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# Gender Wage Gap among Salaried Workers in India: Results of a Principal Component Analysis of State Level Statistics

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#### **Abstract**

Gender gap in wages is a major labour market discourse in policy circles and academia in India. Despite having many Constitutional provisions calling for removal of all gender based discrimination, wage inequality across gender and race is a reality and it varies widely in terms of its intensity across States. This paper makes an attempt to study the dynamics of gender gap in wages of salaried class workers Indian states. The paper recognises the need to study the extent to which gender plays a role in determining wages. This is particularly necessary for evolving effective labour market policies in the country. On the basis of principal component analysis on the reported State level aggregates of various gender specific information, the paper argues that the policies for removal of gaps in skills and other demand influencing variables may be necessary, but not sufficient conditions for ensuring gender equality in wages. Rather, variables explaining the level of participation of women in decision making in different walks of their social and economic life and other supply side factors may explain the gender gap in wages among salaried class workers.

**Keywords:** Gender Gap, Wage Differential, Principal Component Analysis, Multivariate Analysis of male-female wage differentials, wage discrimination

**JEL Classification:**C21, J16, J31, J50, J70, C51

It is widely acknowledged that closing the gap between onsite wage received by male and female workers may result in absolute gains in GDP through gains of skill up-gradation, enhanced supply of motivated and skilled women workers and creation of more job opportunities through capital formation occurring out of increased savings of hitherto low-wage women workers (WWC 2009; TUC 2008). Removing gender gaps in wages, (equal wages for equal amount of work) is a constitutional mandate in India. The governments in recent years have also implemented several policies mostly in the framework of active labour market policies to remove gender gap in wages. These policies are more or less in the arena of making women meet the changing demand dynamics in the labour market in the era of



liberalisation; more specifically in terms of reducing skill gaps through efforts towards education and training, provisions of wage employment programmes and employment services (Jha 2009). This is not to say that such efforts are sufficient to bridge the development deficits in the Indian context. But still these policies at least present some signals in positive directions. Unfortunately, these policies have not only failed in improving the conditions of women in the country; there are evidences of glaring gaps in the average wage earned by salaried workers in India. The present paper does not focus on the benefits of removing the gender wage gap. Rather we focus on a critical policy challenge faced by the policy makers in addressing this multifaceted issue of gender based discrimination in wages having its roots not only in poor policy implementation, but also in a larger and complex web of linkages in a patriarchal social set up. The paper seeks to identify some policy variables that may have a bearing on perpetuating or removing gender gap in wages in the Indian context.

# Context and Background

In India, the gender gap in wages varies significantly across occupational activities and across States. In case of rural agricultural workers, the wage gap is highest in case of unskilled workers and lowest in case of specific works where some sort of skills is required. As per the information by Rural Labour Enquiry in activities like winnowing, cane crushing and other works where some skills are required from the workers, the gap between male and female wage is lower compared to activities like well digging there physical strength may be a more determining factor than skill. More so, in a country like India where most of the digging and similar earthwork is done manually (Table-1). It is possible that in the absence of appropriate technological support, women workers may be in a disadvantageous position due to operation of factors like gender based discrimination in a more or less direct manner. But in case of jobs where skills are a prerequisite, such discrimination may operate in other subtle manners. The present paper seeks to identify the factors affecting the differences in wages of male and female workers. As a case we have considered a section of workers that come under salaried and regular category.

The group of workers that come under salaried category is one of the privileged classes of workers that work in the organised private and public sector and enjoy some sort of security in terms of job tenure and fixed wages. So, the gap is wages is not in terms of gender based differences in wages in a particular type of job or occupation. Rather, we consider wage gap as the differences between the average wage earned by all male and female salaried workers as a group in a particular state. Available information suggests that in India, not only the gap in average wages earned by male and female workers is huge in absolute terms of actual wages earned, there also exists a significant State wide variation. For example, in the year 2011-12, the share of regular and salaried wage earners in total employment in India was 12.7 % for women workers compared to 19.8 % for their male counterparts (NSSO 2013, 18). In terms of actual wage received by them, the amount of wages earned was approximately ₹ 308 per day for women compared to ₹ 407 per day for the male workers. In other words, the wages earned by women in India was approximately 75 % compared to men in the salaried categories of workers (NSSO 2013, 23). The figures were approximately 62 % in rural areas to 78 % in urban areas in India. Among states, this ratio varied in rural areas from around 40% in West Bengal and Madhya Pradesh to 91 % in Odisha whereas in urban areas, it varied from 57% in Andhra Pradesh to more than 100 % in Delhi and Punjab. A state wise presentation of daily wage earned by salaried and regular women workers in proportion to men is made in Figure-1 and Figure 2. The wage gap is even

wider in case of casual and unskilled workers. In the forthcoming sections we have made an attempt to infer some possible reasons for the gender gap in wages among workers in the salaried class only.

