Received 13 August 2014
Revised 3 March 2015
13 April 2015
Accepted 24 April 2015

REGULAR PAPER

Glass ceiling and sticky floors: hurdles for Mauritian working women

Verena Tandrayen-Ragoobur
Department of Economics and Statistics, University of Mauritius, Reduit, Mauritius, and
Rajeev Pydayya
Health Economics Unit, Ministry of Health and Quality of Life, Port Louis, Mauritius

Abstract

Purpose – The purpose of this paper is to analyse the gender wage differential at different points of the wage distribution. It investigates the existence of glass ceilings and sticky floors in the Mauritian labour market. There is no previous empirical work studying gender inequality in the labour market for the small island economy of Mauritius.

Design/methodology/approach – To investigate whether wage differentials are higher at the top or bottom ends of the wage distribution, the authors examine the wage disparities across different quantiles of the wage distribution. The gender wage disparities are assessed using quantile regression and decomposition techniques at the 10th, 25th, 50th, 75th and 90th quantiles. Survey data from the Continuous Multi-Purpose Household Survey from 2006 to 2013 is used.

Findings – The results reveal that sticky floors are more pronounced than glass ceilings over the years. Further, for the years 2008, 2010 and 2012, it is noted that at the 75th quantiles, the gender wage differentials started to rise showing glass ceiling effects. The combination of both sticky floors and glass ceilings are characterised by the unexplained factors providing evidence for gender discrimination in the Mauritian labour market.

Originality/value – This is the first study analysing the glass ceilings or sticky floors in the Mauritian labour market. Though the research is limited to Mauritius, the latter being a small island economy can serve as a case study for other island economies and also for the African continent.

Keywords Gender, Labour market, Sex and gender issues

Paper type Research paper

1. Introduction

The gender wage disparity has been extensively studied for both developed (Albrecht *et al.*, 2003; Arulampalam *et al.*, 2007; Nicodemo, 2009) and developing countries (Badel and Peña, 2009; Atal *et al.*, 2009; Perticará and Astudillo, 2008; Borráz and Robano, 2010; Hoyos *et al.*, 2010). The studies explain whether the gender wage gap arises from gender differences in the distribution of personal characteristics or discriminatory remuneration of apparently identical characteristics (Picchio and Mussida, 2010). Since the seminal contributions of Oaxaca (1973) and Blinder (1973) the differences in wages are seen as a combination of differences in endowments and in the returns to these endowments.

Recent international research assessing the magnitude and source of the average gender wage gap has shifted the focus to consider the way in which relative wages differ for high- and low-wage workers. This change is due to the fact that the scale of

Equality, Diversity and Inclusion: An International Journal
Vol. 34 No. 5, 2015
pp. 452-466

2040-7149
DOI 10.1108/EDI-08-2014-0064

the gender wage gap varies across the wage distribution. A larger wage gap is often expected among workers earning relatively higher wages (the presence of glass ceiling) or at the lower end of wages (the existence of sticky floors) (Booth *et al.*, 2003; Kee, 2005; Arulampalam *et al.*, 2007). Thus, measuring the gender wage gap at different points of the wage distribution has important policy implications, as policies targeted to the average population fail to affect those at the bottom or top of the distribution (Carrillo *et al.*, 2014).

The objective of the paper is to examine the presence of glass ceilings and sticky floors in the Mauritian labour market. We use data from the Continuous Multi-Purpose Household Survey (2006-2013) and apply quantile regression techniques. The gender wage differential is also decomposed into explained and unexplained portions using the Oaxaca (1973) and Blinder (1973) decomposition technique. The structure of the paper is as follows: Section 2 reviews the literature and empirical evidence on glass ceiling and glass floors. Section 3 considers the Mauritian labour market while Section 4 analyses the survey data. Section 5 explains the methodology and Section 6 discusses the findings. We conclude in Section 7.

2. Literature review

In many developing countries, gender inequality still persists. Thus, it has long been a major concern for policy makers to measure the magnitude of the gender wage gap to reduce gender inequality in the labour market. In addition, the degree of the gender wage gap varies across the wage distribution giving rise to the glass ceiling and sticky floors phenomena. Different explanations have been provided as to the existence of the gender wage gap and the widening of the wage disparity at the bottom and/or at the top of the wage distribution (Picchio and Mussida, 2010).

Glass ceiling effects imply that gender disadvantages are stronger at the top of the hierarchy than at lower levels. Women also face systematic disadvantages in terms of vertical mobility, authority and low-income, lower-status jobs (Purcell *et al.*, 2010). Similarly, gender stereotypes exist as to what is considered "women's work" (Carrillo *et al.*, 2014). These stereotypes are ingrained in society causing many women to choose "pink collar" jobs, like those in the administrative support and helping fields. This promotes the "sticky floor" phenomenon which refers to barriers to the advancement of women such as family commitments, attitudes, stereotyping and organisational structures. Recently, it has been observed that there is rising "glass cliff" which implies that women in male-dominated careers are in danger of falling from their higher positions as they are judged more severely for their mistakes than men (Olsen *et al.*, 2010).

