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EDUCATION - EMPLOYMENT LINKAGES : THE MACRO PROFILE

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1. Introduction

One of the foremost social achievements of Sri Lanka has been the provision of free education through a system of facilities which are easily accessible throughout the island. The impact of this provision has been a gradual upgrading of the educational profile of the population and the labour force during the last five decades.

Census data (Table 1) shows a substantial decline between 1971-81 in the population over 5 years who have "no schooling" or an education of only Grades 1-4. In contrast, there has been a rapid growth in those with an education of Grade 5 and above and by 1981, 55% of the population was in this category. The same pattern is reflected in the growth of the working age population and the labour force (both having a lower age limit of 10 years). Survey data (Table 2) gives a broadly similar pattern for the more recent 1980/81 - 1985/86 period.

During the nineteen sixties there was some controversy about the content of education and its relevance to the economy in line with an awareness of growing unemployment. However, it was the ILO Mission (1971) which put forward the hypothesis that unemployment in Sri Lanka was mainly due to an imbalance between the aspirations of the increasingly educated young entrants into the labour force and the pattern of employment opportunities available. Arising from this report, the education system was overhauled in 1972 in an attempt to change job aspirations. However, unemployment has continued to be a persistent and serious problem during the seventies and eighties, baffling the efforts of successive governments as well as a range of diagnostic studies.

The inability to pinpoint the reasons for unemployment has been largely due to the inadequacy of the labour force and labour market information available. The analyses undertaken have had to depend almost entirely on data from censuses and surveys, which (1) did not have as their main purpose the measurement of labour force variables; (2) introduced changes in concepts, definitions etc. at will; and (3) used sampling fractions (about 0.3%) for surveys which were too small to capture the geographical variability of labour force characteristics. Further, these sources provided only measures of the final disposition of the labour force in terms of employment/unemployment rather than providing data for the independent assessment of labour supply, labour demand and their characteristics.

Table 1: Population and Labour Force by Educational Ataintment- 1971, 1981 (000).

Educational Attainment	Population		Labour Force		
	Total	Working Age	Employ-ment	Unemploy-ment	Total
No Schooling					
1971	2777	2103	841	101	942
1981	1716	1473	531	44	575
% change	-38.21	-29.96	-36.86	-56.44	-38.96
Grades 1-4					
1971	3310	2326	1430	112	1542
1981	2866	1647	989	69	1058
% change	-13.41	-29.19	-30.84	-38.39	-31.39
Grades 5-10					
1971	4383	4369	1105	502	1607
1981	7151	6931	1807	633	2440
% change	63.15	58.64	63.53	26.10	51.84
Passed (OL)					
1971	415	415	174	113	287
1981	985	985	587	125	712
% change	137.35	137.35	237.36	10.62	148.08
Passed (AL)					
1971	99	99	69	7	76
1981	199	199	144	22	166
% change	101.01	101.01	108.70	214.29	118.42
Passed Degree					
197	42	42	30	4	34
1981	75	75	61	4	65
% change	78.57	78.57	103.33	0.00	91.18
Total					
1971	11026	9354	3649	839	4488
1981	12992	11310	4119	897	5016
% change	17.83	20.91	12.88	6.91	11.76

Note: Total population refers to those 5 years and over. The working age population and Labour force have a lower age limit of 10 years.

Sources: *Department of Census and Statistics (1976) Vol. II Part I Tables 14, 15; Volume II Part II tables 6, 16.*
Department of Census & Statistics (1985) Volume II Part I, Tables 12, 13,14, 26 & 29.

Table 2: Population and Labour Force by Education Attainment, 1980/81, 1985.86 (000).

Category	Population		Labour Force		
	Total	Working Age	Employed	Un-employed	Total
No schooling					
1980/81	1948	1482	555	33	588
1985/86	1670	1268	575	37	612
% change	-14.27	-14.44	3.60	12.12	4.08
Grade 1-4					
1980/81	5742	4341	1784	145	1929
1985/86	4781	3327	1455	122	1577
% change	-16.74	-23.36	-18.44	-15.86	-18.25
Grade 5-10					
1980/81	4342	4342	1534	406	1940
1985/86	6057	6053	2125	392	2517
% change	39.50	39.41	38.53	-3.45	29.74
Passed (O/L)					
19809/81	1516	1516	672	220	892
1985/86	1507	1507	731	210	941
% change	-0.59	-0.59	8.78	-4.55	5.49
Passed (AL)					
1980/81	279	279	129	48	177
1985/86	308	308	156	73	229
% change	10.39	10.39	20.93	52.08	29.38
Passed Degree					
1980/81	75	75	64	5	69
1985/86	107	107	90	6	96
% change	42.67	42.67	40.63	20.00	39.13
Total					
1980/81	13902	12035	4738	857	5595
1985/86	14430	12570	5132	840	5972
% change	3.80	4.45	8.32	-1.98	6.74

Note: The total population refers to those 5 years and over. The working age population and labour force have a lower age limit of 10 years.

Sources: *Department of Census & Statistics (1982) Tables 1,2.*
Department of Census & Statistics (1987) Tables 3.1, 7.1, 12.1.

This paper will first examine in detail the concepts, definitions and magnitudes of labour force variables provided by the 1971 and 1981 Censuses and the 1969/70, 1980/81 and 1985/86 Labour Force and Socio-economic Surveys of the Department of Census and Statistics (SES); the 1973, 1978/79 and 1981/82 Consumer Finance Surveys (CFS) of the Central Bank of Ceylon; and the first round of the 1990 Quarterly Labour Force Survey (QLFS) conducted in Jan. 1990 by the Department of Census and Statistics (Section 2). This will facilitate the choice of a consistent data set which can be used in a discussion of the magnitudes and trends in labour force and education growth in Section 3 with a view to providing the framework for a more detailed discussion in subsequent sections. In Section 4 there will be a more detailed discussion of the pattern of employment, output and productivity growth and the educational and other characteristics of the unemployed and employed. Section 5 reviews critically the main hypotheses put forward by various authors to explain the phenomenon of unemployment in Sri Lanka, leading to certain conclusions in Section 6.

2. Evaluation of Data Sets

The labour force concepts used in the various censuses and surveys in Sri Lanka have tended to broaden over time in an attempt to capture those on the fringe of the labour force. Tables 3, 4, 5 and 6 summarize the definitions used and the magnitudes derived by the censuses and surveys carried out during the last two decades. The major fluctuations in unemployment and employment estimates appear to be mainly due to measurement inconsistencies rather than changes in economic activity or demographic shifts. The main issues inhibiting consistency of these data sets are:

1. Variations in the reference periods and the number of days/hours work specified for a particular period to test labour force participation. The work criterion specified for a person to be categorised as employed varies from one day during a reference period of the preceding two months in CFS 1973 to one hour during the last calendar week in the SES 1985/86 and the QLFS, 1990 to one day (with a minimum of 3 hours work) during the last calendar week in CFS 1980/81. While this breadth of definition has a better chance of picking up seasonal, casual, unpaid family workers and other under-employed workers found in developing countries such as Sri Lanka, it tends to underestimate the country's employment problem.

2. The definition of unemployment has also been broadened from one including only those who are actively seeking work to one that also includes those who would like to work but are not seeking work because they think no work is available. Bowen (1990) maintains that this has probably overestimated unemployment and the labour force, since some discouraged workers may be difficult to encourage to join the labour force (due to unrealistic wage expectations, etc.)

3. Whether marginal categories such as unpaid family workers, students, housewives, casual workers are included in the labour force. An unpaid family worker had to work 3 hours a day (during the reference week) to be counted as employed in the 1971 census and 15 hours a week (during the reference 30 days)

in the 1981 census. Housewives who described themselves as "discouraged" but willing to work were included in the 1971 census but not in the 1981 census. A casual worker had to have worked for a major part of the reference period of 30 days to be included as employed in the 1981 census although there was no such specification in the 1971 census. Students who declared they would have preferred to work rather than study if work was available were classified as unemployed in the CFS 1973 although in other CFS surveys they were excluded if they were full-time students. Both the 1980/81 and 1985/86 SES included members of the family who were temporarily (less than one month) away from home; but this definition would not have picked up the exodus of those employed abroad.

4. Differences in the choice of age limits i.e. upper and lower cut-off points. The censuses recorded the activities of those 10 years and above. The SES 1969/70 placed a lower age limit of 5 years on the employed and 15-64 years on the unemployed. The SES 1980/81 and 1985/86 placed a lower age limit of 10 years on the employed and unemployed. All three CFS had no age limits for employment, but a lower age limit of 14 years for the unemployed.

In view of the serious discrepancies highlighted above, it is necessary to choose the data sets which, although not consistent in terms of the four main areas identified above, seem to give the most reasonable figures. Generally, census data would be preferred for an employment - education linkage analysis, since a total enumeration would provide comprehensive data on the full range of labour force characteristics.

The 1971 census used a definition of unemployment which included "discouraged workers" i.e. those who were not actively seeking work but were available for work if it was provided. Consequently this census gave markedly higher estimates than earlier ones but probably brought out the actual level of unemployment for the first time. Korale (1989) also suggests that female employment may have been underestimated due to the stipulation of the number of hours to be worked for unpaid family workers to be classified as employed.

The 1981 census derived unemployment as a residual category and stipulated that work should be carried out during a major part of the reference period (30 days) for casual workers to be classified as employed. This latter is likely to have excluded from the employed some landless labour and marginal workers in small scale manufacturing and the informal sector. Female unemployment was also underestimated by excluding housewives who were not actively seeking work but were willing and available for work. Thus there was substantial undernumeration of the labour force in the 1981 census to the extent that between 1971-81 the labour force grew by only 53,000 p.a. which is about half the number indicated by earlier censuses and surveys during the seventies and eighties. Further, the female labour force was affected in particular, as indicated by the fall in female participation rates between the census of 1971 and that of 1981. Due to these serious deficiencies the 1981 census has been excluded from the analysis of aggregate levels, but will be used to indicate patterns of employment.

Table 3 : Selected Information on Censuses, 1971,1981.

	1971	1981
Date	October 9	March 19
Coverage	Total Enumeration	Total Enumeration
Labour Force		
Principal Activities Ascertained	Employed; unemployed; student; income recipient/pensioner; home duties; too old to work; children not at school or work; others.	Employed; student; retired/ unable to work; own housework; others.
Definition of labour force	Employed & Unemployed	Employed & Unemployed
Age limit: employed	10 years and above	10 years and above.
unemployed	Same	Same
Number (000's)	4488	5017
Employed		
Definition General	Those engaged in any kind of work for pay or profit. Includes apprentices in receipt of an allowance, seasonal workers, unpaid family workers.	Those engaged in any kind of work for pay or profit. Includes apprentices in receipt of an allowance, seasonal workers, unpaid family workers.
- Seasonal workers	Cultivators who work during the cultivation season only.	A person who has an usual occupation but did not work during reference period due to seasonal factors.
- Unpaid family	Worker without pay of any kind for at least 3 hours a day in an activity undertaking or business carried on by a member of household, excluding house keeping.	Worker without payment for at least 15 hours a week in any economic activity, business or trade carried on by a member of household, excluding housekeeping.
-Casual worker	No definition	Worker who finds work from day to day; classified as employed only if he has worked for a major part of the reference period.
Reference period	1 week	30 days
Number (000)	3649	4119
Unemployed		
Definition	i. Those not employed who are seeking work. ii. Persons available for work even though not actively seeking work because they felt no suitable work was available.	i. Those not employed who are seeking work. ii. Persons not seeking work because it was not available but want to work and are available for work; but housewives were excluded.
Reference period	1 week	30 days.
Number (000)	839	897

The Labour Force and Socio-economic Surveys (SES) described in Table 4 were conducted using the Department's district statistical investigators and supervised by its own staff. The 1969/70 survey excluded single-member households and institutions and the 1980/81 and 1985/86 surveys included single member households but not institutions. If the number of boarders in a household exceeded 3, it was classified as an institution and excluded from all the surveys.

