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WOMEN EMPLOYMENT IN THE NEW ECONOMY:

CLOUDS AND SOME SUNSHINE

Dipa Mukherjee*

Abstract

The last decade has witnessed greater participation of women in the labour market, especially in new arenas of economic activity. While opportunities have increased, traditional biases against women still exist, both while accepting women as workers and while wage setting. This paper explores the gender bias in the new economy in India and examines what part of it can be explained by differences in endowments and what part is due to discrimination. The New Economy has been identified in terms of high growth and high share in total employment in recent times. It is observed that women employment is growing faster than that of men, though the virtue of it is questionable because of lower wage payments. For a large part of the new economy a trade-off is observed between women employment expansion and their wage condition. There also exists an established sector where women have traditionally been accepted and are having stable employment and wage condition. In few sunrise sectors of the new economy women are enjoying both expanding employment and improving wage conditions. Though endowment plays a major role in determining absorption of workers, discrimination against women is also substantial leading to entry barrier. Most of the gender differences in wages are due to discrimination and only a small part is attributable to endowment gaps. This prompts for taking appropriate policies in the form of promotion of skill formation and mobilisation of women worker groups for better bargaining power.

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I. INTRODUCTION

The last decade and a half has witnessed unprecedented changes in the global economy both quantitatively and qualitatively. The worldwide web of production and exchange is bringing newer economies into its fold and is also changing the face of older ones. This period has witnessed on the one hand spectacular expansion of knowledge economy and information technology, and on the other most of the traditional sectors has become integrated with global dynamics. Another remarkable feature has been greater participation of women in the labour market especially in the new economy. While opportunities for participation have increased because of flexibilisation of the production system, which suits the women in particular, traditional biases have been slow in coming down. Thus condition of women workers in the new economy has seen a multifaceted dimension. Issues like sectoral distribution of women workers, magnitude & trends in gender bias, importance of educational achievements in determining both employment and remuneration must be explored not only to examine the changing role in the new economy but also to formulate appropriate policies for wider integration of women in the process of economic progress.

II. REVIEW OF EXISTING LITERATURE

A study by Gladwin and Thompson (1995) has found a significant rise in the women's quality of life with rising incomes in developing regions. It is argued that economic freedom brings a broader access to education, health services and political parties. Thus it is in tune with Amartya Sen's freedom perspective that economic unfreedom can breed social unfreedom. It has also been argued that restructuring of the economy in the process of globalisation with an expansion of the export oriented sector has introduced greater flexibility to the benefit of women workers in terms of

absorption of women into paid work and also a shift in the gender differentiated structure of occupations (Standing, 1996). These views have been contradicted by other scholars who argue that in spite of increase in women employment the labour market remain highly segregated (Elson, 1996). It is also believed that globalisation is not increasing the well being for those most in need of promised economic benefits (Stiglitz, 2002). In a study consisting of 40 countries it is found that women are employed in a narrow range of industries while men spread over a wider array of occupations (Anker, 1998). This is identified as a deterrent factor to upward mobility of the women. While horizontal segregation fell in majority of the countries, vertical segregation was found to increase. In India, even in the state of Kerala with very high female literacy, women in large are found to be engaged in the lower stratum of the job hierarchy (Eapen and Kodoth, 2003). In teaching they are engaged mostly in schools particularly nursery schools. In case of Medical profession most of them serve as nurses or health technicians (Eapen, 2004). In other occupations they are mostly engaged as Stenographers or Typists with very poor job prospect. A very large proportion of them are employed as maids, cooks, Launderer, beautician etc. It is argued that only better endowed women who are having sufficient access to resource and adequate education and skill can take the advantage of globalisation. This is leading to increasing inequality in opportunity among women (Jhabvala and Sinha, 2002). Given the debate it is imperative to look into condition of women workers, especially in the emerging sectors to examine whether the so called new economy is offering a better deal to them. This paper attempts to do so by exploring three issues. First, absorption of women in different industries especially in the new economy in India is explored. Second, wages received by them vis-à-vis the male workers has

been examined. Third, what part of gender differences are due to pure discrimination and what part can be explained by their endowment gaps have been ascertained.

III. METHODOLOGY AND DATABASE

The study is conducted at 2-Digit level NIC (1998) to bring out the changes at a disaggregated level. The New Economy has been identified as those sectors enjoying high employment growth. We have looked into Industrial Segregation, Entry Barrier, Wage Disparity, Endowment Gaps, and Wage Discrimination, for these identified sectors.

