

## **Labour Force Matrix of Pakistan 1987-88**

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### **1. INTRODUCTION**

Changes which have a direct bearing on the growth and composition of the country's labour force can be identified using a labour force matrix, which provides a detailed classification of the labour force. This paper reports the results of a mainly statistical exercise. It presents a Labour Force Matrix (LFM) of Pakistan for the year 1987-88 [Government of Pakistan (1989)] on the basis of the Labour Force Survey 1987-88 using the same classification as the LFM 1982-83 [see Cohen (1985)]. The use of a common classification enables to highlight some dynamic characteristics of the labour force during the period 1982-83 to 1987-88. On the basis of labour force trends during this period a LFM is estimated for the year 1992-93.

### **2. THE LABOUR FORCE MATRIX OF PAKISTAN 1987-88**

The characteristic feature of the LFM is a four-way classification of the labour force according to activity, occupation, status and education, by rural and urban areas. Table 1 reports the labour force matrix for the year 1987-88, which following Cohen (1985) classifies the total number of workers in the labour force into 70 rows describing the location, status and education of workers, and 63 columns, which identify the economic sector of employment and occupation. The LFM (1987-88) has been compiled using the cross-tabulations reported in the Labour Force Survey for 1987-88 [Government of Pakistan (1989)]. The rows describe the location of the labour force according to rural and urban areas, the status of the workers by five types i.e., employers, employees, self-employed, family workers and unemployed, and seven educational levels i.e., below primary, primary, middle secondary, higher secondary, intermediate, degree and post-degree. The columns identify the labour force according to nine economic sectors i.e., agriculture, mining, manufacturing, electricity, construction, trade, transport, finance, and services, and seven occupation

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Table 1  
The Labour Force Matrix of Pakistan for 1987-88  
(Status and Education by Activity and Occupation)

	Agriculture												Mining/Quarrying												Manufacturing																			
	Prof.				Sales				Service				Agr.				Prof.				Admn.				Cler.				Sales				Service				Agr.				Prod.			
	Prof.	Admn.	Cler.	Prod.	Prof.	Admn.	Cler.	Prod.	Prof.	Admn.	Cler.	Prod.	Prof.	Admn.	Cler.	Prod.	Prof.	Admn.	Cler.	Prod.	Prof.	Admn.	Cler.	Prod.	Prof.	Admn.	Cler.	Prod.	Prof.	Admn.	Cler.	Prod.	Prof.	Admn.	Cler.	Prod.	Prof.	Admn.	Cler.	Prod.				
<b>EMPLOYER</b>	44	89	622	89	0	25019	889	0	0	334	0	0	0	502	1086	1210	2543	716	815	49	54609	44	89	622	89	0	25019	889	0	0	334	0	0	0	502	1086	1210	2543	716	815	49	54609		
BPRIM.	4	5	71	39	0	18775	519	0	0	38	0	0	0	293	88	64	291	311	490	37	31883	4	5	71	39	0	18775	519	0	0	38	0	0	0	293	88	64	291	311	490	37	31883		
PRIM.	1	3	37	13	0	2206	141	0	0	20	0	0	0	80	29	37	152	108	98	4	8672	1	3	37	13	0	2206	141	0	0	20	0	0	0	80	29	37	152	108	98	4	8672		
MSEC.	2	4	56	12	0	2165	107	0	0	30	0	0	0	60	57	53	230	99	80	4	6581	2	4	56	12	0	2165	107	0	0	30	0	0	0	60	57	53	230	99	80	4	6581		
HSEC.	11	14	194	15	0	1207	94	0	0	104	0	0	0	53	263	196	791	119	100	2	5777	11	14	194	15	0	1207	94	0	0	104	0	0	0	53	263	196	791	119	100	2	5777		
INTE.	7	16	119	5	0	291	18	0	0	64	0	0	0	10	180	223	486	41	23	1	1084	7	16	119	5	0	291	18	0	0	64	0	0	0	10	180	223	486	41	23	1	1084		
DEGR.	9	32	120	4	0	167	8	0	0	64	0	0	0	5	232	440	489	31	15	0	497	9	32	120	4	0	167	8	0	0	64	0	0	0	5	232	440	489	31	15	0	497		
POST	10	14	25	1	0	208	2	0	0	14	0	0	0	1	236	196	104	8	7	0	115	10	14	25	1	0	208	2	0	0	14	0	0	0	1	236	196	104	8	7	0	115		
<b>SELF EMP</b>	394	789	5521	789	0	222042	7888	0	0	334	0	0	0	502	11220	12495	26264	7395	8415	510	564043	394	789	5521	789	0	222042	7888	0	0	334	0	0	0	502	11220	12495	26264	7395	8415	510	564043		
BPRIM.	32	42	631	342	0	166624	4605	0	0	38	0	0	0	293	910	658	3001	3209	5066	383	329311	32	42	631	342	0	166624	4605	0	0	38	0	0	0	293	910	658	3001	3209	5066	383	329311		
PRIM.	11	24	331	119	0	19581	1253	0	0	20	0	0	0	80	303	384	1575	1117	1015	45	89573	11	24	331	119	0	19581	1253	0	0	20	0	0	0	80	303	384	1575	1117	1015	45	89573		
MSEC.	21	35	500	109	0	19212	951	0	0	30	0	0	0	60	592	548	2377	1019	827	44	67970	21	35	500	109	0	19212	951	0	0	30	0	0	0	60	592	548	2377	1019	827	44	67970		
HSEC.	95	128	1718	131	0	10714	834	0	0	104	0	0	0	53	2715	2028	8170	1229	1036	25	59671	95	128	1718	131	0	10714	834	0	0	104	0	0	0	53	2715	2028	8170	1229	1036	25	59671		
INTE.	65	145	1056	45	0	2586	157	0	0	64	0	0	0	10	1863	2302	5021	424	241	6	11197	65	145	1056	45	0	2586	157	0	0	64	0	0	0	10	1863	2302	5021	424	241	6	11197		
DEGR.	84	287	1062	34	0	1478	72	0	0	64	0	0	0	5	2397	4548	5051	317	157	3	5137	84	287	1062	34	0	1478	72	0	0	64	0	0	0	5	2397	4548	5051	317	157	3	5137		
POST	86	128	225	8	0	1847	17	0	0	14	0	0	0	1	2440	2028	1070	79	73	4	1186	86	128	225	8	0	1847	17	0	0	14	0	0	0	1	2440	2028	1070	79	73	4	1186		
<b>FAMILY WK</b>	201	403	2819	403	0	113366	4027	0	0	334	0	0	0	502	4241	4723	9927	2795	3181	193	213199	201	403	2819	403	0	113366	4027	0	0	334	0	0	0	502	4241	4723	9927	2795	3181	193	213199		
BPRIM.	16	21	322	175	0	85072	2351	0	0	38	0	0	0	293	344	249	1134	1213	1915	145	124474	16	21	322	175	0	85072	2351	0	0	38	0	0	0	293	344	249	1134	1213	1915	145	124474		
PRIM.	5	12	169	61	0	9997	640	0	0	20	0	0	0	80	115	145	595	422	384	17	33857	5	12	169	61	0	9997	640	0	0	20	0	0	0	80	115	145	595	422	384	17	33857		
MSEC.	11	18	255	55	0	9809	485	0	0	30	0	0	0	60	224	207	898	385	313	17	25691	11	18	255	55	0	9809	485	0	0	30	0	0	0	60	224	207	898	385	313	17	25691		
HSEC.	49	65	877	67	0	5470	426	0	0	104	0	0	0	53	1026	766	3088	465	392	9	22555	49	65	877	67	0	5470	426	0	0	104	0	0	0	53	1026	766	3088	465	392	9	22555		
INTE.	33	74	539	23	0	1320	80	0	0	64	0	0	0	10	704	870	1898	160	91	2	4232	33	74	539	23	0	1320	80	0	0	64	0	0	0	10	704	870	1898	160	91	2	4232		
DEGR.	43	147	542	17	0	755	37	0	0	64	0	0	0	5	906	1719	1909	120	59	1	1942	43	147	542	17	0	755	37	0	0	64	0	0	0	5	906	1719	1909	120	59	1	1942		
POST	44	65	115	4	0	943	8	0	0	14	0	0	0	1	922	766	404	30	28	2	448	44	65	115	4	0	943	8	0	0	14	0	0	0	1	922	766	404	30	28	2	448		

