Jobs for Tamils and Sinhalese in Sri Lanka: What's Education Got to Do with it?

Maitreyi Bordia Das¹ Rasmus Heltberg

> The World Bank Washington DC

¹ mdas@worldbank.org

Jobs for Tamils and Sinhalese in Sri Lanka: What's Education Got to Do with it?

Maitreyi Bordia Das Rasmus Heltberg

Sri Lanka has the highest unemployment rates in South Asia. In fact, the Sri Lankan unemployment profile sets its labor market apart from that of other South Asian countries, where open employment is generally below 5 percent and it has been argued that even educated individuals cannot afford to remain unemployed, and will more likely be underemployed or take up low level occupations (Visaria and Minhas, 1991). In contrast, in Sri Lanka the average unemployment rate over the period 1992-2002 was 10.6 percent – much higher for women than for men. Clearly therefore, access to paid employment is highly coveted and leads us to the question – in a regime of high unemployment rates, who gets paid employment? And what does education have to do with it?

If we went by the human capital axioms, we would answer – "*Everything*! *Education gives individuals access to employment*." However, we draw on recent research on South Asia which challenges this axiom for India (Das and Desai, 2003; Desai and Das, 2004) and for Pakistan (Sathar and Desai, 1997), and shows that *education makes individuals less likely to be employed*. India and Pakistan are however very different from Sri Lanka, both in terms of the policy setting, the political milieu, ethnic tensions, as well as demographic indicators and it is a well-accepted fact that in Sri Lanka, educated individuals are more likely to report themselves as being unemployed (LFS various years; Rama, 1999). However, we know little about the obverse – what happens to access to paid employment with higher education? And how did this change for different ethnic groups in the context of heightened ethnic tensions and profound structural change.

Sri Lanka has been locked in high intensity political conflict for at least 20 years. Some argue for a much earlier date for the ethnic conflict, but the armed conflagration is really two decades old. Although the intensity has recently been on the wane, with a robust peace process in the offing, yet, the effects of the ethnic tensions are felt in the economy

as a whole and in employment in particular. The costs of the conflict have been estimated in macroeconomic terms both officially and unofficially. Conversely, other writers have implicated economic reasons and social inequality for the civil strife and for the rise of Tamil militancy and civil war in the 1980s and 1990s (Jayaweera, 2000; Abeyratne, 2002).

This paper does not address the roots of ethnic conflict. Nor indeed can it ascribe changes in employment patterns such as it analyses, to the conflict itself. As pointed out, there is a serious issue of direction of causality in the relationship between ethnic conflict and economic and social outcomes – which is the cause and which the consequence is unclear and perhaps difficult to ever come to any conclusions about. It addresses the question - during a decade of far- reaching structural change, intense political conflict, and high unemployment rates, what have been the employment patterns of the two main ethnic groups in Sri Lanka?

The importance of this analysis is that it is able to address three major lacunas in the empirical literature on ethnicity, gender and employment in Sri Lanka.

- 1. *Most studies focus on wages or earnings as the key outcome variable denoting returns to education*. However, earnings pre-suppose employment, and studies that focus on wages as returns to education do not take into account returns in the form of entry into or access to employment. In countries where the public sector dominates regular salaried employment and where the civil service is patterned on the colonial British system, as is the case in South Asia, it is the entry into public sector jobs which is the critical issue. Once recruited, wage rates for the most part conform to rules and procedures that seldom vary by ethnicity, or even education and performance. To get around the issue of self-selection into a sample by individuals who have jobs, this study uses paid employment as the key outcome.
- 2. *Most analyses of employment and ethnicity address one point in time,* and are therefore unable to grasp trends over a period of time. While it is not possible to attribute causality between economic trends such as employment and the political crisis of the 1980s and 1990s (unless a survey specifically addresses this issue),

yet trends can be assessed within the context of political strife. This paper benefits from access to three waves of Labor Force Surveys for Sri Lanka, spanning a period of a decade. Thus, it can assess changes over time, although it cannot and does not attribute any causality to the conflict.

3. *Most analyses of employment in Sri Lanka that analyze social and economic differences tend to compare Tamils with Sinhalese and women with men.* We believe that the more relevant comparison categories are "Sinhalese and Tamil men" and "Sinhalese and Tamil women". Our analysis shows that with these comparison categories we are able to better explain larger patterns.

To summarize the aims of this paper then, it seeks to answer the question – how has postsecondary or higher education changed paid employment patterns in Sri Lanka, and does this access vary by ethnicity for men and women?