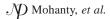
## Analytical landcape –A Review

Many find an enquiry into the barriers to gender-based equity in pay as complicated because of interconnections between institutional, cultural, social and personal barriers. Since such an analysis is complicated, policies for removal of these barriers also need to be multifaceted (Alkadry and Tower 2006; 896). There are many levels at which such policies need to be targeted and fine-tuned with a purpose of removing unequal pay. In economies where such wage gap becomes a social phenomenon, it becomes difficult to remove it through piece meal efforts such as enrolment of girls and other human capital and capacity creation activities. Rather, activities such as public awareness creation, focus on the target group of beneficiaries who get lower wages, larger socialisation of women in the professional front through unionisation etc and some policy efforts may provide some benefits. This is primarily because, the differences in wages have their links with a 'continued pattern of discrimination despite a plethora of policy initiatives' (Gibelman 2003; 22-23).

On the basis of empirical analysis, contemporary literature links gender wage gap with differential levels of education, health conditions, level of empowerment all measured in various ways. Some also discuss different ways of looking at gender gap in wages. Leslie McCall (1998) examines and measures the economic restructuring in regional labour markets, compares the effects of economic restructuring on the wages of men and women and estimates the spatial association between the gender wage gap for groups of workers with different educational backgrounds, Carlson and Persky (1999) look at the issue from a regional perspective between sub-urban and urban areas. Blauand Kahn(1997) in an optimistic manner refers to the dramatic decline in the gender gap owing to improvements in women's educational qualifications, skills. The authors held that rising rewards to the skills eventually widens the gender gap in wages received by both the groups. Katz and Murphy (1902) also confirm similar findings

Some literature also highlight market conditions to be the guiding factors behind gender wage gap. It is believed that market reforms have changed the relative positions of women in the labour market owing substantially to their skill base (Brainerd 2000). Some factors such as age, experience, industry, status of workers' employment etc, also play a role in combination with each other to define wage gap across gender (Stanley and Jarrell 1998). Kao, Polachek and Wunnava 1994) illustrates that human capital investment is crucially dependent on expected lifetime labour force participation and thus is a critical factor in defining the skill base of women leading to low wages compared to men.

Most literature on the issue are context specific and it is therefore necessary to highlight that the objective conditions that propagate gender based discrimination in wages in India may be looked at from an Indian perspective only. Subsequent to this understanding, the present paper seeks to look the issue of gender gap from the inferences drawn from the available spatial data on various aspects of women's participation in society including education, health, labour force participation, decision making opportunities and so on. In the forthcoming sections, we have discussed the Indian context followed by a principal component analysis of the available state-wise data on gender.



# Contradictions in variable interplays and policy challenges

An orthodox economic view may always argue that if the premise of equal work is true, then gender gap may be a myth because from the perspective of the employer, if women can be paid lower wages then they would obviously be the preferred set of workers. This means an eventual job loss for the highly paid male workers leading to an increased unemployment and lower wages for men and a resultant closure of the wage gap. 'It is generally accepted that a civilised and prosperous market economy could not function if, for example, surgeons were paid the same as litter pickers. If they were paid the same, there would be a shortage of surgeons and nobody would wish to employ litter pickers. Discrimination is not a good candidate for explaining the difference between the wages of men and women.' (Shackleton2008; 8-9).

Such a view is said to be grounded in the premise of demand supply interplay for price determination as suggested by Alfred Marshall. But its application to real world labour economics is problematic for several reasons. Firstly, labour is much beyond a commodity for which a price has to be fixed through demand supply interplay. Secondly, in a society committed to the wellbeing of its members should always keep asking the basic question. "Why a specific demographic section of population choose litter—picking as their occupation?". Coming back to the discourse, if it is not discrimination, what else motivated a section of population to grow up as surgeons and another as litter pickers? Probably, a much wider question that what we can get engaged in the present paper. Still it may be possible to highlight some key issues through analysis of the available information.

