

## GENDER WAGE DISCRIMINATION IN THE RURAL MARKET OF INDIA

Lalit<sup>1</sup>

### **Abstract**

It cannot be denied that female workers are generally paid lower wages than male workers in the work sphere despite holding the same position of responsibility. These wage differentials have been a subject of a large volume of research. The existing literature extends several explanations for persistence of the wage differences among males and females, like, human capital theory, compensating differentials, search models and discrimination. In this paper an attempt has been made to look at the extent to which differences in the labour market characteristics are responsible for explaining gender wage gaps among regular and casual workers in Rural India. The study employs the unit level records from the National Sample Survey , Employment and Unemployment Schedule for 66<sup>th</sup> round(2009-10). The results reveal the persistence of discrimination against women in the rural labour market in India. Societal and cultural norms are at the core in explaining such differences. Females because of their familial ties and household responsibilities are generally perceived to be less stable in job market than men. Employers attaches a very high probability of a women dropping from the labour market at some certain age and thus discriminates against women as they enter labour market.

*Key words: Labour market, Discrimination, Gender, Wages, Rural*

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<sup>1</sup> The author is currently an M.Phil student at Jawaharlal Nehru University, New Delhi. Email: [lalit3188@gmail.com](mailto:lalit3188@gmail.com)

## **I. INTRODUCTION**

In most labour markets both in developed and developing countries lower wages are paid to female workers than to male workers. These wage differentials have been a subject of a large volume of research. The existing literature extends several explanations for persistence of the wage differences among males and females, like, human capital theory, compensating differentials, search models and discrimination. In this paper an attempt has been made to look at the extent to which differences in the labour market characteristics are responsible for explaining gender wage gaps among regular and casual workers in Rural India. This paper is organised as follows. Section II of the paper provides a review of the existing literature in this regard followed by objectives, data and methodology in Section III. Section IV presents the major findings of this paper with concluding remarks towards the end. An attempt has been in this paper to look at the extent to which differences in the rural labour market characteristics are responsible for explaining gender wage gaps in India.

## **II. Review of Literature**

Gary Becker, in 1950s developed a neoclassical model to study discrimination, wherein he introduced the concept of a taste for discrimination on the part of employers, employees or customers based on the assumptions of perfect competition and Utility maximisation. The result of the model showed that in equilibrium the firms which differentiates on the basis of gender tends to make lower profits than non-discriminating firms. Such loss making firms in the long run will either have to shut down or will be acquired by the profit-making non discriminating firms. But this model was vehemently critiqued by economists like Arrow and Phelps (1972) as they argued that the traditional neoclassical theory fails to explain discrimination in the labour market and therefore they came up with a statistical model to study discrimination based on the employer uncertainty about the productivity of the employee/worker. The decomposition of gender wage gap [Blinder-Oaxaca (1973)] is a common method of measuring labour market discrimination against women. The standard Blinder-Oaxaca decomposition explains wage differentials in terms of differences in individual characteristics (characteristic effects) and differences in the coefficients of the earnings equations (coefficients effect). A study by Reilly and Dutta (1996) revealed that the average wage differentials between males and females were

more the less stable during 1980s and 1990s. Another study by Duraisamy and Duraisamy (1996), in which the wages are decomposed for the workers who have acquired post secondary education in different scientific disciplines for the period 1961-81 reveals that the earnings of the females are about 21 percent less than that of males and approximately 77 percent of the wage differential between the two sexes can be attributed to the discrimination component. One of the most recent studies which presents a comprehensive view about the urban labour market (not in rural) in India- Regular and Casual-has been undertaken by Madheswaran and Khasnobis (2007). They have used three rounds of the EUS-38<sup>th</sup> (1983), the 50<sup>th</sup> and the 55<sup>th</sup> with an objective to study gender wage differentials for both regular and casual wage workers in India.

### **III. Data Sources and Methodology**

For the purpose of estimation, the NSS Employment Unemployment Survey (EUS), for the year 2009-10, i.e., the 66<sup>th</sup> round. This study is confined to the rural labour market in India. Within the Rural market, the data is restricted to the regular wage/salaried full time and casual workers with age between 15 to 59 years. The EUS records the data on weekly wages which has been used to estimate the daily wage earnings using the number of days worked in the survey week. The wage rates in this paper are the nominal wage rates measured in rupees. To study discrimination Blinder-Oaxaca decomposition technique has been used.

### **IV. RESULT**

The wage data reveals that, as envisaged the average daily wages increases as one moves up the education ladder. However, the wages of females are less than that of their male counterparts at all the levels of education. The wage differentials are highest among the post graduated & above and graduate. At the higher end of the education spectrum the wage differentials between male and females increase and the gap is lowest for diploma workers as exhibited by Table A below.