The context

The main ethnic groups in Sri Lanka are the Sinhalese, the Tamils and the Moors. Sinhalese are the overwhelming majority in Sri Lanka, constituting over 85 percent of the sample. If Sri Lankan and Indian Tamils are taken together, they make up the largest minority, with over 8 percent of the sample being Tamils. Moors and others make up the rest of the 6 percent of the population in the sample. The ethnic tensions are mainly between the Sinhalese on the one hand and Tamils, who were brought in as plantation labor from India by the British in the 19th century. In terms of economic trends, the 1980s and 1990s saw far-reaching structural changes in Sri Lanka. The earlier import substitution regime gave way to an opening up of the economy and stable GDP growth rates. In recent years there has been a downturn in public sector jobs – hitherto the primary route to regular salaried employment. The favorable terms of the Multi-fiber Trade Agreement (MFA) on the other hand, has given rise to jobs in the manufacturing and export sector, particularly in the garment industry and services.

Sri Lanka is also one of the prime examples in Asia, of social policy historically guiding positive demographic outcomes. Education, for instance, is near universal – only about 5 percent had received no education in the present sample. More important in the South

Asian context is the fact that women's status in Sri Lanka is high, when measured by conventional indicators such as education, fertility and female employment. It is thus touted as the outlier in South Asia even though women's rights activists in Sri Lanka have lamented entrenched inequalities (Jayaweera, 2000). However, few studies have documented differences in demographic outcomes by ethnic group. Descriptive statistics from the percent sample show important differences in key labor market indicators for the two different groups under study. For instance, while overall less than five percent of the population has no education, but 20 percent of Tamil women fall in this category. Literature on returns to education in Sri Lanka has shown the importance of education in *wages* for both men and women (Heltberg and Vodopivic, 2004; Ajwad and Kurukulasuriya, 2002). However, the few empirical analyses based on ethnicity that there are, have failed to show variation by ethnicity in the *earnings* of the two major ethnic groups – the Sinhalese and the Tamils, although many have found a robust gender wage gap (Ajwad and Kurukulasuriya, 2002).

Labor force participation rates in Sri Lanka too vary not so much by ethnicity, but more so, by gender. Thus, 81 percent of the men and 41 percent of the women are in the labor force. Thus, labor force participation rates for women are low, but once in the labor force, 82 percent of the women and 91 percent of the men are employed². Tamil men and more so, women have higher labor force participation rates as well as higher rates of paid employment compared to their Sinhalese counterparts. This is largely explained by the fact that the major proportion of Tamils work on plantations, or what are classified as "estates" – tea, rubber and coconut. Less than one percent of Sinhalese but more than 48 percent of Tamils live in these estates, and of those employed, over 61 percent of Tamil women, and 48 percent of Tamil men work in the estate sector. Estates are historically identified as high-poverty enclaves and have been a fertile ground for labor movements. The majority of estate workers are of Indian origin, but many are Sri Lankan Tamils as well.

² This includes all working age men and women – not merely Sinhalese and Tamils.

The Sri Lankan unemployment profile sets it apart from other South Asian countries, as we have pointed out earlier. The high levels of unemployment are associated with higher education for both men and women has been seen as a manifestation of "*job queuing*" whereby, (especially young and relatively well-educated) individuals would wait for coveted jobs to open up, but not enter into low paying jobs out of necessity (Rama, 1999; Heltberg and Vodopivic, 2004). Thus, while in India, educated individuals are increasingly likely to take to agriculture, in the absence of higher status occupations being available (Desai and Das, 2004); in Sri Lanka, they register themselves as being unemployed in surveys and this has been construed as voluntary (Rama, 1999). However, when we disaggregate this by ethnic group and gender in Sri Lanka, we find that the highest rates of unemployment are for Sinhalese women (18.6 percent), while men in the two groups each have on average 8 percent and Tamil women have a 9 percent unemployment rate.

Theoretical Underpinnings and Hypotheses

This paper derives its theoretical basis from two sets of theories. The first are the set of human capital theories that have long focused on the positive impact of investments in human capital - at the macro-level, on economic development and - at the micro level, on individual earnings (Schultz, 1994). Empirical evidence based on these theories also shows that investments in education for women produce greater returns than they do for men. Thus, Schultz 's (1994) empirical analysis concludes that the "coincidence of these trends in female participation in the labor force and their schooling support the conjecture that women realize more returns to their schooling through their work in the market labor force" (Schultz, 1994:49). Higher returns to education for women is also borne out in Psacharopoulos' (1994) cross-country review and empirical studies from such diverse settings as Taiwan (Gindling et al, 1994), Czech Republic and Slovakia (Chase, 1997) and India (Malathy and Duraisamy, 1993) have also shown higher returns to education for women than for men. Evidence from Sri Lanka on female employment has also shown that women are more likely to be employed if they have higher education (Degraff and Malhotra, 1997). Such studies and human capital theories have become the basis for the emphasis of international institutions on greater investments in girls' education,

6

although Kingdon and Unni (1997) show that for Indian women, only education beyond the level junior/middle level enhances wage work participation.