In addition, the anticipation of a more irregular career due to family obligations may affect investments in human capital (Manning and Swaffield, 2008). Then again, women at the bottom have a smaller bargaining power or are additionally subject to firms' market power than their male counterparts, whereby the man's career takes the precedence (Arulampalam *et al.*, 2007; Picchio and Mussida, 2010). Further, Bonjour and Gerfin (2001) reveal that the gender wage gap is not constant throughout the wage distribution but it is larger at the bottom, even after controlling for gender differences in labour market characteristics for Switzerland. Harlan and Berheide (1994) identify systemic barriers to job advancement for women in a variety of occupations outside of white-collar occupations (Purcell *et al.*, 2010). For instance, sticky floors are present in the manufacturing sector, where women are increasingly less likely to be represented within each level of the hierarchy.

As for glass ceiling, four main criteria are often identified to explain this phenomenon in an organisation (Jackson and O'callaghan, 2009); first, job relevant characteristics like differences in job responsibilities, hierarchical structures and nature of work. Second, the presence of gender bias is more prevalent in senior corporate hierarchies than at lower hierarchies. Third, there is a constant presence of inequality in career advancement to higher level. Finally, gender bias increases overtime along the entire career. In contrast, the social contact theory postulates that as female to male ratio increases in lower level management, women experience less isolation and social pressure. Consequently, women form coalitions and support networks and become more acceptable for senior position candidates. Therefore, overtime opportunities increase as more women enter previously male-dominated managerial hierarchies. Social theories also rely on cultural biases which view leadership and competence as masculine characteristics (Frankforter, 1996; Powell, 1988). Women who do not model their leadership behaviour will not be recognised for their effectiveness in the workplace. Frankforter (1996) and Morrison and Von Glinow (1990) postulate three major reasons for discriminatory practices, namely, describing women as lacking qualities necessary for leadership, overt discrimination by the majority culture and systemic discrimination whereby organisational practices disproportionately and negatively impact women. These practices create a "hidden" system of discrimination.

Further supply side discrimination theories (Oaxaca, 1973; Blinder, 1973; Blau and Ferber, 1992; Polacheck and Siebert, 1993) focus on human capital characteristics. They argue that the supply side discrimination is pre-labour market discrimination such as differences in education and gender treatment. Discrimination in education can be of customary attitudes (early marriages and pregnancies), gender biasness in teaching structures and lack of accessibility to education for women. Further, other important forces are workplace, social conditions, job requirements and cultural biases (Cotter *et al.*, 2001). Lazear and Rosen (1990) argue that women have, on average, higher non-market options than men such as child rearing or family care giver as compared to men as being regarded as bread earner. Consequently, they are more likely to leave employment and suffer from lower tenure.

Furthermore, women perform valuable work which may not be acknowledged (Heilman, 2001). Women are poor negotiators and often dislike the process of negotiations due to perceptions of being characterised as the weak sex (Babcock and Laschever, 2003). In addition, men tend to strive for status in hierarchies and possess a risk taking behaviour that is often needed to reach the top of the corporate ladder (Browne, 1995, 1998). However, women on average tend to be more risk averse and more reluctant to enter into competition (Niederle and Vesterlund, 2007). This argument rests more on the fact that glass ceiling arises from gender psychological attitudes.

Evidence for developed countries suggest that the gender wage gap widens at higher points of the wage distribution (Gardeazabal and Ugidos 2005; De la Rica *et al.*, 2008), while in developing countries the gender wage gap is wider at lower points of the wage distribution, becoming narrower at higher points of the distribution (Montenegro, 2001; Sakellariou, 2004; Pham and Reilly, 2007). The econometric studies on the African continent are very limited as the only empirical work on the gender wage gap is for South Africa (Muller, 2009; Ncube and Tregenna, 2013).

In this paper, we fill this gap by focusing on Mauritius which is seen as an example for most African countries in terms of outstanding economic performance.

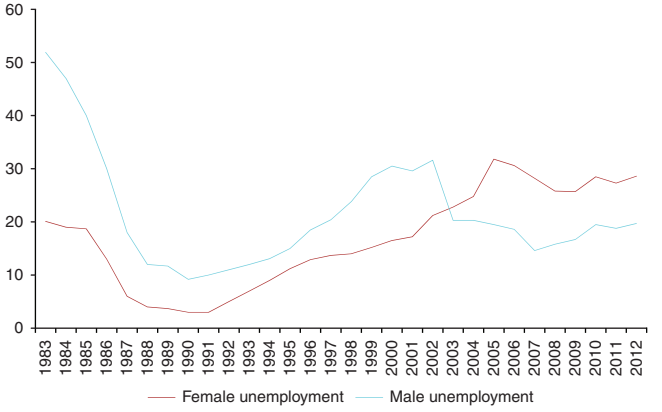
Our contribution is both from the empirical and methodological perspectives as we probe into the wage disparities across different quantiles of the wage distribution using recent household survey data. By investigating the wage distribution to find whether the glass ceiling or sticky floor phenomena arise in the Mauritian labour market, we add to the existing econometric studies which are primarily focused on developed countries and a few developing nations outside the African continent.

3. Situational analysis of the Mauritian labour market

Mauritius has achieved remarkable economic development since independence successfully transitioning from a low-income agrarian economy to a middle income country. Growth has slowed down from an average of 4.8 per cent during 2003-2007 to 3.9 per cent in the period 2008-2013. Unemployment has also steadily increased especially among less skilled youth and women. Though Mauritius has ratified several important international human rights agreements to promote gender equality and women empowerment, there are still many areas of concern (see Gokulsing and Tandrayen-Ragoobur, 2014). Women still face unequal access to jobs.

