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AN ANALYSIS OF THE NATURE OF UNEMPLOYMENT IN SRI LANKA

William T. Dickens

Kevin Lang

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ABSTRACT

Sri Lanka has a significant chronic unemployment problem. Depending on time period and the definition of unemployment it varies from the low teens to over twenty percent. Nearly all of this unemployment is concentrated among young people who are looking for their first job. Unemployment duration is very long with typical spells lasting four years or more. Although past authors have blamed unemployment on over education, a closer examination shows that once sex, sector and age are controlled for the relation between education and unemployment disappears for urban youth and is significantly weakened for rural youth.

We believe that unemployment is generated in part by queuing for high-wage government jobs. We suggest that one reason the unemployed do not take other employment while queuing may be a perceived or real government preference for hiring the unemployed.

If our interpretation is correct, replacing government's hiring preference for the unemployed with a normal preference for workers who have demonstrated ability in previous work experience would reduce unemployment. A substantial fraction of the currently unemployed youth would begin actively seeking employment which would supply them with the requisite job experience to obtain government employment.

Contact:

Kevin Lang  
Department of Economics  
Boston University  
270 Bay State Road  
Boston, MA 02215  
and NBER

William T. Dickens  
Department of Economics  
University of California  
Berkeley, CA 94720  
and NBER

## 1. INTRODUCTION

Beginning with the influential 1971 ILO report, Sri Lanka's serious unemployment problems have been attributed to a mismatch of workers' aspirations and available jobs. The ILO report argued that this mismatch was the result of Sri Lanka's progressive educational policies which, by giving wide access to education, raise unrealistic vocational expectations. The analysis which we present below casts doubt on this view. We argue instead that unemployment in Sri Lanka is better understood as queue unemployment. In this respect we agree with past authors such as Isenman (1980) and Glewwe (1987) who have attributed the problem to queues for government jobs.

But, we argue that this queue unemployment is not concentrated among highly educated workers. In addition, while queuing workers aspire to high paying government jobs, they may also aspire to high paying jobs in the private sector. Regular jobs in the private sector pay significantly more than casual jobs although they comprise only a small fraction of employment. The most straight forward way to reduce unemployment is to reduce the benefits associated with queuing.

While we conclude that unemployment arises in Sri Lanka because some sectors pay higher wages than others, the policies we see as having the greatest probability of being able to reduce unemployment at a minimum cost are not aimed primarily at removing those wage differentials (which may exist for sound economic reasons). Instead we concentrate on proposals designed to reduce the desirability of being unemployed while waiting for employment in the high wage sector. An important contribution of this paper is the identification of institutions which make queuing preferable to work in other sectors for some workers.

## 2. SOME BACKGROUND

There are a few critical aspects of the Sri Lankan economy which we believe to be essential for understanding the nature of unemployment in that country. This section provides an overview of the economy which focuses on these aspects.<sup>1</sup>

In Sri Lanka an important distinction is made between the rural, urban and estate sectors. The estate sector accounts for 8.5% of the employed population and is comprised of relatively large landholdings, formerly under foreign control and now mostly government owned. The rural sector accounts for 72.5% of employment and the urban sector for only 19%. This reflects a deliberate government policy to foster rural development by opening new lands for settlement to relieve rural population pressures and by providing high levels of public services to the rural sector. This policy appears to have successfully limited migration from rural to urban areas. In a sample of 7927 households, only four people said they had moved to an urban area for employment reasons (Report of Consumer Finances ..., 1981/82, part 1, p. 55).<sup>2</sup>

Despite the concentration of the population in rural areas, levels of education are high, although levels vary among sectors. In the estate sector, education levels are low relative to the rest of the island; the median worker has not completed grade four<sup>3</sup> and over a quarter have no schooling. In the rural sector, the median worker appears to have passed grade 6, but about 10% obtained no schooling. In the urban sector levels of education are relatively high; the median worker has passed grade 8 or 9 and only 7% have no education.

The third significant point is that the fraction of employment in industry seems low, particularly considering the high level of education. Manufacturing employs only 12% of workers, another 4% are employed in construction with the rest of employment in "industry" being made up of workers in mining and quarrying utilities. Within manufacturing, 36% of employment is in food, beverages and tobacco, 25% in textiles, wearing apparel, and leather products, 12% in chemicals, petroleum, rubber and plastics, and 10% in non-metallic mineral products. These figures include both privately and publicly owned manufacturing concerns (Census of Industry 1983). Government and semi-government employment accounted for 22% of manufacturing in 1981. Private sector "employees" accounted for less than two-thirds of manufacturing employment with the rest made up of self-employed workers, employers and unpaid family workers (Labor Statistics, 1986, p. 17).

Within manufacturing, a large fraction of workers (30%) are employed in what are commonly referred to as informal sector establishments, defined as those employing fewer than five workers. In addition, an undetermined fraction of manufacturing employees are casual rather than regular employees and thus do not have the employment guarantees of the regular workforce. The Labor Force and Socio-Economic Survey, 1985/86 estimates that there were about 1.3 million regular employees in Sri Lanka, accounting for a little over one-fourth of all employment. We estimate from the Census of Public Sector and Corporation Sector Employment, 1985 that just over half of these were in the government sector so that regular private sector employment accounted for less than 13% of employment and only about 11% of the labor force.