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Table 1 - (Continued)

	Electricity/Gas/Water												Construction												Trade																	
	Prof. Admn.			Sales			Service			Agr.			Prod.			Prof. Admn.			Sales			Service			Agr.			Prod.														
	163	118	340	15	30	15	991	669	1152	669	37	260	0	23965	172	201	660	67262	3291	143	2725	651	473	1361	59	118	59	3965	8235	14182	8235	457	3202	0	295072	3193	3725	12238	1247741	60126	2660	50548
<b>EMPLOYER</b>	163	118	340	15	30	15	991	669	1152	669	37	260	0	23965	172	201	660	67262	3291	143	2725	651	473	1361	59	118	59	3965	8235	14182	8235	457	3202	0	295072	3193	3725	12238	1247741	60126	2660	50548
BPRIM.	13	6	39	6	18	11	579	54	61	76	16	157	0	13992	14	11	75	29191	1951	108	1591	53	25	156	26	71	44	2315	668	746	941	199	1928	0	172275	259	196	1398	541511	36195	1996	29512
PRIM.	4	4	20	2	4	1	157	18	35	40	6	31	0	3806	5	6	40	10156	391	13	433	18	15	82	9	14	5	630	223	435	494	69	386	0	46859	86	114	734	188397	7254	235	8027
MSEC.	9	5	31	2	3	1	119	35	51	61	5	26	0	2888	9	9	60	9268	318	12	328	34	21	123	8	12	5	478	435	622	745	63	315	0	35557	168	163	1108	171925	5908	230	6091
HSEC.	39	19	106	2	4	1	105	162	187	208	6	32	0	2535	42	33	205	11183	399	7	288	158	77	423	10	15	3	420	1992	2301	2562	76	394	0	31216	772	604	3807	207442	7404	128	5348
INTE.	27	22	65	1	1	0	20	111	212	128	2	7	0	476	29	37	126	3857	93	2	54	108	87	260	3	3	1	79	1367	2612	1574	26	92	0	5857	530	686	2340	71550	1720	31	1003
DEGR.	35	43	65	1	1	0	9	143	419	129	2	5	0	218	37	73	127	2886	60	1	25	139	172	262	3	2	0	36	1759	5163	1584	20	60	0	2687	682	1356	2353	53533	1122	18	460
POST	35	19	14	0	0	0	2	145	187	27	0	2	0	50	37	33	27	721	28	1	6	142	77	55	1	1	0	8	1791	2301	335	5	28	0	620	694	604	498	13383	523	22	106
<b>SELF EMP</b>	244	178	510	22	44	22	1487	313	540	313	17	122	0	11234	915	1067	3506	357469	17226	762	14482	244	178	510	22	44	22	1487	313	540	313	17	122	0	11234	915	1067	3506	357469	17226	762	14482
BPRIM.	20	9	58	10	27	17	868	25	28	36	8	73	0	6559	74	56	401	155139	10370	572	8455	20	9	58	10	27	17	868	25	28	36	8	73	0	6559	74	56	401	155139	10370	572	8455
PRIM.	7	5	31	3	5	2	236	8	17	19	3	15	0	1784	25	33	210	53974	2078	67	2300	7	5	31	3	5	2	236	8	17	19	3	15	0	1784	25	33	210	53974	2078	67	2300
MSEC.	13	8	46	3	4	2	179	17	24	28	2	12	0	1354	48	47	317	49255	1693	66	1745	13	8	46	3	4	2	179	17	24	28	2	12	0	1354	48	47	317	49255	1693	66	1745
HSEC.	59	29	159	4	5	1	157	76	88	98	3	15	0	1188	221	173	1091	59431	2121	37	1532	59	29	159	4	5	1	157	76	88	98	3	15	0	1188	221	173	1091	59431	2121	37	1532
INTE.	41	33	98	1	1	0	30	52	99	60	1	3	0	223	152	197	670	20498	493	9	287	41	33	98	1	1	0	30	52	99	60	1	3	0	223	152	197	670	20498	493	9	287
DEGR.	52	65	98	1	1	0	14	67	197	60	1	2	0	102	195	388	674	15337	321	5	132	52	65	98	1	1	0	14	67	197	60	1	2	0	102	195	388	674	15337	321	5	132
POST	53	29	21	0	0	0	3	68	88	13	0	1	0	24	199	173	143	3834	150	6	30	53	29	21	0	0	0	3	68	88	13	0	1	0	24	199	173	143	3834	150	6	30