The literature reviewed mostly suggest that factors like gender gaps in education, skill, health conditions etc., or the concept of human capital that defines productivity variations to play a major role in defining and justifying gender wage gaps. At the outset, we do not contest the significance of these variables. However, in the Indian context relying on these variables may be misleading for several reasons. Let us try to explain this with some examples on the basis of available information. Take, for example, the case of education. It may be presumably sound that gender gap in education might have a positive role in defining the gender gap in wages. But in the Indian context it may be a fallacy as we see states with lower gender gap in education has a higher gender gap in wages. Moreover, in a country with 94 percent of the workforce in the unorganised sector with most such sectors operating with workers without formal skills, gap in educational attainments may not be a sufficient cause for wage gap. Similar is the case with other variables.

The occupational pattern of women in India is peculiar in a sense than majority of the women workers in the salaried class is concentrated in certain specific job types. Moreover, the growth in employment of women in India in the formal sector has largely been in private sector only, although the level is very small. As per the report of the DGET (2009), the annual growth in employment of women in the private sector has been 0.52 % compared to just 0.04 % in the government sector and 0.27 % in the entire formal employment. Interestingly, in case of private sector, the largest growth in womens employment has been in the larger establishments whereas in case of public sector jobs, the highest growth on womens employment has been under the jurisdiction of local governments. At the same time, the number of women working under the jurisdiction of union and state governments has declined (Figure-3).

Figure-4 presents the occupational pattern of women employees in the private sector. As we can see from the figure, more than 27 % women in private sector are working as professionals with technical skills. A further decomposition of workers with technical skills show that almost 80 % of these women workers are teachers and more than 12 % in the health services mostly working as nurses. As presented in Figure 5, more than 91 % women workers in the skilled occupations are either teachers or nurses. Within the specific occupations, in the nursing activities in the health services, women constitute more than 87 % of the human resources. In occupations like teaching, while women teachers constitute more than 46 % in primary education segment and 60 % in the middle school level, they comprise only around 24 % of the total teachers at the university level (Figure-6). All these indicate that within the skilled categories, majority of women workers are concentrated in professions which are low paid. Thus it is not the skill primarily, but what makes women go for acquiring a particular skill, may be an important area of research.

Still, we may not discard the role of education, skill and for that matter other variables mentioned above from the spectrum of our analysis just on the basis of these empirical evidences. It is highly possible that the behaviour of variables may reflect a suppressor effect due to the operation of some other variables that may need more policy attention. In the forthcoming sections we have discussed the process of identifying certain factors explaining gender gap in wages in the Indian context through principal component analysis (PCA).

## **Data and Methods**

Before using PCA for identification of variables defining gender gap in wage across states in India, let us have a closer look at the objective challenges before the policy analysts in our country. The efforts towards maintaining gender disaggregated information on socioeconomic variables in India are not very old. In many States the process is yet to begin in several forms. Thus what we have before us is information compiled from various sources on several socioeconomic indicators. One such compilation is "Women and Men in India Report" brought out by the Ministry of Statistics and Programme Implementation since 1995. Although the report highlights various gender disaggregated information including demography, health and well-being, economic participation, education and empowerment as well as crime statistics, the compilation is not coherent in terms of availability of information on all the indicators for all the states and all the years. Thus, what we have is a vast array of data on a cross section of issues but not strictly comparable across years and States. This poses a major challenge before us for undertaking any serious policy analysis. Still, tools like principal component analysis may help us in identifying some variables that may probably have some causal links with the wage gap between male and female workers in different states.

Principal component analysis (PCA) is a century old tool developed by Karl Pearson to construct manageable number of components instead of too many variables possibly affecting a policy goal. In the present case we have Y (Gender gap in average daily wage earned by salaried workers in the state) as the dependent variable and 41 variables initially identified as the independent variables as listed in Table 2. Here, gender gap in wages is calculated as a ratio of female to male wage and is less than unity wherever female wage is lower than male wage. All the 41 variables listed in Table 2 possibly have some role in defining the variations in the gender wage gap, the response. But our sample size is limited to only 35 States and Union Territories. Moreover, Given the size of the list with 41 variables, it is



difficult to discuss the rationale behind choosing these variables. Variables were selected from each of the categories for which gender disaggregated information is available including demographic, education, health, labour market, empowerment and governance types. However, the list was too big for any meaningful policy suggestion. Therefore we needed to reduce the list in order to get some focus variables that may suit our purpose.