The disparity between the two gender-groups regarding Industrial Distribution is measured by the Segregation Index:

$$SI = \frac{D}{(k/2)}; \text{ where } D = \frac{1}{2} \sum_i |p_{i1} - p_{i2}|;$$

where p_{i1} and p_{i2} are proportions of Group-1 and Group-2 workers respectively in the i^{th} industry, assuming that the second group is notionally the disadvantaged group, i.e. females in this case. If there are k industrial groups, then D will vary between 0, indicating perfect similarity between the two groups, to $(k/2)$ for perfect mismatch between them. Hence, SI will vary between 0 and 1.

The disparity between the two groups may be caused by – (a) Endowment Gap between the two groups; and (b) Entry Barrier or Job market discrimination wherein group-2 members are prevented entry to certain activities even with similar endowment leading to their being underrepresented in those jobs.

This is done by fitting a Multinomial Logit model to predict industrial activity group of workers based on their endowment level – educational qualification in this case – separately for males and females. Putting parameters of the males on the endowment vector of the females we get Non-discriminatory industrial pattern for the females.

Once non-discriminatory proportions are obtained, Actual disparity can be decomposed into [Difference between Actual Male proportions and Non-discriminatory Female proportions] plus [Difference between Non-discriminatory Female proportions and Actual Female proportions]. In other words, Actual Disparity = $p_{i1} - p_{i2} = (p_{i1} - p'_{i2}) + (p'_{i2} - p_{i2})$, p'_{i2} is the non-discriminatory proportions of female in the i^{th} activity group. The first part is Segregation due to endowment differences and the second is due to Entry Barrier.

Wages have been converted to real wages at constant 1999-00 prices and Wage Earnings per Man-day are used for our study. While actual wages are compared to measure wage disparities, decomposition of wage-gap into that due to endowment and discrimination is done through estimation of wage function. This has followed the basic works of Mincer (1973) where Wage is expressed as function of Endowment level. Wage functions are estimated separately for Females and Males and then decomposition has been done using the Blinder-Oaxaca, Cotton-Neumark, and Brown-Banerjee models [Blinder, 1973; Oaxaca, 1973; Cotton, 1988; Neumark, 1988; Brown et al, 1980; Banerjee and Knight, 1985]. A Non-discriminatory wage rate has been computed and Actual Wage Gap between males and females has been expressed as [Difference between Male Actual Wage and Female Non-discriminatory wage] plus [Difference between Female Non-discriminatory wage and Female Actual Wage]. The first part is Wage gap due to endowment while the second is due to Pure Discrimination against females.

This briefly describes the methodology.

We use NSSO data on Employment and Unemployment from the 50th, 55th and 61st Round surveys of NSSO pertaining to the years 1993-94, 1999-2000, and 2004-05.

Let us now explore our findings.

IV. WORK PARTICIPATION RATE: AN OVERVIEW

Aggregate Labour Force Participation Rate (LFPR) is found to be marginally increasing from 42.4 per cent to 42.5 per cent during the decade (Table 1). This is a result of decline in LFPR during the first period and a recovery in the second period both for men and women. The declining trend is found to be limited to the rural areas while LFPR has substantially increased in the urban areas, especially for men. Thus the immediate effects of globalisation caused some adverse effect on the LFPR, though in the subsequent period consolidation followed. It is argued that with low growth of formal or organised sector employment in the immediately post reform period, workers, particularly the women are encouraged to withdraw from the labour market and take up activities at home which do not fall under system of national accounts (SNA) boundary but which contribute to family well being (Hirway, 2002).

Table 1
Labour Force Participation Rates – 1993 – 2004 (%)

<i>Sector</i>	<i>Male</i>			<i>Female</i>			<i>Total</i>		
	<i>1993</i>	<i>1999</i>	<i>2004</i>	<i>1993</i>	<i>1999</i>	<i>2004</i>	<i>1993</i>	<i>1999</i>	<i>2004</i>
Rural	56.1	54.0	55.5	33.1	30.2	32.3	44.9	42.3	43.9
Urban	54.3	54.2	57.0	16.5	14.7	17.8	36.3	35.3	38.2
Aggregate	55.5	54.1	55.7	28.3	26.0	28.7	42.4	40.4	42.5

Source: Author's calculations based on NSSO (1995), NSSO (2001), and NSSO (2006).