On the basis of the data available to us, we cannot determine what fraction of regular private sector employment is in the modern sector, but it is unlikely that more than about five percent of workers and possibly far fewer had regular employment in private modern manufacturing establishments. In fact, Deraniyagala et al (1976) estimate that in 1971 only about 1% of the labor force had regular employment in the private modern sector.

A fourth important aspect of the Sri Lankan economy is that employment in the public (roughly central government) and corporation sectors (roughly independent public corporations including but not limited to public controlled enterprises and excluding the estates) accounts for about one-sixth of employment in the rural and urban sectors. Table 1 shows the fractions of employment and the labor force employed in the public (central government) and (public) corporation sectors by age and education group. Government sector<sup>4</sup> employment is negligible for workers under age twenty, since government policy prohibits hiring individuals below that age.<sup>5</sup> For those over twenty, government sector employment rises rapidly to account for one-fifth of employment for those in their late 20s and one-quarter of employment for those age 30 to 44. Government sector employment becomes small again for those past the retirement age of 55.

\*\*\*\*\* Table 1 around here \*\*\*\*

Table 1 also shows the importance of government sector employment for the highly educated. While only 2% of workers who did not complete grade five and only 12% of those with some secondary education are employed in the government sector, over half of O-level employment and nearly three-quarters of employment for those with degrees is in the government sector.<sup>6</sup> Moreover, employment of the most qualified segment of the work force is highly concentrated in the central government rather than public corporations. Over half of the labor force with degrees are employed in the central government.

Because of the importance of the government sector as an employer of highly-educated labor, the question naturally arises as to whether the education standards used in allocating government sector jobs result in government sector workers being over-qualified for the positions they fill. We can bring only indirect evidence to bear on this question. In the public sector, roughly 65,000 workers are employed in either agriculture or unskilled labor, a further 82,000 are employed as skilled workers and 70,000 as clerical workers (Census of Public Sector and Corporation Sector Employment 1985, pp viii-xiii). In contrast, 10,000 workers have not passed grade 5, 85,000 have passed grade 5 but not O-levels and 211,000 have passed O-levels. It appears to us that there may be room for reducing the use of educational qualifications in allocating certain public sectors jobs, but a more certain statement would require more detailed information.

In public corporations, 97,000 workers are employed either in agriculture or as unskilled workers. A further 114,000 are employed as skilled workers and 84,000 as clerical workers. This contrasts with 22,000 who have not passed grade 5, 129,000 with passes at grades 5 - 9 and 125,000 who have passed O-levels. Although only circumstantial, we see somewhat stronger evidence of the excessive use of educational qualifications here.

The final significant point we want to make concerns the relative wages earned by different types of workers. Self-employed workers seem to have somewhat higher earnings, on average, than do employees. Glewwe (1988) reports

that in 1981/82 per capita expenditure on food was slightly higher among the self-employed than among employees. The mean is somewhat misleading. Table 2 reports both the median and mean incomes of different classes of worker by sector of the economy.<sup>7</sup> Except in the estate sector, where the self-employed constitute less than 2% of employment, the median self-employed worker earns less than the median regular employee despite the fact that the mean self-employed worker earns more than the mean regular worker. Thus there is evidence that the high mean earnings of self-employed workers reflects high earnings among a relatively small fraction of them.

\*\*\*\* Table 2 around here \*\*\*\*

We suspect that a substantial fraction of self-employed workers earn significant returns on their land and/or capital but that those with little productive wealth have low earnings. Typically, self-reported income among the self-employed includes the return to their capital as well as to their labor. An individual who farms his own land will therefore tend to have "high" labor earnings which reflect the rental value of the land.

Perhaps the most significant aspect of table 2 is the high earnings of the self-employed relative to casual employees. Since, as we have already noted, most regular employees are in the government sector, the choice for most workers appears to be between casual employment and self-employment. Moreover, since government employs a large fraction of the educated labor force, it appears to us that the self-employed are probably drawn disproportionately from the better-off workers among the relatively less-educated. Under these circumstances we suspect that straightforward comparisons of the earnings of different classes of workers are not informative about "true" wage differentials. We do not know what the same person would earn in the different sectors -- without careful statistical analysis, with multiple controls, we cannot be sure.

While once it might have been possible to discuss a government/non-government wage differential, the relative salaries earnings of low skill and senior administrative government employees have moved in such different ways in

recent years that it is necessary to consider them separately. It appears that lower-ranked government employees are well-paid relative to their counterparts in the private sector.

