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**Conference Paper**

## Gender Differentials In Labour Markets - The Case Of Portugal

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**40<sup>th</sup> Congress of the European Regional Science Association**  
**Barcelona 29<sup>th</sup> August – 1<sup>st</sup> September 2000**

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**Gender differentials in Labour Markets**  
**The case of Portugal**

Abstract

Low-wage employment is a major factor of household poverty in Portugal. There are also evidence of job opportunity differences and wage discrimination against women, which account for higher probabilities of low-wage employment and fewer chances for out of low-wage employment trajectories.

This paper explores gender differentials in mainland Portugal and its North Region, using secondary analysis of statistic information about men and women in labour market and microdata about wages and other characteristics of individual workers.

Particular attention is payed to the spatial evolution of low-wage employment structure and low-wage differentials in recent years, in order to investigate explanatory variables other then education and skill levels, such as economic sector, firm size and firm location.

## **I – Introduction**

The main purpose of this paper is to analyse recent evolution of gender differentials in labour market in Portugal and one of its planning and co-ordination regions, North Region<sup>1</sup>. This work is a first presentation of a project of spatial analysis of gender disparities in Portugal. In order to evaluate the essential characteristics and trend evolution of the phenomena under study, we rely mostly on statistical data collected and published by the National Institute of Statistics (INE) and on micro data information concerning Portuguese workers gathered annually by the Ministry of Employment and Social Security (MESS). Our analysis covers the period from 1992 to 1997 (last year with available micro data information).

The rest of the paper is organised as follows. Section II presents women's position in labour market in North Region and Portugal in the period under consideration, reflecting on different dimensions of gender inequality. Section III explores the evolution of wage distribution by gender as well of incidence of low-wage employment by education and qualification levels in several sectors of economic activity. Finally, Section IV stresses the main findings.

## **II – Women's Position in Labour Market**

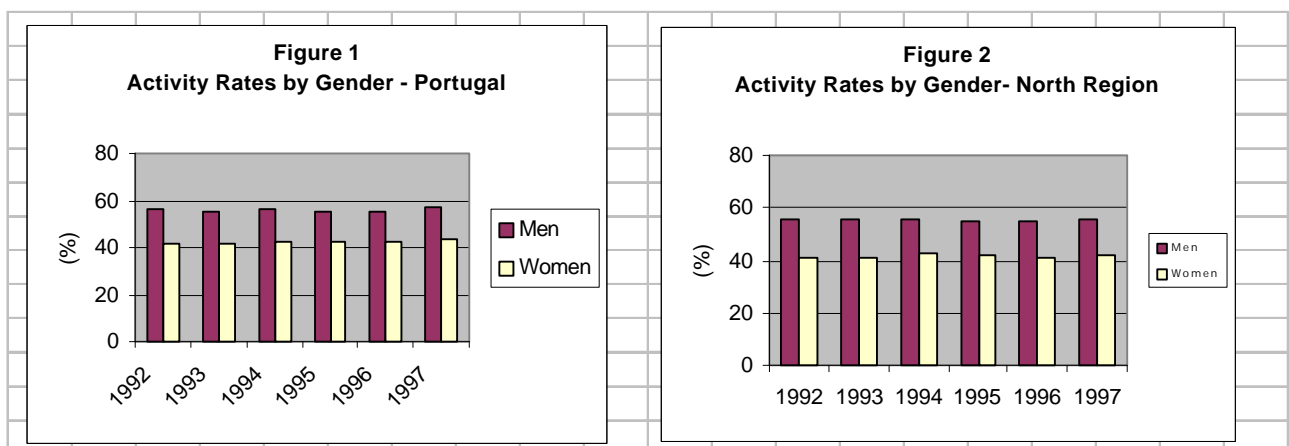
Gender inequality in the labour market reaches far more dimensions than simply wage differentials. According to a recent study on 'Policies for Equality in European Union' (CIDM, 1997), the following areas were mentioned as components of a system of indicators on women's position in the labour market: conditions of employment participation, degrees of security or precarious integration, sector or professional segregation, employment status, access to professional training, employment programmes and income substitution programmes, degree of satisfaction with work and social attitudes towards female work.

