Poverty Monitoring, Measurement and Analysis (PMMA) Network

The Gender Wage Gap in Sri Lanka
Dileni Gunewardena
Sri Lanka

THE GENDER WAGE GAP IN SRI LANKA

A revised proposal submitted to the PEP research network

April 30, 2005

Dileni Gunewardena
University of Peradeniya, Sri Lanka
1. Abstract

Wage disparities between males and females are typically caused by differences in (endowments and returns to) education and experience, by occupational structure, and by differences in the demand and supply of male and female labour. Analysis of the gender wage gap for Sri Lanka provides useful insights because females in Sri Lanka enjoy an educational advantage over males, yet a persistent though small wage gap favouring males exists. Existing evidence indicates that the small size of the overall wage gap in Sri Lanka masks variation in the gender wage gap across occupations. While this underscores the potential significance of occupational structure in explaining the gender wage gap, the correlation between occupation and poverty indicates that the wage gap and its determinants will vary across the wage distribution. The core research objective of the proposed study is to better understand the nature of and the factors contributing to the gender wage gap in Sri Lanka. The study proposes to: (1) to construct a gender wage gap series for Sri Lanka using pooled individual records from quarterly labour force survey data (QLFS) for the past 9 years, (2) apply regression analysis to pooled individual records from selected years in this 9 year period to examine the determinants of male and female earnings, focusing on education, experience, occupational structure, sector of employment (public or private) and spatial location, using (3) quantile regression techniques to control for individual and job characteristics at different points of the distribution and calculate the part of the gap attributable to difference in returns to characteristics, and (4) a recently developed methodology to perform a detailed decomposition of the gender wage gap in order to identify the specific contributions of education, experience, occupational structure, and public sector employment to the gender wage gap; and to identify within each of these categories, what proportion of the gap is due to “discrimination” vs. endowment differences. (5) Finally, a well-known decomposition exercise will be performed to divide the overall gender gap into a portion explained by the distributional and pay differences across occupations and a portion due to distributional and pay differences within occupations.

2. Main research questions and core research objectives

The primary objective of this research study is to better understand the factors underlying the gender wage gap in Sri Lanka in the last decade.

In practically every country in the world, women earn less on average than men.¹ Some explanations of this wage disparity between the sexes are (1) that women have fewer of the productive characteristics (education, training, skills, experience) that earn higher wages, (2) that women choose, or are forced into lower-paying occupations, (3) that women are discriminated in the labour market in the sense that they are paid less for the same productive characteristics (equally educated men and women with the same amount of experience will be paid differently), (4) they are less

¹ Chile in 1996 is an exception. Female pay relative to males’ was 101 percent (Montenegro 1999, cited in World Bank 2001, p.304).
likely to be hired into public sector employment where parity is observed, and (5) women are a greater proportion of the labour force in economically less developed (rural) areas.

Sri Lanka is an unusual country in that women in the labour force are on average better educated than men, and the increase in earnings for one year of education is higher for a female than for male with the same level of education, yet there is a persistent gender wage gap in favour of males. This indicates that the size of the gender wage gap is unlikely to be similar across the wage distribution. Rather, as converging characteristics and returns to characteristics are indicated by existing studies (Gunewardena 1996, 2000), the wage distribution in Sri Lanka is more likely to be characterized by “sticky floors” rather than “glass ceilings” (Arulampalam et al. 2004). The small size of the aggregate wage gap in Sri Lanka masks variation in the wage gap across occupational groups (see Table 1 below), underscoring the significance of occupational segregation (either out of choice or because of labour market and pre-labour-market discrimination) as a factor that explains the gender wage gap (Terrell 1992). This is likely to be exacerbated when there are somewhat high levels of voluntary unemployment as is the case in Sri Lanka, where the bulk of the unemployed perform an extended job search in a market where the gap between good and bad jobs is high (Rama 2003). In such a situation, it is possible that males will out-compete females in obtaining good jobs, crowding women into less well paid occupations (Bergmann 1971, 1974). Public-private wage differentials can also contribute to the gender wage gap, if women are less likely to be hired to the public sector where parity is typically observed in wages between sexes (Tansel 2004). Spatial differences in labour markets can also contribute to the gender wage gap.