The second set of theories this paper draws on are those that explain distortions in the labor markets through a conception of dualism or segmentation. Theories of segmented labor markets have added considerably to our understanding of how entrenched inequalities based on ascribed status, such as ethnicity, race or caste and gender affect individuals' chances in the labor market. Segmentation is also along lines of primary and secondary markets – the first being highly coveted with better wages and the second comprising workers who are in low wage employment and poor conditions of work. Thus, while neo-liberal theories see differences in labor market outcomes between different groups as arising from the marginal commitment to the labor market that such groups might have – for instance, women's lower commitment compared to men's – segmentation theories attempt to get to the social dynamics that lead to primary and secondary markets.

"At the core of labor market segmentation are social groups and institutions. The processes governing allocation and pricing within internal labor markets are *social*, opposed either to competitive processes or to instrumental calculations. The marginal labor force commitment of the groups which creates the potential for a viable secondary sector of a dual market is social. The structures which distinguish professional and managerial workers from other members of the labor force and provide their distinctive education and training are also social." Piore, 1983:252

Market segmentation theories thus, provide the overall conceptual justification for the assertion that social inequality plays out in such a way in the labor market that the underprivileged remain in the low-paying, low status jobs. Related to these theories are those that describe "ethnic labor markets" (Wilson and Portes, 1980; Portes and Jensen, 1989; 1992). The main thrust of the arguments of Portes and others is that immigrants who enter the US labor market are discriminated against because they do not know the language, are unfamiliar with the culture and are obviously distinct from the mainstream. In many cases they may also have restrictions on work due to their immigrant status.

However, Portes and his colleagues disagree with the conventional notion that all immigrants enter the labor market at the bottom end, and with assimilation, work their way up. On the contrary, they argue, when immigrants have the necessary human capital, they build their own *ethnic enclaves* – self-employed ventures which are a part of an *ethnic labor market*. Discussion of the nuances of the ethnic labor market theories is not within the scope of this paper.

Hypotheses

Based on theories of human capital and labor market segmentation along ethnic lines, we hypothesize that Tamils in Sri Lanka would have a lower access to paid employment compared to the majority Sinhalese. In addition, since conventional indicators of women's status are high in Sri Lanka, we would expect returns to education for men and women to be similar.

Data and Methods

This paper uses three waves of the Sri Lanka Labor Force Surveys in the 1992, 1996 and 2002 as a pooled data set. Rather than use sex as a dummy variable, four separate samples are generated for Sinhalese men (sample of 56490 observations), Tamil men (sample of 7008 observations), Sinhalese women (sample of 58558 observations) and Tamil women (sample of 7415 observations). We use descriptive statistics to build a picture of the Sri Lankan labor market (as in the previous section). In addition, we present bivariate analyses of paid employment and education by ethnic group and sex for the three survey years under consideration.

Variables

The dependent variable is categorical – whether in paid employment or not (using current weekly status). 70 percent of the men and 27 percent of the women are in paid employment. Disaggregated numbers by gender and ethnicity over time are laid out in Table 2. The key independent variables are education (coded as two dummies for middle and post-secondary education, with primary as the omitted category) and year, with 1992 being the reference year.

Models

Two probit models for the likelihood of paid employment are predicted each for Tamil men, Sinhalese men, Tamil women and Sinhalese women aged 15-60. The first model predicts the probability of being in paid employment, while controlling for a number of demographic variables such as age, residence (both urban/rural and region, which is coded as six dummies, with western as the reference category), household size, number of other workers (excluding self) in the household, marital status, age, a squared term for age, number of children under the age of 6, household headship status and vocational training. Survey years 1996 and 2002 are compared through dummy variables against 1992. The second model adds the interaction terms - post-secondary education with survey year to the model.

