005 (100)	115	93705 (100)	124

Activity Groups

(Estimated)

Table: II. TECHNICAL AND NON-TECHNICAL PERSONNEL BY ACTIVITY GROUPS
IN PUBLIC SECTOR UNDERTAKINGS

Activity Groups	1980		1981		1982		1983		1985 (estimated)	
	Technical	Non-technical	Technical	Non-technical	Technical	Non-technical	Technical	Non-technical	Technical	Non-technical
1. Industrial Concerns	15434 (42.92)	20528 (57.08)	15979 (43.41)	20827 (56.59)	17138 (42.82)	22890 (57.18)	17427 (42.56)	23516 (57.44)	18128 (42.57)	24457 (57.49)
2. Public Utilities	9847 (34.16)	18980 (65.84)	8190 (27.91)	21154 (72.09)	9075 (29.22)	21982 (70.78)	8502 (25.40)	24968 (74.60)	9756 (25.46)	28564 (74.54)
3. Financing and Service Institutions	83 (7.71)	993 (92.29)	83 (6.61)	1172 (93.39)	81 (6.30)	1205 (93.70)	79 (6.35)	1165 (93.55)	79 (6.35)	1165 (93.65)
4. Trading & Infra-structural Development Institutions	343 (30.17)	794 (69.83)	347 (26.51)	962 (73.49)	365 (18.92)	1564 (81.08)	355 (17.53)	1670 (82.47)	393 (17.60)	1840 (82.40)
5. Institutions for Development of Weaker section.	25 (4.84)	492 (95.16)	21 (3.05)	668 (96.95)	22 (3.01)	708 (96.99)	14 (1.93)	710 (98.07)	14 (1.93)	710 (98.07)
6. Others	4117 (50.63)	4014 (49.37)	4528 (52.16)	4153 (47.84)	4439 (51.57)	4168 (48.43)	4420 (51.40)	4179 (48.60)	4420 (51.40)	4179 (48.60)
Total:	29849 (39.43)	45801 (60.54)	29148 (37.33)	48936 (62.67)	31120 (37.21)	52517 (62.79)	30797 (35.40)	56208 (64.60)	32790 (34.99)	60915 (65.01)