As the initial step, we ran principal component analysis with all the 41 variables and selected components with eigenvalue more than one. Then we removed variables with absolute component coefficient weight of less than 0.7. Since the initial correlation matrix showed high correlation of variables with some variable or other, the Kaiser-Meyer-Olkin measure for sampling adequacy and Bartlett's test of sphericity did not yield any result, and we failed to increase the sample size as the units of observations were States only, we relied on component weights to identify and discard variables through repeated attempts of identification and removal.

In the first attempt itself we extracted nine components with eigenvalues more than 1 and explaining more than 89 percentvariance across variables. Again, within the components we retained variables with a load not less than 0.7 that helped us removing 24 variables. In the second attempt we removed another nine variables that showed lower component rotated weight and those that yielded us less than three variables per component. We were finally left with eight variables for our final round of PCA with only two components. The final round of PCA process and the interpretation of the results are presented in the subsequent sections.

#### **Results and Discussion**

The eight variables that were left for our final analysis are listed in Table 4. Surprisingly, these variables do not fall in the category of education, skill, health conditions etc. Our first principal component included percentage of women actively participating in various decision making roles related to their own social and economic life. The second component included variables in the broad category of female labour supply.

Eight variables as listed in Table-4 were subjected to a Principal Component Analysis using prior communality estimates. The components were extracted by principal axis method, followed by a varimax (orthogonal rotation). The PCA results presented in Tables 5, 6 and 7 provide an interesting picture. As we can notice, all the variables are highly correlated with some other variable (Table 5). We could find eigen values greater than one only for the first two components although eight components were needed to explain 100 percent variance. The scree test presented in figure-3 also suggested that the first two components only meaningful as they in combination accounted for more than 88 percent of the total variance (Table 6). The corresponding factor loadings are presented in Table 7. While interpreting the rotated factor pattern, we considered a variable only if it loads on a component with a factor loading of more than 0.9 for one factor and less than 0.9 for the other. Using this criteria, four variables are found to load on component 1 and four variables on component 2. Given the nature of the variables clubbed together as components we label component-1 as decision making variable and component-2 as labour supply variables.

We also studied the possible impact of the factor scores obtained in the process on the response variables through regression analysis with factor scores for component-1 and component-2 as

independent variables. The specific model studied was wage equality = a<sub>i0</sub>+a<sub>i1</sub>Component-1+a<sub>i2</sub> Component-2+u<sub>i</sub>. The results are presented in Table-8. In case of salaried class, decision making variables are found to be contributing to the variances in gender equality (wage gap) across states. In the concluding section we have discussed the possible explanations for why our findings in the Indian context contradicted with the conventional understanding of gender wage gap.

## Conclusion

The foregoing analysis helped us underline certain broad conclusions in the Indian context. Firstly, skills, education etc that may influence market demand for female workers do not have a strong bearing on gender gap in wages in the formal (salaried class) sector. There may be several reasons for such an understanding. Gender stereotypes in making choices for specific skills and trainings may be making women go for skill development in not so high paid jobs. This might have resulted in consolidation of women in jobs at bottom ranks in the formal sector.

Secondly, labour supply variables related to health and demographic differentials such as prevalence of anaemia, proportion of women in the reproductive age, mean age of marriage do not have a bearing on gender gap in wages in the formal salaried sector. The reasons for such an observation may be varied. For example, in a formal sector job in a country like India wherever men and women work at similar levels health and demographic factors may matter less. Women in India typically choose jobs that are convenient to manage along with other household responsibilities. In most cases whenever a job is not consistent with their social and other commitments, they may not work at all, especially in the full time job segment. Therefore, heath and demographic issue may have a bearing on the decision of the women on whether to work, it is reasonable to believe that it has less bearing on the type of work and amount of wages received by them.

Thirdly, variables representing the level of decision making power of women do have a significant bearing on the gender gap in wages. Our results reveal that states with higher proportion of women taking decisions at household and social level have higher wage equality or lower gender gap in wages. Higher autonomy in decisions making may also reflect higher autonomy in skill choices and job choices and a greater level of independence from the social stereotypes. We have therefore noticed lower gender gap in wages in States where larger proportion of women take decisions on their own health care, on visiting their parental relatives, on making major household purchases and so on. A greater autonomy in decision making may also reflect a greater ability of women workers to be mobile in job search and job acceptance.