Furthermore, even within a multidimensional approach, each of the different dimensions should be developed in a broad set of analysis and indicators if we are interested in evaluate equal opportunities for individuals, regardless of gender. For example, reduce conditions of employment participation of women to activity rates by gender can be misleading. And this can happen by two, not necessarily convergent, reasons. First, even if a greater percentage of women are present in active population, they didn't necessary benefit from equal opportunities with respect to work - what can that rate express about recruitment practices, progression conditions, labour continuity, or vertical segregation? Second, even if a greater percentage of women are present in active population, in equal conditions relatively to men, this situation doesn't necessary represent a social welfare improvement, because we cannot dismiss the crucial importance of decision making within the household about gender arrangements and individual choices related to investment in human capital, economic independence, self-fulfilment and work (paid or not) (Perrons and Gonäs, 1998).

With these limitations in mind, increased by those following from information availability from national systems of statistics about this subject, we try to gather significant statistical information about recent evolution of women's in labour market.

### 1. Activity and employment

The evolution of activity rates by gender over the 1992-1997 period in Portugal and North Region is presented in the following figures.



Activity rates by gender show a similar pattern both in North Region and in Portugal. After a steady increase of female participation rates in Portugal, following a long-term trend started at the beginning of the 70's when women began to integrate more fully in labour market, activity rates seems to be stabilised in a level quite below that one of men. Activity rates by age groups reflect a more equal attitude towards employment of younger people, with the level of divergence between men and women growing with age<sup>2</sup>.

Women share in total employment slightly grew over the period under analysis, assuming in 1997 the values of 45,0 % in Portugal and 45,4 % in North Region. However, we can observe very different situations when different sectors of activity are taken into consideration. Women are the majority of workers in primary sector (52,5% in Portugal and 55,7% in North Region, in 1997) and in the service sector (52,2% and 51,8%). Feminization of work is even more expressive in some subsectors, namely textiles and footwear (71,2% and 68,1%), education (76,5% and 76,8%) and health and social services (77,1% and 76,2%). In a rough draft, women seem to continue to be predominant in activities where work is less qualified and where salaries are traditionally lower.

If we consider gender distribution by professional groups, although women situation had progress in recent years, we still are confronted with women's vertical segregation.

In fact, even if for some professionals where employment is associated with higher salaries and status women share of employment slightly increased in national level - like top executives and managers (from 31,1% in 1992 to 33,2% in 1997) or intellectual and scientific professions (49,2% to 50,7%) - its absolute level still is diminutive. Moreover, there is some evidence that women concentrate in lower levels within this better off professional groups, that is, a certain degree of occupational vertical segregation remains (Casas, 1997:199).

On the other hand, women are over and increasingly represented in professional groups associated with lower salaries and status, like agriculture and fishing workers (where women share at national level increased from 51,6% to 52,1%), non qualified workers (where share increased from 56,7% to 58,2%) or personal services workers (where share rose from 60,5% to 63,5%).

At a regional level, North Region exhibits a similar pattern, although men and women's positions are even less equalitarian. Employment feminisation is weaker in top socio-economic groups, like top executives and managers (where women share was 32,5% in 1997) and intellectual and scientific professions (47,9% in the same year). Conversely, employment feminisation is stronger in bottom socio-economic groups, like agriculture and fishing workers (where women share was 53,8% in 1997), or personal service workers (69,3%, in the same year).

Vertical segregation is associated with education opportunities and social attitudes regarding the role of women in the hierarchical structure of organisations.

In what concerns education, we have assisted in Portugal to a striking movement of reinforcement of education skills, with women assuming a prominent role. In fact, for several years now, women registers higher level of academic success in every educational level, and exceed men both in the access to universities (56,6% university students in 1997 where women) as well in university accomplishment (women account for 62,9% of new university degrees in 1997).