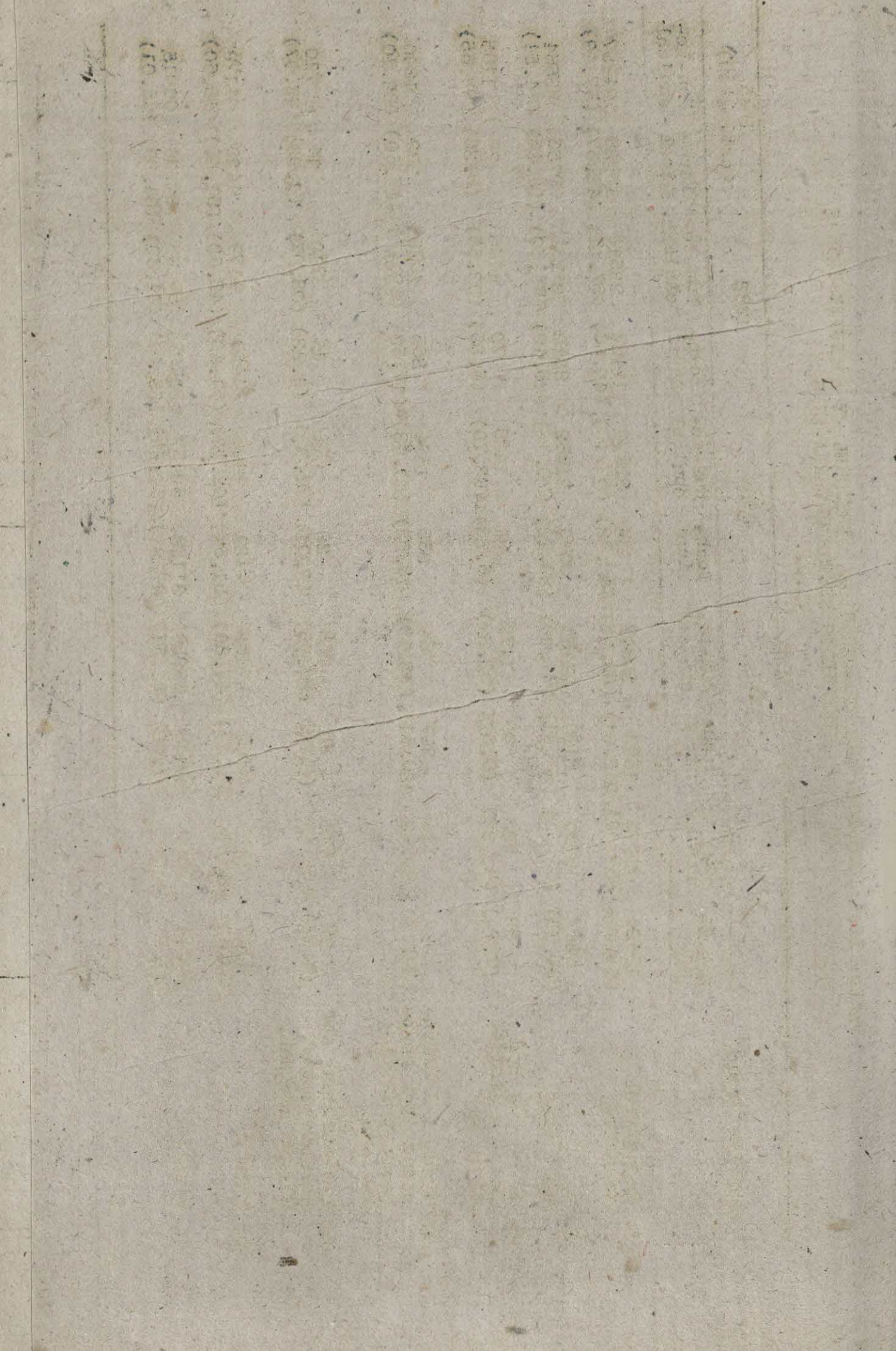


Table: III. SEX-WISE DISTRIBUTION OF TECHNICAL PERSONNEL IN PUBLIC SECTOR UNDERTAKINGS.

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Activity Groups	1980		1981		1982		1983		1985 (estimated)	
	M	F	M	F	M	F	M	F	M	F
1. Industrial concerns	15202 (98.50)	232 (1.50)	15725 (98.41)	254 (1.59)	16865 (98.41)	273 (1.59)	17140 (98.35)	287 (1.65)	17842 (98.42)	286 (1.58)
2. Public Utilities	9847 (100)	..	8190 (100)	..	9075 (100)	..	8502 (100)	..	9756 (100)	..
3. Financing and Service Institutions.	79 (95.18)	4 (4.82)	75 (90.36)	8 (9.64)	73 (90.12)	8 (9.88)	71 (89.87)	8 (10.13)	72 (91.14)	7 (8.86)
4. Trading & Infra-structural development Institutions.	338 (98.51)	5 (1.46)	342 (98.56)	5 (1.44)	359 (98.36)	6 (1.64)	349 (98.31)	6 (1.69)	387 (98.47)	6 (1.53)
5. Institution for Development of weaker section.	22 (88.00)	3 (12.00)	18 (85.71)	3 (14.29)	19 (86.36)	3 (13.64)	11 (78.57)	3 (21.43)	11 (78.57)	3 (21.43)
6. Others	3496 (84.92)	621 (15.08)	3964 (87.54)	564 (12.46)	3966 (89.34)	473 (10.66)	3922 (88.73)	498 (11.27)	3873 (87.62)	547 (12.38)
Total:	28984 (97.10)	865 (2.90)	28314 (97.14)	834 (2.86)	30357 (97.55)	763 (2.45)	29995 (97.40)	802 (2.50)	31941 (97.41)	849 (2.59)

Table: IV. SEX-WISE DISTRIBUTION OF NON-TECHNICAL PERSONNEL IN PUBLIC SECTOR UNDERTAKINGS.