Table 4: Selected Information on Labour Force and Socio Economic Surveys, 1969/70, 1980/81, 1985/86 .

	1969/70	1980/81	1985/86
Dates	1 November 1969 - 31 October 1970 Conduc-ted in 4 consecutiverounds of 3 months each.	May 1980-April 1981 Conducted in 4 consecutive rounds.	April 1985-March 1986 Conducted in 12 monthly rounds. Districts of Killinochchi Mullaitivu, Vavuniya under enumerated.
Coverage	9694 households	10,000 households	25,000 households.
Labour Force			
Definition	Employed & unemployed	Employed & unemployed	Employed and those available for employ-ment.
Age limit:			
employed	5 years and above	10 years and above	10 years and above.
unemployed	15-64 years	Ditto	Ditto
Number (000)	4168	1 week -5595; 1 year -5715	1 week -5972; 1 year (not tabulated)
Employed			
Definition General	i. All who were in regular employment as emplo-yers, employees (including apprentices) oras own account workers during reference period even if temporarily away from work.	i. Those working for pay/ profit during reference period as employers, employees, self employed and unpaid family workers. Includes those reporting housekeeping/studying as main activity who have worked at least 12 hours during reference week.	i. A person who worked at least during last calendar week as an employer, employee (including casual and seasonal workers), own account worker or unpaid family worker.
	ii. Includes seasonal, casual and unpaid family workers	ii. Those with a job but temporarilly not at work including seasonal workers.	
- Seasonal worker	Those engaged mainly in seasonal occupations even though they may not have been at work.	Those engaged inagricul-ture related activities but not at work during off season.	Not separately defined.

Table 4 Contd.

	1969/70	1980/81	1985/86
- Unpaid family worker	Those assisting in a family enterprise who had worked at least 10 days during the reference period or the season preceding the survey.	Those who haveworked at at least 12 hours during reference week. without any payment in	A person who worksi n an enterprise operated by a member of his household cash or kind.
- Casual worker	Those contract, temporary or casual workers who had worked at least days during reference period.		Casual and temporary workers classified as employees if they worked at least one hour during reference week.
Reference period	1 month	1 week and 1 year	1 week; 1 year
Number (000)	3160	1 week - 4738; 1 year - 4851	1 week - 5132 1 year - not tabulated.
Unemployed			
Definition	All between 15-64 years who were not employed and were seeking work. Excludes those primarily engaged in household work who were not actively in search of employ-ment and students.	i. Those not employed and available and actively seeking work (methods specified) ii. Those not looking for work because they were aware that no suitable work was available; were discou-raged; sick etc. but were available for work. Includes unpaid family workers who worked less than 12 hours a week but wanted to work more.	i. Those who are seeking employment. ii. Those who are not seeking employment at present (discouraged or for other reasons) but ready to work when opportunity given.
Reference period	1 month	1 week; 1 year	1 week; 1 year
Number (000)	558	1 week - 857; 1 year -864	1 week -840 1 year - not tabulated

The age range used for categorising the employed and unemployed in the SES 1980/81 and 1985/86 was consistent with that used in the censuses i.e. a lower age limit of 10 years. However, the 1969/70 surveys derived the unemployed as a residual and counted only those between 15-64 years, whereas the employed had only a lower age limit of 5 years.

The concepts of "current activity status" and "usual activity status" were simultaneously measured for the first time in the 1980/81 SES. The former was measured using a reference period of 1 week (the Sunday to Saturday preceding the enumeration) and the latter by having a reference period of the 12 months preceding the survey. The employment and unemployment (including "discouraged workers") estimates obtained from the two measures proved to be very close, probably due to the use of trained and high quality interviewers (Korale, 1985 b). This survey has been criticised as having over-estimated the population i.e. a count of 15.3 million (compared to a Census 1981 estimate of 14.9 million) which would be reflected in estimates of the labour force, employment and unemployment. The 1980/81 survey data however, appears to be a preferable source to the 1981 census data in view of the serious under-estimation of labour force in the latter.

Korale (1989) points out that the population, and consequently the labour force, have been under-estimated in the 1985/86 SES. A comparison of the 1980/81 and 1985/86 SES shows a decline during this period of 94,000 in the male labour force, while the female labour force has increased by 351,000. There has also been a decline in service industry workers by about 200,000. The under-estimation, particularly of the male labour force, may be due to increased recruitment into the armed forces (which are classified as institutions and excluded from the survey), illegal emigration as refugees after the 1983 riots, and internal migration to the North. Whatever the cause, the underestimation is sufficiently large to give a distorted picture of trends and the SES 1985/86 data is not included in the analysis except to give support to trends identified from other data for the 1980/81 - 90 period.

The Consumer Finance Surveys (Table 5) were initially conducted by teachers who were trained as enumerators (CFS 1973) and this probably affected the quality of the data collected; but in 1978/79 and 1980/81 the Central Bank used their own team of trained investigators. The samples were confined to households so that institutions such as army camps, hospitals, hostels etc., were excluded. Single-person households were included. Households with more than 3 boarders were included but the boarders in that household were excluded.

The 1973 CFS included students (over 14 years) in the unemployed if they were on the look out for employment; this greatly inflated the unemployment figures. It also used a 2 month reference period which may have been subject to recall problems. The 1978/79 survey used a reference period of one month, but did not include "discouraged workers" among the unemployed, so that this data set would not be comparable with the 1971 census and 1980/81 SES data sets.

The 1981/82 CFS data set has also proved to be unsatisfactory as it shows a decline in the total labour force of 7% (compared to the 1978/79 CFS) arising out of substantial declines in both employment and unemployment; this, despite unprecedented economic growth rates during this period. There was also a significant decline in the proportion of unpaid family workers in the labour force from 11.5% in 1978/79 to 9.5% in 1981/82

which may be due to the exclusion from employment of those whose main activity was in the household. "Discouraged workers" were also excluded from unemployment.

Table 5: Selected Information on Consumer Finance Surveys, 1973, 1978/79, 1980/81

	1973	1978/79	1981/82
Dates	January-February 1973	1st Oct. 1979-80 Sept. 1979 Conducted in 4 successive rounds.	1st Oct.1981 - 30th Sept. 1982Conducted in 4 successive rounds.
Coverage	5000 households	8000 households; data on 383 households in Ampara, Mannar, Batticaloa not obtained due to cyclone.	8000 households
Labour Force Definition	Persons who supplied as well as those who were willing to supply their labour for production purposes during ref. period.	Same as 1973, employed & unemployed.	Employed & unemployed.
Age Limit: employed unemployed	none 14 and above	none 14 and above	none 14 and above.
Reference period:	2 months immediately preceding survey.	1 month	1 week
Number (000)	4451	5458	5089
Employed Definition	Person who has gainful employment of at least one day during ref. period. Included self employed, employers, employees, unpaid family workers.	Person with gainful employment of at least one day during ref. period. Includes employees, employers, self employed persons persons, unpaid family workers.	Persons engaged in economic activities at least oneday with aminimum of 3 hour sduring ref. period. Includes those temporarily absent from work during reference week. Excludes those whose only activity was work in own house.
- Seasonal worker	No definition	No definition	No definition.
- Unpaid family worker	Person who worked in an enterprise owned by a member of the household for at least 3 hours a day without remuneration.	Person who worked in an enterprise owned by a household member for at least 3 hours a day without remuneration.	Persons who worked in an enterprise or farm owned by household member without payment.

Table 5 contd.

	1973	1978/79	1981/82
- Casual worker	No definition	No definition	Person who did not have permanency in the occupation.
Reference period	2 months	One month immediately preceding date of first visit to house.	One week immediately preceding date of first interview.
Number (000)	3383	4690	4495
Unemployed			
Definition	i. A person who was not employed and was actively seeking employment. ii. Children who were attending school but at the same time were on the look out for employment were included. Those who had not been seeking work were excluded.	A person who was not employed was actively seeking work, but was unable to find any. Those not actively seeking work such as house- wives were excluded. Those under 14 years or who were attending school were treated asnot in the elabour forceven if they were actively seeking employment.	Person who had no work during reference week or were not temporarily absent from work but were actively working or available for work if work is found. Persons who have given up seeking work because they believe it is not available are excluded.
Reference period	2 months	1 month	1 week
Number (000)	1068	768	594

In order to obtain some indication of labour force magnitudes at the end of the eighties this study has had to fall back on the Quarterly Labour Force Survey (first round) which was conducted by the Department of Census and Statistics in January 1990 (Table 6). Although the survey data is based on a very small sample of 2500 households, it was conducted throughout the island and has the same age limits as the 1971 census and 1980/81 SES. Significant differences emerge with respect to the (different) reference periods used to estimate employment and unemployment using the "current status" and the "usual status" approaches. However, the labour force participation rates estimated from this survey data appear to be reasonably in line with the data from the Census 1971 and 1980/81 SES.

This study will therefore depend mainly on three data sets for the analysis of education - employment linkages - the 1971 Census, the 1980/81 Socio-economic Survey and the Quarterly Labour Force Survey 1990, all conducted by the Department of Census and Statistics. Other Census and survey data will be used to supplement this analysis.

3. Levels and Trends in Employment, Unemployment & Underemployment

Due to the multiplicity of data sources and conflicting estimates available regarding the magnitude of labour force variables, this section seeks to establish consistent trends in the growth of the labour force, employment and unemployment (taking into account important variables such as education) using the data sets chosen in section 2. The extent of the problem of "discouraged workers" and underemployment will also be discussed with a view to strengthening the validity of these employment and unemployment estimates.