In the only occupation for which we could find a direct comparison, in 1984 starting salaries for unskilled engineers were 13% above the private sector minimum. Semi-skilled engineers had salaries 14% above private sector minimums and skilled engineers 13% (Labor Statistics, 1986). While it is possible that the private sector minimum was not binding, casual evidence suggests that it probably was for at least the unskilled group. The private sector average was only 8% above the government sector starting salary for unskilled engineers. The comparable figures are 22% for semi-skilled engineers and over 50% for the skilled group. This pattern is found more generally. In central government, workers in manual and clerical and allied grades appear to earn more than their private sector counterparts while those in higher grades appear to earn less. There is some possibility that the earnings/seniority profile is less steep in government than in the modern private sector. We are unfortunately not in a position to verify this.

It is probably the case that most central government workers earn more than their private sector counterparts. Almost all government workers (97%) are in the lowest 25% of the salary grades -- the ones identified above as being those which are most likely overpaid. In addition, central government salaries are not taxed and central government workers receive pensions. Finally, the prestige associated with working for the government is generally quite high. In sum, high salaries for most government workers appear to be sufficient to create a queue for government employment. The major exception is for professionals and high level administrators who appear to be significantly underpaid. This suggests a need to increase the salaries of those workers in the highest salary classes. However, as pointed out above, there may be severe constraints on government's ability to use salary to attract more qualified workers since government already employs a large majority of the highly educated work force and may have a near



monopoly in certain specialized areas.

### 3. THE STRUCTURE OF UNEMPLOYMENT

The standard analysis of unemployment in Sri Lanka (ILO, 1971) can be summarized as follows. The Sri Lankan education system produces large numbers of highly educated individuals with academic skills. The number of youths with these skills is excessive in comparison with the capacity of the economy to generate white collar jobs which would employ them. Highly educated youths are unwilling to accept the types of agricultural employment which are readily available and remain unemployed while waiting for an acceptable job. The education system thus generates a mismatch between expectations and employment opportunities. There are some indications that the authors of the report viewed waiting for a good job as sensible since they argue (pp. 21-22) that "those who take at an early date one of the jobs available to them find that they then lose their chance of what they really want - they become typed as manual workers, and in any case cease to have the time to search for better jobs." However the emphasis of the report is on the need for school-leavers to readjust their aspirations. Thus (ILO 1971, p. 20) "the painful adjustment of school-leavers' aspirations to the realities of a difficult job market can last three years or even more...."

Glewwe (1987) expands on this view but places more emphasis of the view that the educated are rationally queuing for good jobs and deemphasizes the importance of search. He argues (p. 7)

"Most of these job seekers are looking for government jobs, which pay substantially higher wages and have additional benefits relative to private sector jobs. Those who do not get high-paying jobs eventually take whatever jobs are available at lower wages - unemployment is relatively rare for those over 30 years of age. Perhaps the main reason educated young people are much more likely to be unemployed is that government hires disproportionately large numbers of better educated workers."

There is *prima facie* evidence for this view. As already noted, the population is highly educated and table 3 shows unemployment to be concentrated among workers age 15 to 24 and to decline rapidly thereafter. Table 4 shows that even among young workers, unemployment rates are highest among well-educated workers, especially those with O- and A-level qualifications.

\*\*\*\* Table 3 around here \*\*\*\*

The statement that unemployment is concentrated among educated youth must be clarified. Even among twenty-five to twenty-nine year olds, most of whom will have completed their education, the fraction having passed A-levels is only 6% and only slightly more than 1% have a degree or higher. The median level of education for twenty-five to twenty-nine year olds is grade 8 or 9 so that the roughly 18% who have passed O-levels form the great majority of the highly educated. Of unemployed youths age fifteen to twenty-nine, only about one-tenth have passed A-levels. Almost one-quarter have passed O-levels.

\*\*\*\* Table 4 around here \*\*\*\*

There are, however, problems with both the description of unemployment as "educated" unemployment and with the "lowered expectations" hypothesis. The first problem arises from two sources -- 1) the failure to control for sex and sector, and 2) the failure to consider the duration of unemployment.

Unemployment rates are higher for women than for men and highest in the urban sector and lowest in the estate sector.<sup>8</sup> Since a higher proportion of young women than of young men are highly educated and since education levels are highest in the urban sector and lowest in the estate sector, it is plausible that failing to control for sex and sector generates a spurious relation between education and unemployment.

Table 5 gives unemployment rates by age and education for individuals age 25 to 29 divided into four groups -- urban males, rural males, urban women and rural women. The number of youths in the sample from the estate sector was too small to permit a separate analysis of that group. The reason for restricting the analysis to 25 to 29 year olds is related to the duration of unemployment as

will become clear shortly.

\*\*\*\* Table 5 around here \*\*\*\*

Breaking the sample up this way significantly diminishes the relation between education and unemployment. The results for urban males are most striking. Unemployment peaks for those with education through grades five to seven. Since the median level of education is grades eight to nine, among urban males in this age group, unemployment can be said to be concentrated among those with relatively little education.