Results

Descriptive and bivariate

Paid employment has increased for all groups over the 10 year period under review. However, Sinhalese men seem to have had the largest increase over time. As far as the role of education in paid employment is concerned, higher education is associated with reduced likelihood of paid employment for all groups except Sinhalese women. For the most part, employment patterns with education show only small differences between Sinhalese and Tamil men, although the former registered a slightly sharper increase over the decade compared to the latter. However, it is among the women of the two groups that the greatest differences show up. Tamil women are more than twice as likely as Sinhalese women to be employed if they have primary education, but the increase over time is less pronounced for the former. With middle school education again, Tamil women are more likely to be employed compared to their Sinhalese counterparts, but the differences between the two groups of women narrow down. Interestingly, both sets of women show a declining likelihood of employment with middle school when compared to primary education.

Higher education seems to confer the largest disadvantage for Tamil women. If they had only primary education, they would be more than twice as likely to be employed,

9

compared to if they had post secondary education. *Post secondary education thus increases the likelihood of Sinhalese women, but reduces the likelihood of Tamil women, to be in paid employment.* Of all groups analyzed, Sinhalese women seem to get the largest benefit from post-secondary education in terms of access to paid employment. Thus, the descriptive statistics and bivariate analysis shows a picture of Tamil women as engaged in jobs that require low educational attainment and when they do get higher education, their likelihood of being employed is reduced. Sinhalese women appear to get better returns to education in the form of access to paid employment.

Multivariate Results

While the bivariate results are in keeping with the understanding that Tamil women work on plantations and do manual labor, and these seem quite convincing, the multivariate analysis makes the picture more complete. Probit models for the probability of being in paid employment for both Sinhalese and Tamil men shows that postsecondary education is negatively associated with paid employment, controlling for survey year and a number of other individual and household characteristics. The negative coefficients are almost identical in order of magnitude for both groups of men and are significant at the 1% level. However, the likelihood of being in paid employment is higher for Sinhalese men in 2002 compared to 1992 (coefficient of 0.10 significant at 1%).

When we interact survey year with post secondary education, Sinhalese men continue to be less likely to be in paid employment if they have postsecondary education, and the year 2002 continues to be positively associated with their employment. For Tamil men, the negative effect of postsecondary education is reduced and is not significant, and the interaction term postsecondary*year02 is negative (coefficient of -0.27) and significant at the 5% level. Therefore, while 2002 seems to bode well for Sinhalese, for Tamils, the negative effect of education is associated withy time – in 2002 Tamilian men with postsecondary education are less likely to get a job compared to all other men.

Among women the differences returns to education are rather startling. The most important result is that higher education (postsecondary) is associated with positive

returns for Sinhalese women (coefficient of 0.08 significant at the 1% level)and negative returns for Tamil women (coefficient of -0.84 significant at the 1% level), controlling for a number of variables. Similar to Sinhalese men, Sinhalese women too are more likely to be in paid employment in 2002 compared to 1992 (coefficient of 0.08 significant at 1%). When we interact survey year with post secondary education, the positive effect of postsecondary education loses its significance for Sinhalese women, but the year 2002 retains both its magnitude and significance and the interaction term postsecondary*year96 becomes positive and significant. For Tamil women, there are no changes after adding the interaction terms, nor are the years significant.

Discussion

- Our results show that the ethnic differences are more pronounced among educated women than among educated men, where access to paid employment is concerned. Although for both groups of men, higher education reduces the probability of being employed, yet, compared to 1992, in 2002, Sinhalese men became more likely to have paid jobs, while controlling for education. In addition, the importance of education actually declines for Tamil men in 2002 compared to 1992.
- Over time, both Sinhalese women and Sinhalese men do better than their Tamilian counterparts.
- 3. The fact that higher education increases the probability of Sinhalese women and decreases that of Tamil women to be in paid employment is related to Tamil women's historically lower educational attainment, and their confinement to plantations. Plantation work drives their predominance in paid employment and they appear to be trapped in an ethnic enclave ³. Thus, poverty appears to determine Tamil women's access to paid employment. As education increases and

³ The term ethnic enclave is usually used for self-employed persons of minority ethnic groups ands denotes success but here it seems appropriate to classify estates as ethnic enclaves and give "enclaves" a negative connotation..

aspirations grow, but the labor market offerings are fewer, Tamil women are less likely to secure paid employment.

- 4. It appears that the job queuing hypothesis really works for Sinhalese women and less so for other groups, since they are the only group for whom higher education is associated with paid employment and whose unemployment rates are the highest. Therefore, Sinhalese women will remain unemployed or do unpaid work until they get a "good job". Post secondary education pulls them out of unpaid work or unemployment into paid employment.
- 5. There is also the possibility that the new employment opportunities that may have arisen in the garments and technology sectors in Sri Lanka have been utilized by Sinhalese women more than by Tamils. Research on this is limited and these are merely speculations as to the cause of the huge differences in the employment trajectories of Sinhalese and Tamil women.