Table 6: Selected Information on Sri Lanka Quarterly Labour Force Survey, 1990 First Quarter 1990

Date	January 1990
Coverage	2,500 Sample: All Island
Labour Force	
Definition	Employed & unemployed
Age Limits	10 years and over for both categories
Number (000)	i. 6969 - current status ii. 6223 - usual status
Employed	
Definition	i. Person who worked for pay, profit or unpaid family gain for one hour or more during the past week; paid employees, employers, own account workers and unpaid family workers are included. ii. Person whose major economic activity during the past 12 months was employment is said to have been usually employed.
Reference period	i. Current status - week preceeding week of survey. ii. Usual status - past 12 months.
Number (000)	i. 5964 ii. 5070
Unemployed	
Definition	i. Person who did no work but was looking or available for work during the past 4 weeks. ii. Person who was looking or available for work during the major part of the last 12 months.
Reference period	i. Current status - 4 weeks ii. usual status - 12 months
Number (000)	i. 1005 ii. 1153

The labour force grew at a steady pace (Table 7) between 1971-1980/81 (123,000 p.a.) and 1980/81 to 1990 (137,000 p.a.). Although there was an overall decline in male and female participation rates between 1971-1980/81 (Table 8), the male labour force grew at 2.3% p.a. and the female labour force at 3.0% p.a. Since male participation rates had by then reached very high levels, further increases in the labour force had to come from increases in the female rates. Between 1980/81- 90 there was a remarkable increase in female participation rates by nearly one half, with rates almost doubling in the age group 20- 34 and all[1] age groups registering significant increases. Consequently the female labour force grew faster (5.4% p.a.)than the male labour force (0.8% p.a.) between 1980/81 -90. i.e. by 106,000 p.a. against 31,000 p.a.

Table 7: Growth of Employment & Unemployment by Sex - 1971, 1980/81, 1990.

		Number (000)			Growth p.a.			
		1971	1980/81	1990	1971-1980/81		1980/81-1990	
					No.	Rate	No.	Rate
Labour Force	Total	4488	5595	6968	123	2.5	137	2.2
	Male	3312	4059	4373	83	2.3	31	0.8
	Female	1176	1536	2596	40	3.0	106	5.4
Employed	Total	3649	4738	5964	121	2.9	123	2.3
	Male	2838	3556	3977	80	2.5	42	1.1
	Female	811	1182	1987	41	4.3	81	5.3
Unemployed	Total	839	857	1005	2	0.2	15	1.6
	Male	474	503	396	3	0.7	-11	-2.4
	Female	365	354	609	-1	-0.3	26	5.6
Unemploy-ment Rate	Total	18.69	15.32	14.42		-2.2		-0.6
	Male	14.31	12.39	9.06		-1.6		-3.1
	Female	31.05	23.05	23.46		-3.3		0.2

Source: Department of Census & Statistics (1976) Vol. II Part II Table 1.
Department of Census & Statistics (1982) Table 2.
Department of Census & Statistics (1990) Table 1 and special tabulations.

1 These high figures are not merely a survey mesurement aberration. The SES 1985/86 gave female participation rates in keeping with these figures i.e. Age : 20-24 - 48%, 25-29 - 46%, 30-34 - 45%, 35-49 - 45%.

Participation rates tend to increase gradually with education for both males and females (Table 9). However, the rates for those with "no schooling" and a Grade 1-4 education have traditionally been somewhat higher than that of those with a Grade 5-10 education. This is probably due to the high participation rates of the estate population, most of whom have less than a Grade 5 education. While no clear trend emerges in the participation of males of different education levels, it is noteworthy that the major increase in female participation rates identified in Table 8 was already taking place in the 1980/81 - 1985/86 period[2] and was evident for females of all educational levels (Table 9). This spurt resulted in female participation rates at the higher education levels approximating to those of males by 1985/86.

Table 8: Labour Force Participation Rates by Age & Sex -1971, 1980/81, 1990.

	Male			Female		
	1971	1980/81	1990	1971	1980/81	1990
10-14	6.3	5.5	5.3	4.1	3.1	4.6
15-19	48.6	41.9	36.2	26.4	20.6	26.9
20-24	89.2	86.8	84.9	42.2	39.0	64.0
25-29	96.9	90.0	96.4	39.3	36.8	58.3
30-34	97.8	96.4	97.8	34.8	33.9	62.3
35-39	97.3	97.0	96.7	32.6	35.8	55.6
40-44	96.8	96.2	97.9	30.9	36.1	51.8
45-49	85.7	95.3	95.8	29.8	33.6	47.9
50-54	92.3	90.1	94.6	24.5	28.3	34.5
55-59	80.9	79.1	73.9	16.7	21.1	31.3
60-64	65.6	65.4	49.0	10.5	13.8	13.3
65 +	40.7	41.7		5.1	5.8	
All ages	68.4	66.8	67.4	26.0	25.8	39.4

Source: Department of Census and Statistics (1976), (1982) and (1990), special tabulation.

Net additions to the employed fluctuated between 121 - 123,000 p.a. during the last two decades. In the seventies, male employment did not increase as fast as the net additions to the labour force so that unemployment increased by 0.7% p.a. However during the eighties, male unemployment fell by 11,000 p.a. and by 1990 was lower than in 1971. Female employment also expanded rapidly[3] during the last two decades but did not keep up with the large addition to the female labour force in the 1980/81 - 90 period; unemployment grew by around 26,000 p.a. and females constituted 61% of the total unemployed by 1990. Unemployment rates for females were more than double that of males throughout the last two decades.

2 Participation Rates by education were not available from the Quarterly Labour Force Survey 1990.

3 Although the surveys counted those "temporarily away from home", this definition included those who were away for less than one month. Consequently workers going to the Middle East would have been excluded.

Table 9: Labour Force Participation Rate by Education & Sex,1971, 19809/81, 1985/86.

	Male			Female		
	1971	1980/81	1985/86	1971	1980/81	1985/86
No schooling	69.5	64.4	70.7	30.4	28.9	48.3
Grades 1-4	96.8	64.3	64.1	27.5	21.4	47.4
Grades 5-10	51.5	66.7	53.5	17.9	19.4	41.6
Passed GCE 'O' Level	62.0	73.8	79.2	54.2	43.0	62.4
Passed GCE 'A' Level	75.4	69.9	83.1	78.6	56.6	74.4
Passed Degree	86.2	95.7	91.9	69.2	85.7	89.7
Total	68.4	66.8	61.2	26.0	25.8	47.5

Note: Data on the 1990 working age population is not available, so SES 1985/86 data has been used.

Source: Department of Census & Statistics (1976), (1982) and (1990) special tabulation.

There has been a substantial upgrading of the educational status of the employed in line with that of the population, working-age population and labour force. Net additions to employment were largest (Table 10) for those with a Grade 5-10 education while there was an exodus of those with "no schooling" and a Grade 1-4 education. Some upgrading of the educational qualifications for existing jobs must have taken place in this process.

Attention has tended to focus on those with G.C.E. 'O' level qualifications (Table 11) because of their high unemployment rates (39% in 1971, 25% in 1980/81 and 27% in 1990)and their implication in the national insurgencies of 1971 and 1987-89. Unemployment increasingly affected the G.C.E. 'A' level educated during the seventies and eighties with unemployment rates reaching 27% by 1980/81 and 32% by 1990. Taken together those who were unemployed in 1990 who had passed the GCE 'O' and 'A' Level came to 48% of all unemployed. Graduate unemployment appears to have been pretty well contained (Table 10,11) by special government initiatives (such as the graduate employment schemes) which were instituted during the last decade.

Table 10: Employment & Unemployment by Education Level 1971, 1980/81, 1990

	Employed					Unemployed				
	Number (000)			% Change p.a.		Number (000)			% Change p.a.	
	1971	1980/ 1981	1990	1971-1980/ 1981	1980/ 1981-1990	1971	1980/ 1981	1990	1971-1980/ 1981	1980/ 1981-1990
No Schooling	841	555	526	-4.51	-0.54	101	33	24	-11.69	-3.13
Grades 1-4	1430	1784	1499	2.49	-1.73	112	145	59	2.91	-8.60
Grades 5-10	1105	1534	2597	3.71	5.41	502	406	429	-2.33	0.55
Passed GCE 'O' Level	174	672	949	16.20	3.51	105	220	347	8.57	4.66
Passed GCE 'A' Level	69	129	287	7.20	8.33	15	48	137	13.80	11.06
Passed Degree	30	64	106	8.78	5.18	4	5	9	2.51	6.05
Total	3649	4738	5964	2.94	2.33	839	857	1005	0.24	1.61

Source: Department of Census & Statistics (1986), Vol. I Part II Table 6 and Table 16.
Department of Census & Statistics (1982) Table 2.
Department of Census & Statistics (1990) unpublished data.

Table 11: Unemployment Rates, 1971, 1980/81, 1990.

Educational Category	1971	1980/81	1990
No schooling	10.72	5.61	4.36
Grade 1 - 4	7.26	7.51	3.79
Grades 5 - 10	31.24	20.93	14.17
Passed GCE (OL)	39.37	24.66	26.77
Passed GCE (AL)	9.21	27.27	32.31
Passed Degree	11.76	7.25	7.89
Total	18.69	15.32	14.42

Source: Same as Table 10.

Although unemployment rates were lower for those with a Grade 5-10 education i.e. 31%, 21% and 14% the total number affected is larger. Thus, as the largest single group in the labour force as a whole and in unemployment in particular, a major problem of labour absorption appears to lie with those with a Grade 5-10 education. Net additions

to the labour force of this category are around 108,600 p.a. while there is still a backlog of 429,000 unemployed to be found work.

The significance of "discouraged workers" among the unemployed has been an issue which has not been addressed explicitly by earlier studies, although it has been discussed in relation to the definitions used in the different censuses and survey reports. Masinghe (1986) adjusted 1971 and 1981 census data by excluding those "not actively seeking work" from the unemployed and notes that unemployment rates fell from 19% to 12.1% in 1971 and from 18% to 15.6% in 1981. More recently, Bowen (1990) excluded "discouraged workers" i.e. those that claim that they are not seeking work because they do not believe they can find employment, from the data on the unemployed in the SES 1985/86 and found that only about 10% of the male unemployed and 13% of the female unemployed were in this category. "This fraction is similar across age groups, sectors and levels of educational attainment'. (p. 10). The Quarterly Labour Force Survey 1990 shows that the unemployed who were "discouraged" i.e. they were not able to get a job and believed no work to be available, came to 8.5% of the unemployed, with females showing a higher rate (10.0%) than males (6.3%). Hence, over the last two decades, "discouraged" workers seem to have reduced in significance as a constituent part of the unemployed. Since they now constitute only a small proportion of the unemployed, doubts about whether they are in fact available for work need not affect the quantitative analysis of the unemployment problem, whether they are included in the unemployed or not.

It is clear from Tables 3-6 that due to the breadth of definition used for the employed, the underemployed have also been caught up in this category (rather than being included with the unemployed). The assessment of what part of the employed are underemployed has, however, proved difficult. Wilson (1975) summarised two early surveys which assessed underemployment in terms of the number of hours worked (Table 12). When compared with Quarterly Labour Force Survey data for 1990 (also given in Table 12), there seems to have been an increase over the last two decades in underemployment in terms of the percentage of the population who work less than 40 hours a week i.e. in 1990 about 50% of the employed worked less than 40 hours a week. However, this norm may be considered unreasonably high and does not take into account the availability and willingness of the worker to do more work.