Table 1: Occupational shares and hourly wages within occupations, by gender

<table>
<thead>
<tr>
<th>Occupational Category</th>
<th>Sample (N)</th>
<th>Occupational Share</th>
<th>Hourly Wage</th>
<th>Female as a % of male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative and managerial</td>
<td>22</td>
<td>105</td>
<td>1.11%</td>
<td>1.94%</td>
</tr>
<tr>
<td>Professional, technical and related</td>
<td>323</td>
<td>293</td>
<td>16.23%</td>
<td>5.40%</td>
</tr>
<tr>
<td>Clerical and related</td>
<td>208</td>
<td>487</td>
<td>10.45%</td>
<td>8.98%</td>
</tr>
<tr>
<td>Sales and Service workers</td>
<td>178</td>
<td>1021</td>
<td>8.94%</td>
<td>18.83%</td>
</tr>
<tr>
<td>Agriculture/Animal Husbandry/Forestry/Fishing/Hunting</td>
<td>561</td>
<td>1064</td>
<td>28.19%</td>
<td>19.62%</td>
</tr>
<tr>
<td>Production and Related Armed forces and unclassified</td>
<td>465</td>
<td>404</td>
<td>23.37%</td>
<td>7.45%</td>
</tr>
<tr>
<td>All</td>
<td>1990</td>
<td>5427</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Author’s calculations and Chandrasena 2005, based on SLIS 1999/2000

---

2 This reflects the current educational enrolment in Sri Lanka. Current female enrolment is as high as male enrolment in primary education, and higher than male enrolment in secondary education. Female enrollment in tertiary education however, is only 69% of male enrollment which is lower than in many medium human development index countries (UNDP 2000).
The core research objective of the proposed study is to better understand the factors contributing to the gender wage gap in Sri Lanka. The study proposes to:

(1) to construct a gender wage gap series for Sri Lanka using pooled individual records from quarterly labour force survey data (QLFS) for the past 9 years, which will be disaggregated by occupation, industry, location and educational level.

(2) apply regression analysis to pooled individual records from selected years in this 9 year period to examine the determinants of male and female earnings, focusing on education, experience, occupational structure, sector of employment (public or private) and spatial location,

(3) use quantile regression techniques to control for individual and job characteristics at different points of the distribution and calculate the part of the gap attributable to difference in returns to characteristics

(4) use a recently developed methodology [Yun 2003] to perform a detailed decomposition of the gender wage gap in order to identify the specific contributions of education, experience, occupational structure, and public sector employment to the gender wage gap; and to identify within each of these categories, what proportion of the gap is due to “discrimination” vs. endowment differences.

(5) perform a decomposition exercise to divide the overall gender gap into a portion explained by the distributional and pay differences across occupations and a portion due to distributional and pay differences within occupations, following Kidd and Shannon (1996).

3. Scientific contribution of the research including key references and knowledge gaps addressed

This study will provide the first consistent gender wage gap series for Sri Lanka. Existing data on the gender wage gap are from calculations based on cross-sectional surveys (see Table 2 below) that are not comparable with each other, and few, if any studies have disaggregated the wage gap. This will provide the opportunity to observe wage-gap trends in an economy where important shifts in female labour supply and demand have occurred (particularly in manufacturing exports) and facilitate further research on the interactions between trade, growth and gender inequality (Seguino 2000, Weerahewa 2002).

Conventional analyses of the gender wage gap typically follow the Blinder-Oaxaca decomposition that divides the male-female wage differential into a component that is explained by differences in productive characteristics and a component that is “unexplained” [(Blinder 1973) and (Oaxaca 1973)]. This second component of the gender wage gap may be due to labour market discrimination, to differences in unmeasured characteristics or occupational structure.

Existing studies of the gender wage gap for Sri Lanka (Aturupane 1997, Ajwad and Kurukulasuriya 2002, Gunewardena 1996, 2002), which used the standard Blinder-Oaxaca decomposition, have shown that overall, discrimination in the labour market, rather than differences in productive characteristics, account for a large proportion of the gender wage differential, as indicated in the last two columns of Table 2 below.