The overall employment has grown at the rate of 2.1 per cent pa during both the reference periods and hence during the decade as a whole (Table 2). Though the male employment growth rate (2.2 per cent pa) was marginally higher than female employment growth rate (1.9 per cent) during the initial period, the latter has far exceeded the former during the second period (1.7 per cent compared to 3.1 per cent). This has resulted in higher decadal growth rate of female employment compared to that of male employment. Similar phenomenon is observed in case of non-agricultural sector also where decadal growth rate of female employment surpassed that of the males. However, the virtue of such high level of women employment growth is questioned. It is found that self-employment is growing at a faster rate (4.0 per cent

pa) than wage employment (3.4 per cent pa). This phenomenon is more pronounced for the women, where the corresponding figures are 4.4 per cent and 3.5 per cent respectively. According to ILO, higher growth of self-employment indicates that vulnerable employment is rising at a faster rate. It is also argued that even for wage employment, in many cases women are employed because they are available at a lower wage rate compared to their male counterparts. They generally get absorbed in the lower rungs of different occupations with very little prospects of upward mobility. Thus not all of the rising women employment is to be seen as a boon, there are elements of distress in it also. We would now focus on women employment in the New Economy in India.

Table 2
Growth of Employment in India – 1993-2004 by NIC Activity Groups (% pa)

<i>NIC Activity Groups</i>	<i>Male</i>	<i>Female</i>	<i>All Total</i>
	<i>1993-04</i>	<i>1993-04</i>	<i>1993-04</i>
Tanning/Dressing/Manuf of Leather Pr	4.5	6.0	4.7
Publishing & Printing	4.8	6.0	4.9
Manuf of Non-Metallic Mineral Pr	3.7	5.9	4.2
Manuf of Fabricated Metal Pr	5.0	3.7	4.9
Manuf of Office/ Computing Machinery	12.9	8.1	11.9
Manuf of Electrical Machinery	5.6	8.6	5.8
Recycling	15.8	0.0	18.4
Construction	7.4	5.2	7.1
Sale/Maintenance of Motor Vehicles	7.6	20.0	7.8
Hotels & Restaurants	5.3	8.2	5.8
Air Transport	4.8	16.6	6.3
Post & Telecom	9.9	15.1	10.4
Insurance and Pension	6.6	6.2	6.5
Real Estate Activities	13.9	34.1	14.6
Renting of Machinery & Equip	12.9	2.9	12.3
Computer Related Activities	28.3	26.4	28.0
Education	4.3	7.4	5.5
Health & Social Work	4.8	7.3	5.6
New Economy Sectors^a	6.3	7.0	6.4
of which			
Established Sectors ^a	6.1	6.7	6.2
Emerging Sectors ^a	7.4	10.0	7.6
All Non-Agricultural Sectors	3.6	4.0	3.7
All Sectors	2.0	2.5	2.1

Source: Author's calculations based on NSSO (1995), NSSO (2001), & NSSO (2006).

Note: a – New Economy, Established and Emerging Sectors are as defined in text.

Table 3
Share & Growth of Employment in New Economy Sectors – 1993-2004

NIC Activity Groups	Share in Total Non-Agro Employment (%)			Growth in Employment (% pa)		
	1993	1999	2004	1993-99	1999-04	1993-04
Tanning/Dressing/Manuf of Leather Pr	0.6	0.6	0.6	4.5	4.9	4.7
Publishing & Printing	0.4	0.5	0.5	7.1	2.3	4.9
Manuf of Non-Metallic Mineral Pr	2.1	2.2	2.3	3.4	5.3	4.2
Manuf of Fabricated Metal Pr	1.2	1.5	1.3	7.7	1.8	4.9
Manuf of Office/ Computing Machinery	0.0	0.0	0.0	8.9	15.6	11.9
Manuf of Electrical Machinery	0.3	0.6	0.4	15.2	-4.4	5.8
Recycling	0.0	0.0	0.0	8.1	32.2	18.4
Construction	9.3	10.8	13.3	5.8	8.7	7.1
Sale/Maintenance of Motor Vehicles	0.8	1.3	1.3	10.7	4.5	7.8
Hotels & Restaurants	2.4	2.9	3.0	6.3	5.2	5.8
Air Transport	0.0	0.1	0.1	3.8	9.4	6.3
Post & Telecom	0.5	0.8	1.0	12.3	8.2	10.4
Insurance and Pension	0.2	0.2	0.3	-0.1	15.1	6.5
Real Estate Activities	0.1	0.1	0.2	6.4	25.2	14.6
Renting of Machinery & Equip	0.1	0.2	0.3	13.0	11.5	12.3
Computer Related Activities	0.0	0.2	0.4	33.1	22.0	28.0
Education	4.8	5.4	5.8	5.1	5.9	5.5
Health & Social Work	1.5	1.8	1.8	6.5	4.5	5.6
New Economy Sectors^a	24.5	29.2	32.7	6.2	5.6	6.4
of which						
Established Sectors ^a	20.1	23.1	26.3	5.5	5.8	6.2
Emerging Sectors ^a	4.3	6.1	6.5	9.2	4.7	7.6
Total Non-Agricultural Employment	100.0	100.0	100.0	3.1	3.6	3.7