The Consumer Finance Surveys asked every person as to how many days he was willing and available for work and measured the actual days employed against this norm: the discrepancy was termed underemployment. According to this estimate, underemployment rates reduced during the 1978/79 - 81/82 period in non-urban areas (Table 13) but were still substantial. On average, in both years an additional labour input of around 20% was available, especially from estate and rural labour. In the urban sector, males had higher rates of underemployment, while in the rural and estate sectors it was the females. This method of measurement of underemployment however has the weakness that a little over 85% of the employed stated that they were available for work seven days in the reference week.

Bowen (1990) has examined underemployment, as estimated in the 1985/86 SES data (Table 14), according to three alternate definitions (1) persons who worked less than 60 days in the last year (2) persons who worked less than 180 days in the last year and (3) all those who claimed they were available for additional work during the last calendar week. He concludes that "Underemployment according to definition (1) is not a big problem in Sri Lanka, amounting to 1.2 percent for men and 3.5 percent for women. The problem is greater in rural areas as the data for the second definition of underemployment corroborate.... The third definition of underemployment is not very useful; over 30% of the people who claimed to have worked 50 hours or more in the last week also claimed to be available for more work! One can conclude that there is scope for further utilisation of the existing employed labour force (particularly rural women) but that underemployment is not an acute problem" (pages 9-10). Bowen's conclusion that underemployment is not a serious problem is based on data pertaining to a reference period of one year which may have been affected by recall problems; the number of hours worked each day is also not assessed.

Although the data from the three sources discussed above is not strictly comparable, a general conclusion may be drawn that underemployment in Sri Lanka was around 20% in the eighties since around 20% of the employed population worked less than 20 hours a week in 1990 (Table 12); 20% worked less than 180 days in the last year according to SES 1985/86 (Table 14); and about 20% said they were available for more work in CFS 1981/82 (Table 13). As there was no drastic variation in underemployment, the problem, though substantial, need not affect the analysis of employment data.

Table 12 : Distribution of Employed Persons by Number of Hours Worked, 1959/60, 1968, 1990 (%).

	14 hrs. or less	15-39 hrs	Over 40 hrs.	Total
1959/60	16.8	26.4	56.8	100.0
1968	8.8	27.9	63.3	100.0
1990	19.5 (a)	30.8 (b)	49.7	100.0

Notes: (a) 0-19 hrs. (b) 20-39 hrs.

Sources: Wilson P (1975) quoted in Korale (1985 a)
Department of Census & Statistics (1990), Table 6.

Table 13: Underemployment Rates by Sector 1978/79, 1981/82.

	Urban	Rural	Estate	All Island
1978/79	12.8	23.5	33.4	22.8
1981/82	12.8	20.6	26.3	19.6

Source: Central Bank of Ceylon (1983) and (1984).

Table 14: Underemployment Rates by Sector & Sex 1985/86.

	Definition (1)		Definition (2)		Definition (3)	
	M	F	M	F	M	F
Urban	0.8	1.7	11.0	15.4	45.7	43.3
Rural	1.4	4.3	15.0	29.2	57.7	51.8
Estate	0.6	1.3	6.0	7.6	43.6	35.7
Total	1.2	3.5	13.7	24.1	54.5	48.4

Notes: Definition (1) worked fewer than 60 days in last year.
Definition (2) worked fewer than 180 days in last year.
Definition (3) Available for additional work during last calendar week.

Sources: SES (1985/86) tapes and Bowen's calculations.

It is evident that there is a considerable degree of consistency in the labour market data provided by the Census 1971, SES 1980/81 and QLFS 1990. The significance of "discouraged workers" in the unemployment estimates has been declining; and under-employment has remained at around 20%; hence the estimates of employment and unemployment are not undermined by the inclusion of these two categories. The three data sets have also identified some significant trends and magnitudes in labour force variables. (1) The slowing down of male labour force growth, employment and unemployment and the contrasting spurt in female labour force growth, employment and unemployment. (2) The increase in labour force participation and unemployment by educational level; but the largest single group on the labour market is still those with a grade 5-10 education.

4. Growth and Characteristics of the Employed and Unemployed

This section will examine the characteristics of the employed and unemployed in the context of changes in the economy over the last two decades and establish what are the employment - education linkages in Sri Lanka.

For the decade of the seventies as a whole (Table 15) employment growth averaged 2.9% while output averaged 4.5% and productivity 1.5%. However, within this period, the early seventies had very low growth rates (2.9% p.a.between 1971-77) with growth occurring mainly in the paddy, mining and quarrying and service sectors. After 1977, the economy responded to the major public sector investment programmes and the economic liberalisation policy with a growth surge of 8.2% in 1978, 6.3% in 1979 and 5.8% in 1980; paddy cultivation, mining and quarrying and services continued to grow, while manufacturing and construction also picked up. During this decade the agriculture sector had the lowest employment growth rate, mainly due to declining output in the plantation sector and a major programme of repatriation of Indian estate workers; but domestic agriculture absorbed about 300,000 new workers. The service sector made a similar contribution of 347,000 jobs. The highest employment growth rates were in the mining and quarrying and construction sectors, but their contribution to employment is small.

Although there was no change in economic strategy, the eighties were marked by severe ethnic riots in 1983, civil disruptions during 1988-89, and an ongoing war situation in the northeast. Despite this, the economy maintained a growth rate of 3.6% p.a., with 2.3% employment and 1.5% productivity growth. Growth in paddy production was affected by strife in the major paddy growing areas, but plantation agriculture showed some recovery; productivity increases were low (but positive) in both sectors and employment increased by 584,000. Manufacturing growth accelerated to 5.2% p.a. and provided an additional 275,000 jobs. Output, employment and productivity continued to grow in the service sector, (but at a slower pace) and created 330,000 jobs. Mining grew rapidly, but the construction industry declined with the cut back in large scale public sector investment programmes.

Table 15: Distribution of Employment and Growth in Employment, Output & Productivity,1971, 1980/81, 1990.

Industry	Percentage Distribution of Employment			Annual Growth Rates 1971 -1980/81			Annual Growth Rates 1980/81 -1990		
	1971	1980/81	1990	Employment	Output	Productivity	Employment	Output	Productivity
1. Agriculture	55	49	49	1.65	3.03	1.84	2.27	1.98	0.87
1.1 Plantation	22	18	18	0.35	-1.70	-4.89	2.81	1.05	0.37
1.2 Domestic	33	31	30	2.46	4.86	1.98	1.95	2.28	1.17
2. Mining	..	1	3	19.04	24.38	1.28	9.15	5.65	0.62
3. Manufacturing	10	13	15	5.61	1.82	0.32	3.82	5.20	1.36
4. Construction	3	5	3	8.86	4.65	0.53	-2.68	0.16	-0.06
5. Services	31	32	31	3.02	5.37	1.78	2.01	4.31	2.15
6. Total	100	100	100	2.94	4.47	1.52	2.33	3.59	1.54

Notes: .. negligible

Sources: *Department of Census & Statistics (1976) Table 9.*
Department of Census & Statistics (1982) Table 13.
Department of Census & Statistics (1990) Table 2.
Central Bank of Ceylon, Annual Reports 1982 and 1989.

The main avenue of employment for those with less than GCE 'O' level education (Table 16) is the agriculture sector. In 1981 (census data) 63% of the males and 79% of the females with less than Grade 4 and 41% of the males and 50% of the females with Grades 5-10 schooling were employed in agriculture; paddy and tea were the dominant sectors for both sexes. The service sector is the main area of employment for those with

higher levels of education i.e. for 67% of the males and 76% of the females with GCE 'O' level and 82% of the males and 93% of the females with GCE 'A' level or above. The males were mainly in trade, transport and public administration while the females were in the education, medical, administrative and trade areas. Industry played a very minor role in labour absorption with the exception of the textile and garment sector (for women with a secondary education).

Table 16: Distribution of Employed by Sex, Sector and Education, 1981 (%).

	Total		< Grade 4		Grades 5-10		GCE 'O'		GCE 'A' & above	
	M	F	M	F	M	F	M	F		
1. Paddy	22	10	30	12	21	13	7	2	2	..
2. Tea	7	30	12	48	6	22	2	2	1	..
3. Rubber	2	6	4	8	2	6	1	..	..	..
4. Field Crops	3	2	5	3	3	3	..	..	..	..
5. Vegetables & Fruits	2	1	3	2	2	2	1	..	..	..
6. Fishing	2	..	3	..	2	..	..	..	..	..
7. Other Agriculture	5	4	6	6	5	4	4	2	2	1
8. Mining & Quarrying	1	..	1	..	1	..	1	..	..	..
9. Textile & Garments	2	7	1	..	2	15	3	13	1	2
10. Wood & Furniture	2	..	2	..	3	..	1	..	..	..
11. Other Industry	6	4	3	3	7	7	8	4	11	3
12. Construction	4	1	3	..	5	..	5	1	1	1
13. Trade, Rest. Hotels	12	4	7	2	14	6	18	10	10	4
14. Transport, Storage, Communications	6	1	2	..	7	1	12	4	6	2
15. Finance	1	1	..	..	1	..	4	3	9	6
16. Public Adm. & Defence	5	4	2	1	4	3	17	11	17	11
17. Education	2	11	..	..	..	2	7	30	28	59
18. Medical	1	3	..	..	1	3	2	10	5	7
19. Repair Service	1	..	..	..	2	..	1	..	1	..
20. Domestic Service	..	4	..	5	..	4	..	1	..	..
21. Other services	4	2	4	1	3	1	1	2	2	1
22. A N C	10	7	12	7	9	8	5	5	4	3
Total	100	100	100	100	100	100	100	100	100	100

Notes: .. negligible; M-male; F-female;ANC-Activities not classified

Source: Department of Census & Statistics (1985) special tabulations.

Female employment has been growing faster than that of males in almost all sectors (Table 17) during the seventies and especially during the eighties. The major avenue of employment during these two decades for both males and females was agriculture, but with a changing sex ratio, which suggests some substitution of female for male labour. In manufacturing too, the proportion of females grew rapidly, mainly due to the expansion in the garments sector. Both males and females benefitted from the rapid growth of mining and quarrying and construction in the seventies and suffered in the subsequent slump in construction in the eighties.

Table 17: Employment by Sector and Sex.

	Male					Female				
	Number			Growth p.a.		Number			Growth p.a.	
	1971	1980/81	1990/91	1971-80/81	1980/81-90	1971	1980/81	1990/91	1971-80/81	1980/81-90
1. Agriculture	1466	1690	1898	1.59	1.17	532	627	1003	1.84	4.81
2. Mining & Quarr.	13	63	139	19.02	8.17	01	05	25	19.33	17.07
3. Manufacturing	265	410	480	4.97	1.59	105	195	400	7.09	7.46
4. Construction	113	232	175	8.38	-2.80	01	14	12	32.69	-1.13
5. Trade	353	437	407	2.38	-0.70	25	89	113	14.84	2.45
6. Transport, Storage & Communication	194	203	238	0.51	1.61	03	08	14	11.28	5.40
7. Electricity & Gas	10	17	12	6.30	-3.32	01	02	1	7.78	-7.01
8. Financing, etc.	25	41	39	5.43	-0.50	02	16	12	24.83	-2.53
9. Community & Social Services	398	463	588	1.67	2.43	140	-227	407	5.51	6.01
Total	2838	3556	3977	2.54	1.13	811	1182	1987	4.27	5.33

Note: 1. The sex ratio of the 1985/86 SES was used to distribute the total employment in each industrial sector as sex-differentiated figures were not available.