The unemployment rate of women (11.3 per cent for female relative to 5.6 per cent for male) has more than double relative to men with the male-female unemployment gap widening over the years. This is shown in Figure 1. Women are also less economically active compared to men (Tandrayen-Ragoobur *et al.*, 2011) and are mostly concentrated in low-wage and unskilled sectors, and in all sectors, wage differentials between women and men still persist (Gokulsing and Tandrayen-Ragoobur, 2014).

In addition, though Mauritius has a free education system at all levels and for all, women's access to jobs is problematic. This is shown in Table I. Mauritian women are more likely to obtain a degree in education and humanities, and men in engineering, architecture and in agricultural and veterinary science. The sharp divergence in fields of study in secondary and tertiary education suggests that increases in enrolments and learning are necessary, but not sufficient, to even the playing field later. The fields of study that men and women choose feed into their occupational choices, which in turn affect the wages they earn throughout their adult lives (Gokulsing and Tandrayen-Ragoobur, 2014).



Source: Statistics Mauritius, Digest of Labour Statistics (2013)

Figure 1.
Female and male unemployment rate in Mauritius from 1983 to 2012

Table I.
Unemployment by educational level 2013 and 2014

	Unemployment by educational attainment, 2nd Quarter 2013-2nd Quarter 2014								
			Primary			Secondary			
	Unemployed Mauritians aged 16+ (000s)	Total (%)	Below CPE (%)	Passed CPE (%)	Total (%)	Below SC (%)	Passed SC (%)	Passed HSC (%)	Tertiary (%)
Both sexes									
2013									
Q2	45.6	23.5	17.1	6.4	56.1	35.5	16.4	4.2	20.4
Q3	45.9	25.7	20.0	5.7	51.6	28.3	16.1	7.2	22.7
Q4	43.4	25.1	15.7	9.4	51.3	29.0	15.4	6.9	23.6
2014									
Q1	45.3	25.0	15.9	9.1	56.6	27.4	19.4	9.8	18.4
Q2	44.5	22.9	18.4	4.5	55.1	36.4	11.7	7.0	22.0
Male									
2013									
Q2	16.5	29.1	20.0	9.1	58.2	38.2	17.0	3.0	12.7
Q3	19.6	28.1	21.4	6.7	51.5	32.1	13.8	5.6	20.4
Q4	17.5	29.7	23.4	6.3	46.9	28.0	12.0	6.9	23.4
2014									
Q1	19.4	32.6	20.8	11.8	53.0	31.7	13.7	7.6	14.4
Q2	19.9	26.1	23.6	2.5	60.3	40.7	12.6	7.0	13.6
Female									
2013									
Q2	29.1	20.3	15.5	4.8	55.0	34.0	16.2	4.8	24.7
Q3	26.3	23.9	19.0	4.9	51.8	25.5	17.9	8.4	24.3
Q4	25.9	22.0	10.4	11.6	54.4	29.7	17.8	6.9	23.6
2014									
Q1	25.9	19.3	12.3	7.0	59.3	24.2	23.7	11.4	21.4
Q2	24.6	20.3	14.2	6.1	50.8	32.9	11.0	6.9	28.9

Source: Statistics Mauritius (2014)

4. Data source and analysis

4.1 Data source

The study uses the Continuous Multi-Purpose Household Budget Survey (CMPHS) which is a cross-sectional survey data from 2006 to 2013. The CMPHS is carried out on a yearly basis and collects data on the employment status of the individual, household characteristics and individual characteristics. The sampling method is a two-stage stratified sampling. The sample size on average is around 15,000 households surveyed per year.

4.2 Data analysis

In the latest samples of 2012/2013, the average age is around 40 years for both male and female (see Table II). Further, it is noted that on average, 65 per cent of women are married compared to 68 per cent of males. However, there are more single males (27 per cent) than single females (20 per cent). As for education, 30 per cent of females compared to 22 per cent for males have completed tertiary education over the years. Women face lower tenure level than men due to family responsibilities of child rearing therefore leading to withdrawal from the labour market. From the sample, females have lesser tenure that is 93 months compared to males with 126 months.

Further, on average, females are likely to work fewer hours than males; females work 34 hours compared to males with 40 hours. Similarly, in 2006, males tend to earn more[1] than females whereby, on average males earn Rs 10,712 compared to Rs 6,879 for females and the trend continues till 2010 with males earning on average Rs 15,301 and females earn Rs 10,120[2]. For 2013, earnings for males and females were Rs 17,582 and Rs 13,085, respectively.

Moreover, using the International Standard Classification of occupation-1988 with one and two digits titles, occupation is split in nine categories[3]. On average, the sample demonstrates that 4.4 per cent of males compared to 3.7 per cent of females are in the legislation and senior official occupations and this increases slightly for females over the years. Besides, 14 per cent of females compared to 5 per cent of males, are working as clerks. Likewise, individuals are classified by the sector in which they are operating, namely the public sector, private sector and other sectors (parastatal bodies and co-operatives). In addition, from the male sample, 81 per cent work in the private sector compared to 13 per cent in the public sector. The same trend is observed in the female sample.