3 CEDAW 2002 notes as an area of concern that “no data is available on the wage gap between women and men”.

4
<table>
<thead>
<tr>
<th>Study</th>
<th>Data Source and Year</th>
<th>Sample size</th>
<th>Size of Gender Wage Gap</th>
<th>Baseline Dependent variable, Specification</th>
<th>Unexplained</th>
<th>Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gunewardena 1996 and 2002</td>
<td>Labour Force and Socioeconomic survey 1985/86</td>
<td>Urban employees only OLS Sample, Males=4155, Females=1656; Fixed Effects Sample, Males=1450, Females=548</td>
<td>32% Female</td>
<td>Hourly Wages, OLS</td>
<td>104</td>
<td>-4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Hourly Wages, Fixed Effects</td>
<td>136</td>
<td>-36</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>35% Female</td>
<td>Earnings, OLS</td>
<td>102</td>
<td>-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Earnings, Fixed Effects</td>
<td>130</td>
<td>-30</td>
</tr>
<tr>
<td>Household Income and</td>
<td></td>
<td>Urban employees only OLS Sample, Males=4120, Females=1744; Fixed Effects Sample, Males=1431, Females=578</td>
<td>25% Female</td>
<td>Earnings, OLS</td>
<td>117</td>
<td>-17</td>
</tr>
<tr>
<td>Expenditure Survey</td>
<td></td>
<td></td>
<td></td>
<td>Earnings, Fixed Effects</td>
<td>130</td>
<td>-30</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>14% Female</td>
<td>Earnings</td>
<td>51</td>
<td>49</td>
</tr>
<tr>
<td>Ajwad and Kurukulasuriya</td>
<td>Sri Lanka Integrated Survey 1999/2000</td>
<td>Males = 1184, Females = 763</td>
<td>16% Male</td>
<td>Hourly Wages, Sinhalese</td>
<td>98</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16% Female</td>
<td>Hourly Wages, Tamil</td>
<td>102</td>
<td>-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Males = 68, Females = 33</td>
<td>5% Male</td>
<td>Hourly Wages, Tamil</td>
<td>380</td>
<td>-280</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5% Female</td>
<td>Hourly Wages, Tamil</td>
<td>-240</td>
<td>340</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Males = 63, Females = 21</td>
<td>16% Male</td>
<td>Hourly Wages Moor</td>
<td>279</td>
<td>-179</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16% Female</td>
<td>Hourly Wages Moor</td>
<td>-430</td>
<td>530</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Males = 25, Females = 10</td>
<td>-54% Male</td>
<td>Hourly Wages, Other</td>
<td>48</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-54% Female</td>
<td>Hourly Wages, Other</td>
<td>-20</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Males = 1184, Females = 763</td>
<td>15% n.a.</td>
<td>Overall</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>
However these studies were unable to further decompose the contribution of education, experience etc. into the component explained by characteristics and that which is “unexplained” because of the seemingly intractable identification problem that occurs in detailed wage decompositions because the detailed coefficients effect attributed to a categorical variable is not invariant to the choice of reference groups (Jones 1983, Oaxaca and Ransom 1999).

A new methodology developed by Yun (2003) overcomes this problem and allows for the detailed decomposition of the gender wage gap, thus providing far more policy-relevant information than previous, aggregate decompositions. This study proposes to apply Yun’s methodology to pooled individual data from recent quarterly labour force surveys in Sri Lanka. This will fill a major empirical gap in the analysis of the gender wage gap in Sri Lanka.

While quantile regressions were used by Ajwad and Kurukulasuriya (2002), the authors did not discuss the implications of the results in detail, nor were the techniques used to their fullest. In this study, the quantile regression techniques will be applied to three separate years in the 1996-2004 period, allowing for analysis of how the wage distribution has changed over the period.