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Table 1 - (Continued)

EMPLOYEE	8301	6037	17356	755	1509	755	50559	5810	10006	5810	323	2260	0	208198	737	860	2824	287940	13875	614	11665
BPRIM.	673	318	1983	327	909	566	29519	471	527	664	140	1360	0	121554	60	45	323	124964	8353	461	6810
PRIM.	224	185	1041	114	182	67	8029	157	307	348	49	273	0	33063	20	26	169	43476	1674	54	1852
MSEC.	438	265	1571	104	148	65	6093	307	439	526	44	222	0	25089	39	38	256	39675	1363	53	1406
HSEC.	2008	980	5399	125	186	36	5349	1406	1624	1807	54	278	0	22026	178	139	879	47871	1709	30	1234
INTE.	1378	1112	3318	43	43	9	1004	965	1843	1111	19	65	0	4133	122	158	540	16511	397	7	232
DEGR.	1773	2198	3338	32	28	5	460	1241	3643	1117	14	42	0	1896	157	313	543	12354	259	4	106
POST	1805	980	707	8	13	6	106	1264	1624	237	3	20	0	438	160	139	115	3088	121	5	25
UNEMP.	0	0	0	0	1083	0	5056	0	0	401	522	0	0	86232	0	0	0	37237	4936	0	3451
BPRIM.	0	0	0	0	497	0	2317	0	0	184	239	0	0	39520	0	0	0	17066	2262	0	1582
PRIM.	0	0	0	0	147	0	685	0	0	54	71	0	0	11676	0	0	0	5042	668	0	467
MSEC.	0	0	0	0	156	0	728	0	0	58	75	0	0	12417	0	0	0	5362	711	0	497
HSEC.	0	0	0	0	165	0	771	0	0	61	80	0	0	13150	0	0	0	5679	753	0	526
INTE.	0	0	0	0	60	0	282	0	0	22	29	0	0	4812	0	0	0	2078	275	0	193
DEGR.	0	0	0	0	47	0	218	0	0	17	23	0	0	3725	0	0	0	1609	213	0	149
POST	0	0	0	0	12	0	55	0	0	4	6	0	0	931	0	0	0	402	53	0	37

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Table 1 - (Continued)

EMPLOYER	Transport/Communication												Finance						Services												
	Prof. Adm.			Sales Service			Agr.			Prod.			Prof. Adm.			Sales Service			Agr.			Prod.									
	Prof.	Adm.	Chr.	Sales	Service	Agr.	Prod.	Prof.	Adm.	Chr.	Sales	Service	Agr.	Prod.	Prof.	Adm.	Chr.	Sales	Service	Agr.	Prod.	Prof.	Adm.	Chr.	Sales	Service	Agr.	Prod.			
	159	92	1070	26	271	0	4234	156	438	680	211	78	0	109	6404	616	4400	117	5828	284	5759										
BPRIM.	13	5	122	11	163	0	2472	13	23	78	92	47	0	64	519	32	503	51	3508	213	3362										
PRIM.	4	3	64	4	33	0	672	4	13	41	32	9	0	17	173	19	264	18	703	25	915										
MSEC.	8	4	97	4	27	0	510	8	19	62	29	8	0	13	338	27	398	16	573	25	694										
HSEC.	38	15	333	4	33	0	448	38	71	211	35	10	0	12	1550	100	1369	20	718	14	609										
INTE.	26	17	205	2	8	0	84	26	81	130	12	2	0	2	1063	113	841	7	167	3	114										
DEGR.	34	34	206	1	5	0	39	33	159	131	9	1	0	1	1368	224	846	5	109	2	52										
POST	34	15	44	0	2	0	9	34	71	28	2	1	0	0	1393	100	179	1	51	2	12										
SELF EMP	7382	4306	49831	1230	12612	0	197173	1953	5469	8497	2637	977	0	1367	114822	11044	78885	2104	104479	5084	103252										
BPRIM.	599	227	5693	534	7592	0	115117	158	288	971	1144	588	0	798	9310	581	9013	913	62896	3815	60283										
PRIM.	200	132	2988	186	1522	0	31312	53	168	509	398	118	0	217	3103	339	4730	318	12605	448	16397										
MSEC.	390	189	4510	170	1239	0	23760	103	240	769	363	96	0	165	6059	484	7139	290	10266	440	12442										
HSEC.	1786	699	15502	205	1553	0	20859	473	888	2643	438	120	0	145	27782	1792	24540	350	12865	245	10923										
INTE.	1226	793	9527	71	361	0	3914	324	1007	1624	151	28	0	27	19063	2034	15081	121	2989	59	2050										
DEGR.	1577	1568	9583	53	235	0	1796	417	1991	1634	113	18	0	12	24531	4020	15170	90	1949	34	940										
POST	1606	699	2029	13	110	0	414	425	888	346	28	9	0	3	24974	1792	3213	23	910	42	217										
FAMILY WK	498	291	3363	83	851	0	13306	156	438	680	211	78	0	109	35224	3388	24200	645	32051	1560	31675										
BPRIM.	40	15	384	36	512	0	7769	13	23	78	92	47	0	64	2856	178	2765	280	19295	1170	18493										
PRIM.	13	9	202	13	103	0	2113	4	13	41	32	9	0	17	952	104	1451	97	3867	138	5030										
MSEC.	26	13	304	11	84	0	1603	8	19	62	29	8	0	13	1859	149	2190	89	3149	135	3817										
HSEC.	121	47	1046	14	105	0	1408	38	71	211	35	10	0	12	8523	550	7528	107	3947	75	3351										
INTE.	83	54	643	5	24	0	264	26	81	130	12	2	0	2	5848	624	4626	37	917	18	629										
DEGR.	106	106	647	4	16	0	121	33	159	131	9	1	0	1	7525	1233	4654	28	598	10	288										
POST	108	47	137	1	7	0	28	34	71	28	2	1	0	0	7661	550	986	7	279	13	67										