Table A: Gender Wage Differential across various levels of Education ( for Regular workers)

|                     | Males | Females |    |
|---------------------|-------|---------|----|
| <b>Not literate</b> | 169   | 82      | 87 |

|                                 |     |     |     |
|---------------------------------|-----|-----|-----|
| <b>Till Primary</b>             | 176 | 92  | 84  |
| <b>Middle</b>                   | 213 | 111 | 102 |
| <b>Secondary</b>                | 301 | 178 | 123 |
| <b>Higher Secondary</b>         | 336 | 249 | 87  |
| <b>Diploma</b>                  | 401 | 341 | 60  |
| <b>Graduate</b>                 | 446 | 318 | 128 |
| <b>Postgraduate &amp; Above</b> | 526 | 389 | 137 |

Source: Unit level Data, NSS, 66<sup>th</sup> Round

Table B: Gender Wage Differential across various levels of Education ( for casual workers)

|                                 | Males | Females |    |
|---------------------------------|-------|---------|----|
| <b>Not literate</b>             | 82    | 41      | 41 |
| <b>Till Primary</b>             | 87    | 44      | 43 |
| <b>Middle</b>                   | 97    | 42      | 55 |
| <b>Secondary</b>                | 96    | 45      | 51 |
| <b>Higher Secondary</b>         | 88    | 45      | 43 |
| <b>Diploma</b>                  | 105   | 70      | 35 |
| <b>Graduate</b>                 | 89    | 54      | 35 |
| <b>Postgraduate &amp; Above</b> | 114   | 64      | 50 |

Source: Unit level Data, NSS, 66<sup>th</sup> Round

Table B shows the differential average daily wage between male and female in the rural sector for the casual labour .we can see that males those who have illiterate in the casual worker getting lower wage as compared to those who are regular workers. This wage rate are also equal to the lowest wage of females in the regular category those are illiterate. The wage differentials are highest among those who have in middle education level. At the higher end of the education spectrum the wage differentials between male and females decline and the gap is lowest for graduate workers and diploma holders as exhibited by Table B.

### Regression result

Table C: Earnings Function for Males and Females - Regular and Casual Workers: OLS Results  
Dependent Variable: Natural log (daily wage rate)

| variables                     | regular worker |          |          |          | casual worker |          |          |          |
|-------------------------------|----------------|----------|----------|----------|---------------|----------|----------|----------|
|                               | male           |          | female   |          | male          |          | female   |          |
|                               | coeff.         | t values | coeff.   | t values | coeff.        | t values | coeff.   | t values |
| <b>age</b>                    | 0.0742         | 11.13*   | 0.070989 | 4.26*    | 0.035857      | 6.43*    | 0.020289 | 1.63*    |
| <b>age square</b>             | -0.0006        | -7.65*   | -0.00059 | -2.83*   | -0.00041      | -6.20*   | -0.00022 | -1.45    |
| <b>till primary #</b>         | 0.168167       | 3.29*    | 0.058259 | 0.50     | 0.064712      | 2.20*    | 0.150505 | 2.97*    |
| <b>middle #</b>               | 0.378492       | 7.67*    | 0.265969 | 2.33*    | 0.183867      | 5.83*    | 0.272185 | 3.85*    |
| <b>secondary #</b>            | 0.65906        | 13.69*   | 0.731595 | 6.77*    | 0.255024      | 5.99*    | 0.15498  | 1.28     |
| <b>high secondary #</b>       | 0.778394       | 15.95*   | 1.154495 | 10.54*   | 0.133846      | 2.16*    | 0.846923 | 4.33*    |
| <b>diploma &amp; others #</b> | 0.969444       | 17.49*   | 1.696745 | 13.79*   | 0.08948       | 0.78     | 0.195473 | 0.51     |
| <b>graduate #</b>             | 0.992465       | 20.97*   | 1.52721  | 14.18*   | 0.161187      | 1.65*    | 0.812461 | 1.46     |
| <b>post graduate #</b>        | 1.131409       | 21.58*   | 1.78769  | 14.87*   | 0.106902      | 0.44     | 0.912714 | 2.36*    |
| <b>married #</b>              | 0.038325       | 1.17     | -0.0192  | -0.27    | -0.02161      | -0.63    | 0.105197 | 1.07     |
| <b>widowed #</b>              | 0.06929        | 0.89     | 0.140506 | 1.41     | -0.19389      | -1.93*   | 0.15269  | 1.34     |
| <b>divorced #</b>             | -0.19004       | -1.12    | -0.34268 | -0.44    | 0.191434      | 1.37     | 0.319508 | 2.06*    |
| <b>member of union #</b>      | -0.17355       | -8.36*   | -0.16678 | -3.00*   | -0.03633      | -1.74*   | -0.15941 | -3.56*   |
| <b>Muslims #</b>              | -0.00893       | -0.33    | -0.07241 | -0.76    | 0.056786      | 1.62*    | 0.153773 | 1.36     |
| <b>others #</b>               | 0.080829       | 3.19*    | 0.276038 | 4.46*    | 0.195714      | 5.52*    | -0.05199 | -0.62    |
| <b>sc #</b>                   | -0.01965       | -0.66    | -0.04037 | -0.5     | 0.132319      | 3.60*    | -0.21567 | -2.68*   |
| <b>Obc #</b>                  | -0.05289       | -1.99*   | -0.08765 | -1.28    | 0.17275       | 4.98*    | -0.24568 | -3.24*   |