Source: Author's calculations based on NSSO (1995), NSSO (2001), & NSSO (2006).

Note: a – New Economy, Established and Emerging Sectors are as defined in text.

V. IDENTIFICATION OF THE NEW ECONOMY

The NIC groups are considered at two-digit level to identify the *New Economy*. It comprises of those sectors enjoying highest growth rates especially in the recent times (Table 3). It is found that Manufacture of Office Accounting & Computing Machinery; Manufacture of Non-Metallic Mineral Products; Tanning & dressing of Leather; Publishing, Printing & Reproduction of Recorded Media are enjoying highest growth rate of employment for both the quinquenna and hence also for the decade. Other sectors enjoying high employment growth rates are Manufacture of Electrical Machinery & Apparatus; Manufacture of Fabricated Metal Products except Machinery & Equipment; Computer & Related Activities; Real Estate Activities; Renting of Machinery & Equipment Without Operator & of Personal & Household

Goods; Post & Telecommunications; Sale, Maintenance & Repair of Motor Vehicles & Motorcycles; Construction; Insurance & Pension Funding (except Compulsory Social Security); Air Transport; Hotels & Restaurants; Health & Social Work; Education; and Recycling.

Out of these forerunning sectors those that are also enjoying comparatively higher share in total employment are Construction, Education, Hotel & Restaurant, Health, and Manufacture of Non-metallic Mineral Products (Table 3 again).

Table 4
Women Employment in India – 1993-2004 by NIC Activity Groups

NIC Activity Groups	Women Employment ('000)			Share of Women in Employment (%)		
	1993	1999	2004	1993	1999	2004
Tanning/Dressing/Manuf of Leather Pr	88.8	80.0	168.4	13.7	9.5	15.7
Publishing & Printing	49.6	57.5	94.7	10.5	8.0	11.8
Manuf of Non-Metallic Mineral Pr	522.7	736.6	984.8	21.8	25.2	26.0
Manuf of Fabricated Metal Pr	68.1	120.6	102.1	5.3	6.0	4.6
Manuf of Office/ Computing Machinery	5.8	5.8	13.7	24.3	14.5	16.6
Manuf of Electrical Machinery	22.3	88.9	55.5	6.6	11.3	8.8
Recycling	0.0	2.2	15.7	0.0	12.5	22.2
Construction	1368.9	1575.9	2390.7	13.1	10.8	10.8
Sale/Maintenance of Motor Vehicles	7.8	18.7	57.8	0.8	1.1	2.7
Hotels & Restaurants	415.9	712.1	989.0	15.3	18.1	19.5
Air Transport	4.2	31.1	22.5	7.5	44.8	20.7
Post & Telecom	47.9	118.4	224.3	8.7	10.7	13.7
Insurance and Pension	36.4	28.7	70.4	15.3	12.1	14.8
Real Estate Activities	1.3	3.5	33.1	1.4	2.6	8.0
Renting of Machinery & Equip	10.5	4.9	14.3	8.5	1.9	3.2
Computer Related Activities	9.8	41.5	129.0	20.9	15.9	18.2
Education	1834.9	2685.3	4028.8	34.1	37.0	41.7
Health & Social Work	499.8	865.4	1082.2	29.9	35.4	35.5
New Economy Sectors^a	4994.8	7177.0	10477.0	18.2	18.2	19.2
of which						
Established Sectors ^a	4642.3	6575.4	9475.5	20.6	21.1	21.7
Emerging Sectors ^a	352.6	601.7	1001.4	7.3	7.3	9.3
Total Non-Agricultural Employment	21993.8	25325.9	33703.5	19.6	18.8	20.2
Total Employment	88692.7	99284.94	115630.8	29.6	29.2	30.6

Source: Author's calculations based on NSSO (1995), NSSO (2001), & NSSO (2006).