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Table I - (Continued)

EMPLOYEE	12002	7001	81014	2000	20504	0	320557	14454	40472	62876	19513	7227	0	101118	3906570	37576	268399	7157	355479	17297	351304
BPRIM.	973	368	9256	868	12343	0	187154	1172	2130	7184	8469	4351	0	5907	31676	1978	30665	3106	213995	12980	205105
PRIM.	324	215	4857	302	2474	0	50906	391	1243	3770	2946	872	0	1607	10559	1154	16092	1081	42887	1525	55789
MSEC.	633	307	7332	276	2015	0	38628	763	1775	5690	2689	710	0	1219	20614	1648	24289	986	34929	1497	42334
HSEC.	2904	1136	25202	333	2525	0	33912	3497	6568	19560	3244	890	0	1070	94525	6098	83495	1190	43772	835	37165
INTE.	1993	1290	15488	115	587	0	6363	2400	7455	12020	1119	207	0	201	64960	6922	51312	410	10169	201	6974
DEGR.	2564	2549	15580	86	383	0	2920	3088	14733	12091	837	135	0	92	83464	13679	51615	307	6632	115	3200
POST	2610	1136	3299	21	179	0	674	3144	6568	2561	209	63	0	21	84972	6098	10930	77	3095	144	738
UNEMP.	3330	0	6139	0	0	0	41491	0	0	522	2528	0	0	0	21548	0	6661	3852	11316	0	28209
BPRIM.	1526	0	2814	0	0	0	19015	0	0	239	1159	0	0	0	9875	0	3053	1765	5186	0	12928
PRIM.	451	0	831	0	0	0	5618	0	0	71	342	0	0	0	2918	0	902	522	1532	0	3819
MSEC.	480	0	884	0	0	0	5975	0	0	75	364	0	0	0	3103	0	959	555	1629	0	4062
HSEC.	508	0	936	0	0	0	6327	0	0	80	386	0	0	0	3286	0	1016	587	1726	0	4302
INTE.	186	0	343	0	0	0	2315	0	0	29	141	0	0	0	1202	0	372	215	631	0	1574
DEGR.	144	0	265	0	0	0	1792	0	0	23	109	0	0	0	931	0	288	166	489	0	1219
POST	36	0	66	0	0	0	448	0	0	6	27	0	0	0	233	0	72	42	122	0	305

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Table 1 - (Continued)

EMPLOYER	Agriculture						Mining/Quarrying						Manufacturing								
	Prof.	Admn.	Clcr.	Sales	Service	Ag.	Prof.	Admn.	Clcr.	Sales	Service	Ag.	Prof.	Admn.	Clcr.	Sales	Service	Ag.	Prof.		
	RURAL						RURAL						RURAL								
	69	104	345	104	138	229735	2520	0	0	0	0	0	0	67	45	245	22	267	22	17891	
BPRIM.	11	24	107	57	99	189570	1850	0	0	0	0	0	0	11	10	76	12	192	18	13133	
PRIM.	6	24	42	22	17	23025	418	0	0	0	0	0	0	6	10	30	5	33	2	2968	
MSEC.	5	6	47	14	12	11289	162	0	0	0	0	0	0	4	3	34	3	22	1	1151	
HSEC.	29	12	100	9	7	4853	80	0	0	0	0	0	0	28	5	71	2	14	0	566	
INTE.	9	12	26	1	2	654	9	0	0	0	0	0	0	8	5	19	0	4	0	64	
DEGR.	4	18	21	0	1	207	1	0	0	0	0	0	0	4	8	15	0	2	0	9	
POST	6	4	2	0	0	138	0	0	0	0	0	0	0	6	3	1	0	0	0	0	
SELF EMP	2073	3110	10367	3110	4147	6898144	75678	0	0	344	0	344	0	5499	3256	2171	11940	1085	13025	1085	872689
BPRIM.	328	732	3210	1705	2982	5692131	55552	0	0	106	0	247	0	4036	516	511	3697	595	9366	896	640596
PRIM.	173	732	1263	660	513	691365	12555	0	0	42	0	43	0	912	271	511	1455	230	1612	109	144780
MSEC.	138	183	1421	406	347	338965	4868	0	0	47	0	29	0	354	217	128	1636	142	1089	53	56130
HSEC.	864	366	3000	284	222	145714	2395	0	0	99	0	18	0	174	1357	255	3455	99	697	23	27620
INTE.	259	366	789	41	55	19635	270	0	0	26	0	5	0	20	407	255	909	14	174	3	3118
DEGR.	121	549	631	5	28	6201	39	0	0	21	0	2	0	3	190	383	727	2	87	1	445
POST	190	183	53	10	0	4134	0	0	0	2	0	0	0	0	298	128	61	4	0	1	0
FAMILY WK	1634	2451	8170	2451	3268	5436380	59642	0	0	0	0	0	0	0	1016	677	3726	339	4065	339	272343
BPRIM.	259	577	2530	1343	2350	4485929	43780	0	0	0	0	0	0	0	161	159	1154	186	2923	280	199913
PRIM.	136	577	995	520	404	544860	9895	0	0	0	0	0	0	85	159	454	72	503	34	45182	
MSEC.	109	144	1120	320	273	267136	3836	0	0	0	0	0	0	68	40	511	44	340	17	17517	
HSEC.	681	288	2364	224	175	114836	1888	0	0	0	0	0	0	423	80	1078	31	218	7	8619	
INTE.	204	288	622	32	44	15474	213	0	0	0	0	0	0	127	80	284	4	54	1	973	
DEGR.	95	433	498	4	22	4887	30	0	0	0	0	0	0	59	120	227	1	27	0	139	
POST	150	144	41	8	0	3258	0	0	0	0	0	0	0	93	40	19	1	0	0	0	