Sources: *Department of Census & Statistics (1976) Vol. 11 Part II Table 8.*
Department of Census & Statistics (1982) Table 13.
Department of Census & Statistics (1990) Table 2.

While much of the increase in employment in the seventies was in the employee category, in the eighties it was mainly in unpaid family work and own account work (Table 18). In particular, paid employment for women did not increase at a rate commensurate with their increased participation in the labour force in the eighties; 39% of the increase in female employment was in unpaid family work, 23% in own account work and only 35% in paid employment. Unpaid family workers are mainly utilised in

the paddy sector. Male own-account workers are primarily farmers cultivating paddy and other food crops, craftsmen, traders, tailors and protective service workers. Female own account workers are engaged in home industries such as handloom, pottery, tobacco and food processing, vending of fruits and vegetables and cooked food on pavements and in markets. In their eagerness to find work, many women have been thrust into casual and informal sector employment; even in paid employment they tend to be low-wage workers on the lower rungs of the occupational structure. Thus the quality of the new employment created in the eighties leaves much to be desired.

Table 18: Employment by Status & Sex, 1971, 1980/81,1990.

Category	Employed Population (000)			Percentage Distribution			Annual Rates of Growth	
Status & Sex	1971	1980/81	1990	1971	1980/81	1990	1971-80/81	1980/81-90
Employee	2430	3048	3469	66.59	64.33	58.17	2.55	1.30
Male	1807	2220	2361	49.52	46.86	39.59	2.31	0.62
Female	623	828	1108	17.07	17.48	18.58	3.21	2.96
Employer	113	87	198	3.10	1.84	3.32	-2.86	8.57
Male	107	83	174	2.93	1.75	2.92	-2.78	7.68
Female	6	4	24	0.16	0.08	0.40	-4.41	19.62
Own Account Worker	914	1191	1490	25.05	25.14	24.98	2.98	2.27
Male	823	1023	1134	22.55	21.59	19.01	2.45	1.04
Female	91	168	356	2.49	3.55	5.97	7.05	7.80
Unpaid Family Worker	192	412	807	5.26	8.70	13.53	8.85	6.95
Male	101	230	308	2.77	4.85	5.16	9.58	2.96
Female	91	182	499	2.49	3.84	8.37	8.01	10.61
Total	3649	4738	5964	100.00	100.00	100.00	2.94	2.33
Male	2838	3556	3977	77.77	75.05	66.68	2.54	1.13
Female	811	1182	1987	22.23	24.95	33.32	4.27	5.33

Sources: Department of Census & Statistics (1976) Vol. 11,Part II, Table 2.
Department of Census & Statistics (1982) Table 9.
Department of Census & Statistics (1990) Table 4.

A significant feature of the labour market is the poor absorption of youth into paid employment. In 1990 the average age of employees in the public sector was 36 years; of employees in the private sector, 31 years; in own account work , 43 years; and in unpaid family work, 29 years. In fact, 77% of all unemployment was accounted for by those

between 15-30 years of age (Table 19), even though 41% of this age group do not enter the labour force. Only 28% entered paid employment, while 25% remained unemployed or worked as unpaid family workers. As much as 54% of all unpaid family workers are in this age group, and for those between 15 - 19 years this is the main avenue of employment. The significance of unpaid family work declines in the older age groups as these youth find better quality employment.

Unemployment rates have been declining for the 10-14 year olds as more and more of them remain in school (Table 20). The age of 15-19 years is therefore when most of those with primary and secondary education first come onto the labour market. This age group has the highest unemployment rates for men; for women, the peak rates have shifted from the 15-19 group in 1971 and 1980/81 to the 20-29 age group as girls have tended to stay in school longer. By the end of the eighties the unemployment rates were similar for the 15-19 and 20-29 year old.

Table 19 : Distribution of Population Aged 15-35 years by Activity Status, 1990.

	15-19	20-25	25-29	Total	% of All Age Groups
A. Employed					
Employee - Public	0.5	4.0	4.3	8.8	32
Private	3.4	7.8	8.3	19.5	42
Employer	..	..	0.4	0.4	12
Own Account Worker	0.6	2.1	2.8	5.5	17
Unpaid Family Worker	3.7	3.0	2.0	8.7	54
Sub total	8.2	16.9	17.8	42.9	34
B. Unemployed	3.5	9.1	3.7	16.3	77
C. Outside Labour Force	25.4	9.1	6.3	40.8	45
D. Total	37.1	35.1	27.8	100.0	42

Source: Department of Census & Statistics (1990) Table 1,4.

After the age of 30 there seems to be a marked decline in unemployment rates, a pattern which is evident in all three data sets (Table 20) and has not been satisfactorily explained by researchers. Table 21 (the only available cross tabulation of age, education, employment and unemployment) shows that the better educated have higher unemployment rates (than the lesser educated) in the later (20-24 and 25-29) age groups, lending credence to the theory that education plays a role in lengthening the "waiting period" for a job; but this data set, which is from the SES 1985/86, does not show the sudden fall in unemployment rates after age 30 that is indicated by the 1971, 1980-81 and 1990 data sets.

On the other hand, Dickens and Lang (1989) maintain that unemployment is primarily a problem of youth. It is only "because education is higher in the groups that have the highest unemployment rates, that unemployment appears to be "educated unemployment". Among youths and young adults, unemployment levels are high and durations are long for virtually all education levels" (p. 25). The data in Table 21 suggests that for the 15-19 year olds and 20-24 year olds unemployment is high because of the difficulty of entry into the labour market i.e. it is a problem of youth. However, high unemployment rates in the 25-29 age group seem to be mostly affecting those with GCE 'O' level education and above and is education - related, although the exact relationship cannot be established by this type of macro-analysis.

Table 20 : Unemployment Rates by Age & Sex, 1971, 1980/81, 1990.

Age	Male			Female			Both Sexes		
	1971	1980/81	1990	1971	1980/81	1990	1971	1980/81	1990
10-14	35	14	6	42	21	16	38	16	11
15-19	38	38	23	44	43	39	40	40	30
20-29	23	22	17	41	40	41	29	27	27
30-39	6	4	6	18	11	15	9	6	9
40-49	4	2	2	12	1	4	6	2	3
50-59	4	1	1	15		6	5	1	2
60 +	5	1	5	30	2	..	8	1	4
All ages	14	12	9	31	23	23	19	15	14

Sources: Department of Census & Statistics (1976) Vol. II, Part II, Table 1
Department of Census & Statistics (1982) Tables 12,14
Department of Census & Statistics (1990) unpublished data.

Also using the SES 1985/86 data set, Bowen (1990) confirms that most of the unemployed never had a job; and first time job seekers are mainly in the 15-24 age group trying to gain initial access to the labour market. About 45% of the male and 51% of the female first time job seekers are between 15-24 years (Table 22) and they have been waiting for a long time for a job, generally more than 12 months.

Table 21: Employed and Unemployed Population by Age and Level of Education, 1985/86 ('000)

	All ages	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 & over
No schooling													
Unemployed	37	2	14	6	2	1	3	3	2	1	1	2	-
Employed	575	16	55	54	54	43	58	55	67	62	41	26	47
Unemployment Rate (%)	6.0	11.1	20.3	10.0	3.6	2.3	4.9	5.2	2.9	1.6	2.4	7.1	-
1-5 years													
Unemployed	121	-	36	27	12	9	7	5	7	3	7	20	5
Employed	1,455	38	126	180	147	167	175	126	127	119	102	64	84
Unemployment Rate (%)	7.7	11.6	22.2	13.0	7.5	5.1	3.8	3.8	5.2	2.5	6.4	-	5.6
6-8 years													
Unemployed	154	3	43	45	21	18	9	4	3	2	3	2	1
Employed	1,216	34	96	155	172	149	134	122	100	91	68	44	53
Unemployment Rate (%)	11.2	8.1	30.9	22.5	10.9	10.8	6.3	3.2	2.9	2.2	4.2	4.3	1.9
9-10 years													
Unemployed	239	-	61	97	43	20	12	4	1	-	1	-	-
Employed	909	4	100	159	174	148	121	64	48	41	19	15	16
Unemployment Rate (%)	20.8	-	37.9	37.9	8.3	11.9	9.0	5.9	2.0	-	-	-	-
O-Levels													
Unemployed	209	-	31	90	43	21	7	11	3	2	1	-	-
Employed	730	-	25	118	131	116	107	84	62	46	26	9	7
Unemploment Rate (%)	28.3	-	55.4	43.3	24.7	15.3	6.1	11.6	4.6	4.2	3.7	-	-
A-Levels													
Unemployed	73	-	1	41	23	6	1	-	-	-	-	-	-
Employed	156	-	1	38	42	30	18	13	4	4	2	1	1
Unemploment Rate (%)	31.9	-	50.0	51.9	35.4	16.7	5.3	-	-	-	-	-	-
Degree or above													
Unemployed	5	-	-	2	2	1	-	-	-	-	-	-	-
Employed	90	-	-	2	11	21	17	18	7	4	4	2	3
Unemployment Rate (%)	5.3	-	-	50.0	15.4	4.5	-	-	-	-	-	-	-
All													
Unemployed	840	10	190	308	146	76	39	27	16	8	13	4	6
Employed	5,132	91	402	705	730	675	629	481	415	367	252	162	211
Unemployment Rate (%)	14.1	9.9	32.1	30.4	16.7	10.1	5.8	5.3	3.7	2.1	4.7	2.4	2.8

Note: The figures do not always add up because of rounding. Unemployment rates are the number of unemployed in each category divided by the labour force i.e. the unemployed and the employed in that category.

Sources: Department of Census & Statistics, 1985-86 Labour Force Survey. Taken from World Bank (1990) Table 4. 18.

Table 22: Duration of Unemployment by Age Group & Sex 1985/86 (Months)

Men

Age range	First time Job Seekers					Previously Employed				
	0-6	7-12	13-24	25+	Total	0-6	7-12	13-24	25+	Total
15-19	3.0	7.7	6.5	2.9	20.1	2.2	2.1	1.6	0.8	6.8
20-24	2.3	5.2	8.4	9.7	25.5	3.3	2.0	2.3	2.7	10.3
25-29	0.1	0.8	2.0	4.4	7.4	2.3	1.0	1.0	2.5	6.8
30-59	0.2	0.9	1.0	3.0	5.0	6.5	2.7	3.5	4.5	17.2
Total	5.7	14.6	18.0	20.0	58.2	14.7	7.9	8.7	10.4	41.8

Women

Age range	First time Job Seekers					Previously Employed				
	0-6	7-12	13-24	25+	Total	0-6	7-12	13-24	25+	Total
15-19	2.7	6.8	3.9	2.1	15.6	0.6	1.1	0.3	0.2	2.2
20-24	3.0	7.0	13.1	12.6	35.6	1.3	0.7	2.0	2.2	6.2
25-29	0.5	1.5	2.4	12.3	17.1	0.9	1.4	0.9	1.7	4.9
30-59	0.7	1.4	1.7	5.8	10.7	2.4	1.4	1.7	1.9	7.4
Total	6.8	16.6	21.1	34.4	79.0	5.3	4.8	4.9	6.0	21.0

Source: Labour Force and Socio-Economic Survey (1985/86) tapes and author's calculations taken from Bowen (1990) Table 7.