The picture for rural males is somewhat different. By age twenty-five to twenty-nine unemployment rates are relatively low for all education groups except for a surprising "blip" for those with A-levels. In assessing the importance of the higher unemployment rate among those who have passed A-levels, it must be remembered that even among twenty-five to twenty-nine year olds, only about 6% of the population has passed A-levels. Consequently, those with A-levels make-up only a small fraction of the unemployed. Unemployment is actually somewhat more prevalent among those with 8 to 9 years of education (the median level of education in this age group) than among those who have passed O-levels.

Among urban women age twenty-five to twenty-nine, unemployment is high and fairly uniform for those with schooling through grade nine. Those with O-levels have a somewhat higher rate. Among twenty-five to twenty-nine year olds, it is only the results for rural women which accord with the view that unemployment is educated unemployment. For this group unemployment rates rise uniformly with education through A-levels.

The essential point to take away from this table is that, at least for twenty-five to twenty-nine year olds, the general finding that unemployment is concentrated among those with relatively high levels of education is due to a large extent to the failure to control for sector and sex.<sup>9</sup> To the extent that the correlation is a reality for this age group, it seems to be due mostly to the experience of rural women. These women make up over one-third of unemployment

in the twenty-five to twenty-nine age group.

One of the striking aspects of Sri Lankan unemployment is the length of unemployment spells. In 1981/82, the median unemployed person had been unemployed for about fifteen months and more than one in ten had been unemployed for more than four years (Report on Consumer Finances...., p. 161). This leads to the second problem with the description of Sri Lankan unemployment as educated unemployment -- the failure to control for the duration of unemployment. Since unemployment spells in Sri Lanka tend to be quite long, and since more educated youths will have left school more recently, they will have had less time in which to find a job and thus higher reported rates of unemployment. It is as if a researcher surveyed eighteen year olds in the United States on July 1 and discovered that among those who had finished school, those who had graduated high school had higher unemployment rates than those who had not.

It is impossible to calculate the distribution of eventual unemployment from information only on the length of uncompleted spells without very strong distributional assumptions. Fortunately a Marga Institute (1977) study, although somewhat dated, provides information which allows us to make reasonable estimates. The study obtained both time unemployed for those unemployed and time unemployed prior to getting a job for those employed. Since virtually all the unemployed were first-time job seekers, we can use these data to calculate the probability of obtaining employment in a period conditional on not having yet obtained a job.<sup>10</sup> We use these estimates to calculate the eventual distribution of completed unemployment durations.

Table 6 gives the estimated distribution of unemployment duration based on the Marga Institute data. The results are reported separately by education group. The findings are striking for a number of reasons. First, eventual unemployment duration is extremely long. We calculate that nearly half of the unemployed will take more than five years to get a job. Second, although there is some slight tendency for those who have passed O-levels to have longer expected unemployment durations, the effect is not large. The principal fact

that comes through from table 6 is that unemployment duration is very long for all education groups except those with no school. Moreover, even among those with no education, the principal difference is that some individuals find jobs very quickly (in less than a year). Presumably these individuals often had immediate access to work. Individuals with no schooling who have not found employment within a year have additional unemployment durations which are comparable to those for more educated individuals.

\*\*\*\* Table 6 around here \*\*\*\*

Holding age constant, more educated individuals will have started their job queuing more recently. Consequently they will tend to have higher unemployment rates. Given the time it takes to find employment, this bias is not trivial. For those with any education about 10% of those originally unemployed find employment each year (table 6). Therefore it should not be surprising that those with 12 years or more of education have unemployment rates 2 to 4 times as high as those with 1 to 7 years (Table 4) among twenty-five to twenty-nine year olds.

Our analysis so far suggests that Sri Lankan unemployment is best described as "youth" unemployment rather than "educated youth" unemployment since the educated youth unemployment problem is no worse than the uneducated youth unemployment problem.. It might nevertheless be the case that almost any education is excessive for the types of agricultural employment available in Sri Lanka. In this case, it might still be true that unemployment in Sri Lanka results from youths holding out for "appropriate" employment and gradually lowering their aspirations as they get older.

One way we might look for evidence in support of the diminishing expectations hypothesis is by determining whether declining unemployment rates are associated with big increases in agricultural or informal employment. Most informal employment shows up as self-employment in workforce surveys. We have already noted that self-employment appears to be the best alternative to regular employment in the modern and government sectors.

Table 7 allows us examine the relation between unemployment rates and self-

employment rates (including unpaid family work) for different age cohorts over a period of fifteen years.<sup>11</sup> Unemployment rates drop sharply as the cohorts age -- at least for the younger cohorts. There is also a smaller but sharp increase in the rate of self-employment. For example, the group which was age fifteen to nineteen in 1971 had a 40% unemployment rate. By 1981, this group (now twenty-five to twenty-nine) had an unemployment rate of only 21%. At the same time the percentage self-employed rose from 17% to 22%. Thus it appears that about one-quarter of the decline in unemployment can be accounted for by the growth in self-employment.