Continued-



Table 1 - (Continued)

EMPLOYEE	348	522	1739	522	695	1156806	12691	0	0	1833	0	29327	1847	1231	6772	616	7388	616	494988
BPRIM.	55	123	538	286	500	954560	9316	0	0	568	0	21528	292	290	2097	337	5312	508	363345
PRIM.	29	123	212	111	86	115941	2105	0	0	223	0	4865	154	290	825	131	914	62	82119
MSEC.	23	31	238	68	58	56844	816	0	0	251	0	1886	123	72	928	80	618	30	31837
HSEC.	145	61	503	48	37	24436	402	0	0	530	0	928	770	145	1959	56	395	13	15666
INTE.	43	61	132	7	9	3293	45	0	0	140	0	105	231	145	516	8	99	2	1769
DEGR.	20	92	106	1	5	1040	6	0	0	112	0	15	108	217	413	1	49	1	253
POST	32	31	9	2	0	693	0	0	0	9	0	0	169	72	34	2	0	0	0
UNEMP.	0	0	1982	0	0	78109	4954	0	0	0	0	0	1486	0	550	716	716	0	99081
BPRIM.	0	0	1151	0	0	45374	2878	0	0	0	0	0	863	0	320	416	416	0	57556
PRIM.	0	0	235	0	0	9264	588	0	0	0	0	0	176	0	65	85	85	0	11751
MSEC.	0	0	296	0	0	11685	741	0	0	0	0	0	222	0	82	107	107	0	14823
HSEC.	0	0	215	0	0	8483	538	0	0	0	0	0	161	0	60	78	78	0	10760
INTE.	0	0	64	0	0	2523	160	0	0	0	0	0	48	0	18	23	23	0	3200
DEGR.	0	0	14	0	0	570	36	0	0	0	0	0	11	0	4	5	5	0	723
POST	0	0	5	0	0	211	13	0	0	0	0	0	4	0	1	2	2	0	268

Continued-

Table 1 - (Continued)

EMPLOYER	Electricity/Gas/Water										Construction										Trade			
	Prof.	Admn.	Ctr.	Sales	Service	Agr.	Prod.	Prof.	Admn.	Ctr.	Prof.	Admn.	Ctr.	Sales	Service	Agr.	Prod.	Prof.	Admn.	Ctr.	Sales	Service	Agr.	Prod.
	0	0	0	0	0	0	0	14	20	47	7	47	0	3989	138	69	277	138	69	277	41612	3254	69	2008
BPRIM.	0	0	0	0	0	0	2	5	15	4	34	0	2928	22	16	86	22808	2340	57	1474				
PRIM.	0	0	0	0	0	0	1	5	6	1	6	0	662	12	16	34	8825	403	7	333				
MSEC.	0	0	0	0	0	0	1	1	6	1	4	0	257	9	4	38	5431	272	3	129				
HSEC.	0	0	0	0	0	0	6	2	14	1	3	0	126	58	8	80	3801	174	1	64				
INTE.	0	0	0	0	0	0	2	2	4	0	1	0	14	17	8	21	543	44	0	7				
DEGR.	0	0	0	0	0	0	1	4	3	0	0	0	2	8	12	17	68	22	0	1				
POST	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	136	0	0	0				
SELF EMP	264	0	3172	0	1057	529	5287	2458	3687	8604	1229	8604	0	723952	3028	1514	6087	910032	71167	1514	43912			
BPRIM.	42	0	982	0	760	436	3881	389	868	2664	674	6187	0	531415	479	356	1875	498811	51174	1249	32233			
PRIM.	22	0	386	0	131	53	877	205	868	1048	261	1065	0	120104	252	356	738	192992	8807	152	7285			
MSEC.	18	0	435	0	88	26	340	164	217	1179	160	719	0	46564	202	89	830	118764	5950	74	2824			
HSEC.	110	0	918	0	57	11	167	1024	434	2489	112	460	0	22912	1262	178	1752	83135	3808	32	1390			
INTE.	33	0	242	0	14	2	19	307	434	655	16	115	0	2587	379	178	461	11876	952	4	157			
DEGR.	15	0	193	0	7	0	3	143	651	524	2	58	0	370	177	267	369	1485	476	1	22			
POST	24	0	16	0	0	0	0	225	217	44	4	0	0	0	278	89	31	2969	0	1	0			
FAMILY WK	53	0	634	0	211	106	1057	163	244	569	81	569	0	47865	494	247	987	148355	11602	247	7159			
BPRIM.	8	0	196	0	152	87	776	26	57	176	45	409	0	35135	78	58	306	81317	8342	204	5255			
PRIM.	4	0	77	0	26	11	175	14	57	69	17	70	0	7941	41	58	120	31462	1436	25	1188			
MSEC.	4	0	87	0	18	5	68	11	14	78	11	48	0	3079	33	15	135	19361	970	12	460			
HSEC.	22	0	184	0	11	2	33	68	29	165	7	30	0	1515	206	29	286	13553	621	5	227			
INTE.	7	0	48	0	3	0	4	20	29	43	1	8	0	171	62	29	75	1936	155	1	26			
DEGR.	3	0	39	0	1	0	1	9	43	35	0	4	0	24	29	44	60	242	78	0	4			
POST	5	0	3	0	0	0	0	15	14	3	0	0	0	0	45	15	5	484	0	0	0			

Continued-

Table 1 - (Continued)