A relatively new phenomenon is the emergence of the vocationally-trained unemployed. There was an enormous expansion of vocational at training facilities in the eighties; but there has always been some doubt as to how well it was geared to the needs of the labour market. The QLFS 1990 published, for the first time, the type of vocational training which the unemployed had (Table 23) and found that 18.5% of them had some type of vocational training, mostly in craft and related fields and plant and machine operation. In this connection, Bowen (1990) (from an analysis of the SES 1985/86 data) notes that "surprisingly, special training appears to hinder employment chances rather than helping them (it could be raising wage expectations by more than the probable wage offers by employers)" (Annex p. 5).

Table 23: Unemployed Persons with Vocational Training by Type of Training and Sector, 1990 (000).

Type of Training	Total	Urban	Rural
Managerial	01	01	-
Professional	14	05	09
Technical	16	04	12
Clerical	33	12	21
Sales and Services	02	02	-
Agriculture and Fishery	03	-	03
Craft and Related	59	18	41
Plant and Machine Operation	57	05	52
Others	01	01	-
Total	186	48	138

Source: Department of Census and Statistics, (1990) inpublished data.

Urban unemployment rates are higher than rural rates for both sexes (Table 24) but the differential has been narrowing over the last two decades. Since rural-urban migration has been relatively low in Sri Lanka (due to determined efforts by the government to improve rural social and economic infrastructure) and urban population growth rates are also low, all measurements of unemployment have consistently shown that more than 70% of the unemployed are in rural areas. Hence the Harris-Todaro explanation of unemployment is not useful for Sri Lanka.[4]

Table 24: Unemployment Rates by Sex & Sector, 1971,1980/81, 1990

Sector	Male			Female		
	1971	1980/81	1990	1971	1980/81	1990
Urban	16.9	14.5	11.3	47.6	29.4	32.0
Rural	13.4	11.9	8.6	27.4	21.6	21.8
All	14.3	12.4	9.1	31.0	23.0	23.5

Source: Same as Table 20.

The family is the main source of support to the unemployed. SES 1985/86 data (Table 25) showed that 87% of the male and 96% of the female unemployed relied on their families for support. Data from the CFS 1986/87 (Table 26) which gives the rate

4 Harris and Todaro (1970) postulated that workers choose to migrate in response to differences in rural and urban "expected" incomes, which are asessed on the basis of the real income and the probability of finding a job. When they do not find jobs in the urban area, these migrants join the unemployed.

of unemployment in each spending unit income group also indicates that unemployment is fairly evenly spread over all income groups, whether spending units are classified by total income or per capita income. Even the lowest income groups were carrying a substantial burden of unemployment.

Table 25: Sources of Assistance to the Unemployed, 1985/86.

Type of Assistance	Male	Female
Government	1.5	1.4
Family	87.2	96.2
Income from assets	1.3	0.5
Dissaving	5.2	1.3
Sale of assets	0.6	0.1
Occupation	3.0	0.4
None required	1.3	0.1
	100.0	100.0

Source: Labour Force & Socio-Economic Survey (1985/86) tapes and author's calculations. Taken from Bowen (1990) Table 19.

Sri Lanka's well developed social service system has often been cited as reducing the cost of being unemployed and facilitating a long wait for the "preferred" job. However, the support given in terms of a basic food ration to every individual since 1943 was terminated in 1978. The food stamps scheme which is currently operating provides only Rs. 30/= per month to an adult, hardly enough for meals for 2 days. The free health and education systems are still in operation, but these are unlikely to prolong the search of first time job-seekers. This hypothesis therefore has little relevance today.

Several authors have also maintained that the aspirations of the unemployed for white-collar employment make them set their "reservation wage" at too high a level so that they reject job offers and remain unemployed. However, the vast majority of unemployed respondents in the SES 1985/86 claim not to have turned down any job offers (Bowen, 1990, Annex p. 3).

Table 26: Rate of Unemployment by Spending Unit IncomeGroup,1986/87.

Spending Unit Income Group	All Sectors	Urban	Rural	Estate	Population Distribution (%)
Total Income					
0 - 600	13	13	13	09	04
601 - 800	11	06	11	11	05
801 - 1000	10	17	10	07	07
1001 - 1500	13	17	13	07	19
1501 - 2000	17	19	18	10	17
201 - 3000	18	19	19	11	20
3001 - 5000	18	19	18	10	17
5001 - 10000	17	13	19	17	08
Over 10000	08	17	18	00	03
All	16	17	16	10	100
Per Capita Income					
0 - 150	16	24	16	07	08
151 - 200	13	26	12	12	10
201 - 250	15	22	15	12	11
251 - 300	18	30	18	09	10
301 - 350	18	28	18	09	09
351 - 400	16	21	18	07	08
401 - 500	16	23	16	11	11
501 - 600	17	13	19	11	08
601 - 700	15	18	15	07	05
701 - 1000	17	17	18	09	09
Over 1000	11	10	12	06	11
All	16	17	16	10	100

Source: Central Bank of Ceylon, Consumer Finance Survey 1986/87, Special Commission.

With regard to expectations, the CFS 1981/82 tabulation of the expected occupation of the unemployed by level of education, (Table 27) shows that expectations do rise with educational levels and that those with GCE 'O' level education and above tend to focus on clerical and white collar occupations. However, Gunatilleke (1990) cites two surveys of job expectations and employment among rural youth carried out by Marga in 1973 and 1981 where 71% of the respondents were not averse to self-employment in agricul-

ture, manual or operative jobs if the income was satisfactory i.e. Rs. 200-300 per month at 1973 prices. Gunatilleke also points to the difference that may obtain between stated preferences and the actual behaviour of those who are in fact offered lower income/status jobs; of the 1,057,108 persons with GCE 'O' level education who were employed in 1981, only 11% were in clerical occupations. The "mismatch" theory is discussed further in Section 5.

In summary, the picture that emerges from the analysis in Sections 3 and 4 suggests that male participation rates had already reached high levels by the end of the seventies, so that the demand for additional labour by the Sri Lankan economy (and abroad) and household economic necessity (spurred by the rising cost of living) in the eighties had to be satisfied by major increases in female participation and a substantial growth in the female labour force. The decline in "discouraged workers" supports this hypothesis. Both sexes show increases in participation rates with increased educational levels and as the labour force became more educated this probably also spurred some increase in participation. However, the increase in female participation affected females of all ages and almost all educational levels, so it was not mainly education induced.

Table 27: Distribution of Unemployed Population by Expected Occupation and Level of Education (%).

Expected Occupation	No schooling		Schooling						All
	Illiterate	Literate	Primary	Secondary	Passed GCE O/L	Passed GCE A/L	Under-Grad.	Grad.	
Professional Technical and Managerial	0.0	0.0	3.0	10.5	34.7	46.9	85.7	75.0	21.1
Clerical and related	2.4	0.0	2.1	10.2	40.9	44.9	14.3	0.0	22.1
Sales and services	7.1	0.0	9.3	17.2	7.4	2.7	0.0	25.0	11.0
Agricultural workers	69.0	.00	28.3	5.0	1.5	0.0	0.0	0.0	8.4
Industrial workers	21.5	0.0	57.3	57.2	15.7	5.5	0.0	0.0	37.2
Total	100.0	0.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total number of persons	42	0	2	237	664	543	147	23	1,658

Source: Central Bank Socio-Economic & Consumer Finance Survey 1981/82 Quoted in Gunetilleke (1990). Table 15.

There is a distinct education-related pattern of employment for both sexes, with those with less than GCE 'O' level education going into agriculture and those with higher levels going into services. A disturbing trend, however, has been the substantial increase between 1980/81-90 in female unpaid family workers. Although no data is available to establish their educational levels, the decline in the numbers of employed with "no schooling" or "Grade 1-4" education and low productivity growth rates in the economy generally, suggests that their jobs are being done by those with higher educational qualifications. The upgrading of educational qualifications for higher level jobs is also evident e.g. the change of the minimum qualification for teachers from GCE 'O' level to GCE 'A' level to improve quality or in some cases to ration jobs to a manageable number of applicants (see Section 5.1).

The largest group in terms of the number entering the labour force, currently employed and unemployed are those with a Grade 5-10 education. If technology and economic productivity are to be upgraded in the economy, retraining programmes on a large scale will be required for this group.

Entry into the labour market for first-time job seekers is extremely difficult in Sri Lanka, although why this is so has yet to be established. Unemployment rates are highest in the 15-19 age group when first time job seekers come onto the market. Almost all of them have a primary or secondary education, but those with GCE 'O' and 'A' level represent a larger proportion of the unemployed than the employed, suggesting that they have particular difficulties; in the 20-24 year group, this pattern is repeated. Those with degrees do not seem to have such a prolonged market-entry problem; their unemployment rates are high (50%) for the age group 20-24 years but drop immediately afterwards.

Unemployment rates in every single five year age group are also highest for those with GCE 'O' level education, even though their willingness to work in disparate sectors of the economy appears to be demonstrated by the variety of occupations they are in fact employed in (only a small proportion of which are white collar). There is also the more recently identified phenomenon of the vocationally-trained unemployed, most of whom would have a secondary or 'O' level education. The reasons for the particular difficulties experienced by the GCE 'O' level educated has to be established through micro-studies.

5. Causes of Unemployment

Various hypotheses have been put forward during the last two decades to explain Sri Lanka's high and persistent unemployment rates. The evidence for and against these theories will be examined in this section.

5.1 Government Induced Unemployment

The argument here is that government behaviour has affected the supply side of the employment market and made voluntary unemployment attractive. There are two main themes :

a. Public sector jobs are very good, particularly for workers at the lower levels who receive significantly higher wages than offered by comparable jobs in the private sector and also have better job security, fringe benefits and more generous pensions. These jobs are allocated on an unpredictable basis, but educational achievement is seen as an important way of gaining access to them, thereby increasing the pressure to retake exams while queuing up for these jobs. (Glewwe, 1987).

b. Dickens and Lang (1989) distinguished between the more educated (those with College education, 'A' or 'O' levels) who are queuing for government jobs; and the less - educated who are queuing for high - wage private sector jobs. These authors maintain that the reason why the unemployed do not take other jobs while waiting is that, in hiring, government gives preference to the unemployed; and that many remain unemployed while studying for 'O' level examinations -even after finishing formal schooling - to increase their chances of being employed in government, since few in government have less than O-level qualifications.