In terms of firm characteristics, the firm size is measured by using the number of employed persons in the current firm. It is observed that 30 per cent of females work in small companies compared to 32 per cent of males. From the sample, 13 per cent of males compared to 18 per cent of females work in the manufacturing industry. Moreover, 16 per cent of males work in the construction sector compared to 1 per cent of females in 2013. To account for regional differences, region is classified into two categories: capital city and non-capital city. Hence, 11 per cent of males and 9 per cent of females live in the capital city.

5. Research questions and methodology

5.1 Research questions

The objective of the paper is to investigate the existence of glass ceilings and sticky floors in the Mauritian labour market. The gender wage disparity across the wage distribution is first assessed using quantile regressions. Second, applying the Oaxaca (1973) and Blinder (1973) decomposition technique, gender wage disparity is

Variables	2012 Whole sample	2012 Male sample	2012 Female sample	2013 Whole sample	2013 Male sample	2013 Female sample
Income (Rs)	14,838	16,718	11,300	15,968	17,582	13,085
Individual characteristics						
Percentage of male	65	100	–	64	100	–
Percentage of female	35	–	100	36	–	100
Age	40.30	40.70	39.53	40.45	40.82	39.82
Tenure	118.73	133.02	91.82	114.35	126.19	93.20
Hours of work (per month)	37.72	39.52	34.32	37.15	39.92	33.98
Marital status (%)						
Married	67.54	68.87	65.1	67.20	68.49	64.89
Single	24.70	26.94	20.48	24.99	27.53	20.44
Other status	7.76	4.19	14.48	7.81	3.97	14.67
Region						
Capital city				10.52	11.29	9.14
Non-capital city				89.48	88.71	90.86
Education						
Primary level	33.05	34.28	30.7	31.57	33.52	28.10
Secondary level	65.14	64.48	66.37	66.82	65.33	69.51
Tertiary level	22.54	20.92	25.57	25.42	22.86	30.07
No education	1.80	1.22	2.91	1.54	1.07	2.39
Firms characteristics						
Low size	30.83	30.45	31.54	31.08	31.93	29.56
Medium size	6.20	6.34	5.94	6.38	6.61	5.96
High size	62.97	63.21	62.52	62.54	61.46	64.48
Sectors						
Public sector	13.44	13.95	12.48	12.84	12.79	12.91
Private sector	79.92	78.67	82.28	81.14	80.52	82.27
Other sector	6.63	7.38	5.20	6.02	6.69	4.82
Occupations						
Legislation, senior official and managers	3.11	3.58	2.22	4.15	4.44	3.70
Professionals	7.22	5.60	10.25	9.17	6.53	13.86
Technicians and associate professionals	9.28	9.01	9.79	10.45	10.25	10.80
Clerks	8.74	5.34	15.12	8.26	4.93	14.22
Service workers and shop sales workers	20.50	19.38	22.62	19.40	18.24	21.47
Skilled agricultural and fishery workers	3.45	4.18	2.12	3.87	5.25	1.40
Craft and related trade workers	18.52	25.12	6.08	18.40	25.49	5.73
Plant and machine operators and assemblers	9.18	10.68	3.36	9.56	11.86	5.44
Elementary occupations	18.61	15.05	25.31	16.73	13.01	23.37
Industries						
Agriculture, hunting and forestry	6.28	6.70	5.49	6.67	7.98	4.35
Mining and quarrying	0.24	0.28	0.17	0.27	0.35	0.15
Manufacturing	15.92	13.79	19.92	15.20	13.40	18.40
Electricity, gas and water supply	0.550	0.81	0.04	0.54	0.82	0.04

Table II.
Descriptive statistics – 2012 and 2013

(*continued*)

Variables	2012 Whole sample	2012 Male sample	2012 Female sample	2013 Whole sample	2013 Male sample	2013 Female sample
Water supply, waste water management, etc.	1.25	1.72	0.37	1.06	1.38	0.49
Construction	10.56	15.78	0.72	10.74	16.40	0.62
Wholesale and retail trade, etc.	14.53	13.58	16.32	14.21	13.52	15.45
Transportation and storage	6.37	8.79	1.83	6.92	9.72	1.92
Accommodation and food service activities	7.31	7.07	7.77	8.10	7.59	9.01
Information and communications	1.71	1.76	1.62	2.35	2.07	2.84
Financial intermediation and insurance activities	2.80	2.22	3.89	2.43	1.84	3.47
Real estate activities	0.358	0.30	0.46	0.25	0.22	0.32
Professional, scientific and technical activities	1.84	1.68	2.14	2.05	1.86	2.37
Administrative and support service activities	4.49	4.47	4.54	4.14	4.10	4.22
Public administration, defence, etc.	8.01	9.27	5.62	7.72	3.47	0
Education	5.58	3.45	9.59	6.22	3.47	11.13
Human health and social work activities	3.74	2.69	5.70	3.63	2.43	5.8
Arts, entertainment and recreational	0.01	0	0.018	1.07	1.14	0.95
Other services activities	1.41	1.07	2.05	1.68	1.41	2.14
Activities of household as employers	4.39	0.94	10.88	4.49	0.95	10.80
n	15,633	10,209	5,424	14,911	9,559	5,352

Source: Authors' Computation (2014)

Table II.

decomposed into explained and unexplained portions. The explained portion is the differences in the wages due to differences in labour market characteristics and the unexplained portion is regarded as discrimination.