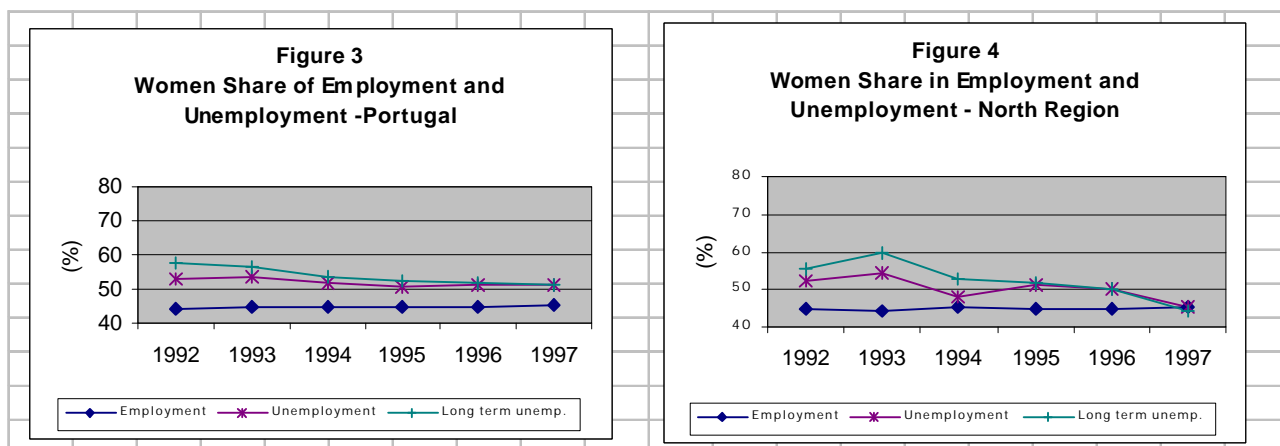
However, as characteristic of southern societies in Europe, the education structure of the population still reveals enormous deficits, for both sexes but especially for women. From 1992 to 1997 the education level structure of population (aged 15 or more) shows a small improvement of weight of university education (from 4,9% to 5,4%), and the decrease of weight of lower levels of education (from 69,8% to 66,3% for persons with 6 years of schooling or less). This evolution was much more expressive for women than men, and at North Region than at the national level.

## 2 Unemployment and precarious employment

Unemployment rates rose at national and regional level for both genders between 1992 and 1997. But while in Portugal the gap between men and women unemployment rates remained at the same level (with rates growing from 3,5% and 4,9% to 6,1% and 7,5%, respectively), in North Region both rates rose to the same figure in 1997 (from 3,1% and 4,2% to 6,8%).

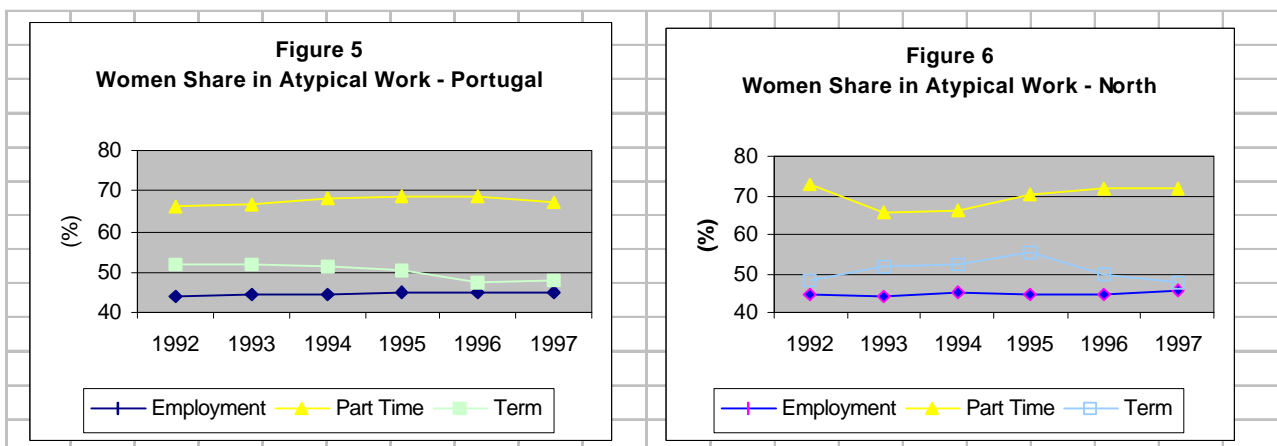
However, unemployment rates differ significantly within age groups, decreasing with age. They are higher for younger workers (less than 25 years), where the figure increased from 10% to 14,8%, than for more older workers (35 or more) where rates grew from 2.2% to 4,8%. Within the younger group, women unemployment rates are particularly high, both in national (18,7%) as well as regional (13,5%) levels, in 1997.