The policy prescription arising out of this is that government hiring and personnel policies must change. Dickens and Lang suggest lowering government wages to reduce the extent of the queues; making fewer government jobs available to reduce the probability of being drawn from a queue; and changing hiring practices by replacing the preference for unemployed workers with one for experienced workers with demonstrated skills and ability.

Glewwe also concluded that lowering the high wages paid by government would reduce unemployment. Further, only the better candidates should be encouraged to queue e.g. by discouraging exam resits, introducing an aptitude assessment system such as Civil Service entrance exams for lower grades and encouraging prior work experience and promotions from within the public service.

However, Bowen (1990) questions how a reduction in formal sector wages and/or the quality of fringe benefits is actually supposed to reduce unemployment. If the wage differential were to be reduced some unemployed would be willing to:

1. Take jobs at the lower level as queuing would no longer be worthwhile. This measure would not increase employment by itself since the demand for labour in the low-wage sectors is not perfectly elastic. An increase in the supply of jobs requires a fall in labour costs per worker. The depressing effect on wages in other sectors of the economy (of a fall in public sector salaries) would depend on the substitutability of labour and other factors of production and is likely to be limited in the short run because the choice of technique is given.

   Bowen also quotes Riveros (1989) who estimated an employment function for Sri Lanka. Riveros estimated the short-run (1 year) elasticity of labour demand with respect to labour costs per worker to be only - 0.05, holding output constant; and elasticity in the long-run to be - 0.33, implying that a five percentage point

reduction in earnings and other labour costs per worker would increase employment by only 1.65 percentage points.

> If capital is held constant (rather than output) in calculating elasticities, and labour cost elasticities turn out to be as much as - 1, Bowen estimates that Sri Lanka's unemployment rate can reduce 5 percentage points if a six percent reduction in total labour costs per person (measured in terms of the price of manufactured output) can be brought about; but this could only be achieved over several years.

2. Withdraw from the labour force; this may be the reaction of the large number of unemployed educated females if there is a fall in wage rates in occupations currently considered acceptable.

It is generally recognized that there is a wage and benefit disparity between public and private sector workers at the lower levels (Table 28). Even after taking into account the higher educational levels of civil servants, Bowen (1990) found that Government pays 46% more than the private sector for the same educational achievements. Also the number of students resitting 'O' and 'A' level examinations is about double that of those who sit the first time (Table 29).

However, Glewwe, Dickens and Lang fail to explain satisfactorily why those who queue for good jobs do not get poorer ones while they are waiting. Most of the unemployed are supported by their families - 82% of unemployed males and 88% of unemployed females according to the 1973 Labour Force Survey, and 87% and 96% respectively in the SES 1985/86 (Table 25). Especially so since as much as 45% of the unemployed come from low-income families with per capita incomes of less than Rs. 350 p.m. in 1986/87.

The queuing hypothesis itself appears to be an improbable explanation of unemployment when the magnitudes involved are examined. For instance, according to the Census of Public Sector Employment, the total number with 'O' level qualifications in 1985 was only 484,000. Hence it would be unrealistic for the 289,000 unemployed with an 'O' level education (SES 1985/86) or above to be queuing for these jobs. Further, new recruitment to the public sector (including the armed forces reduced considerably from earlier levels and varied between 35-41,000 p.a. between 1980-87 (Table 30); and after the Job Bank scheme was abandoned in the early eighties, the rewards to queuing for government jobs would have reduced drastically.

Changes introduced in government recruitment procedures in 1990 have largely eliminated the non-wage factors that have been cited as encouraging queuing and unemployment. Island-wide examinations have been reintroduced for entry to all levels of the public service; this effectively removes the element of unpredictability that existed earlier in the allocation of jobs. At present those between 18-35 years can apply and the minimum qualification is GCE 'O' level with 6 passes at one sitting for a peon/minor employee; this disqualifies those who resit the exam. Recruitment is done entirely on the basis of an aggregate score obtained at a written examination of one or more papers

conducted by the Department of Examinations. No additional consideration is given to prior experience, employment or unemployment. It is noteworthy that the necessity to ration the jobs available among prospective candidates was a consideration in setting the minimum qualification required.

Neither of the recent proponents of this hypothesis have seriously attempted to explain why those with less than an 'O' level education (about two thirds of the unemployed in Table 21) are queuing, since they do not have the minimum requirement for entry into government service. Those resitting the 'O' level in 1985 exceeded the number declared unemployed who have 9-10 years education of all age groups in 1985/86 (Table 21) so evidently the employed as well as those outside the labour force tend to resit the 'O' level. Resitting the examination is therefore unlikely to be the reason for remaining unemployed.

Table 28: Central Government Salaries Compared to Public and Private Sector (as of 1987)

Category	Public Service	Public Sector Corporations/c	Private Sector/d
Senior Management Group	Rs. 102,000-150,000 (Secretaries to Ministries, Heads of Large Departments)		Rs. 300,000-540,000 (Large Companies) Rs. 150,000-360,000 (Small Companies)
Upper Management	Rs. 72,000-108,000 (Heads of Departments)	Rs.90,000 (Large Corporations) Rs. 60,000 (Small Corporations)	Rs. 150,000-360,000 (Directors)
Middle Management	Rs. 36,000-54,000 (Deputy/Assistant Heads of Departments)	(Deputy General Manager) Rs. 39,000-48,000/a Rs. 33,600-46,600/b (Chief Operations Manager) Rs. 30,000-42,000/a Rs. 25,200-37,200/b	Rs.90,000-180,000 (Senior Executive)
Executive	Rs. 24,000-39,000	Rs. 22,800-30,000/a Rs. 21,000-30,000/b	Rs. 30,000-78,000
Clerical and Allied Grades	Rs. 16,800-33,000	Rs. 15,600-24,000/a Rs. 13,450-17,050/b	Rs. 13,100-26,060
Manual Grades	Rs. 15,000-27,600	Rs. 13,200-16,100	Rs. 12,200-17,200

Notes: a/Large Corporations, b/Small Corporations, c/ Free of Income tax, d/ Subject to Income tax.

Source: *Administrative Reforms Committee of Sri Lanka. Quoted in World Bank (1990) Table 4.208*

In general this hypothesis has failed to explain unemployment of the magnitude that it is in Sri Lanka. Some element of queuing for government jobs has always been present, but as the rewards have declined over time with the change in government hiring policies and a reduction in recruitment, this has probably reduced. However, this hypothesis has served a useful role in focussing on hiring practices and policies in the public and private sectors, an area which requires further investigation in relation to recruitment of youth.

Table 29 : Number of Students Sitting for the 'O' and 'A' level Examinations, 1982-1987.

	First Timers		Second Timers or More		Total	
	O-Level	A-Level	O-Level	A-Level	O-Level	A-Level
1982						
Number Taking the Exam	125,296	63,010	239,380	72,546	364,676	135,556
Passed	27,873	17,522	26,865	31,661	54,738	49,183
1983						
Number Taking the Exam	146,413	48,257	292,774	69,991	439,187	118,138
Passed	35,270	15,428	39,803	32,894	75,073	48,322
1984						
Number Taking the Exam	158,138	26,013	263,498	59,916	421,636	85,929
Passed	35,820	8,258	35,894	28,700	71,714	36,958
1985						
Number Taking the Exam	164,497	39,277	265,378	43,298	429,875	98,873
Passed	36,317	14,311	30,966	21,827	67,103	36,138
1986						
Number Taking the Exam	173,143	53,666	250,661	45,207	423,804	98,873
Passed	39,195	20,727	28,252	23,251	67,447	43,978
1987						
Number Taking the Exam	193,764	52,844	290,131	59,733	483,895	112,577
Passed	49,726	22,710	44,629	30,842	94,355	53,552

Source: Department of Examinations, Ministry of Education, Colombo 1988. Quoted in World Bank (1990) Table 4.22.

Table 30 : Hiring in the Public Sector as Percent of New Entrants into the Labour Force, 1970-89.

Year	Labour Force ('000)	New Entrants ('000)	Hiring in the Public Sector ('000)	Hiring in the Public Sector as a % of New Entrants
1970	4,084/a	96/b	26/c	27.1
1971	4,182	98	40	40.8
1972	4,282	100	58	58.0
1973	4,385	103	51	49.5
1974	4,491	106	51	48.1
1975	4,599	108	55	50.9
1976	4,709	110	46	41.8
1977	4,822	113	42	37.1
1978	4,936	116	43	37.1
1979	5,067	119	39	32.8
1980	5,179	122	39	32.0
1981	5,303	124	35	28.2
1982	5,431	128	36	28.1
1983	5,561	130	36	27.7
1984	5,694	133	35	26.3
1985	5,831	137	41	29.9
1986	5,972	141	39	27.7
1987	6,116	144	38	26.4
1988	6,262	146	79	54.1
1989	6,413	151	78	51.7

Notes: a/ Estimated by interpolation using the labour forces estimated in the 1963 Census and the 1985/86 Labour Force Survey.

b/ Yearly increase in the labour force.

c/ Estimate based on the end of year Central Bank figures for employment in the public sector, excluding the estate workers and assuming a 3 percent attrition rate.

Source: World Bank (1990) Table 4.23.

5.2 Mismatch Theories

"Mismatch" theories refer to an imbalance in particular labour markets between the number of unemployed workers and the vacancies available; the implication is that total unemployment can be reduced if vacancies could be redistributed from labour markets with low unemployment - vacancy ratios to those with high ratios and/or the unemployed redistributed in the opposite direction. This hypothesis can apply to labour markets differentiated in terms of region, education, industry, occupation etc. "The extent of mismatch depends not only on the existence of characteristics which fragment labour markets, but also on inadequacy of wage signals and unemployment/vacancy signals to reallocate labour amongst them" Bowen (1990) p. 21.

The type of mismatch which has been identified as relevant to Sri Lanka is the structural imbalance between the type of work which people are willing and able to do, and the pattern of opportunities that are available (ILO, 1971, p. 21). This can be disaggregated into two parts: (a) the mismatch between the type of education and skills which job seekers have and what the economy demands; and (b) a mismatch between expectations and available jobs. Both types are difficult to test because data on vacancies is not available for Sri Lanka.

The cause of the mismatches has been attributed primarily to the type of education imparted by a rapidly expanding education system. However, the various proponents of this theory have not attempted to explain why, if there are available vacancies, a relocation of the unemployed has not taken place to fill them. Theoretically, lowering the barriers between labour markets and improving incentives to move across them can eliminate most of the employment.

Gunetilleke (1989) compared changes in the sectoral composition and occupational profile of new employment (as a proxy for vacancies) with the educational level, skills and characteristics of the unemployed to test the first hypothesis. Data from the 1971 Census and the Socio- Economic Surveys of 1980/81 and 1985/86 were used. He found that the main sources of new employment were the agriculture and manufacturing sectors during 1971-81 and 1981-86. The services sector, on the other hand, actually experienced a decline in employment between 1980/81 - 1985/86. In terms of occupation, production process workers provided the main increase (41%), agricultural workers 34%, and sales workers 10% in the 1971- 1980/81 period; whereas in the 1980/81 - 1985/86 period 88% of the net increase came from agricultural workers. In terms of employment status, the expansion in 1971-81 period in employment was mainly in the categories of "employees" and "own- account workers", whereas in 1981-86 there was a net decline in the number of employees while "own account workers" and "unpaid family workers" provided a major increase.