Fourthly, variables explaining labour supply related to participation of women in the workforce have some bearing on the gender wage gap, although not as strongly as decision making variables. In our analysis, component-2 indicating labour supply contained variables such as female workforce participation rate, worker population ratio in rural areas etc. was positively linked with gender equality in wages. A section of population can participate in the economic processes only if works are available according to their skills. And wherever we find more women participating in labour market, it is reasonable to believe that they come with varied skill sets.

Our analysis reveals that although there may be equality of wages in specific skills in the formal sector employment, the decisions on acquiring such skills vary across states and going for skills that may pay

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them more wages depend on the level of participation of women in various types of decisions at their personal and social fronts.

**Table 1:** Male –Female Differences in daily wages earned by rural workers in different Agricultural occupations in the month of November 2012 (₹ Per day)

	Male	Female	Gap (F-M)	Gap as % of Female wage
Winnowing	153	130	-23.59	-18.19
Threshing	170	136	-33.58	-24.70
Picking (viz. tea leaves)	161	129	-32.00	-24.76
Herdsman	109	88	-21.03	-24.02
Well digging	258	137	-121.41	-88.89
Cane crushing	175	148	-27.93	-18.93
Sweeper	121	103	-18.04	-17.56
Unspecified Unskilled Workers	168	127	-41.09	-32.27

Source: Rural Labour Enquiry 2013

Table 2: List of Predictor Variables identified before undertaking PCA

X01: Anaemia among Adolescent Girls

X02: Sex Ratio

X03: Sex ratio in the age group 0 to 6

X04:Proportion of women in reproductive age

X05: Proportion of women in economically active age

X06: Gender gap in Enrolment in University and Higher Education

X07: Gender gap in mean age of marriage

X08:Mean age at marriage female

X09: Gender gap in infant mortality rate

X10:Female worker population ratio in rural areas

X11:Female worker population ratio in urban areas

X12: Gender gap in worker population ratio in rural areas

X13:Gender gap in worker population ratio in urban areas

X14: Female work force participation rate in rural areas

X15:Female workforce participation rate in urban areas

X16: Female workforce participation rate in whole State

X17: Gender gap in work force participation rate in rural areas

X18:Gender gap in work force participation rate in urban areas

X19: Gender gap in work force participation rate in whole State

X20: Average annual growth rate of women in organised public sector

X21: Average annual growth rate of women in organised private sector X22:Gender gap in female labour force participation rate in rural areas

X23:Gender gap in female labour force participation rate in rural areas

X24:Gender gap in unemployment rate in rural areas

X25:Gender gap in unemployment rate in urban areas

X26: % of women ready to work full time

X27: % of women ready to work part time

X28: Share of women in Non Agriculture Sector Rural

X29: Share of women in Non Agriculture Sector Urban

Contd.

- X30: Share of women in Non Agriculture Sector Total
- X31:Gender gap in literacy rate2011
- X32: % of women taking decision on own health care
- X33: % of women taking decision on making major household purchases
- X34: % of women taking decision on purchasing daily household needs
- X35: % of women taking decision on visits to her family and relatives
- X36: % of Women taking decision on all four
- X37: % of women taking part in none of the four decisions
- X38: % of women with access to money
- X39: % of women who exercised right to vote in last general election
- X40:Rate of crime against women (CAW as % of total crimes)
- X41: % women participating in NREGS Work

#### Table 3: Variables Removed in different Rounds of elimination

#### First Round

- 1. X01: Anaemia among Adolescent Girls
- X02: Sex Ratio
- X03: Sex ratio in the age group 0 to 6 3.
- X04:Proportion of women in reproductive age 4.
- 5. X05: Proportion of women in economically active age
- X06: Gender gap in Enrolment in University and Higher Education
- 7. X07: Gender gap in mean age of marriage
- 8. X08:Mean age at marriage female
- 9. X11:Female worker population ratio in urban areas
- 10. X13:Gender gap in worker population ratio in urban areas
- 11. X14: Female work force participation rate in rural areas
- 12. X17: Gender gap in work force participation rate in rural areas
- 13. X20: Average annual growth rate of women in organised public sector
- 14. X21: Average annual growth rate of women in organised private sector 15. X22:Gender gap in female labour force participation rate in rural areas
- 16. X23:Gender gap in female labour force participation rate in rural areas
- 17. X26: % of women ready to work full time
- 18. X27: % of women ready to work part time
- 19. X31:Gender gap in literacy rate2011
- 20. X36: % of Women taking decision on all four
- 21. X38: % of women with access to money
- 22. X39: % of women who exercised right to vote in last general election
- 23. X40:Rate of crime against women (CAW as % of total crimes)
- 24. X41: % women participating in NREGS Work