The quantile regressions and the decomposition analysis are two independent methods of analysis that are used simultaneously in this study. The two methods are sufficient if either of them is used on its own as in previous studies (Ncube and Tregenna, 2013). However, when used together, they add more value to the analysis. While the gender wage gap decompositions show the contribution of the two components to the gender wage gap, the quantile regressions help to explain the size of the coefficients component (Ncube and Tregenna, 2013). Thus, in this study, the following methodology is used.

5.2 Methodology

The Mincerian equation is extended therefore to account for demographic differences, firm characteristics and individual characteristics (Mincer, 1974):

$$Income = \int (gender,\ region,\ schooling,\ experience,\ experience^2,\ tenure,\ tenure^2, \text{age},$$

$$age^2,\ sector,\ occupation,\ industry,\ marital\ status, hours\ of\ work,\ size)$$

Since the data does not satisfy the normality condition, the generalised least square approach is adopted. The generalised least square approach is of Gaussian family with a log function as link.

The equation is as follows:

$$Log\ W_{ij} = \alpha_{ij} + \beta_{1ij}\ gender + \beta_{2ij}\ region + \beta_{3ij}\ schooling + \beta_{4ij}\ tenure + \beta_{5ij}\ tenure^2 + \beta_{6ij}\ age + \beta_{7ij}\ age^2 + \beta_{8ij}\ sector + \beta_{9ij}\ occupation + \beta_{10ij}\ industry + \beta_{11ij}\ marital\ status + \beta_{12ij}\ hours\ of\ work + \beta_{13ij}\ size + \mu_{ij}$$

where W is the hourly wage rate, i and j represents individuals and observed groups and μ_i is the error term of the specified group. *Gender* is a dummy variable as to whether the respondent is male or female; *marital status* accounts for whether the respondent is married or single and *schooling* represents primary, secondary or tertiary education level. *Tenure* is the number of years of experience in a particular company while *age* is age of the respondent. *Region* denotes whether the individual lives in the capital city or non-capital city, *sector* denotes whether the individual works in the private or public sector or in any other sector. Further, *industry* implies in which industry the respondent is working. *Occupation* covers the job characteristics/the occupation of the respondent. *Hours of work* is the maximum number of hours spent at work, while *size* is the size of the firm in terms of small, medium or large firm.

The quantile regression allows the estimation of the effect of the explanatory variables on wages at different levels that is at the bottom, median and top of the distribution. It is also used to test the hypothesis of the existence of the glass ceiling and glass floors. The quantiles applied are the 10th, 25th, 50th, 75th and 90th.

6. Results

6.1 Quantile regressions[4]

We note that the magnitude of the gender wage differential along the wage distribution varies. Because wages of males are generally higher than those of females at all quantiles, higher male returns are likely to explain the size of the coefficients. It is observed that at 10th quantile (lower level), gender wage gap keeps on falling across years and the same trend is observed at 90th quantile (top level). However, in other quantiles, like the 25th, 50th and 75th, the wage gaps keep rising from 2006 to 2008, but as from 2009, a decline is noted. Gender wage disparity at the lower distribution is higher than at the top which indicates the evidence of sticky floors for all years except 2012.

The presence of sticky floors seems overall to be more pronounced than the glass ceiling effect. Both a sticky floor effect and a glass ceiling effect are noted for South Africa (Ncube and Tregenna, 2013). This can be explained by the presence of glass elevator/escalator[5] due to occupational segregation whereby women chose lower paid jobs (at low level of distribution) than higher paid jobs (Blau and Kahn, 2000). Chi and Bo (2008) find that the sticky floor in China is associated with a particularly low-paid group of production workers. Women are more likely to be employed in female-dominated jobs. This is in line with the study of Christofides *et al.* (2010), which reveal the presence of sticky floors due to female-dominated activities and subsequently low remunerated jobs. In addition, women at the bottom of the distribution who are not availed the benefits of childcare provisions, maternity leave and voluntary leave; are more likely to drop out of the labour force or participate less in the labour market and in this case employers can easily discriminate against them. This can be another possible reason for the sticky floor effect (Khanna, 2012) (Table III).

Nonetheless, the evidence of glass ceiling confirms the pipeline theory (Blumenstein, 2011), whereby women are unable to move in top positions due to discrimination

Dependent variable: log (income)	10th	25th	50th	75th	90th
Male – 2006	0.400***	0.355***	0.355***	0.350***	0.341***
	(0.016)	(0.011)	(0.101)	(0.012)	(0.168)
Male – 2007	0.447***	0.391***	0.355***	0.342***	0.325***
	(0.017)	(0.011)	(0.010)	(0.012)	(0.018)
Male – 2008	0.434***	0.402***	0.369***	0.371***	0.343***
	(0.017)	(0.011)	(0.011)	(0.012)	(0.018)
Male – 2009	0.398***	0.375***	0.370***	0.369***	0.337***
	(0.015)	(0.011)	(0.010)	(0.012)	(0.019)
Male – 2010	0.391***	0.355***	0.356***	0.373***	0.375***
	(0.017)	(0.012)	(0.009)	(0.012)	(0.019)
Male – 2012	0.323***	0.331***	0.331***	0.350***	0.349***
	(0.018)	(0.012)	(0.010)	(0.014)	(0.018)
Male – 2013	0.352***	0.321***	0.304***	0.301***	0.289***
	(0.016)	(0.011)	(0.010)	(0.013)	(0.020)

Notes: Robust standard errors are in parentheses. *,**,***Significant at the 10, 5, and 1 per cent levels, respectively
Source: Authors' Computation (2014)

Table III.
Quantile regressions: 2006-2013 (summary of results)

features from employers. Thus, though more women are trying to reach the top occupations, they are not able to crack the glass ceiling (Smith, 2011). The number of women reaching the top is paid lower than males due to permanent gender bias information on skills and productivity.