Activity Groups	1980		1981		1982		1983		1985 (estimated)	
	M	F	M	F	M	F	M	F	M	F
1. Industrial concerns	18030 (87.83)	2498 (12.17)	18325 (87.99)	2502 (12.01)	20025 (87.48)	2865 (12.52)	20161 (85.73)	3355 (14.27)	20967 (85.73)	3490 (14.27)
2. Public Utilities	12614 (66.46)	6374 (33.54)	14036 (66.35)	7118 (33.65)	14574 (66.30)	7408 (33.70)	16540 (66.24)	8428 (33.76)	18900 (66.17)	9664 (33.83)
3. Financing and Service Institutions.	836 (84.19)	151 (15.81)	978 (83.45)	194 (16.55)	977 (81.01)	229 (18.99)	967 (83.00)	198 (17.00)	967 (83.00)	198 (17.00)
4. Trading & Infra-structural Development Institutions.	616 (77.58)	178 (22.42)	784 (81.50)	178 (18.50)	1338 (85.60)	225 (14.40)	1423 (85.21)	247 (14.79)	1564 (85.00)	276 (15.00)
5. Institution for Development of weaker section.	420 (85.37)	72 (14.63)	586 (87.72)	82 (12.28)	608 (85.88)	100 (14.12)	606 (85.35)	104 (14.55)	606 (85.35)	104 (14.65)
6. Others	3192 (79.52)	822 (20.48)	3268 (78.69)	885 (21.31)	3278 (78.65)	890 (21.35)	3285 (78.61)	894 (21.39)	3285 (78.61)	894 (21.39)
Total:	35703 (77.96)	10093 (22.04)	37977 (77.61)	10959 (22.39)	40800 (77.69)	11717 (22.31)	42982 (76.47)	13226 (23.53)	46289 (75.99)	14626 (24.01)



Table V

Category-wise and sex-wise distribution of Technical Personnel during 1980

Activity Groups	Managerial		Supervisory		Middle level		Lower level		Others		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F
Industrial	2089	16	2374	16	1388	21	8196	156	1155	23	15202	232
Others	(13.74)	(6.90)	(15.62)	(6.90)	(9.13)	(9.05)	(53.91)	(67.24)	(7.60)	(9.91)	(100)	(100)
Public Utilities	49	-	726	-	8462	-	610	-	-	-	9847	-
	(0.51)	-	(7.37)	-	(85.93)	-	(6.19)	-	-	-	(100)	-
Financing and Service Substitutions	3	-	5	-	33	2	38	2	-	-	79	4
	(3.80)	-	(6.33)	-	(41.77)	(50.00)	(48.10)	(50.00)	-	-	(100)	(100)
Trading and Infrastructural Development Substitutions	45	-	37	-	56	1	178	4	22	-	338	5
	(13.31)	-	(10.30)	-	(16.57)	(20.00)	(52.66)	(80.00)	(6.51)	-	(100)	(100)
Institutions	3	-	-	-	9	2	3	1	-	-	22	3
	(10.64)	-	(31.62)	-	(40.90)	(66.67)	(13.64)	(33.33)	-	-	(100)	(100)
Senior Development of weaker Sections	58	-	151	15	649	78	2426	528	212	-	3496	621
	(1.66)	-	(4.32)	(2.42)	(18.56)	(12.56)	(69.39)	(85.02)	(6.07)	-	(100)	(100)
Total	2247	16	3300	31	10597	104	11451	691	1389	23	28984	865
	(7.75)	(1.85)	(11.39)	(3.58)	(36.56)	(12.02)	(39.51)	(79.88)	(4.79)	(2.67)	(100)	(100)

Table VI
 Category-wise and sex-wise distribution of Technical Personnel during 1983