# Second Round

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- 25. X09: Gender gap in infant mortality rate
- 26. X15:Female workforce participation rate in urban areas
- 27. X18:Gender gap in work force participation rate in urban areas
- 28. X24:Gender gap in unemployment rate in rural areas
- 29. X25:Gender gap in unemployment rate in urban areas
- 30. X28: Share of women in Non Agriculture Sector Rural
- 31. X29: Share of women in Non Agriculture Sector Urban
- 32. X30: Share of women in Non Agriculture Sector Total
- 33. X37: % of women taking part in none of the four decisions

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Table 4: Variables Retained for Final PCA

X33: % of women taking decision on making major household purchases

X35: % of women taking decision on visits to her family and relatives

X34: % of women taking decision on purchasing daily household needs

X32: % of women taking decision on own health care

X12: Gender gap in worker population ratio in rural areas

X10:Female worker population ratio in rural areas

X16: Female work force participation rate in whole State

X19: Gender gap in work force participation rate in whole State

**Table 5:** Correlation and Anti-image Matrix

		X10	X12	X19	X16	X32	X33	X34	X35
Correlation	X10	1.000							
	X12	0.976	1.000						
	X19	0.618	0.657	1.000					
	X16	0.711	0.716	0.969	1.000				
	X32	0.086	0.106	0.256	0.227	1.000			
	X33	0.040	0.031	0.262	0.219	0.846	1.000		
	X34	0.060	0.063	0.286	0.243	0.799	0.956	1.000	
	X35	0.076	0.079	0.291	0.266	0.856	0.922	0.946	1.000
Anti-image Correlation	X10	0.445	-0.976	0.745	-0.736	0.279	-0.400	0.130	0.104
	X12	-0.976	0.469	-0.699	0.657	-0.310	0.420	-0.154	-0.074
	X19	0.745	-0.699	0.488	-0.975	0.152	-0.301	-0.012	0.215
	X16	-0.736	0.657	-0.975	0.512	-0.132	0.286	0.019	-0.237
	X32	0.279	-0.310	0.152	-0.132	0.730	-0.509	0.389	-0.445
	X33	-0.400	0.420	-0.301	0.286	-0.509	0.674	-0.697	0.026
	X34	0.130	-0.154	-0.012	0.019	0.389	-0.697	0.709	-0.623
	X35	0.104	-0.074	0.215	-0.237	-0.445	0.026	-0.623	0.789

*Note:* Kaiser-Meyer-Olkin Measure of Sampling Adequacy (MSA)= 0.590 Bartlett's Test of Sphericity: Approx. Chi-Square=343.796 with Sig=0.000

Table 6: Total Variance Explained

Component		Initial Eigenvalues	
	Total	% of Variance	Cumulative %
1.	4.189	52.368	52.368
2.	2.851	35.641	88.010
3.	0.581	7.264	95.274
4.	0.225	2.812	98.086
5.	0.078	0.981	99.067
6.	0.044	0.547	99.614
7.	0.025	0.310	99.925
8.	0.006	0.075	100.000

Contd.



Component		Initial Eigenvalues	
	Total	% of Variance	Cumulative %
<b>Extraction Sums o</b>	of Squared Loadings		
	Total	% of Variance	Cumulative %
C1	4.19	52.37	52.37
C2	2.85	35.64	88.01
<b>Rotation Sums of</b>	Squared Loadings		
	Total	% of Variance	Cumulative %
C1	3.72	46.48	46.48
C2	3.32	41.53	88.01