The empirical application of these methodologies to developing countries will help fill large gaps of empirical knowledge in the field of gender discrimination in the labour market. Sri Lanka is a particularly appropriate country to choose, because females in the country’s labour force enjoy an educational advantage over males, and enjoy higher returns to education than males at every level of education, yet, the wage gap favouring males persists. Moreover, the availability of data for several years will facilitate analysing the effects of recent shifts in supply of and demand for female labour, particularly within the export manufacturing sector. The greater information provided by the detailed decomposition and the quantile regression technique will help identify the specific area/source of discrimination in the labour market.

Furthermore, the previous studies that analysed the gender wage gap in Sri Lanka (cited above), including those by this author, used data from household surveys that were not comprehensive labour force surveys. This study will use individual pooled records from quarterly labour force survey data from selected years in the 1996 to 2004 period.

4. Policy relevance

This research project has policy relevance to Sri Lanka as well as beyond Sri Lanka to other developing countries. Firstly, Sri Lanka provides an unusual case where females possess an educational advantage over their male counterparts. Thus, one could use it as a counterfactual: if Bangladesh (for example) had the gender-wise distribution of education that Sri Lanka has, what might that do to the gender wage gap in Bangladesh? [See Bourguignon, Ferreira and Leite (2003) for such an exercise for Brazil, Mexico and the U.S.].

Secondly, the ability to identify discrimination in each category is vastly more useful for policy formulation than a bland statement of the overall magnitude of
discrimination. For example, if the detailed decomposition reveals that if the gender wage gap is largely explained by disparities “at the bottom”, i.e. individuals with no schooling, working in the least paid occupations, this reveals the need for labour market policy—and enforcement mechanisms—that address this disparity. Such a finding may lead to a greater understanding of why female domestic workers outnumber all other migrants from Sri Lanka to the Middle East. Similarly a calculation of the relative contribution of occupational structure to the gender wage gap might lead to the adoption of equal opportunity policies.

Thirdly, the incorporation of the time dimension into the analysis during a period of important shifts in the demand for and supply of female labour will provide policy makers with insights into the growth and welfare aspects of the gender wage gap, particularly in the export manufacturing sector.

5. Methodology: Presentation of the specific techniques that will be used to answer the research questions and how exactly they will be used to do so.

This study will use three specific methodologies in order to identify the determinants of the gender wage gap.

(1) Yun (2003)’s modification to the Blinder-Oaxaca decomposition to perform a detailed wage decomposition.

(2) Kidd and Shannon (1996)’s decomposition of the overall gender gap into the portion explained by distributional and pay differences across occupations and a portion due to distributional and pay differences within occupations.

(3) Quantile regression techniques to control for the effects of individual and job characteristics at different points of the wage distribution, and to calculate the (unexplained) part of the gap attributable to differing returns to men and women.

Yun’s modification to the Blinder-Oaxaca decomposition

This decomposition is based on the standard Mincerian earnings function derived from the human capital model (Mincer, 1974).

\[
\ln Y_i = \ln Y_0 + b_1 S_i + b_2 X_i + b_3 X_i^2 + u_i
\]

where \( \ln Y_i \) is the log of earnings, \( S_i \) a measure of schooling or education for the \( i \)th individual and \( X_i \) is the \( i \)th individual's stock of experience. \( b_1 \) is the rate of return to schooling, \( b_2 \) and \( b_3 \) the return to experience of post-school training. As long as investments in an additional year of schooling yield a positive return, \( b_1 \) will be positive. Human capital theory suggests that earnings functions are concave in experience, so that \( b_2 \) and \( b_3 \) are positive and negative respectively.

Earnings functions are typically extended to control for other productivity-related characteristics, as well as family and community characteristics that may influence the determination of earnings (such as parent's education and earnings, family wealth, region and ethnicity, and demographic composition of the household). This may be summarized by
where \( \mathbf{X} \) is a vector including all productivity-related characteristics for the \( i \)th individual.

If equation 3 is estimated separately for males \( m \) and females \( f \), the resulting earnings differential may be decomposed into the effects of differences in average endowments (first term on right side) and the effects of “discrimination” (second term) (Oaxaca, 1973 and Blinder, 1973).

\[
\ln y_i = b_{X} + u_i
\]

where the first term on the right hand side is the portion of the gap due to differences in characteristics (endowments) and the second term the portion due to differences in coefficients (“discrimination”).