Activity Groups	Managerial		Supervisory		Middle level		Lower level		Others		Total		
	M	F	M	F	M	F	M	F	M	F	M	F	
1. Industrial Concerns	1773 (10.34)	24 (8.36)	2884 (16.83)	17 (5.93)	1524 (8.89)	70 (24.39)	8990 (52.45)	102 (35.54)	1969 (11.49)	74 (25.78)	17140 (100)	287 (100)	
2. Public Utilities	93 (1.09)	-	160 (1.88)	-	7583 (89.19)	-	666 (7.84)	-	-	-	8502 (100)	71 (100)	8 (100)
3. Financing & Service Institutions	3 (4.23)	-	19 (26.76)	1 (12.50)	30 (42.25)	3 (37.50)	19 (26.76)	4 (50.00)	-	-	349 (100)	6 (100)	-
4. Trading & Infrastructural development Institutions	42 (12.03)	1 (16.67)	43 (12.32)	-	59 (16.91)	1 (16.67)	172 (49.28)	4 (66.66)	33 (9.46)	-	349 (100)	6 (100)	-
5. Institutions for Development of weaker sections.	-	-	-	1 (9.09)	-	8 (72.73)	2 (66.67)	2 (18.18)	1 (33.33)	-	11 (100)	3 (100)	-
6. Others	57 (1.45)	13 (2.61)	181 (4.61)	9 (1.81)	705 (17.98)	55 (11.04)	2628 (67.01)	421 (84.54)	351 (8.95)	-	3922 (100)	498 (100)	-
Total	1968 (6.56)	38 (4.74)	3288 (10.96)	27 (3.37)	9909 (33.04)	131 (16.33)	12477 (41.60)	532 (66.33)	2353 (7.84)	74 (9.23)	29995 (100)	802 (100)	-

Table VII

Category-wise and sex-wise distribution of Non-Technical Personnel during 1980

Activity Groups	Managerial		Supervisory				Middle level				Lower level				Others		Total	
	M		M		F		M		F		M		F		M		F	
1. Industrial Concerns	280 (1.55)	4 (0.16)	1445 (8.01)	493 (19.74)	780 (4.33)	63 (2.52)	6114 (33.91)	933 (37.35)	9411 (52.20)	1005 (40.23)	18030 (100)	2498 (100)						
2. Public Utilities	110 (0.92)	38 (0.60)	1900 (15.06)	633 (9.94)	10133 (80.33)	5417 (85.09)	465 (3.69)	278 (4.37)	-	-	12614 (100)	6366 (100)						
3. Financing & Service Institutions	3 (0.36)	-	87 (10.41)	8 (5.10)	378 (45.22)	90 (57.32)	305 (36.48)	32 (20.38)	63 (7.53)	27 (17.20)	836 (100)	157 (100)						
4. Trading and Infrastructural development Institutions	24 (3.90)	-	43 (6.98)	-	70 (11.36)	5 (2.81)	322 (52.27)	37 (20.79)	157 (25.49)	136 (76.40)	616 (100)	178 (100)						
5. Institutions for Development of weaker section	4 (0.55)	-	23 (5.48)	1 (1.39)	118 (28.10)	12 (16.67)	250 (59.52)	51 (70.83)	25 (5.95)	8 (11.11)	420 (100)	72 (100)						
6. Others	81 (2.54)	-	389 (12.19)	29 (3.53)	239 (7.48)	107 (13.02)	2124 (66.54)	579 (70.43)	359 (11.25)	107 (13.02)	3192 (100)	822 (100)						
Total	508 (1.42)	42 (0.42)	3887 (10.89)	1164 (11.53)	11718 (32.82)	5694 (56.42)	9580 (26.82)	1910 (18.92)	10015 (28.05)	1283 (12.71)	35708 (100)	10093 (100)						