EMPLOYEE	1745	0	20938	0	6979	3490	34897	1483	2225	5191	742	5191	0	436764	464	232	927	139309	10894	232	6722
BPRIM.	276	0	6483	0	5019	2880	25616	235	523	1607	406	3732	0	320606	78	55	287	76359	7834	191	4934
PRIM.	145	0	2551	0	864	350	5789	124	523	632	157	642	0	72460	39	55	113	29544	1348	23	1115
MSEC.	116	0	2870	0	584	171	2245	99	131	711	97	434	0	28092	31	14	127	18181	911	11	432
HSEC.	727	0	6058	0	373	74	1104	618	262	1502	68	278	0	13823	193	27	268	12726	583	5	213
INTE.	218	0	1594	0	93	10	125	185	262	395	10	69	0	1561	58	27	71	1818	146	1	24
DEGR.	102	0	1275	0	47	3	18	87	393	316	1	35	0	223	27	41	56	227	73	0	3
POST	160	0	106	0	0	2	0	136	131	26	2	0	0	0	42	14	5	455	0	0	0
UNEMP.	0	0	0	0	1486	0	6936	0	0	550	716	0	0	118292	0	0	0	51082	6771	0	4734
BPRIM.	0	0	0	0	863	0	4029	0	0	320	416	0	0	68716	0	0	0	29673	3933	0	2750
PRIM.	0	0	0	0	176	0	823	0	0	65	85	0	0	14029	0	0	0	6058	803	0	561
MSEC.	0	0	0	0	222	0	1038	0	0	82	107	0	0	17697	0	0	0	7642	1013	0	708
HSEC.	0	0	0	0	161	0	753	0	0	60	78	0	0	12847	0	0	0	5547	735	0	514
INTE.	0	0	0	0	48	0	224	0	0	18	23	0	0	3821	0	0	0	1650	219	0	153
DEGR.	0	0	0	0	11	0	51	0	0	4	5	0	0	864	0	0	0	373	49	0	35
POST	0	0	0	0	4	0	19	0	0	1	2	0	0	319	0	0	0	138	18	0	13

Continued



Table 1 - (Continued)

EMPLOYEE	897	897	40345	1793	897	1793	262691	1856	5568	16703	3712	7423	0	1856	298457	5236	129593	2618	286676	19635	175409
BPRIM.	142	211	12493	983	645	1480	192828	294	1310	5172	2034	5338	0	1362	47256	1232	40128	1435	206138	16202	128759
PRIM.	75	211	4915	380	111	180	43581	155	1310	2035	787	919	0	308	24871	1232	15788	555	35475	1968	29101
MSEC.	60	53	5530	234	75	88	16896	124	328	2289	484	621	0	119	19897	308	17762	342	23970	965	11282
HSEC.	374	105	11673	164	48	38	8314	773	655	4833	339	397	0	59	124357	616	37497	239	15341	415	5551
INTE.	112	105	3072	23	12	5	939	232	655	1272	48	99	0	7	37307	616	9868	34	3835	56	627
DEGR.	52	158	2458	3	6	2	134	108	983	1017	6	50	0	1	17410	924	7894	4	1918	18	90
POST	82	53	205	6	0	1	0	170	328	85	12	0	0	0	27359	308	658	9	0	12	0
UNEMP.	4569	0	8422	0	0	0	56917	0	0	716	3468	0	0	0	29559	0	9138	5284	15523	0	38697
BPRIM.	2654	0	4892	0	0	0	33063	0	0	416	2014	0	0	0	17171	0	5308	3070	9017	0	22479
PRIM.	542	0	999	0	0	0	6750	0	0	85	411	0	0	0	3506	0	1084	627	1841	0	4589
MSEC.	683	0	1260	0	0	0	8515	0	0	107	519	0	0	0	4422	0	1367	791	2322	0	5789
HSEC.	496	0	915	0	0	0	6181	0	0	78	377	0	0	0	3210	0	992	574	1686	0	4202
INTE.	148	0	272	0	0	0	1838	0	0	23	112	0	0	0	955	0	295	171	501	0	1250
DEGR.	33	0	61	0	0	0	415	0	0	5	25	0	0	0	216	0	67	39	113	0	282
POST	12	0	23	0	0	0	154	0	0	2	9	0	0	0	80	0	25	14	42	0	104

groups i.e., of professionals, administrative personnel, clerical workers, sales workers, service workers, agricultural and production workers.

In this form the LFM is a flexible tool which can be aggregated to various classifications reflecting the heterogeneity that exists in labour markets, and also to analyse the segmentation in labour markets around status categories. For example, Table 2 presents the aggregated form of the LFM in percentage form for the year 1987-88 with a division of the labour force into wage and non-wage labour. A subdivision into protected wage labour and unprotected wage labour can identify the vulnerable segments of the labour force. Table 3 presents a projected LFM for the year 1992-93 in percentage form which has been estimated on the basis of labour force trends during the period 1982-83 to 1987-88.

### **3. CHANGES IN THE COMPOSITION OF THE LABOUR FORCE (1982-83 – 1987-88)**

A comparison of the labour force matrices for 1982-83 and 1987-88 shows that changes in the sectoral distribution of the labour force during the Eighties are characterized by increased mobility of the labour force, a decline in the proportion of the total number of people employed in the agricultural sector, growth of employment in the non-commodity producing sectors and increasing importance of rural non-agricultural activities. The rate of labour absorption in the agriculture sector has not been high though non-agricultural employment in the rural areas has expanded significantly. This expansion and the relatively fast pace of growth of employment in the non-commodity producing sectors have played an important role in determining the trends in the country's labour market. In the urban areas employment growth is largely determined by changes in the non-commodity producing sectors. The increases in the labour force during the Eighties have been absorbed, primarily by the construction, transport and service sectors where a large majority of workers are not protected by labour legislation, which therefore, reflects the growth of the unprotected vulnerable segment of the labour force.