Conclusion

Our analysis has contributed to the knowledge on the Sri Lankan labor market in three ways. First, it uses access to paid employment rather than wages to assess the impact of higher education in Sri Lanka. Second, it undertakes an analysis disaggregated by ethnicity and gender. Third, it assesses change over time.

Our initial hypotheses are partially substantiated. The differences between the employment outcomes of Sinhalese and Tamils, show that both groups of men are less likely to be employed if they have higher education. However, over time, especially over the period 1992-2002, all Sinhalese men's chances to secure employment have increased, while educated Tamil men's chances have decreased. For women the results are diametrically opposite. Higher education reduces the likelihood of Tamil women and increases that of Sinhalese women to be employed. The decade under consideration has no effect on Tamil women's employment, but increased all Sinhalese women's chances

of being employed. It also increased in particular, educated Sinhalese women's chances of being employed in 1996 compared to other women.

References

- Abeyratne, Sirimal. 2002. *Economic roots of political conflict: the case of Sri Lanka*. Department of Economics, Research School of Pacific and Asian Studies. Accessed on September 20, 2004 from <u>http://rspas.anu.edu.au/economics/publish/papers/wp2002/2002_01%20Sirimal%</u> 20Aberatna%20ANU%20WP.pdf
- Ajwad, Mohamed Ihsan and Pradeep Kurukulasuriya. 2002. *Ethnic and Gender Wage Disparities in Sri Lanka*. Policy Research Working Paper. WPS 2859. Washington DC: The World Bank.
- Chase, Robert. S. "Markets for Communist Human Capital: Returns to Education and Experience in the Czech Republic and Slovakia", Center Discussion Paper No. 770, Economic Growth Center, Yale University.
- Das, Maitreyi Bordia and Sonalde Desai. 2003. *Why are Educated Women Less Likely to be Employed in India? Testing Competing Hypotheses*. Social protection Discussion paper 313. Washington DC: The World Bank.
- Desai, Sonalde and Maitreyi Bordia Das. 2004. "Is Employment Driving India's Growth Surge? A Reality Check". *Economic and Political Weekly*, July 3.
- Duraiswamy, P. 2000. Changes in Returns to Education in India, 1983-94: By Gender, Age-Cohort and Location, Center Discussion Paper No. 815, Economic Growth Center, Yale University.
- Fafchamps, Marcel and Agnes R. Quisumbing. 1999. "Human Capital, Productivity, and Labor Allocation in Rural Pakistan," *The Journal of Human Resources*, 34:369-406.
- Jayaweera, Swarna. 2000. Major Conventional Indicators in Sri Lanka. Centre for Women's Research. Accessed on September 20, 2004 from http://web.idrc.ca/uploads/user-S/10286558980s11.pdf
- Kingdon, Geeta Gandhi and Jeemol Unni. 1997. How Much does Education Affect Women's Labor Market Outcomes in India? An Analysis Using NSS Household Data. Working Paper No. 92, Ahmedabad: Gujarat Institute of Development Research.
- Malathy, D. and P. Duraiswamy. 1993. "Returns to Scientific and Technical Education in India", *Margin*, July-September.
- Malhotra, Anju and Deborah S. DeGraff. 1997. "Entry Versus Success in the Labor Force: Young Women's Employment in Sri Lanka" *World Development* Vol 25, No. 3, pp 379-394.

- Mason, Karen. 1995. *Gender and Demographic Change: What Do We Know?* Liege: IUSSP.
- Portes, Alejandro and Leif Jensen. 1989. "The Enclave and the Entrants: Patterns of Ethnic Enterprise in Miami before and after Mariel", *American Sociological Review*, Vol. 54, No. 6. (Dec., 1989), pp. 929-949.
- Psacharopoulos, George. 1994. Returns to Investment in Education: A Global Update, World Development 22 (9):1325-1343.
- Raju, Saraswati and Deipica Bagchi (eds). 1993. *Women and Work in South Asia: Regional Patterns and Perspectives*. London and New York: Routledge.
- Rama, 1999. *The Sri Lankan Unemployment Problem Revisited*. Policy Research Working Paper WPS 2227. Washington DC: The World Bank.
- Sathar, Zeba and Sonalde Desai. 1997. "Class and Gender in Rural Pakistan: Differentials in Economic Activity," in *Women, Poverty and Demographic Change*. Edited by Brigida Garcia. Liege: Oxford University Press for IUSSP.
- Schultz, T. Paul. 1994. *Human Capital Investment in Women and Men: Micro and Macro Evidence of Economic Returns*. Occasional Papers Number 44, International Center for Economic Growth.
- Wilson, Kenneth L. and Alejandro Portes. 1980. "Immigrant Enclaves: An Analysis of the Labor Market Experiences of Cubans in Miami", *American Journal of Sociology*, Vol. 86, No. 2. (Sept., 1980), pp. 295-319.