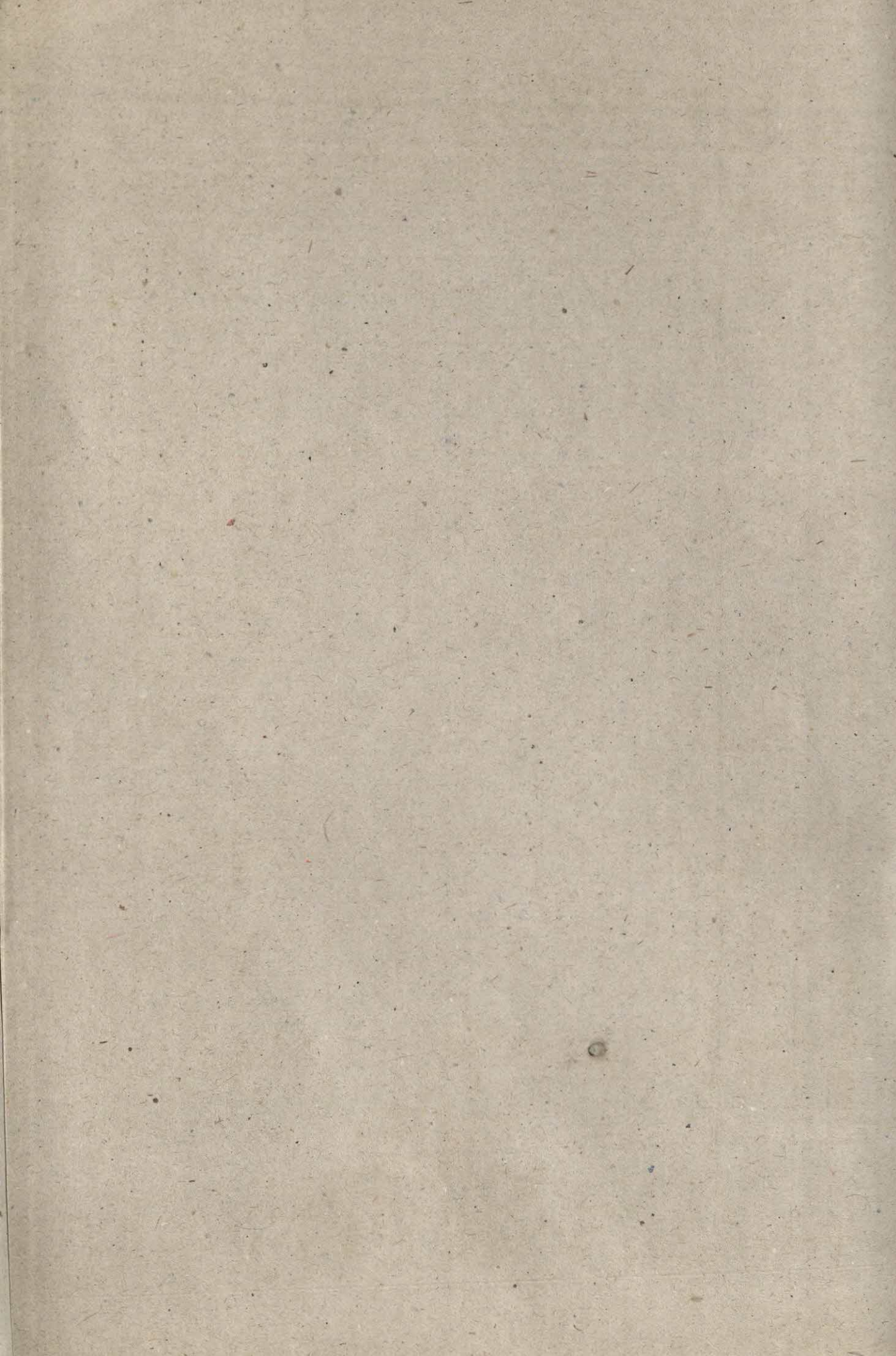


Table VIII

Category-wise and sex-wise distribution of Non-technical Personnel during 1983.