Note: a – New Economy, Established and Emerging Sectors are as defined in text.

Thus, we can categorise these industries into two groups. First, the sectors with high share in total employment and high growth rate in recent times can be termed as the *Established Sectors*. These include Construction, Education, Hotel & Restaurant, Health, and Manufacture of Non-Metallic Mineral Products. Within these sectors,

women are doing well in Education, Health, and Manufacture of Non-Metallic Mineral Products. Here the growth rate of women employment is higher compared to male, leading to their rising share (Table 2 & Table 4). The shares of women in these sectors are also higher compared to other sectors. Thus, among Established sector, women are lagging behind in Construction and Hotel & Restaurant activities.

On the other hand, sectors with high employment growth rate recently but not substantial share in aggregate employment may be termed as *Emerging Sectors*. They include Tanning of Leather, Publishing & Printing, Manufacture of Fabricated Metal Products, Manufacture of Office Accounting Machinery, Manufacture of Electrical Machinery, Recycling, Sale & Repair of Motor Vehicle, Air Transport, Post & Telecom, Insurance & Pension, Real Estate Activities, Renting of Machinery, and Computer-related activities. In all these sectors except Manufacture of Fabricated Metal Products and Renting of Machinery, women are doing well in terms of relatively higher employment growth and hence rising share in employment (Table 2 & Table 4).

Table 5
Female-Male Ratio in Labour Force & Employment – 1993 - 2004

<i>Females per 1000 Males in</i>	<i>1993</i>	<i>1999</i>	<i>2004</i>
Labour Force	474	455	500
Employment – Total	477	458	499
Employment – Non-Agricultural	244	231	254
Employment – New Economy	223	223	238
Employment – Established Sectors	259	268	277
Employment – Emerging Sectors	79	79	102

Source: Author's calculations based on NSSO (1995), NSSO (2001), and NSSO (2006).

VI. GENDER DISPARITIES IN ACCESS TO LABOUR MARKET

1. Differences in Employment Proportions

Though women are surging ahead in most of the new economy sectors, both established & emerging, their shares in employment still lags far behind that of males.

This is manifested by high Segregation Index (SI) between males & females, though

its value is declining over time. SI is lower in magnitude for the Established sectors where women have traditionally been accepted compared to emerging sectors where women's entry is a relatively newer phenomenon.

There is no doubt that a part of this difference is due to lower work participation of the women. It is observed that Female-Male ratio in overall employment is almost the same as that in the labour force (Table 5). This indicates that once the women participate in the labour market there is not much difference between males & females in getting jobs in an overall sense. However, F-M ratio in the Non-agricultural employment is much lower than their ratio in labour force. Thus majority of the women seeking jobs are engaged in the agricultural sector. In the non-agricultural sector their absorption rate is lagging far behind the males indicating substantial disparity in the labour market.

Table 6
Components of Disparity in Proportions of Workers across Gender

NIC Activity Groups	Components of Actual Gap in Proportions (%)					
	Endowment Diff			Entry Barrier		
	1993	1999	2004	1993	1999	2004
Leather Pr	80.8	73.4	82.5	19.2	26.6	17.5
Publishing & Printing	89.5	85.0	89.3	10.5	15.0	10.7
Non-Metallic Mineral Pr	94.0	ALL	ALL	6.0	NIL	NIL
Fabricated Metal Pr	70.3	68.1	63.5	29.7	31.9	36.5
Office/ Computing Machinery	ALL	ALL	86.2	NIL	NIL	13.8
Electrical Machinery	83.6	89.1	79.3	16.4	10.9	20.7
Recycling	51.3	70.8	75.4	48.7	29.2	24.6
Construction	74.0	66.5	66.1	26.0	33.5	33.9
Sale/Maint of Motor Vehicles	71.0	68.1	68.4	29.0	31.9	31.6
Hotels & Restaurants	85.8	94.2	95.2	14.2	5.8	4.8
Air Transport	87.4	ALL	ALL	12.6	NIL	NIL
Post & Telecom	93.2	95.1	95.9	6.8	4.9	4.1
Insurance and Pension	ALL	96.8	94.6	NIL	3.2	5.4
Real Estate Activities	76.1	75.4	79.0	23.9	24.6	21.0
Renting of Machinery & Equip	89.9	69.3	67.9	10.1	30.7	32.1
Computer Related Activities	ALL	ALL	ALL	NIL	NIL	NIL
Education	ALL	ALL	ALL	NIL	NIL	NIL
Health & Social Work	ALL	ALL	ALL	NIL	NIL	NIL
Segregation Index – New Econ^a	91.4	95.6	91.1	9.4	4.6	9.8
Segregation Index - All NonAgro Sec^b	92.6	92.5	91.9	7.4	7.5	8.1