The problem of identification can be illustrated using an example where “the regression equation has only a constant and two dummy variables on the right hand side where the reference group is the first category” (Yun 2003).

\[
\ln y_i = a_i + \sum_{k=2}^{3} D_{ki} b_{ki} + e_i
\]

where \( i \) is \( m \) or \( f \).

Table 1 illustrates the problem further. Aggregate characteristics (endowments) and coefficients (“discrimination”) effects are invariant to the choice of left-out group (indicated by last row \( \text{SUM} \)). The sum of the coefficients effect of the two categories is not invariant to the choice of left-out group (coefficients effect on the constant changes with reference group).

### Table 2: Decomposition with varying reference group: illustration

<table>
<thead>
<tr>
<th></th>
<th>Reference Group</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Category 1</td>
<td>Category 2</td>
</tr>
<tr>
<td>Char</td>
<td>D1</td>
<td>D2</td>
</tr>
<tr>
<td>Coef.</td>
<td>0</td>
<td>-0.06</td>
</tr>
<tr>
<td></td>
<td>-0.03</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.02</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.06</td>
<td>-0.18</td>
</tr>
<tr>
<td></td>
<td>-0.2</td>
<td>-0.3</td>
</tr>
<tr>
<td></td>
<td>0.01</td>
<td>-0.08</td>
</tr>
<tr>
<td></td>
<td>-0.06</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Note: Char. and Coef. are characteristics and coefficients effects.

Yun (2003) notes that the invariance or identification problem arises because there is no agreement on which category should be the reference group. An intuitive way of solving the problem might be to use all possible permutations and compute the average (last column). Applying this practically would be tedious, but is unnecessary, as the wage equation (5) can be transformed instead, into

\[(5') \quad \ln y_i = a_i + \bar{b}_i + \sum_{k=1}^{3} D_{ki} (b_{ki} - \bar{b}_i) + e_i\]

where \( b_i = (b_1 + b_2 + b_3) \).

This can then be generalised, following Yun (2003). The regression equation can be written as

\[(6) \quad \ln y = a + \sum_{l=1}^{L} X_l^* \delta_l + \sum_{m=1}^{M} \sum_{k=1}^{K_m} D_{mk} b_{mk} + \sum_{m=1}^{M} \sum_{k=2}^{K_m} D_{mk} (b_{mk} - b_m) + e\]

where there are \(L\) continuous variables \((X)\) and \(M\) sets of categorical variables \((D)\); the \(m\)th set has \(K_m\) categories and \(K_m - 1\) dummy variables in the equation. Without loss of generality, the reference group is the first category of each set of dummy variables; note that the subscript \(i\) is suppressed.

The normalised equation is then

\[(6') \ln y = a + \sum_{m=1}^{M} D_m + \sum_{l=1}^{L} X_l^* \delta_l + \sum_{m=1}^{M} \sum_{k=2}^{K_m} D_{mk} (b_{mk} - b_m) + e\]

Using the “normalized” equation and mean characteristics of every variable including the reference groups, computing the detailed decomposition equation is a simple manipulation (Yun 2003).

**Kidd and Shannon occupational decomposition of the gender earnings gap**

Overall mean earnings can be expressed as the weighted average of mean earnings within occupations.

\[(7) \quad w_{mt} - w_{ft} = \sum_{i} \alpha_{mit} w_{mit} - \sum_{i} \alpha_{fit} w_{fit},\]

where \(w_{mt}\) and \(w_{ft}\) are the overall mean earnings for male and female workers at time \(t\), and \(w_{mit}\) and \(w_{fit}\) are the corresponding mean earnings within occupations. \(\alpha_{mit}\) and \(\alpha_{fit}\) are the shares of total men’s employment in occupation \(i\) and total women’s employment in occupation \(i\), respectively. This can be rearranged as

\[(8) \quad w_{mt} - w_{ft} = \sum_{i} (\alpha_{mit} - \alpha_{fit}) w_{mit} + \sum_{i} \alpha_{fit} (w_{mit} - w_{fit})\]

The first term on the right-hand side of the equation is “across occupations gap”, showing the effect of gender differences in occupational structure evaluated at male wages, while the second term is the “within occupations gap” or the difference in male and female wages within occupations, given the female structure.