| | Coding | Sinhalese men | Tamil men | Sinhalese women | Tamil women |
|----------------|-------------|------------------|--------------|--------------------|----------------|
| | Continuous | | | | |
| Age | (Years) | 33.50 | 33.93 | 33.88 | 33.69 |
| Urban | Dummy | 0.19 | 0.27 | 0.19 | 0.27 |
| Vocational | Continuous | | | | |
| Training | (Years) | 0.19 | 0.07 | 0.10 | 0.03 |
| HH head | Dummy | 0.47 | 0.49 | 0.09 | 0.09 |
| Married | Dummy | 0.56 | 0.57 | 0.60 | 0.59 |
| HH size | Continuous | 5.29 | 5.60 | 5.28 | 5.57 |
| # workers in | Continuous | | | | |
| HH excl self | | 1.97 | 2.24 | 1.86 | 2.14 |
| Child under 6 | Dummy | 0.37 | 0.47 | 0.39 | 0.49 |
| Year92 | Dummy | 0.31 | 0.30 | 0.30 | 0.30 |
| Year96 | Dummy | 0.33 | 0.35 | 0.33 | 0.36 |
| Year02 | Dummy | 0.36 | 0.35 | 0.37 | 0.35 |
| | Dummy | | | | |
| | (Comparison | | | | |
| Primary school | category) | 0.16 | 0.31 | 0.15 | 0.31 |
| Middle school | Dummy | 0.51 | 0.43 | 0.47 | 0.32 |
| Post secondary | Dummy | | | | |
| education | | 0.29 | 0.15 | 0.32 | 0.14 |
| | Dummy | | | | |
| Western | (Comparison | | | | |
| province | category) | 0.13 | 0.11 | 0.13 | 0.12 |
| Central | Dummy | | | | |
| province | Ð | 0.28 | 0.29 | 0.29 | 0.30 |
| Southern | Dummy | 0.10 | 0.22 | 0.10 | 0.24 |
| province | D | 0.19 | 0.33 | 0.19 | 0.34 |
| Eastern | Dummy | 0.12 | 0.05 | 0.12 | 0.04 |
| Northorn | Dummu | 0.12 | 0.05 | 0.12 | 0.04 |
| province | Dunniny | 0.15 | 0.04 | 0.14 | 0.03 |
| Uvo province | Dummy | 0.13 | 0.04 | 0.14 | 0.05 |
| Ova province | Dummy | 0.05 | 0.11 | 0.05 | 0.10 |
| Sabar | Dunniny | 0.08 | 0.07 | 0.08 | 0.07 |

Table 1: Description and Means of Independent Variables⁴

Table 2: Change in Distribution of Paid Employment Sri Lanka by Ethnicity and Gender (1992, 1996, 2002) for individuals 15-60

| | 1992 | 1996 | 2002 |
|-----------------|-------|-------|-------|
| All men | 66 | 69.38 | 72.5 |
| Sinhalese men | 65.97 | 69.09 | 72.65 |
| Tamil men | 70.38 | 73.03 | 73.2 |
| All women | 24.57 | 26.25 | 27.64 |
| Sinhalese women | 23.35 | 24.93 | 27.06 |
| Tamil women | 46.86 | 49.08 | 46.98 |

⁴ All tables are based on weighted analysis

| | Sinhalese men | Tamil men | Sinhalese women | Tamil women |
|--------------|---------------|-----------|-----------------|-------------|
| No education | 2.42 | 9.19 | 4.64 | 20.81 |
| Any primary | 16.18 | 31.30 | 14.51 | 30.92 |
| Any middle | 51.48 | 42.73 | 47.13 | 31.57 |
| Any Post | 28.93 | 15.32 | 32.40 | 13.51 |
| secondary | | | | |