\*\*\*\* Table 7 around here \*\*\*\*

However, the places where unemployment declines and self-employment grows do not coincide. Between 1971 and 1981 the growth in self-employment was five to seven percentage points for every cohort. Between 1981 and 1985/86 growth rates of self-employment were, if anything, somewhat higher for the older cohorts. The lack of correlation between declining unemployment and rising self-employment is evident and suggests that entry into self-employment is not primarily a result of diminishing expectations.<sup>12</sup>

From tables 4 and 7 it is also clear that whatever disruptive effects the civil war has had, there is little evidence that it has had much of an effect on measured unemployment.

What then does explain the decline in unemployment rates? A comparison of tables 1 and 7 suggests that much of the decline can be accounted for by unemployed workers accepting government employment. For example, as the cohort age 15 to 19 in 1971 reached 25 to 29 in 1981, the unemployment rate fell from 40% to 21%. The percentage of the labor force employed in the government sector is negligible below age nineteen but rises to 15% for 25 to 29 year olds. Thus much of the drop in unemployment can be accounted for by increased government employment -- contrary to the view of the ILO, the aspirations of many of the unemployed seem to be fulfilled.

This last point is supportive of Isenman (1980) and Glewwe's (1987)

argument that Sri Lanka's unemployment problem is generated by queuing for government jobs. We believe this is an important albeit partial explanation for the phenomena. The argument that unemployment represents queues for government jobs is incomplete because high inflexible wages in one sector are not sufficient to cause unemployment. Either wages must be rigid in all sectors or there must be some advantage to being unemployed as opposed to working in a market-clearing sector.<sup>13</sup>

Our analysis of unemployment considers workers with different levels of education separately. For those with degrees, and to a lesser extent those with A-levels, eventual employment with the government is highly probable. For these workers unemployment is arguably entirely due to queues for government jobs. But why don't these aspiring government workers take jobs in the private sector while they wait for government jobs? As we will argue below, it appears that jobs in the private formal sector are also rationed. It is probably also the case that, for many of these unemployed workers, their reservation wage is below the government wage but above that in the best alternative job they could easily obtain. However, we believe there are many workers who would be willing to take low wage jobs while waiting for government jobs. The reason they do not is the hiring preference given to the unemployed.

Under the employment exchange and "job bank" programs of the 70s this was an explicit policy. These programs were intended for the unemployed and government hiring through them was mandatory (Deraniyagala et al, 1976). Government hiring was used to reduce unemployment; so naturally those targeted were the unemployed. The explicit government hiring programs were often circumvented, especially through the use of political influence. Nevertheless, it appears that horizontal movement into good government jobs was difficult (ILO, 1971b, pp43-44). As described above, Government jobs are very desirable. Showing a preference for the unemployed in hiring creates a strong inducement to be unemployed. To the extent that current government policies still favor the hiring of the unemployed, this incentive continues.

We do not have direct evidence on the extent to which the hiring practices utilized by government favor the unemployed. However, past policy appears to reflect a deeply felt belief that government should hire the unemployed rather than those who have jobs already. Isenman (1980) reports that when government jobs have been created to relieve unemployment, such programs tend to be restricted to the unemployed. In a speech entitled "The Government's Approach to Solving the Unemployment Problem in Sri Lanka," Dr. Wickreema Weerisooria, then Secretary to the Minister of Plan Implementation, expressed his disgust at employed individuals trying to get government jobs:

"I will give you an example which I have been repeating and is worthy of repetition. The People's Bank and the Bank of Ceylon advertised a thousand vacancies for clerks. Each Bank received 45,000 to 50,000 applications and it took their staff over six months to process these applications. They ultimately found that out of the 50,000 about 15,000 to 17,000 applicants were already gainfully employed. It may be that in a better society we can improve the jobs people have but the stunning situation today is unemployment - the large number of people who have NEVER been employed."  
(Weerisooria, 1978)

This statement, if typical, suggests a set of values which will lead to implicit or explicit priority for unemployed workers. It also indicates that it is not feasible for the unemployed to accept employment and apply for government jobs under the pretense of being unemployed.

We are not suggesting that only the unemployed can obtain government employment. Despite the strength of the quotation above, employed workers do sometimes get government jobs. Our claim is merely that the unemployed receive sufficient preference to make it rational to remain unemployed while queuing for government employment.

For those with O-level education the probability of getting a government job is still very high and the reasons for queuing rather than taking other jobs while waiting for a government job are mostly the same. Also, any lower probability of being hired is made up for by the larger difference between wages paid for those with O-levels in government service versus those earned in the private formal sector and particularly the agricultural sector. For the younger unemployed there is another consideration -- the government will not hire workers



who are younger than nineteen (Sri Lanka, Central Bank of Ceylon 1984, p126). Thus many youth who finish their O-levels before their nineteenth birthday can not begin to be employed before they are nineteen. They can use this period to engage in political work in the expectation that political influence will help them get a government job.