Changes in the wage gap across two years \((t\) and \(s\)) expressed in terms of occupational structure are given by

\[(9) \quad \Delta wD_t = \Delta wD_s = \sum_{i} (\Delta \alpha_{it} - \Delta \alpha_{is}) w_{mit} + \sum_{i} \Delta \alpha_{it} (w_{mit} - w_{mis}) + \sum_{i} (\alpha_{fit} - \alpha_{fits}) w_{fit} + \sum_{i} \alpha_{fit} (\Delta wD_{it} - \Delta wD_{is})\]

Where \(D\) denotes the gender difference in any variable.
Quantile Regression Techniques

Following Buchinsky (1998), the \( \theta \)th \((0< \theta <1)\) conditional quantile of the log wage \((w)\) distribution for the \(i\)th individual at time \(t\) is specified as:

\[
\text{Quant}_\theta (w_{it}|x_{it}) = \alpha(\theta) + x_{it}' \beta
\]

implying that

\[
w_{it} = \alpha(\theta) + x_{it}' \beta + u_{\theta it}
\]

with \(\text{Quant}_\theta (u_{\theta it}|x_{it}) = 0\).

6. Data requirements and sources

The data that will be used for this study is microdata from the Quarterly Labour Force Surveys conducted by the Department of Census and Statistics (DCS) Sri Lanka. The surveys underwent some modification in 1995, but a comparable series can be used from 1996 onward, in order to first construct a gender wage gap series. Pooled individual survey data from the most recent complete year (2004) will be used for the cross-section analysis outlined above. Like many surveys conducted in the last 20 years in Sri Lanka, these surveys have no information on eight districts in the North and East of the country, which were inaccessible due to the civil war.

The dependent variable will be the hourly wage (cash and value of in-kind payments calculated), based on number of hours usually worked.

Schooling variables are available for all years of secondary schooling, and for the first year of the degree, completed degree, and postgraduate degree or diploma.

Data on experience is available for the current job as well as in the present occupation.

Occupations will be aggregated into nine broad categories (based on two-digit occupational codes), and if sufficient observations are available, into a further categorisation of 36 specific occupational categories.

Ethnicity, and the district of residence (or urban/rural/estate sector of residence) will also be included in the model.

Equations (3) and (11) will be estimated separately by gender, sector (public or private) for three separate years in the 1996-2004 period.

The econometric software used will be Stata.

References


Colombo.


7. Dissemination strategy

The results of this study will be written up as (1) academic papers and (2) policy briefs (accessible to policy makers and civil society). The academic paper will be initially submitted to appropriate working paper archives and to suitable international journals for publication. The working papers will be presented at the departmental seminar series, the faculty seminar series, and the annual faculty research sessions of the University of Peradeniya. They will also be presented to appropriate national or international seminars (eg. Annual Poverty Research Sessions jointly organized by the Improving Capacity in Poverty Research Initiative, University of Colombo, and the Centre for Poverty Analysis, Colombo). The mimeo form of the working paper will also be distributed to University and NGO libraries (eg. Centre for Women’s Research Library). They will also be used in graduate level courses in economics taught at the University of Peradeniya (many of the students in these courses are middle-rung government officials or young academics from other universities or civil society members). More policy-focused presentations (policy briefs) will be made to policy makers and civil society via direct contact and at least one public seminar/forum (possibly the Open Forum series conducted by the Centre for Poverty Analysis, Colombo).
8. List of team members, indicating age, sex, prior training and experience of team members in issues and techniques involved

**Lead Researcher: Dileni Gunewardena** (40 years, female), has wide experience in research in the fields of poverty, inequality and labour economics for over ten years. Her Ph.D. dissertation (1996) used inequality decompositions, and included a fixed effects analysis of the gender wage gap in Sri Lanka based on the Blinder-Oaxaca decomposition. The same technique was used in the paper she wrote with Dominique van de Walle on ethnic inequality in Vietnam (this paper won one of the first GDN awards in 2000) and was subsequently published by the journal of Development Economics. She has worked with several large micro datasets and is very familiar with the Department of Census and Statistics surveys. She is competent in the use of statistical and econometric software, and has been a Stata user since 1997. She currently teaches gender and labour economics at the University of Peradeniya.