Activity Groups	Managerial		Supervisory		Middle level		Lower level		Others		Total	
	M	F	M	F	M	F	M	F	M	F	M	F
1. Industrial Concerns	897 (4.45)	22 (0.66)	1352 (6.71)	469 (13.98)	922 (4.57)	103 (3.06)	6052 (30.02)	1263 (37.65)	10938 (54.25)	1498 (44.65)	20161 (100)	3355 (100)
2. Public Utilities	125 (0.76)	41 (0.49)	1616 (9.76)	539 (6.40)	14204 (85.88)	7389 (87.66)	595 (3.60)	459 (5.45)	-	-	16540 (100)	8428 (100)
3. Financing & Service Institutions	3 (0.31)	-	151 (15.62)	12 (6.06)	386 (39.92)	114 (57.58)	367 (37.95)	37 (18.68)	60 (6.20)	35 (17.68)	967 (100)	198 (100)
4. Trading and Infrastructural development Institutions	35 (2.46)	-	139 (9.77)	7 (2.83)	144 (10.12)	12 (4.86)	577 (40.55)	60 (24.29)	528 (37.10)	168 (68.02)	1423 (100)	247 (100)
5. Institutions for development of weaker section	5 (0.83)	-	52 (8.58)	5 (4.82)	125 (20.62)	29 (27.88)	356 (58.75)	54 (51.92)	68 (11.22)	16 (15.38)	606 (100)	104 (100)
6. Others	62 (1.89)	-	147 (4.47)	32 (3.58)	640 (19.48)	138 (15.44)	2185 (66.52)	667 (74.60)	251 (7.64)	57 (6.38)	3285 (100)	894 (100)
Total	1127 (2.62)	63 (0.48)	3457 (8.04)	1064 (8.04)	16421 (38.20)	7785 (58.86)	10132 (23.58)	2540 (19.20)	11845 (27.56)	1774 (13.42)	42982 (100)	13226 (100)