The proportion of the labour employed in the agriculture sector has declined from 51.7 percent in 1982-83 to 48.7 percent in 1987-88 though there has been a small increase in the number of agricultural workers. In this period the rate of labour absorption in the agriculture sector remained low which is reflected in the growth rate of agricultural employment of only 1.5 percent per annum as compared with the growth rate of the labour force of 2.7 percent per annum. Almost 34 percent of rural workers are employed in non-agricultural activities as compared with 30.8 in 1982-83, which represents an increase of 24 percent during the five years. Given a tightening of rural labour markets and rising real wages of agricultural workers the increase in the proportion of rural workers employed in non-agricultural activities is



Table 3  
*Projected Labour Force Matrix (Aggregated) 1982-83*  
*(Percentage Distribution)*

WAGE	Agriculture						Minn/Man/Ele/Cas/W						Construction						Trade/Tran/Fin/Serv						Total
	Prof		Adm/Cle		Sal/Ser		Agr/Pro		Prof		Adm/Cle		Sal/Ser		Agr/Pro		Prof		Adm/Cle		Sal/Ser		Agr/Pro		
BPRIM.	0.00	0.01	0.01	2.32	0.00	0.05	0.05	2.68	0.00	0.00	0.00	0.00	0.01	0.80	0.25	0.51	2.12	1.91	10.73						
PRIM.	0.00	0.00	0.00	0.31	0.00	0.01	0.69	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.10	0.14	0.50	0.47	2.43						
MSEC.	0.00	0.00	0.00	0.15	0.00	0.02	0.01	0.41	0.00	0.00	0.00	0.00	0.08	0.07	0.19	0.37	0.27	1.58							
HSEC.	0.00	0.00	0.00	0.06	0.01	0.03	0.02	0.36	0.00	0.01	0.00	0.00	0.07	0.62	0.30	0.57	0.23	2.28							
INTE.	0.00	0.00	0.00	0.01	0.00	0.03	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.20	0.18	0.02	0.81						
DEGR.	0.00	0.01	0.00	0.00	0.00	0.06	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.25	0.37	0.15	0.01	0.89						
POST	0.00	0.00	0.00	0.00	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.32	0.09	0.05	0.00	0.50						
<b>NON-WAGE</b>																									
BPRIM.	0.00	4.50	0.15	25.71	0.02	0.18	0.08	3.02	0.02	0.07	0.17	0.70	7.05	0.27	2.50	3.72	1.68	49.15							
PRIM.	0.00	1.20	0.04	3.44	0.01	0.08	0.02	0.74	0.01	0.04	0.03	1.64	1.64	0.12	0.86	1.23	0.40	9.84							
MSEC.	0.00	0.88	0.02	1.54	0.01	0.09	0.01	0.33	0.01	0.03	0.02	0.63	0.63	0.07	0.99	0.89	0.19	5.70							
HSEC.	0.01	0.97	0.01	0.57	0.04	0.23	0.03	0.26	0.05	0.08	0.02	0.42	0.42	0.65	1.99	1.21	0.14	6.68							
INTE.	0.00	0.45	0.00	0.07	0.03	0.15	0.02	0.01	0.03	0.07	0.00	0.02	0.02	0.29	1.00	0.35	0.01	2.50							
DEGR.	0.00	0.97	0.00	0.02	0.02	0.14	0.01	0.01	0.02	0.07	0.00	0.01	0.01	0.18	0.80	0.34	0.01	2.61							
POST	0.00	0.28	0.00	0.01	0.03	0.02	0.01	0.00	0.02	0.01	0.00	0.00	0.00	0.25	0.07	0.07	0.00	0.78							
UNEMP.	0.00	0.03	0.00	0.10	0.01	0.00	0.02	0.45	0.00	0.00	0.01	1.60	1.60	0.24	0.06	0.25	0.75	3.50							
Total	0.02	9.32	0.23	34.33	0.18	1.10	0.30	9.02	0.17	0.40	0.27	12.53	4.02	10.07	11.98	6.07	100.00								



partly a reflection of an increasing diversification of the rural economy associated with higher levels of per capita income and consumption.

In industry, the rate of growth of labour absorption has increased by a little less than 5 percent per annum. But there has been a slight increase in the proportion of non-wage industrial labour, which shows the increasing importance of the small-scale non-wage sector. A similar conclusion can be drawn from the evidence of a slight decline in the proportion of urban industrial labour in the total and the rise of non-wage employment. The fastest growth of employment (6.2 percent) has been in the non-commodity producing sectors, especially in the construction and transport sectors, which have absorbed most of the increase in the employment during the Eighties.

Employment in the services sector, which is employment mainly in the public sector, has grown at a rate of almost 9 percent per annum since 1982, largely due to the rapid expansion of public expenditure and has led to a shift in the composition of the labour force in favour of salary earners. The number of urban employees in the service sectors has grown by 42 percent and almost half of the employees have higher secondary or above education. In the trade sector with a high proportion of self-employed and unprotected wage earners constituting a vulnerable section of the labour force having a very low educational achievement, there has been a modest increase in total employment of 3.1 percent per annum.

#### **4. EDUCATIONAL CHARACTERISTICS OF THE LABOUR FORCE**

A number of significant changes have occurred in the educational attainments of the labour force during the period from 1982-83 to 1987-88, reflecting a high degree of market flexibility and sectoral mobility of educated workers. First, workers with little or no education have increased at a rate which is more than the average rate of growth of the labour force. As a result, such workers now make up 65.4 percent of the total labour force in the country as compared with 65.1 percent in 1982-83. Second, there has been a substantial decline in the number of highly educated workers in the agricultural, industrial and construction sectors. Third, the service sectors have increased rapidly, and within this sector the number of highly educated workers has increased at an even faster rate. The service sectors now account for the largest concentration of highly qualified persons in the economy. And fourth, employment in the service sectors has increased, in general, at a growth rate higher than the average leading to a high rate of absorption of even the poorly educated workers. This is in marked contrast to the changes that have occurred in the industrial labour force. Employment absorption has declined in the industrial sector for all categories of workers though the percentage decline is largest for

workers with intermediate and higher degrees.<sup>1</sup>

However, during the Eighties the problem of educated unemployment has become a cause for much concern. The proportion of unemployed educated labour in the total number of unemployed persons has increased from less than 43 percent in 1982-83 to almost 47.1 percent in 1987-88 while the rate of unemployment has declined from 3.9 percent to 3.2 percent during the same period. There is a positive relationship between educational attainment and the rate of unemployment. The lowest rate of unemployment of 2.6 percent is for workers with less than primary education. The rate of unemployment for workers with middle or higher secondary education is 6 percent, which is the same as the rate of unemployment for workers with intermediate education. Beyond this level of education the rate of unemployment declines to 3.8 percent for workers with degree education and to 1.9 percent for workers with post-degree education. The higher rate of unemployment for secondary and intermediate education suggests that market adjustment in response to the pressure of the educated job-seekers is slow, which is partly due to the dominance of a large informal sector.