**Team Member: Shobhana Rajendran** (39 years, female), has wide experience in research relating to gender issues and child labour. Her Masters’ thesis was on female labour force participation and she has engaged in several projects with field experience relating to the problems of female plantation workers and child labour in the estate sector in Sri Lanka. She is competent in the use of statistical and econometric software. She currently teaches statistics, gender and labour economics at the University of Peradeniya.

**Team Member: Dharshi Abeyrathne** (under 30 years, female) has a B.A. in Economics (first class honours) and has shown a consistent interest in gender issues, as is evident from the title of her undergraduate thesis. She is familiar with analysing micro data, having used DHS data for her undergraduate thesis.

**Team Member: Kamani Rajakaruna** (under 30 years, female) has a B.A. in Economics (first class honours) and has shown a consistent interest in gender issues, as evident from the courses she has followed as an undergraduate. She has some familiarity with using the statistical software Stata, having served as teaching assistant in the course where it is introduced to undergraduates.

**Allocation of tasks within the team**

The lead researcher who has extensive experience in decomposition techniques and data analysis will train the other team members in the methodology and data analysis for the study. She will also provide input into the literature review and will write up the output of the study (working papers and policy briefs). Ms. Rajendran will contribute to the literature review and statistical analysis of the study. Ms. Abeyrathne will conduct most of the literature review and she and Ms. Rajakaruna will provide input into the data analysis, having first undergone basic training in the use of the Stata econometrics software package (they will follow the relevant Stata Netcourses).

9. **Expected capacity building for researchers and their institutions.**

The team of researchers proposing this study are all affiliated to the Department of Economics and Statistics, University of Peradeniya. The Department of Economics and Statistics is committed to producing high-calibre economics graduates with a strong theoretical and empirical knowledge and skills and who are able to contribute to research and policy making.
Dr. Gunewardena and Ms. Rajendra are both senior lecturers in the Department of Economics and Statistics. They are jointly responsible for the undergraduate and graduate programmes in gender economics and labour economics. They also supervise undergraduate and graduate theses, many of which are focused on gender-related issues. The opportunity to carry out this research will strengthen their research capacity, and help them to keep up to date with the latest improvements in the fields of gender economics, inequality measurement and labour market discrimination. This will be beneficial to scores of students who follow the gender and labour economics courses and who undertake research in these areas. In addition, Dr. Gunewardena teaches a course in Research Methods in Economics to undergraduates, where among other things, they are introduced to data analysis using the statistical software package Stata. It is expected that some of the skills and knowledge generated from this study will feed into that course as well.

Ms. Rajakaruna and Ms. Abeyratne are both recent B.A. graduates of this department and are currently M.A. students in the graduate programme. Ms. Rajakaruna is currently employed as a junior member of the academic staff, and Ms. Abeyratne is expected to be hired to a similar position shortly. It is expected that the study will feed into the MA research work of these two team members, teach them new skills and knowledge (using Stata econometric software and getting familiar with the methodology of inequality measurement and analysis of labour market discrimination).

This project would be a way of strengthening research capacity in a country where applied research of this nature is rare. Similarly, the results of this research would be welcomed by policy makers, civil society and data producers (Department of Census and Statistics) as well.

10. Ethical considerations: None.

11. Projects in related areas: None.

Contact information:
Dileni Gunewardena, Ph.D.
Senior Lecturer, Department of Economics and Statistics,
University of Peradeniya, Peradeniya 20400
SRI LANKA
Tel: 81-2386191; 81-2380066 (Daytime)
Fax: 81-2388933
URL: www.pdn.ac.lk/arts/econ/staff/dg.htm