6.2 Gender wage decomposition

The gender wage differential is decomposed into explained and unexplained portions. The explained portion is the dissimilarities in the wages due to differences in labour characteristics and the unexplained portion is regarded as discrimination.

From Table IV, it can be observed that the gender wage disparity keeps on falling from 2006 to 2008, and rose in the year 2009-2010, and then falls again as from 2012. The notable element in this decomposition is that, the level of discrimination (unexplained gap) rose from 2006 till 2008 and stabilised for 2009 and 2010 and falls in 2013. This is in line with past studies (Glinskaya and Mroz, 2000). This rise in discrimination is offset by a fall in explained gap for the respective years. Compared to the international results, the evidence for the small island economy is similar to those found in developing countries (Montenegro, 2001; Sakellariou, 2004; Pham and Reilly, 2007; Ncube and Tregenna, 2013).

7. Conclusion

The paper analysed the existence of glass ceiling and sticky floors in the Mauritian labour market from 2006 to 2013. It is observed that gender wage differential is not equal along the wage distribution and it falls as we move to the top of the wage distribution. There is thus a strong presence of sticky floors. Further, for the years 2008, 2010 and 2012, we note that at the 75th quantiles, the gender wage gaps started to rise showing glass ceiling effects. In addition to the quantile regressions, the gender wage gap decomposition method reveals that a large part of the wage gap is characterised by unexplained factors. The findings show that the unexplained portion was greater than the explained portion but falls over the years. However, the

Table IV.
Decomposition of gender wage gap for 2006-2013

	2006		2007		2008		2009		2010		2012		2013	
	Coefficients	% differential	Coefficients	% differential	Coefficients	% differential	Coefficients	% differential	Coefficients	% differential	Coefficients	% differential	Coefficients	% differential
Explained gap	0.13	24.61	0.11	22.47	0.08	15.70	0.12	30.31	0.12	23.41	0.12	25.08	0.04	11.01
Unexplained gap	0.39	75.39	0.38	77.53	0.41	84.30	0.39	69.69	0.39	76.59	0.35	74.91	0.36	88.99
Raw differential/ total gap	0.51		0.49		0.48		0.50		0.50		0.47		0.40	

Source: Authors' computation (2014)

explained portion also decreased in 2013. Our findings are in line with previous results for developing countries such as Pham and Reilly (2007) and Ncube and Tregenna (2013).

Various reasons can explain the persistence of the gender wage differential in Mauritius over the years. First women are mainly concentrated in low level occupations like clerks, service workers and shop sales workers where wages are on the lower side. Second, over the years, Mauritius like other African countries has seen a growth in its informal sector with a very high participation of women. With the dismantling of the Multi Fibre Agreement and the EU Sugar reforms, many women have lost their jobs in the manufacturing and sugar sectors which were previously the main growth sectors. These women who were mainly unskilled workers could not relocate to other sectors of the economy due to lack of appropriate skills. Hence, they have moved to the informal sector trying to set up their own businesses.

Third, as in many African economies, women are less likely than men to form part of trade unions. Finally, women are still the primary caregivers to children in the home, even if they also engage in paid work (similar argument for South Africa by Makgetla, 2004). This means that they have to split their time between labour market work, for which they are paid, and household work, for which they are not paid. Using the OECD work-family reconciliation index[6] Khanna (2012) shows that there is a negative correlation between the work-family index and the sticky floor and a positive correlation between the work-family index and glass ceiling. In Mauritius, greater childcare provisions and voluntary leaves must be made available to the women at the lower end of the wage distribution. Lastly, in Mauritius there is the absence of strong minimum wage legislations meaning that wage gaps can be larger at the bottom of the distribution. There is no single national minimum wage, but two complementary institutional wage fixing systems which protect low wages: the annual salary compensation and the remuneration order system. The salary compensation is higher for the lower wages and lower for higher wages: focuses on supporting low wages. Despite this, over the years the wage differential has been on the rise causing the Gini coefficient to rise further.

Notes

1. The monthly income of workers includes all overtime pay and benefits such as compensation, sick leaves, transportation and maternity leaves amongst others.
2. The exchange rate is 1 USD = Rs 30 (Rs being Mauritian Rupees).
3. Legislation, senior official and managers, professionals, technicians and associate professionals, clerks, service workers and shop sales workers, skilled agricultural and fishery workers, craft and related trade workers, plant and machine operators and assemblers and elementary occupations.
4. A summary of results is reported. Complete results for the eight consecutive years can be made available on request.
5. Rapid promotion of men in female-dominated occupations such as nursing. This is based on the traditional gender roles and stereotypes that men are expected to be in chief roles while women are said to be in subordinated positions.
6. It is a composite index based on indicators of childcare provisions, maternity leave and voluntary part-time work among others.

References

Albrecht, J., Bjorklund, A. and Vroman, S. (2003), "Is there a glass ceiling in Sweden", *Journal of Labour Economics*, Vol. 21 No. 1, pp. 145-177.