Gunetilleke found that the rise in the education level of the employed is faster than that for the working age population as a whole, indicating that the better educated new entrants are being absorbed into employment, regardless of the sectoral and occupational profile of new employment discussed above. He goes on to point out that the

educational profile of the output of the education system is not markedly different from that of the newly employed; and the period the unemployed spend searching for work (according to the CFS 1981/82 and 1981 Census) is not significantly different for different educational levels. His conclusion is that there is no mismatch between the output of the educational system and the job opportunities available in the economy.

The use of proxy measures for vacancy data, as done in Gunatilleke's study, though unavoidable in the circumstances, tends to mask significant developments in the labour force which should be investigated further. What the author takes as "new employment" is in fact "net new employment" i.e. new employment less retirements. As those with "no schooling" and a Grade 1-4 education retire from the labour force, they are being replaced by better educated youngsters but,if the technology used has not changed, in the same job. The extent of this substitution is important because it reduces the private and social returns to education, fuels dissatisfaction among these new entrants, and can indicate the pace of technological change (or lack of it). Gunetilleke's method of estimation underestimates the number of new entrants absorbed into the economy as well as the extent of the educational attainment upgrading taking place.

In spite of such weaknesses, it is clear that the magnitude of the "mismatch" phenomenon in Sri Lanka is small, whether defined as that between education/skills of job seekers and what the economy demands or that between expectations and available jobs (discussed in Section 4). Consequently these hypothesis prove to be an inadequate explanation of the current levels of unemployment.

However, there is some evidence of imbalances between demand and supply in another segment of the labour market - that of female labour. For instance, the rapid increase between 1980/81 - 90 in the female labour force (by 805,000) was accommodated by the market mainly as unpaid family workers (39%) and own-account workers (23%); only 35% became employees. In the same period, male employment increased by 421,000, but 33% became employees, 22% employers and 19% unpaid family workers. There is some evidence of changing sex ratios in different industrial sectors (Table 17) as more women are absorbed; however the lowering of barriers (not wholly related to the need for heavy manual labour) between male and female labour markets has not been sufficient to equate male and female unemployment rates. The extent to which incentives can reduce these barriers and encourage movement across them needs to be investigated; however it is unlikely that this can eliminate most of the unemployment.

5.3 Overall Supply - Demand Imbalances in the Labour Market

This hypothesis states that unemployment could be due to an overall labour surplus where supply, determined by the growth and structure of the population and the nature of the education system, is growing at a faster pace than a sluggish economy can absorb. According to this theory the sudden decline in death rates subsequent to the successful anti-malaria campaigns of 1946 - 48 resulted in rapid population growth in the fifties. The first cohorts were initially absorbed into a rapidly expanding education system; but

when they came onto the labour market in the sixties, they were confronted by a sluggish economy which was growing too slowly to absorb them.

Since labour supply is considered largely exogenous, this approach focusses on the inadequacy of labour demand due to low rates of capital accumulation, insufficient net investment and its allocation to the more capital - intensive sectors of the economy. Government investment in state enterprises (during the seventies) and large scale infrastructure projects (during the eighties) is considered largely to blame. In addition, inappropriate price signals to the private sector e.g. high effective protection for capital - intensive import - substitution industries may have encouraged private enterprise to expand in industries with high capital - labour ratios.

As data on capital - labour ratios are not available for Sri Lanka, this aspect cannot be examined in detail. However, Table 31 lends some credence to this hypothesis. Although population growth was falling during this period, there was an acceleration in labour force growth in the 1963-71 period, against the background of an economy that maintained a long term growth rate of around 4% p.a. Employment growth increased gradually from a very low level averaging 0.6% p.a. between 1959-63 to reach 2.9% p.a. in the 1971-80/81 period; although employment growth rates at this time exceeded labour force growth rates, the labour force was already so much larger than employment that unemployment continued to grow. Census figures adjusted to get comparability of definition[5] show a steady increase in the percentage of the labour force who were unemployed from 7.5% in 1963 to 12% in 1971, and 15.6% in 1981.

Table 31 : Annual Growth Rates of GDP, Population Labour Force, Employment and Productivity 1959-63, 1963-71, 1971-80/81, 1980/81-90.

	1959-63	1963-71	1971-80/81	1980/81-90
1. GDP (Constant prices)	4.0	4.4	4.5	3.6
2. Population[1]	2.7	2.2	1.7	1.4
3. Labour Force	1.8	3.4	2.5	2.2
4. Employment	0.6	1.7	2.9	2.3
5. Productivity	3.4	2.7	1.5	1.5

Notes: 1. Census data was used for 1981; for 1990 an average was taken of the Census Department estimate and the QLFS figure as the latter appeared to be too low.

Sources: *Department of Census & Statistics, Population Census 1963. Tables 7,15. Central Bank of Ceylon, Review of the Economy, various issues.*

5 These figures include those 10 years and over in the labour force who were not employed and were actively seeking work. No adjustment could be made for changes in reference periods.

The existence of an overall labour surplus may also account for the highest growth rates of employment being in the unpaid family worker category in 1971-1980/81 i.e. 9% p.a. compared to 3% for own account workers and 2.6% for employees (Table 18); the growth rates for both sexes of unpaid family workers was also very similar - males 10% and females 8%. There was a slight decline in the rate of growth of unpaid family workers in the 1980/81-90 period to 7% on average, with a substantial fall for men to 3% against a rise for women to 11% however the number of males in this group increased by 78,000, suggesting that even though there is a preference for men in the labour market, there was an overall surplus.

The difficulty that youth find in entering into employment and their initial absorption into unpaid family employment is also suggestive of an overall surplus. In the context of slow change in technology (Table 31), the preference is for the poorly educated who can be paid low wages; consequently the GCE 'O' level and 'A' level educated find it very hard to find employment.

5.4 Other Explanations and Unemployment

Other theories that have gained popularity from time to time are:

(a) Wage rates have been kept above "market clearing" levels by Trade Union action, thereby artificially reducing the number of jobs available.

Korale (1985b) points out that wage differentials between the highest and lowest grades in the public service declined from 1 : 20.7 in 1948 to 1 : 4.1 in 1984. He maintains that this upward revision of the salaries of the lower grades came about as a result of trade union pressures exerted by different groups representing the skilled, semi-skilled and unskilled. He also points out that minor employees were the only category in government service that managed to keep their wages moving upward ahead of the cost of living.

The maintenance of the real wages of the low-income earners was in fact part of government policy for much of this period. In the early seventies, government finding it was unable to maintain price stability for the basic consumption items, instead attempted to ensure money wage compensation for rising prices. During 1970 - 79 there were nine revisions in government sector wages, which were extended periodically and across the board to the private and parastatal sectors by government decree. All but one took the form of additions to cost of living allowances.

However, as Bowen (1990) points out, the " market clearing" wage may not be the most efficient wage; for instance the rational behaviour for employers who employ a skilled work force and substantial fixed capital would be to ensure the physical well-being of their work force and avoid the risk of malnutrition among the less skilled grades. Further, lowering wages to "market-clearing" level will not necessarily create that much additional employment, as discussed in section 5.1.

b. Citing taxes on employment and levies on wages by way of EPF and ETF as depressants on labour demand. Bowen (1990) points out that the "tax rate" for the two funds combined is 23% and that this adds substantially to labour costs. Avoiding payment of these dues is easier for small businesses. Family employees are not subject to ETF; and the self-employed do not pay these levies at all. Hence they can also act as a disincentive to small-scale entrepreneurs to expand employment.

Although these social security payments do tend to act as a tax on employment, they are enforced so laxly in Sri Lanka that their disincentive effect cannot be said to be a major factor in unemployment. In 1971 when the EPF contribution totalled 15% and there was no ETF levy, unemployment was already substantial.

In fact both the supply-side and demand-side phenomenon that have been put forward as explanations of unemployment (and reviewed above) probably contributed to some extent to unemployment in Sri Lanka. However singly or together, their impact does not appear to be of sufficient strength to cause such severe and persistent unemployment as experienced in Sri Lanka.

It is more than likely that there is actually an overall imbalance between the supply and demand for labour, which is aggravated by major capital intensive investments in a few areas and little change in productivity/technology in the rest of the economy.

6. Conclusions

The above analysis suggests that while education is a significant factor in the disposition of employment and unemployment, it is not the main determinant. Female labour force participation which was increasing gradually as the educational levels of the labour force increased, showed a sudden upward surge in the eighties which affected those in all age groups and all education levels. Although there is a very clear education - linked pattern of employment and job preferences, all those who enter the labour market for the first time have great difficulty finding employment, regardless of their level of education. Unemployment rates are highest at the initial age of entry, for those with an 'O' and 'A' level education, but it is mainly the 'O' level educated who remain unemployed in the later age groups.

The high average age of public sector employment indicates that it has been particularly difficult for young people to enter the public service during the last decade or more, throwing doubt on the hypothesis that queuing for government jobs is a significant determinant of Sri Lanka's persistent and high unemployment. However the general difficulty that young people are experiencing in entering paid employment needs to be investigated by focussing on hiring policies and practices.

It is evident that some upgrading of the educational qualifications for existing jobs is taking place. Jobs earlier held by the unskilled and the Grade 1-4 educated are being filled by those with a Grade 5-10 education with little or no upgrading of technology or

productivity, possibly leading to severe frustration among the new recruits. Areas which traditionally absorbed the 'O' level graduate e.g. teaching and parts of public administration are upgrading their minimum qualification requirement to GCE 'A' level. The GCE 'O' level graduate is caught in the middle between these two forces and remains unemployed for very long periods.

It could be questioned as to why the GCE 'O' level graduate is not preferred by the employer over the Grade 5-10 educated for the unskilled/semi-skilled jobs that are available. The answer probably lies in the fact that the technology used in most areas of the economy is such that every operation has been broken up into items which require a very low level of skill; hence the employer is quite satisfied with using a poorly educated work force to whom he pays low wages; this is true in agriculture, mining, construction, and in a substantial part of industry and services. As long as technological change remains slow and productivity growth is low, our educated work force is likely to remain very much under-utilised.

There also appear to be barriers to the absorption of women into employment and many of them were forced into casual/unpaid work or had to seek employment abroad during the eighties. Although it appears that these barriers are reducing with the increased employment of women and changes in the sex ratio in many industries, they are not coming down fast enough for the major increases in the female labour force that are taking place.

The extent of these dislocations in particular labour markets however fails to explain the magnitude and persistence of unemployment in Sri Lanka. Undoubtedly there is an overall imbalance between labour supply and demand which has been accumulating since the late sixties. This overall surplus was probably initially funded by a demographic bulge suddenly coming onto the labour market and confronting a sluggish economy. However, it has been perpetuated by slow growth in output and productivity and more recently by an uncertain investment climate. While the education system has continued to expand its output, the economy has not increased its demand for the educated at the same pace, with the resulting phenomenon of the "educated unemployed".

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