Source: Author's calculations based on NSSO (1995), NSSO (2001), & NSSO (2006).

Note: a - New Economy Sectors are as defined in text. b - All Non-Agricultural Sectors. Decomposition of Actual Gap into Endowment Gap and Entry Barrier are as defined in text.

2. Entry Barrier

We intend to inquire whether this high SI is due to Discrimination against women in labour market creating Entry Barriers or simply because of the differences in endowment between the females and the males (as the females seldom get the opportunity to acquire adequate skill vis-à-vis their male counterpart). It is observed that a major part of segregation is due to the endowment factor for most of the activity groups. But Entry Barrier is also substantial even in this new era (Table 6).

In the established sectors where women have been doing well EB is absent for all the periods indicating that women are acceptable in these sectors, especially in Health and Education where personal care is an important attribute. Among the emerging sectors, EB is absent in sectors like Computer-related activities and Air transport, which require soft skills. EB is low in Post & Telecom, Hotel & Restaurant, and Pension & Insurance sectors and is decreasing in sectors like Tanning, Recycling, and Real Estate. EB is high and rising in recent periods in Manufacture of Fabricated Metal Product, Construction, and Renting, while it is rising in Manufacture of Office Accounting Machinery & Electrical Equipment. These are the areas of concern.

It appears that in sectors with soft skill requirements and where inter-personal interface is necessary entry barrier for women cease to exist. On the other hand, in sectors undergoing mechanisation and requiring use of heavy equipment, men are getting an advantage over women. It may therefore be inferred that more and more women are being absorbed in the labour market in recent times at least in the sectors belonging to the new economy. The sectors are therefore expanding job opportunities for the women. However quality of many of these jobs have been questioned and needs further investigations.

VII. HOW GOOD IS WOMEN EMPLOYMENT?

It is often witnessed that women are discriminated against not only in terms of access to labour market but also while wage-setting. Even in those sectors where Entry Barrier is absent, substantial wage discrimination is evident. In this section we briefly describe the wage disparities among genders and decompose it into a part due to endowment gap and another due to discrimination.

Table 7
Average Wages in New Sector Economy Sectors (Rs per manday at const 1999 prices)

NIC Activity Groups	Female			Male			Female-Male Ratio		
	1993	1999	2004	1993	1999	2004	1993	1999	2004
Leather Pr	28	45	38	58	78	73	48.3	57.7	52.1
Publishing & Printing	79	166	89	73	103	110	108.2	161.2	80.9
Non-Metallic Mineral Pr	26	45	35	61	70	67	42.6	64.3	52.2
Fabricated Metal Pr	57	66	96	68	92	77	83.8	71.7	124.7
Office/ Computing Machinery	155	183	208	191	237	244	81.2	77.2	85.2
Electrical Machinery	84	64	56	113	152	97	74.3	42.1	57.7
Recycling	na	na	41	99	43	49	na	na	83.7
Construction	29	48	44	50	68	63	58.0	70.6	69.8
Sale/Maint of Motor Vehicles	164	53	82	44	55	61	372.7	96.4	134.4
Hotels & Restaurants	37	75	68	53	79	76	69.8	94.9	89.5
Air Transport	151	246	485	173	297	435	87.3	82.8	111.5
Post & Telecom	120	157	148	114	159	183	105.3	98.7	80.9
Insurance and Pension	153	215	293	181	244	503	84.5	88.1	58.3
Real Estate Activities		116	43	112	135	70	0.0	85.9	61.4
Renting of Machinery & Equip	70	46	138	50	51	63	140.0	90.2	219.0
Computer Related Activities	95	192	309	122	216	305	77.9	88.9	101.3
Education	97	142	129	137	198	198	70.8	71.7	65.2
Health & Social Work	101	128	129	132	192	165	76.5	66.7	78.2
New Economy Sectors ^a	74	110	103	81	109	106	91.4	100.9	97.2
Established Sectors ^a	73	108	98	80	108	99	91.3	100.0	99.0
Emerging Sectors ^a	90	131	154	85	112	131	105.9	117.0	117.6
All Non-Agricultural Sectors	56	88	82	89	121	117	62.9	72.7	70.1

Source: Author's calculations based on NSSO (1995), NSSO (2001), & NSSO (2006).