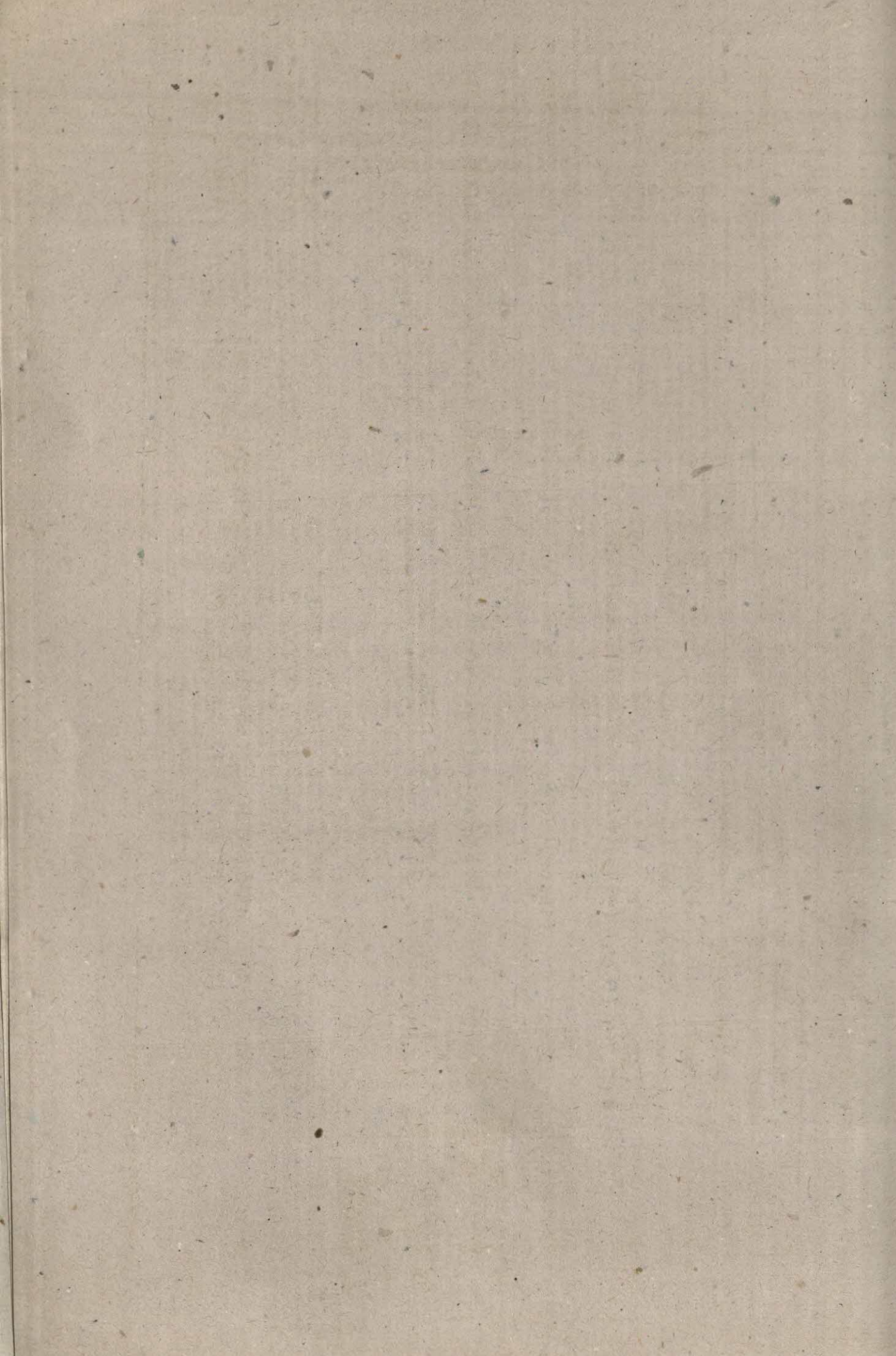


Table IX

Category-wise distribution of estimated Technical Personnel during 1985

Activity Groups	Managerial	Supervisory	Middle level	Lower level	Others	Total
1. Industrial concerns	1511 (8.34)	3263 (18.00)	1632 (9.00)	9064 (50.00)	2658 (14.66)	18128 (100)
2. Public Utilities	127 (1.30)	83 (0.85)	8676 (88.93)	870 (8.92)	-	9756 (100)
3. Financing and service Institutions.	3 (3.80)	20 (25.32)	33 (41.77)	23 (29.11)	-	79 (100)
4. Trading and Infrastructural development institutions	43 (10.94)	51 (12.98)	67 (17.05)	189 (48.09)	43 (10.94)	393 (100)
5. Institution for development of weaker section	-	1 (7.14)	10 (71.43)	3 (21.43)	-	14 (100)
6. Others	88 (1.99)	221 (5.00)	751 (16.99)	2961 (66.99)	399 (9.03)	4420 (100)
Total	1772 (5.40)	3639 (11.10)	11169 (34.06)	13110 (39.98)	3100 (9.46)	32790 (100)

Table X

Category-wise distribution of Estimated Non-Technical Personnel during 1985.

Activity Groups	Managerial	Supervisory	Middle level	Lower level	Others	Total
1. Industrial concerns	1372 (5.61)	1619 (6.62)	1101 (4.50)	7035 (28.97)	13280 (54.30)	24457 (100)
2. Public Utilities	169 (0.59)	1545 (5.41)	25422 (89.00)	1428 (5.00)	-	28564 (100)
3. Financing & Service Institutions	3 (0.56)	197 (16.91)	466 (40.00)	411 (35.28)	88 (7.55)	1165 (100)
4. Trading and Infrastructural development Institutions	28 (1.52)	201 (10.93)	171 (9.29)	615 (33.42)	825 (44.84)	1840 (100)
5. Institution for development of weaker section	5 (0.70)	57 (8.03)	154 (21.69)	410 (57.75)	84 (11.83)	710 (100)
6. Others	47 (1.13)	178 (4.26)	927 (22.18)	2828 (67.67)	199 (4.76)	4179 (100)
Total	1624 (2.67)	3797 (6.23)	28241 (46.36)	12777 (20.98)	14476 (23.76)	60915 (100)

845