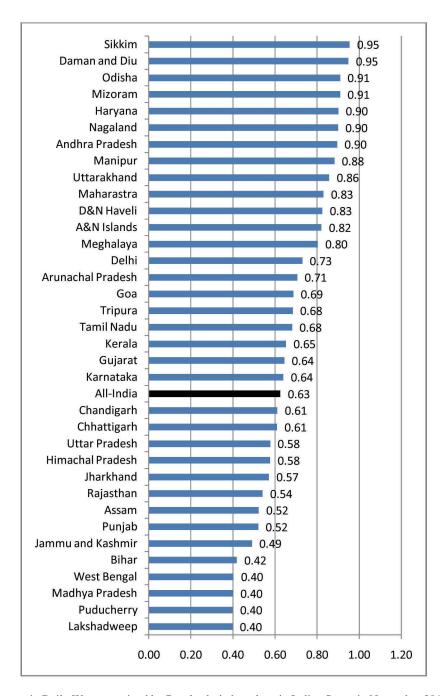
 Table 7: Principal Component Analysis

Components						
1	2	h2	Variables			
0.972	0.055	0.985	X33: % of women taking decision on making major household purchases			
0.967	0.101	0.972	X35: % of women taking decision on visits to her family and relatives			
0.964	0.083	0.971	X34: % of women taking decision on purchasing daily household needs			
0.903	0.099	0.848	X32: % of women taking decision on own health care			
-0.028	0.931	0.938	X12: Gender gap in worker population ratio in rural areas			
-0.032	0.920	0.927	X10:Female worker population ratio in rural areas			
0.188	0.913	0.947	X16: Female work force participation rate in whole State			
0.234	0.864	0.932	X19: Gender gap in work force participation rate in whole State			

 Table 8: Regression Results

Indicator Dependent Variable	Model1 Y1	Model-2 Y2	Model-3 Y3	Model-4 Y4	
Beta Factor-1#	0.560***	0.024908	-0.51	0.309	
t1	3.638	0.127055	-0.079	1.5	
Beta Factor-2#	0.267**	0.010465	0.331	-0.205	
t2	1.734	0.053383	1.71	-0.99	
Rsquare Adjusted	0.337	0.076	0.034	0.04	
F value	8.119	0.009	1.464	1.4	
p value	0.002	0.991	0.251	0.252	
DF	26	26	26	26	

*Note:* # standardised beta\*\*\* Significance at 0.01 level and \*\* Significance at 0.05 level



**Fig. 1:** Gender gap in Daily Wages received by Rural salaried workers in Indian States in November 2012 *Note:* (1) Gender Equality in wages (wage gap) in the figure is the ratio of women's wage to the wages received by their male counterparts. A value of 1 indicate perfect equality in wages. Source: Compiled from NSSO 2013

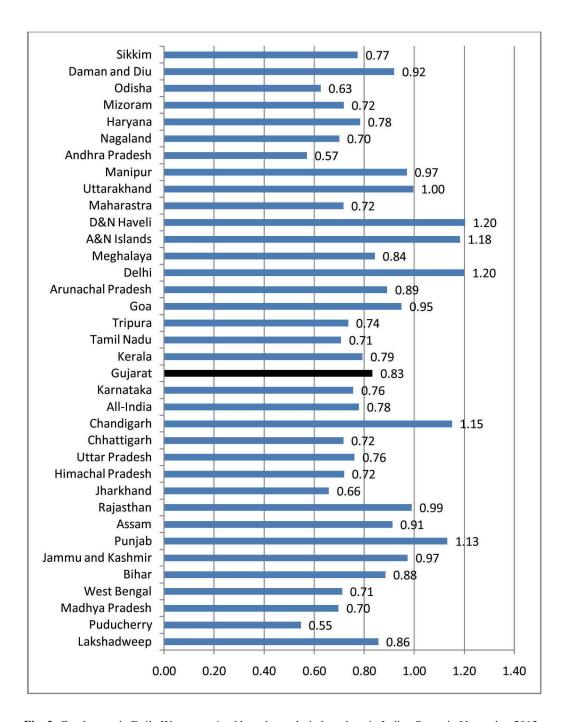
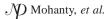
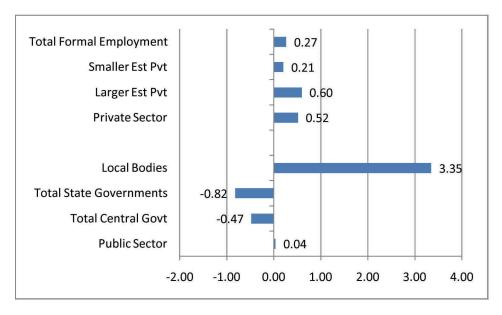
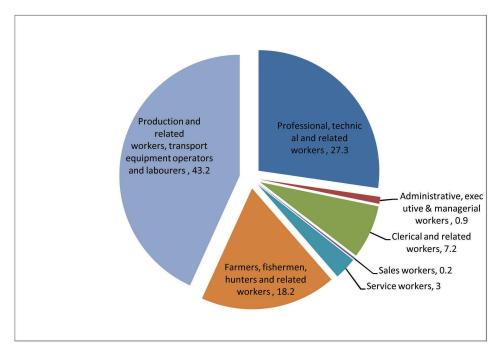