Note: a - New Economy, Established and Emerging Sectors are as defined in text.

1. Wage Disparity

Real wage rates showed a rising trend in the first quinquenna and a marginal declining trend in the second, though rising over the decade (Table 7). The average daily wage for men has increased from Rs 89 to Rs 117 over the decade. The corresponding figures for the women are Rs 56 and Rs 82 respectively. Thus, Females were getting an average wage about 63 per cent of that of the Males in 1993-94 and this Female-

Male ratio has increased to about 70 per cent over the decade, hinting at some reduction in gender wage disparity. In emerging sectors like Air Transport and Computer-related activities wage disparity against the women are absent. The other sectors of this category are Manufacture of Fabricated Metal product, Sale & Repair of Motor Vehicles and Renting of machinery and Equipments. However, even in established sectors like Education this ratio is declining and women earn only 65 per cent of male wages in recent period. The sectors with very high wage disparity are Tanning of Leather, Manufacture of Non-metallic Mineral Products, Electrical Machinery, and Insurance & Pension.

Table 8
Components of Disparity in Wages across Genders

NIC Activity Groups	Components of Male-Female Wage Gap (%)					
	Endowment Diff			Remuneration Gap		
	1993	1999	2004	1993	1999	2004
Leather Pr	5.0	15.0	12.0	95.0	85.0	88.0
Publishing & Printing	na	na	10.0	na	na	90.0
Non-Metallic Mineral Pr	24.0	26.0	22.0	76.0	74.0	78.0
Fabricated Metal Pr	NIL	NIL	na	ALL	ALL	na
Office/ Computing Machinery	na	na	116.0	na	na	NIL
Electrical Machinery	NIL	16.0	53.0	ALL	84.0	47.0
Recycling	na	na	na	na	na	na
Construction	17.0	27.0	24.0	83.0	73.0	76.0
Sale/Maint of Motor Vehicles	na	NIL	na	na	ALL	na
Hotels & Restaurants	25.0	ALL	47.0	75.0	NIL	53.0
Air Transport	na	NIL	na	na	ALL	na
Post & Telecom	na	NIL	3.0	na	ALL	97.0
Insurance and Pension	na		NIL	na		ALL
Real Estate Activities	na	NIL	53.0	na	ALL	47.0
Renting of Machinery & Equip	na	ALL	na	na	NIL	na
Computer Related Activities	na	na	na	na	na	na
Education	13.0	13.0	10.0	87.0	87.0	90.0
Health & Social Work	47.0	28.0	10.0	53.0	72.0	90.0

Source: Author's calculations based on NSSO (1995), NSSO (2001), & NSSO (2006).

Note: na – Females earning at par with men; Decomposition of Actual Gap into Endowment and Remuneration Gaps are as defined in text.

2. Wage Discrimination

It is observed that differences in endowment play a minor role in explaining such wage inequalities while substantial part of it is due to discrimination (Table 8).

Women are thus offered lower wages compared to males with similar endowment in same sectors. Perhaps this is due to the fact that even with adequate endowment,

women adhere to the lower stratum of each industry and are paid lower wages. This gender exploitation is something we cannot be proud of in the new era.

VIII. WAGE-EMPLOYMENT DYNAMICS IN THE NEW ECONOMY

Though women employment and wages are both rising in recent times a trade-off between them is observed in many of the sectors. In sectors like Sale & Repair of Motor Vehicles, Renting, Hotel & Restaurant, Manufacture of Fabricated Metal Products, Office Accounting Machinery, and Construction, the employment situation of women is deteriorating as evident from their declining share in total employment. But here the wage situation for them is improving in terms of rising Female-Male wage ratio. Wage discrimination is also observed to be falling in these sectors indicating that the mismatch between endowment possessed and wages received is declining for the women vis-à-vis their male counterpart.