For those with only a secondary education or less, probability of government employment is very low. Despite this we see unemployment rates for this group which are comparable to those for the more highly educated. To some extent the low probability of government employment is offset by the large pecuniary and nonpecuniary benefits. However, it is unlikely that these young people are queuing solely for government jobs. There are two other explanations which are complementary. The first is that many may be unemployed while studying for O-level examinations even though finished with formal schooling. Thus they may not have the education required for government employment now, but they may still aspire to government employment at a later date. Resitting O-level examinations even three or four times is quite common in Sri Lanka. For those who are less than nineteen there is no reason to rush. Second, it is likely that there is queuing for formal private sector jobs as well as those in the government sector.

The development literature has long accepted the notion that formal sector jobs in developing countries pay more than jobs in agriculture where it is believed the labor market clears. Many explanations have been given for the wage differences paid in the formal sector and many of these explanations are the same as those that have recently been proposed to explain unemployment, inter-firm and inter-industry wage differences in developed countries (Dickens and Lang, 1988a). Theoretical studies of "efficiency wages" explain the wage differences as being due to different needs to motivate workers or to prevent turnover or to attract a higher quality work-force when direct observation of individual worker quality is difficult. "Rent-extraction" or "insider-outsider" models explain unemployment and wage differences in terms of workers' bargaining power,

particularly when acting collectively. Finally, "rent-sharing" or "expense preference" models explain wage differences as being due to employer preferences for spending money on good quality happy workers beyond the needs for strict profit maximization.<sup>14</sup> A large body of empirical work on U.S. labor markets, and a growing literature on foreign countries<sup>15</sup> suggests that such explanations are necessary for a complete picture of how even developed economies operate. Evidence for the existence of queues for jobs in the private sector can be found in Deraniyagala, Dore and Little (1976). They cite examples of a single advertised vacancy in a large well-known private firm "evoking many hundreds of applications," (p24).

We thus expect that outside of the agricultural labor force, and perhaps a few other sectors using day labor, all jobs are rationed. It is less clear in these cases what the reasons for queuing are. Some mixed evidence can be found on this point in Deraniyagala, Dore and Little (1976). They note that norms for required qualifications are set in the government sector (p103) and that private corporations are affected by political pressure in their hiring decisions (p41). However, in several places they seem to suggest that experience is often used as criteria in hiring (p15-16, and p54-55) although elsewhere they suggest that it is seldom an explicit criteria though it may still be favorably viewed (p35). Of course it is not necessary that all employers have a strict preference for workers with no experience. If the preference, even in a weak form, is dominant in even one firm it increases all workers incentives to queue. If it is prevalent, it may be the cause of the persistent youth unemployment problems we observe.

It is also likely that many unemployed youths have reservation wages above those available in casual work. Our results indicate that government employment and self-employment expand sufficiently to account for the decline in unemployment suggesting that a large fraction of unemployed youths who hold out for "good" employment are able to either get regular jobs or find suitable self-employment. Both of these options, on average, pay much more than casual

employment.

Our point about the importance of government hiring policy is not entirely new. Isenman (1980, p.250) mentions in passing the negative impact of restricting employment creation programs "to those who are 'unemployed', rather than those who are overeducated for their current jobs...." However, we differ from Isenman in stressing the rationality of queuing because of the high probability of eventual employment in the government sector and down-playing the role of excessive expectation in generating unemployment and the role of reduced expectations in explaining the decline in unemployment as the cohort ages.

#### 4. POLICY CONSIDERATIONS AND CONCLUSIONS

Using the working hypothesis that the combination of attractive government jobs and government hiring policies is an important reason for unemployment in Sri Lanka, we will first consider how changes to government personnel policies might affect the level of unemployment. Obviously, lowering wages in the government sector will tend to reduce the extent of queues for such jobs. However, it may not be feasible or desirable in a country where employment is dominated by peasant agriculture to reduce wages in the government to eliminate all queues. The government shares with the private sector many of the same motivations for paying above market-clearing rates in at least some jobs. Since there are already complaints among the most highly qualified government workers about their wages, it may be that Sri Lanka has gone as far in reducing wages of government employees as it can without seriously damaging morale and/or retention.

Despite this, it appears that the vast majority of government workers are still paid substantially more than those in alternative employment in the private and particularly the agricultural sector. To the extent that motivation and retention are a problem for the most highly educated workers, judiciously administered plans for merit pay increases and promotions are a potential solution to the government's personnel problems at a lower cost than a general

pay increase.

Besides reducing wages, a second way to make queuing less attractive is to reduce the probability of being drawn from the queue. In this case that would mean making fewer government positions available by reducing the amount of government employment. In the long run we would expect this to reduce the fraction of workers queuing for government jobs, but in the short run this would tend to increase unemployment. Ultimately, the size of the government is a social and political issue which must be resolved only in small part with respect to the role of government employment in the generation of unemployment.

Reducing government pay and/or reducing the size of that sector are both drastic measures which may reduce unemployment only at a substantial cost in some other area. However, even with a large high wage sector there is no need for unemployment if there is no advantage to waiting in the queue. The incentive to queue can be reduced by changing the way the government hires workers. In particular any preference for unemployed workers could be replaced with a normal preference for experienced workers with demonstrated skills and ability. This should have two salutary affects in addition to removing the incentive for workers to be unemployed while waiting for government jobs. First, the government should be able to hire better qualified and more experienced workers. Second, the high government salaries would help, not hinder, the rest of the economy. If people must get work experience to compete for good government jobs, they should be willing to work for lower wages and to try harder to find private sector jobs which will allow them to accumulate the necessary experience. This might create a large pool of eager workers for private sector expansion.