Fig. 2: Gender gap in Daily Wages received by urban salaried workers in Indian States in November 2012 Source: Compiled from NSSO 2013





**Fig. 3:** Growth in Employment of Women in Formal Sector during 2008 and 2009 *Source:* DGET 2009



**Fig. 4:** Occupational pattern of women employees in the Private Sector *Source:* DGET 2011(a)

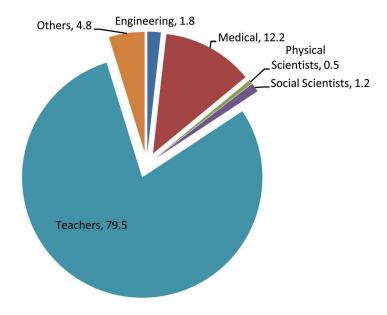


Fig. 5: Women employees in professional & technical occupations Source: DGET 2011 (a)

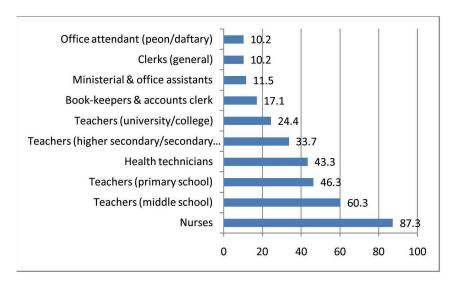


Fig. 6: Women as % of total Employment in the Occupational Category Source: DGET 2011 (b)

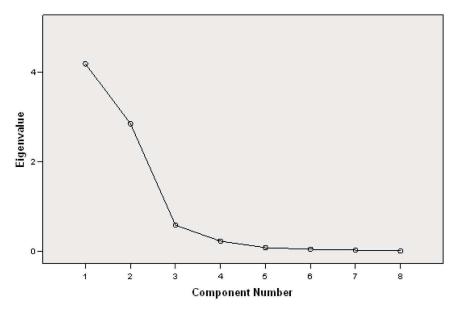


Fig. 7: Screeplot between Eigenvalue and Component Number

#### References

Alkadry, Mohamad G. and Tower, Leslie E. 2006. Unequal Pay: The Role of Gender, *Public Administration Review*. Blinder, Alan S. 1973.: Wage discrimination: reduced forms and structural estimates, *Journal of Human Rescources* **8**(4): (436-55)

DGET 2011(a). Census of Central Government Employees, Government of India, Ministry of Labour & Employment, Directorate General of Employment & Training, Survey & Study Division

DGET 2011(b).Employment Review-2009. Ministry of Labour & Employment, Directorate General of Employment & Training, Government of India, New Delhi

Gibelman, Margaret 2003. So how far have we come? Pestilent and persistent gender gap in pay, *Social Work* 48: (22-31) GOI 2013. *Women and Men in India -2013*, 15th Issue, Central Statistics Office, National Statistical Organisation, Ministry of Statistics and Programme Implementation

Jha, Praveen 2009. The well-being of labour in contemporary Indian economy: What's active labour market policy got to do with it?, Employment Working Paper No. 39., Employment Analysis and Research Unit, Economic and Labour Market Analysis Department, International Labour Organisation (ILO)

NSSO 2013. Key Indicators of Employment and Unemployment in India: 2011-12, Ministry of Statistics and Programme Implementation, Government of India, NSS KI 68/10

O'Neill, June, and Solomon, Polachek 1993. Why the gender gap in wages narrowed in the 1980s?, *Journal of Labor Economics* 11(1): (205-228).

Oaxaca, Ronald and Michael Ransom 1994. On discrimination and the decomposition of wage diûerentials, *Journal of Econometrics* **61**(1): (5-21).

Oaxaca, Ronald 1973. Male-female wage diûerentials in urban labor markets, *International Economic Review* **14**(3): (693-709)

Shackleton, J. 2008. Should We Mind the Gap? Gender Pay Differentials and Public Policy, The Institute for Economic Affairs, London.

Trade Unions Congress-TUC 2008, Closing the Gender Pay Gap: An update report for TUC Women's Conference, TUC, London

Women and Work Commission-WWC 2009. Shaping a Fairer Future: A review of the recommendations of the Women and Work Commission three years on, Government Equalities Office.