Table 3 : Educational Status in Sri Lanka by Ethnicity and Gender (1992, 1996, 2002) for individuals15-60

| Table 4: | Labor Force Status in Sri | Lanka by Ethnicity | and Gender | (1992, 1996 | , 2002) for | individuals |
|----------|---------------------------|--------------------|------------|-------------|-------------|-------------|
| | | 15-60 | | | | |

| | In labor force | In paid employment | In paid employment if in labor force |
|-----------------|----------------|--------------------|---|
| Sinhalese men | 81.11 | 69.43 | 85.60 |
| Tamil men | 80.43 | 72.28 | 89.83 |
| Sinhalese women | 40.46 | 25.25 | 62.42 |
| Tamil women | 54.14 | 47.69 | 88.09 |

| Table 5: | Change in Distribution of Paid Employment Sri Lanka by Education for Sinhalese and |
|----------|--|
| | Tamil Men and Women (age 15-60) |

| Primary educated in paid employment | | | | | | | |
|--|-------------|----------------|-------|--|--|--|--|
| | 1992 | 1996 | 2002 | | | | |
| Sinhalese men | 79.95 | 83.32 | 87.72 | | | | |
| Tamil men | 78.25 | 80.37 | 82.2 | | | | |
| Sinhalese women | 25.03 | 25.47 | 29.55 | | | | |
| Tamil women | 63.13 | 61.59 | 64.73 | | | | |
| | | | | | | | |
| Middle | educated in | paid employmer | nt | | | | |
| | 1992 | 1996 | 2002 | | | | |
| Sinhalese men | 61.62 | 65.44 | 70.81 | | | | |
| Tamil men | 66.77 | 66.02 | 70.58 | | | | |
| Sinhalese women | 18.74 | 19.1 | 21.05 | | | | |
| Tamil women | 31.85 | 27.55 | 34.24 | | | | |
| Post-secondary educated in paid employment | | | | | | | |
| | 1992 | 1996 | 2002 | | | | |
| Sinhalese men | 64.81 | 67 | 68.41 | | | | |
| Tamil men | 67.28 | 71.63 | 61.97 | | | | |
| Sinhalese women | 29.22 | 32.77 | 33.54 | | | | |
| Tamil women | 23.11 | 31.55 | 25 | | | | |

| | Sinhalese men | Tamil men | Sinhalese men | Tamil men |
|--|---------------|-----------|---------------|-----------|
| Urban dummy | -0.03 | -0.16 | -0.03 | -0.17 |
| | -0.02 | (0.057)** | -0.02 | (0.057)** |
| married dummy | 0.61 | 0.41 | 0.61 | 0.41 |
| | (0.022)** | (0.061)** | (0.022)** | (0.061)** |
| HH size | -0.02 | -0.03 | -0.02 | -0.03 |
| | (0.004)** | (0.010)** | (0.004)** | (0.010)** |
| Number of workers in HH (excluding self) | -0.02 | -0.03 | -0.02 | -0.03 |
| | (0.007)* | -0.02 | (0.007)* | -0.02 |
| Middle school | -0.08 | -0.04 | -0.08 | -0.04 |
| | (0.020)** | -0.04 | (0.020)** | -0.04 |
| Postsecondary | -0.26 | -0.25 | -0.26 | -0.15 |
| | (0.021)** | (0.060)** | (0.031)** | -0.10 |
| Vocational training (in years) | 0.11 | 0.03 | 0.11 | 0.04 |
| | (0.012)** | -0.05 | (0.012)** | -0.05 |
| Head of household | 0.48 | 0.36 | 0.48 | 0.36 |
| | (0.025)** | (0.064)** | (0.025)** | (0.064)** |
| Central Province | -0.08 | -0.05 | -0.08 | -0.01 |
| | (0.027)** | -0.08 | (0.028)** | -0.08 |
| Southern Province | -0.09 | -0.15 | -0.09 | -0.13 |
| | (0.026)** | -0.09 | (0.026)** | -0.09 |
| Eastern | -0.12 | 0.03 | -0.12 | 0.06 |
| | (0.033)** | -0.11 | (0.033)** | -0.11 |
| NW& north-central Province | 0.02 | -0.10 | 0.02 | -0.06 |
| | -0.03 | -0.13 | -0.03 | -0.13 |
| Uva Province | -0.23 | -0.12 | -0.23 | -0.10 |
| | (0.043)** | -0.11 | (0.043)** | -0.11 |
| Sabaragamuwa Province | -0.05 | -0.14 | -0.05 | -0.12 |
| | -0.04 | -0.12 | -0.04 | -0.12 |
| Number of children below 6 in HH | 0.06 | 0.05 | 0.06 | 0.05 |
| | (0.013)** | -0.03 | (0.013)** | -0.03 |
| Age of respondent | 0.30 | 0.29 | 0.30 | 0.29 |
| | (0.004)** | (0.010)** | (0.004)** | (0.010)** |
| Age squared | 0.00 | 0.00 | 0.00 | 0.00 |
| | (0.000)** | (0.000)** | (0.000)** | (0.000)** |
| year96 | -0.01 | -0.01 | -0.01 | -0.01 |
| - | -0.02 | -0.06 | -0.03 | -0.06 |
| year02 | 0.10 | 0.04 | 0.11 | 0.08 |
| | (0.018)** | -0.05 | (0.021)** | -0.05 |
| year96_postsec | | | 0.01 | 0.01 |
| | | | -0.04 | -0.13 |
| year02_postsec | | | -0.02 | -0.27 |
| | | | -0.04 | (0.122)* |