We do not know to what extent the increased supply of workers to the private sector will be absorbed. There are legitimate concerns with respect to aggregate demand and capital formation, particularly in a time of fiscal retrenchment. However, there are productive uses to which these aspiring workers could be put such as government programs aimed at improving rural infra-structure and the cultivation of export crops. Given the role of unemployed youth in the

civil war and the 1971 uprising, it is clear that policies which were perceived as having a negative impact on them, even if well intended, would not be politically feasible. Therefore some sort of job program may be a necessary concomitant of any move to remove hiring preferences for the unemployed.

The hiring preference for unemployed workers is only the most important of several government personnel policies which might be amended. We have already commented on the deleterious effect of the government's refusal to hire workers who are less than nineteen. If age requirements were replaced with reasonable experience and education requirements, unemployment could be reduced further.

To the extent that private formal sector employers follow practices similar to those of the government, encouraging them to modify those practices would reduce the incentive to queue. The less advantage the unemployed have over the employed in finding good jobs, the less incentive there will be for individuals to remain unemployed as opposed to seeking the best job available at the time.

## FOOTNOTES

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1. The results reported in this subsection are drawn from the Labor Force and Socio-Economic Survey, 1985/86, unless otherwise noted.

2. This number is very low at least in part because the rural-urban distinction is less pronounced in Sri-Lanka than in other countries. Many rural residents need not move to be employed in the urban sector.

3. and probably not grade three but the data are insufficient to ascertain the precise median.

4. The term government sector employment is often used to refer to central government employment. We use it here to include both public sector and publicly-owned corporations (the corporation sector). It excludes employment on the estates.

5. Report on Consumer Finances and Socio Economic Survey 1981/82, part I, p. 126.

6. An O level education corresponds roughly to a High School education in the U.S.. An A-level is equivalent to somewhere between 1 year of college and an AA degree.

7. With the exception of self-employed workers in the estate sector for which there are only 20 observations, each cell is based on between 421 and 3617 observations.

8. Those whose last employment was in the estate sector are defined as being unemployed in the estate sector.

9. We can rule out the argument that educated workers move to the city to be unemployed. Recall from above that only four people out of 7927 households said that they had moved to an urban area for employment reasons.

10. From tables 14 and 25, we calculate the fraction of workers who were unemployed for at least  $t$  periods who found a job in period  $t+1$ , that is the number of individuals who reported finding a job in period  $t+1$  divided by the sum of the number who report finding a job in period  $t+1$  and the number who reported being unemployed for at least  $t+1$  periods. In technical jargon, we calculate the Kaplan-Meier estimates of the hazard rates. A potential drawback of this approach is that we are combining the experience of people in many different years to yield these rates. There would be a serious question as to what they meant if labor market conditions had been highly variable in the preceding years. However, from available evidence this does not appear to be the case. Persistent high rates of unemployment have been the norm for years.

11. The data for 1971 and 1981 are based on the censuses in those years. The Labor Force Survey sampled 11897. In 1981 the average household size was 5.23 suggesting that the sample represents somewhat more than 62000 persons. The sample size for the smallest cell would therefore be about 3000 people.

12. Differences among the surveys make it difficult to determine with confidence whether the level of self-employment has changed over time. Between 1971 and 1981, the percentage of 25 to 29 year olds who were self-employed increased by four percentage points from 18% to 22%. However, the percentage of self-employed at other age levels remained essentially unchanged. On the other hand self-employment increased sharply between the 1981 Census and the 1986 Labor Force Survey. For example, in 1981, 23% of 30 to 34 year olds were self-employed compared with 29% in 1986. It is, of course, possible that this reflects differences between the surveys rather than a real change.

13. It may also be the case that the "unemployed" simply have reservation wages above the market clearing rate but below the wages in the high wage sector.

14. See Katz 1986, Akerlof and Yellen 1986 and Weiss 1990 for reviews of this literature.

15. See Dickens and Lang 1988a for a recent review.



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TABLE 1  
Public and Corporation Sector Employment by Age and Education

	<u>% of employment</u>		<u>% of labor force</u>	
	<u>public</u>	<u>corp.</u>	<u>public</u>	<u>corp.</u>
All	9	7	8	6
<u>Age</u>				
10 - 19	<.5	<.5	<.5	<.5
20 - 24	4	4	3	3
25 - 29	10	10	8	7
30 - 34	13	12	12	11
35 - 39	14	12	13	11
40 - 44	14	11	13	10
45 - 49	14	9	14	8
50 - 54	13	7	13	7
>54	2	2	2	2
<u>Education</u>				
< Grade 5	1	1	1	1
Grades 5 - 9	5	7	4	6
Passed O-level	32	19	26	15
Passed A-level	36	19	25	13
Degree or more	55	18	52	17

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Sources: Census of Public Sector and Corporation Sector Employment, 1985, pp vi-ix. Labor Force Survey, pp. 127-34, 192-9.