Arulampalam, W., Booth, A. and Bryan, M.L. (2007), "Is there a glass ceiling over Europe? Exploring the gender pay gap across the wage distribution", *Industrial and Labour Relation Review*, Vol. 60 No. 2, pp. 163-186.

Atal, J.P., Ñopo, H. and Winder, N. (2009), "New century, old disparities", IDB Working Paper Series No. 109, Department of Research and Chief Economist, Washington, DC.

Babcock, L. and Laschever, S. (2003), *Women Don't Ask: Negotiation and the Gender Divide*, Princeton University Press, Princeton, NJ and Oxford.

Badel, A. and Peña, X. (2009), *Decomposing the Gender Wage Gap with Sample Selection Adjustment: Evidence from Colombia*, Universidad de las Andes, Bogotá.

Blau, D. and Ferber, M. (1992), *The Economics of Women, Men, and Work*, 2nd ed., Prentice-Hall, Englewood Cliffs, NJ.

Blau, D. and Kahn, M. (2000), "Gender differences in pay", *Journal of Economic Perspectives*, Vol. 14 No. 4, pp. 75-99.

Blinder, A.S. (1973), "Wage discrimination: reduced form and structural estimates", *Journal of Human Resources*, Vol. 8 No. 4, pp. 436-455.

Blumenstein, R. (2011), "A blue print for change", *Wall Street Journal*, 11 April, pp. R1-R11.

Bonjour, D. and Gerfin, M. (2001), "The unequal distribution of unequal pay – an empirical analysis of the gender wage gap in Switzerland", *Empirical Economics*, Vol. 26 No. 2, pp. 407-427.

Booth, A.L., Marco, F. and Jeff, F. (2003), "A sticky floors model of promotion, pay, and gender", *European Economic Review*, Vol. 47 No. 2, pp. 295-322.

Borráz, F. and Robano, C. (2010), "Brecha salarial en Uruguay", *Revista de Análisis Económico*, Vol. 25 No. 1, pp. 49-77.

Browne, K.R. (1995), "Sex and temperament in modern society: a darwinian view of the glass ceiling and the gender gap in compensation", *Arizona Law Review*, Vol. 37 No. 3, pp. 971-1106.

Browne, K.R. (1998), "An evolutionary account of women's workplace status", *Managerial and Decision Economics*, Vol. 19 Nos 7/8, pp. 427-440.

Carrillo, P.E., Nestor, G. and Robano, V. (2014), "Sticky floors and glass ceilings in Latin America", *Journal of Economic Inequality*, Vol. 12 No. 3, pp. 339-361.

Chi, W. and Bo, L. (2008), "Glass ceiling or sticky floor? Examining the gender pay gap across the wage distribution in urban China, 1987-2004", *Journal of Comparative Economics*, Vol. 36 No. 2, pp. 243-263.

Christofides, L.N., Polycarpou, A. and Vrachimis, K. (2010), "The gender wage gaps, 'Sticky Floors' and 'Glass Ceilings' of the European Union" IZA Discussion Paper No. 5044, Institute for the Study of Labor, IZA, Bonn.

Continuous Multi-Purpose Household Survey (2006-2013), *Statistic Mauritius*, Republic of Mauritius, Port Louis.

Cotter, D.A., Hermsen, J.M., Ovadia, S. and Vanneman, R. (2001), "The glass ceiling effect", *Social Forces*, Vol. 80 No. 2, pp. 655-681.

De la Rica, S., Dolado, J.J. and Llorens, V. (2008), "Ceilings or floors? Gender wage gaps by education in Spain", *Journal of Population Economics*, Vol. 21 No. 3, pp. 751-776.

Frankforter, S.A. (1996), "The progression of women beyond the glass ceiling", *Journal of Social Behaviour and Personality*, Vol. 11 No. 5, pp. 121-132.

Gardeazabal, J. and Ugidos, A. (2005), "Gender wage discrimination at quantiles", *Journal of Population Economics*, Vol. 18 No. 1, pp. 165-179.

Glinskaya, E. and Mroz, T.A. (2000), "The gender gap in wages in Russia from 1992 to 1995", *Journal of Population Economics*, Vol. 13 No. 2, pp. 353-386.

Gokulsing, D. and Tandrayen-Ragoobur, V. (2014), "Gender, education and labour market: evidence from Mauritius", *International Journal of Sociology and Social Policy*, Vol. 34 Nos 9/10, pp. 609-633.

Harlan, S.L. and Berheide, C.W. (1994), *Barriers to Work Place Advancement Experienced by Women in Low-Paying Occupations*, Glass Ceiling Commission, Washington, DC.

Heilman, M.E. (2001), "Description and prescription: how gender stereotypes prevent women's ascent up the organizational ladder", *Journal of Social Issues*, Vol. 57 No. 4, pp. 657-674.

Hoyos, A., Ñopo, H. and Peña, X. (2010), "The persistent gender earnings gap in Colombia, 1994-2006", working paper, Inter-American Development Bank, Washington, DC.

Jackson, F.L. and O'Callaghan, E. (2009), "Understanding employment disparities using glass ceiling effects criteria: an examination of race/ethnicity and senior level position attainment across the academic workforce", *The Journal of the Professoriate*, Vol 5. No. 2, pp 68-99.

Kee, H.J. (2005), "Glass ceiling or sticky floor? Exploring the Australian gender pay gap using quantile regression and counterfactual decomposition methods," CEPR Discussion Paper No. 487, Centre for Economic Policy Research, Research School of Economics, Australian National University, Canberra.