## 6. SUMMARY AND CONCLUSIONS

In this paper a LFM has been constructed for the year 1987-88 and estimates a projected LFM for the year 1992-93. A comparison of the LFM 1987-88 with the LFM 1982-83 shows that there has been a decline in the proportion of the workers employed in the agricultural sector, while non-agricultural activities in the rural areas have increased in importance. In the urban areas the contours of labour market growth are increasingly determined by the service sectors, which have absorbed most of the increases in the labour force. But this has been accompanied by the growth of the unprotected vulnerable segment of the labour force.

The educational composition of the labour force leaves much to be desired. Even more disturbing is the rise in the percentage of the educated unemployed and

<sup>1</sup>Developing countries including Pakistan have demonstrated a remarkable capacity for labour absorption, even when modern sector employment growth is only a fraction of total labour force growth. The urban and rural traditional or informal sectors are large with flexible wage rates and high elasticities of substitution between factors. These sectors have absorbed an increasing proportion of the additions to the labour force and have kept the open unemployment rate quite low. The full intensity of the unemployment problem in developing countries cannot be captured from the aggregate trends of labour supply and demand because in developing countries employment cannot be treated as a 'discrete' and 'homogenous' category, while the measure of labour market imbalance involves the division of the total population into three distinct categories of those not in the labour force, the employed and the unemployed. Thus, for an explanation of the observed rates of unemployment it may be necessary to focus on the microdynamics of labour market behaviour rather than on aggregate trends of labour supply and demand.

there is a positive relationship between educational attainment and the rate of unemployment. Part of the problem of educated unemployment is due to a mismatch between educational attainment of the new entrants to the labour force and the pattern of labour demand, which suggests that improvements are needed in the education and training system to enhance the employability of educated job-seekers.

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## Comments on “Labour Force Matrix of Pakistan 1987-88”

Given the title of the paper, one would expect a formal treatment of the compilation of the Labour Force Matrix (LFM) for Pakistan including the theoretical merits and demerits. However, the LFM for the year 1987-88 is simply presented with a reference stating that the table is “compiled using the cross-tabulations . . . reported in the Labour Force Survey for 1987-88”. Therefore, this lack of reference to methodological issues renders it impossible to gauge the quality of the matrix and its forecast for 1992-93. Consequently, I will turn to the main objective of this paper, which concentrates on the use of the LFM as a tool for analyzing labour market trends in the economy.

First of all, I would like to observe that in the discussion on labour market trends, the authors tend to utilize data which do not appear in the tables or are presented in a format which is not clear. Besides, it has been shown elsewhere [OECD (1971)] that the coefficients derived from the LFM for the purpose of manpower planning are inappropriate given the high level of aggregation of the data used.

Having said this, I would like to turn to some of the arguments which are brought forward by the authors to explain the trends observed from the LFM. However, the arguments are not supported by data or literature references. On the other hand, my comments are based on a study of the labour force by Anel and Havinga (1989) using data from the Census of Manufacturing Industries (CMI), the Survey on Small and Household Manufacturing Industries (SHMI) and the Distributive Trade Survey (DTS). For each of the three surveys, 2 data sets have been used for the manufacturing sector for the years 1976-77 and 1983-84 and for distributive trade for the years 1975-76 and 1984-85. As the sectors covered by these surveys provide employment to a substantial proportion of the population working in non-agricultural activities, some inferences have been drawn on the employment absorption capacity and trends and issues regarding productive and gainful employment and income distribution.

For instance, the authors conjecture that “the tightening of rural labour markets and the increase in the proportion of rural workers employed in non-agricultural activities . . .”, lead to higher levels of per capita income. However, we have observed sharply declining labour productivity in rural non-farm employment

from 1975-76 to 1984-85 which, in turn, is significantly lower than that in urban informal employment. This result is contrary to their statement.

Secondly, their observation that labour absorption in the manufacturing sector increased by 5 percent per annum seems to be on the high side. The survey results indicate an increase of 3 percent per annum. More importantly, but not mentioned in the paper, is that the bulk of the absorption has taken place in the small-scale manufacturing sector where 40 percent of the employment is in sectors with declining productivity.

Thirdly, although we can confirm the growth rate of 3.1 percent per annum in the distributive trade sector, their related statement on vulnerability of employment in this sector is not in conformity with our findings. In contrast, an 8 to 9 percent annual increase in labour productivity is observed in this sector. Still, one prefers to see similar trends in other sectors of the economy, since the nature of this sector does prevent the creation of resource mobilization capacity and technological innovation.

Fourthly, their statement that educated job-seekers are unemployed due to search time and at the same time participate in economic activities cannot be correct. By definition, a person of 10 years of age and above, is considered employed if he/she works 15 hours or more during the last week for pay or family gain.

At this stage I would like to conclude, that the list of comments is not exhaustive. The labour market analysis presented in this paper lacks rigor and depth. Moreover, the level of aggregation of the LFM they use shows that the present format of LFM is an inappropriate tool to undertake detailed labour market analysis. Nonetheless, the LFM might prove an appropriate tool at a more disaggregated level, especially when used in conjunction with specific purpose surveys to explain the observed trends.

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