TABLE 2

Median and Mean Earnings by Class of Worker and Sector (Rs.)

	<u>Regular Employees</u>	<u>Casual Employees</u>	<u>Self-Employed</u>
<u>Median</u>			
Urban	1144	694	1056
Rural	976	561	808
Estate	216	151	600
<u>Mean</u>			
Urban	1672	794	1854
Rural	1218	688	1540
Estate	466	392	942

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Source: Report on Consumer Finances and Socio Economic Survey 1981/82, part I, p. 212.

TABLE 3

Unemployment Rates in Sri Lanka by Age and Sector  
(% of Labor Force in Age-Sector cell)

	<u>All</u>	<u>Urban</u>	<u>Rural</u>	<u>Estate</u>
All ages	14.1	19.5	13.2	7.8
10 - 14	9.5	12.9	8.2	19.9
15 - 19	31.7	42.6	28.9	27.9
20 - 24	30.4	38.9	30.2	11.7
25 - 29	16.7	22.8	16.4	4.5
30 - 34	10.2	16.5	9.3	3.0
35 - 39	5.7	8.5	5.4	1.7
40 - 44	5.5	6.2	5.3	5.4
45 - 49	3.6	4.8	3.5	0.7
50 - 54	2.2	4.4	1.8	-
55 - 59	4.6	6.0	4.5	1.5
60 - 64	2.6	9.3	1.3	-
65 & over	3.0	1.4	3.1	9.0

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- Figures not reported, sample too small.

Source: Labor Force and Socio-Economic Survey - 1985/86, p. 218

TABLE 4  
Unemployment Rates in Sri Lanka by Age and Education,  
1969/70, 1973, 1985/86

	(% of Labor Force in Age/Education cell)					
	1969/70		1973 (rural only)	1985/86		
	15-19	20-24	15-24	15-19	20-24	25-29
No school	23	8	30	21	10	4
Grade 1-4				22	13	7
Primary	34	15	43			
Grade 5-7				31	23	11
Grade 8-9/ Secondary	46	39	62	39	40	20
Passed O- level	92	63	74	55	43	25
Passed A- level		69	68	54	52	36
Degree or higher			45		53	16

Sources: ILO (1971), Vol 1., p.28; Marga Institute (1977), table 4; Labor Force and Socio-Economic Survey - 1985/86, pp.123-6,188-91.

TABLE 5

Unemployment Rates by Age and Education (25-29 Year Olds)  
 (% of Labor Force in Age/Education/Sector/Sex cell)

	<u>Urban Men</u>	<u>Urban Women</u>	<u>Rural Men</u>	<u>Rural Women</u>	<u>All</u>
No school	8	3	4	7	4
Grades 0-4	10	34	6	11	7
Grades 5-7	24	36	7	14	11
Grades 8-9	19	35	12	34	20
Passed O-level	17	42	10	45	25
Passed A-level	10	26	26	57	36
Degree or more	4	14	4	36	16

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Source: Labor Force and Socio-Economic Survey - 1985/86,  
 pp. 127-34, 192-9.

TABLE 6

Predicted Unemployment Duration by Education (Rural youth, 15-24), 1973

	<u>&lt; 1 yr.</u>	<u>1-2 yrs.</u>	<u>2-3 yrs.</u>	<u>3-4 yrs.</u>	<u>4-5 yrs.</u>	<u>&gt;5 yrs.</u>	<u>N</u>
No school	61%	2%	3%	9%	2%	22%	163
Primary	16%	8%	10%	10%	10%	46%	1893
Middle	10%	8%	12%	13%	14%	43%	4080
O-level	7%	10%	11%	11%	6%	55%	1227
A-level	12%	10%	13%	5%	11%	49%	112

Based on data in Marga Institute (1977), tables 14 and 25.



TABLE 7

Unemployment and Self-Employment Rates, Selected Cohorts, 1971-1986

<u>Age in</u> <u>1971</u>	<u>Unemployment Rate</u>			<u>Self-Employment Rate</u>		
	<u>1971</u>	<u>1981</u>	<u>1986</u>	<u>1971</u>	<u>1981</u>	<u>1986</u>
15 - 19	40%	21%	10%	17%	22%	29%
20 - 24	35%	12%	6%	16%	23%	34%
25 - 29	20%	8%	6%	18%	24%	30%
30 - 34	11%	5%	3%	22%	27%	39%
35 - 39	7%	3%	2%	26%	30%	40%
40 - 44	6%	3%	5%	28%	34%	47%

Sources: Department of Labor, Sri Lanka, Labor Statistics, 1986, pp. 11-12, which gives the results of the 1971 and 1981 censuses, and Labor Force and Socio-Economic Survey, 1985-86, pp. 115-6, 139-42.