Khanna, S. (2012), "Gender wage discrimination in India: glass ceiling or sticky floor?", Working Paper No. 214, Centre for Development Economics, Department of Economics, Delhi School of Economics, New Delhi.

Lazear, P. and Rosen, S. (1990), "Male-female wage differentials in job ladders", *Journal of Labour Economics*, Vol. 8 No. 1, pp. 106-123.

Manning, A. and Swaffield, J. (2008), "The gender gap in early-career wage growth", *Economic Journal*, Vol. 118 No. 530, pp. 983-1024.

Makgetla, N. (2004), "Women and the economy", available at: www.workinfo.com/Articles/gender3.htm

Mincer, J. (1974), *Schooling, Experience and Earnings*, National Bureau of Economic Research and Columbia University Press, New York, NY.

Montenegro, C. (2001), "Wage distribution in Chile: does gender matter? A quantile regression wapproach", Working Paper No. 20, World Bank Gender and Development, Washington, DC.

Morrison, A.M. and Von Glinow, M.A. (1990), "Women and minorities in management", *American Psychologist*, Vol. 15 No. 2, pp. 200-208.

Muller, C. (2009), "Trends in the gender wage gap and gender discrimination among part time and full-time workers in post-apartheid South Africa", Working Paper No. 124, University of KwaZulu-Natal, Durban.

Ncube, P. and Tregenna, F. (2013), "An empirical investigation of the gender wage gap in South Africa", available at: http://iippe.org/wp/wp-content/uploads/2013/06/Ncube-Tregenna-IIPPE-2013 (accessed 15 March 2015).

Nicodemo, C. (2009), "Gender pay gap and quantile regression in European families", IZA Discussion Paper No. 3978, Institute for the Study of Labor, IZA, Bonn.

Niederle, M. and Vesterlund, L. (2007), "Do women shy away from competition? Do men compete too much", *Quarterly Journal of Economics*, Vol. 122 No. 3, pp. 1067-1101.

Oaxaca, R. (1973), "Male-female wage differentials in urban labour markets", *International Economic Review*, Vol. 14 No. 3, pp. 693-709.

Olsen, W., Heuvelman, H. and Gash, V. (2010), *The Gender Pay Gap in the UK 1997-2007*, Government Equalities Office, Mimeo.

Perticará, M. and Astudillo, A. (2008), "Qué Tan Alta Puede Ser la Brecha de Salarios en Chile? Investigando Diferencias Salariales entre Hombres y Mujeres a Partir de Regresiones de Cuantiles" Working Paper No. 211, School of Economics and Business, ILADES-Georgetown University, Washington, DC.

Pham, T.H. and Reilly, B. (2007), "The gender pay gap in Vietnam, 1993-2002. A quantile regression approach", *Journal of Asian Economics*, Vol. 18 No. 5, pp. 775-808.

Picchio, M. and Mussida, C. (2010), "Gender wage gap: a semi-parametric approach with sample selection correction", Discussion Paper No. 2010-16, Center for Economic Research, Tilburg University, Tilburg.

Polacheck, W. and Siebert, S. (1993), *The Economics of Earnings*, Cambridge University Press, Cambridge.

Powell, G.N. (1988), *Women and Men in Management*, Newbury Park, CA and Pitman publishing, London.

Purcell, D., MacArthur, K.R. and Samblanet, S. (2010), "Gender and the glass ceiling at work", *Sociology Compass*, Vol. 4 No. 9, pp. 705-717.

Sakellariou, C. (2004), "Gender-earnings differentials using quantile regression", *Journal of Labor Research*, Vol. 25 No. 3, pp. 458-468.

Smith, N. (2011), "The gender pay gap in top corporate jobs in Denmark", *International Journal of Manpower*, Vol. 32 No. 2, pp. 156-177.

Statistics Mauritius (2013), "Digest of labour statistics", Ministry of Finance and Economic Development.

Statistics Mauritius (2014), "Continuous multi-purpose household survey report", Ministry of Finance and Economic Development.

Tandrayen-Ragoobur, V., Ummersingh, S. and Bundhoo, Y. (2011), "The power to choose: women and labour market decisions in Mauritius", *Journal of Emerging Trends in Economics and Management Sciences*, Vol. 2 No. 3, pp. 193-205.

Further reading

Gardeazabal, J. and Ugidos, A. (2004), "More on identification in detailed wage decompositions", *The Review of Economics and Statistics*, Vol. 86 No. 4, pp. 1034-1036.

About the authors

Dr Verena Tandrayen-Ragoobur is a Senior Lecturer in Economics and Head of the Department of Economics and Statistics at the University of Mauritius. Verena has a Masters in Economics and International Economics, from the University of Nottingham, UK and has completed a PhD in Economics from the University of Mauritius. She was a Commonwealth Scholar under the Split-Doctoral Scholarship tenable at the University of Nottingham. Her research areas are international trade, foreign direct investment, labour markets, economic development and gender issues. Dr Verena Tandrayen-Ragoobur is the corresponding author and can be contacted at: v.tandrayen@uom.ac.mu

Rajeev Pydayya is currently working at the Ministry of Health and Quality of Life. He holds a Bsc (Hons) Economics and Finance first class at the University of Mauritius. His research areas are international finance, labour market, gender issues and economic development.