Box 1

Employment-Wage Dynamics of Women Workers in the New Economy

	<i>Employment Situation Deteriorating</i>	<i>Employment Situation Improving</i>
<i>Wage Situation Deteriorating</i>		<ul style="list-style-type: none"> • Publication & Printing; • Post & Telecom; • Insurance & Pension; • Real Estate; • Manf of Non-Metallic Mineral Pr • Manf of Electrical Machineries
<i>Wage Situation Stable – Discrimination Rising</i>		<ul style="list-style-type: none"> • Education; • Health & Social Work
<i>Wage Situation Improving – No/Falling Discrimination</i>	<ul style="list-style-type: none"> • Sale & Repair of Motor Vehicles; • Renting; • Hotel & Restaurant; • Manf of Fabricated Metal Products; • Manf of Office Acc Machinery; • Construction 	<ul style="list-style-type: none"> • Air Transport; • Computer-related activities • Tanning/Dressing of Leather

Source: Author's calculations

On the other hand, for sectors like Publication & Printing, Post & Telecom, Insurance & Pension, Real Estate, and Manufacture of Non-Metallic Mineral Products, & Electrical Machineries, employment situation is improving but wage situation is deteriorating.

In Education and Health sectors, employment situation is improving and wage situation is stable, but wage discrimination is found to be rising. In other words, given their endowment levels, the women should have been paid higher wage if we compare the situation with their male counterparts.

Only in Air Transport and Computer-related activities both employment and wage situation are improving while wage discrimination is also absent.

Thus even in the new economy women are being discriminated against in most of the activity groups, including those traditionally frequented by them. The only silver lining among all these clouds is that for some of the emerging sectors like Air Transport, Computer-related activities, Manufacture of Fabricated Metal Products, Sale & Repair of Motor Vehicles, and Renting Services, wage discrimination is non-existent, at least in recent years.

IX. CONCLUSION

1. Summary Findings

Thus the position of women in the new economy can be categorised into three groups. First, there are a large number of activity groups where there appears a trade-off between wage and employment situation of the women. In these sectors, they are either earning wages at par with the men at the cost of their declining share in total employment, or, enjoying rising share in employment at the cost of substantially lower wages vis-à-vis the men. Thus the argument that in most of the sectors women are employed because they are available at a much lower wage rate compared to the men is still valid. Second are the established sectors where women enjoy a stable position both in terms of wages and employment (e.g. Health, Education etc.). These sectors require interpersonal care and human interface and hence naturally women are highly acceptable in these sectors for their inherent qualities in handling such

activities. Though there is no entry barrier here, substantial mismatch exists between the endowment levels and the wages earned by the women and the gap is found to be increasing over time. In the third category come the sunrise sectors of the new economy (e.g. Air Transport, Computer-related activities), which are enjoying high employment growth rates, substantial absorption of women workers, and absence of wage disparity. In these sectors women are doing well both in terms of rising share in employment and equal wages as compared to the men workers. These sectors require soft skill and there is no dearth of acceptability of women leading to absence of entry barrier but these sectors are still a small part of the labour market.

2. Policy Suggestions

It is evident that endowment levels play a very vital role in determining sectoral distribution of women and their absorption in the labour market. Gender discrimination starts at an early age and women often do not get the opportunity to acquire adequate education or skill and thus lag behind the men in terms of employability. Promoting education and skill formation among women emerge to be one of the most important policy suggestions of this study. This should include not only general education but vocational and technical education also.

Next comes the issue of segmented labour market whereby women face entry barrier into most of the activity groups in spite of their endowment levels, barring a few where interpersonal interface is necessary. A large number of socio-economic factors are at the root of this problem and requires both social awareness and changes in the mindset of the employers.

The issue of quality of employment should also be addressed. Women earn lower wages than men and the merit of expanding women employment in the new era is questioned. The trade off between women employment expansion and their wage

conditions in a major part of the forerunning sectors confirms the notion that women are employed largely because they are available at a lower wage compared to men. This supports the hypothesis of distress expansion of women employment even in the new economy. In these sectors strict vigil on wage conditions and formation of women worker groups would enable them to fight for a better bargain.

Even in the sunrise sectors where women enjoy both favourable wage situation and employment opportunities, they are exploited in various forms. Physical and mental harassment, sexual offences, remain unreported but are not uncommon in the workplace. Unless and until women are provided adequate safety measures and social outlook towards working women changes they would remain vulnerable.

They deserve an equal footing and policies from the above and movements from the below are necessary to ensure a fair share to them in the New Economy.

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