|                               |          |       |          |       |          |       |          |        |
|-------------------------------|----------|-------|----------|-------|----------|-------|----------|--------|
| <b>others #</b>               | 0.051465 | 1.94* | -0.03602 | -0.52 | 0.097843 | 2.47* | -0.29689 | -3.07* |
| <b>constant</b>               | 5.031969 | 38.48 | 4.443364 | 14.31 | 5.727866 | 57.56 | 5.653442 | 25.66  |
| <b>f value</b>                | 170.74   |       | 49.91    |       | 11.04    |       | 3.92     |        |
| <b>R<sup>2</sup></b>          | 0.33     |       | 0.4131   |       | 0.0805   |       | 0.0953   |        |
| <b>adjusted R<sup>2</sup></b> | 0.3308   |       | 0.4049   |       | 0.0732   |       | 0.071    |        |
| <b>N</b>                      | 6181     |       | 1295     |       | 2290     |       | 650      |        |

**Note:** (#) dF/dx is for discrete change of dummy variable from 0 to 1. z is the test of the underlying coefficient being 0. \* represent significant at 10% level.

The age coefficient is positive for all the equations while the age square is negative or close to zero and both the variables are significant at 1 percent level of significance. One additional year of age (experience) increases wages by approximately 7.4 percent for males while only by 7 percent for females in regular full time work. On the other hand, one additional year of age (experience) increases wages by approximately 3.5 percent for males while only by 2 percent for females in casual work. Age is associated with higher wages for both females and males which may be accounted for by experience and seniority. However, this effect is much stronger for males than for females. Age squared has a negative impact on wages and the effect is stronger for males than for females in both markets casual as well as regular, implying that wages increase at a decreasing rate with age. The rate of return to education tends to rise with each level of education as apparent from the coefficients of education in the wage equation for regular workers. Education coefficients are not only significant at 1 percent level of significance but also the finding is consistent with the earlier studies on Indian labour market. The rate of return to female education outstrips the returns to males in the regular labour market. Although, it is true that the power and control of Unions have declined in the post liberalisation era but still, being a member of a union exerts a strong impact on the workers daily wages. The coefficient for this variable is significant (at 1 percent) for both males and females in Regular as well as Casual labour market. The Caste dummies indicate that compared to the reference category (STs in this case), others and OBCs earn a significantly lower wage in the regular and casual labour market. In the socio group dummies indicate that compared to the references category (Hindu in this case), others are significantly earn higher wage as compared to Muslims in the regular market.

The coefficient of Muslims is positive for both male and female worker in the casual market. Married women seem to earn less than their married male counterparts in the regular market but in the casual market, Married women seem to earn more than the married male worker. As adopted in the existing literature, Chow test has been conducted using the wage function so given above. The calculated F-value is highly significant at 1 per cent level and it shows that the earnings function differs significantly between males and females in the casual and regular labour market. Hence, it is necessary to decompose the earnings differential into explained and unexplained portions, which is carried out in the next section. (Madheswaran and Khasnobis, 2007).

### **The Blinder-Oaxaca Decomposition Results**

The OLS daily wage regression estimates are used to decompose gender wage gap into endowment difference and treatment component in the rural market.

| Components (%)                | Blinder- Oaxaca |                |
|-------------------------------|-----------------|----------------|
|                               | Regular workers | Casual Workers |
| <b>Explained Difference</b>   | <b>1</b>        | <b>9</b>       |
| <b>Unexplained Difference</b> | <b>99</b>       | <b>91</b>      |

The results reveal that the explained component in case of regular workers is virtually nil and the discrimination or the “treatment” component is entirely responsible for log wage differential between males and females. What regression results for females employed in this sector highlighted is that the personal characteristics of the women are not unfavourable vis-à-vis men; instead return to these characteristics widens the gender wage gap. Hence, it can be concluded that “pre-market discrimination” does not prevail in case of regular wage/salaried workers. In fact in some respects like education at the higher education spectrum, women exhibit relatively

better characteristics. This unexplained discrimination thus shows women who are equally qualified as men and possess other work associated characteristics which are similar to their male counterparts; they are still paid less than males. However, the scenario is different in the Casual labor market as the endowment difference stands to be around 9 percent while the unexplained discrimination is about 91 percent.

All in all, there is strong evidence from the recent NSS data, of the persistence of discrimination against women in the rural labour market in India. The possible reasons for this goes well beyond the variables this paper could capture. Societal and cultural norms are at the core in explaining such differences. Females because of their familial ties and household responsibilities are generally perceived to be less stable in job market than men. Employers attaches a very high probability of a women dropping from the labour market at some certain age and thus discriminates against women as they enter labour market.

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