Table 6: Probit Regressions for the Probability of Being in Paid Employment for Sri Lankan Men

| Constant | -4.55 | -3.94 | -4.55 | -3.97 |
|----------|-----------|-----------|-----------|-----------|
| | (0.072)** | (0.193)** | (0.072)** | (0.194)** |

Table 7: Probit Regressions for the Probability of Being in Paid Employment for Sri Lankan Women

| | Sinhalese women | Tamil women | Sinhalese women | Tamil women |
|--|--------------------|-------------|--------------------|-------------|
| Urban dummy | -0.01 | -0.52 | -0.01 | -0.52 |
| | -0.02 | (0.048)** | -0.02 | (0.048)** |
| married dummy | -0.49 | 0.10 | -0.49 | 0.10 |
| | (0.016)** | (0.042)* | (0.016)** | (0.042)* |
| HH size | -0.01 | -0.04 | -0.01 | -0.04 |
| | (0.004)* | (0.009)** | (0.004)* | (0.009)** |
| Number of other workers in HH excluding self | 0.02 | 0.06 | 0.02 | 0.06 |
| | (0.006)** | (0.015)** | (0.006)** | (0.016)** |
| Middle school | -0.17 | -0.72 | -0.17 | -0.72 |
| | (0.016)** | (0.038)** | (0.016)** | (0.038)** |
| Postsecondary | 0.08 | -0.84 | 0.04 | -0.87 |
| | (0.018)** | (0.055)** | -0.03 | (0.100)** |
| Vocational training (in years) | 0.33 | 0.25 | 0.33 | 0.25 |
| | (0.013)** | (0.057)** | (0.013)** | (0.057)** |
| Head of household | 0.49 | 0.35 | 0.48 | 0.34 |
| | (0.023)** | (0.062)** | (0.023)** | (0.062)** |
| Central Province | -0.07 | -0.09 | -0.06 | -0.05 |
| | (0.023)** | -0.06 | (0.024)* | -0.06 |
| Southern Province | -0.20 | -0.09 | -0.20 | -0.06 |
| | (0.023)** | -0.07 | (0.023)** | -0.07 |
| Eastern | -0.16 | 0.03 | -0.16 | 0.06 |
| | (0.028)** | -0.09 | (0.028)** | -0.10 |
| NW& north-central Province | -0.17 | -0.57 | -0.16 | -0.53 |
| | (0.029)** | (0.114)** | (0.029)** | (0.115)** |
| Uva Province | -0.23 | -0.05 | -0.23 | -0.02 |
| | (0.038)** | -0.09 | (0.038)** | -0.09 |
| Sabaragamuwa Province | -0.19 | 0.02 | -0.19 | 0.05 |
| | (0.032)** | -0.10 | (0.032)** | -0.10 |
| Number of children below 6 in HH | -0.10 | 0.03 | -0.10 | 0.03 |
| | (0.010)** | -0.02 | (0.010)** | -0.02 |
| Age of respondent | 0.19 | 0.20 | 0.19 | 0.20 |
| | (0.004)** | (0.009)** | (0.004)** | (0.009)** |
| Age squared | 0.00 | 0.00 | 0.00 | 0.00 |
| | (0.000)** | (0.000)** | (0.000)** | (0.000)** |
| year96 | 0.00 | -0.02 | -0.03 | -0.04 |
| | -0.02 | -0.05 | -0.02 | -0.05 |
| year02 | 0.08 | 0.01 | 0.08 | 0.02 |

| | (0.016)** | -0.04 | (0.019)** | -0.04 |
|----------------|-----------|-----------|-----------|-----------|
| year96_postsec | | | 0.10 | 0.18 |
| | | | (0.032)** | -0.13 |
| year02_postsec | | | 0.03 | -0.07 |
| | | | -0.03 | -0.12 |
| Constant | -3.47 | -2.43 | -3.46 | -2.45 |
| | (0.067)** | (0.169)** | (0.067)** | (0.170)** |

* significant at 5%; ** significant at 1% Standard errors in parentheses