Women are also more than proportionately affected by unemployment spell. For unemployment with more than one year of duration (hereafter, long term unemployment) rates are even more differentiated by gender. Figures 3 and 4 present Women share in employment, unemployment and long term unemployment for Portugal and North Region, respectively. Women are effectively more affected by unemployment, been women share in long term unemployment continuously higher in Portugal over the years 1992 to 1997. North Region exhibits, in this respect, a better evolution, with unemployment and long term unemployment shares following a



decreasing trajectory that converge to women share in total employment in the region.

The degree of security or precariousness of employment integration can also appreciate women's position in labour market. Significantly, atypical forms of work<sup>3</sup> puts forward evidence of discrimination against women, as may be seen in the following figures.



Part time work as a much higher incidence among women both in national and regional levels. Part time work seem to be assuming a even more relevant importance in North Region, perhaps as a strategy to obtain a minimum revenue from work in an environment where women have the propensity to be touched by 'discourage effect'. This effect, the behaviour of withdraw from active search of a full time job, when a recessive conjuncture gives the worker the believe that is impossible to find a job, as been identified in North Region affecting specially women (Castro and Gonzalez, 1999:54).

Women also have a higher proportion of term-contracts then total employment, which again expresses a more vulnerable integration in labour market. However this difference has narrowed in recent years in Portugal and in North Region.



### **III - Evolution of wage distribution by gender**

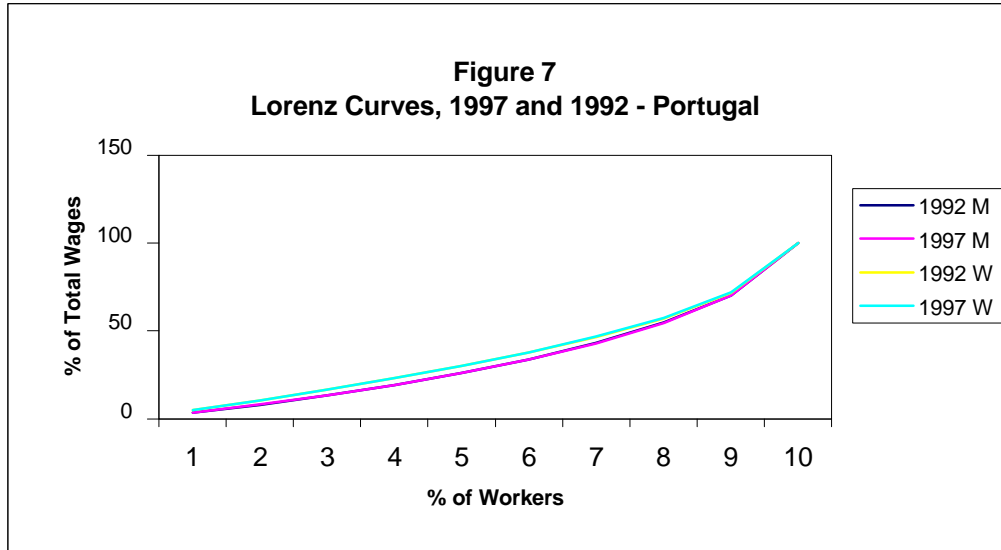
To go further in the analysis of gender differentials we present in this section some results on wage distributions, average wages, low wages incidence and employment structure by education and skill levels, firm size and sector of activity and their evolution from 1992 to 1997.

For this analysis we use the most extensive, complete and reliable micro data set available, the *Quadros de Pessoal* (QP) collected annually by the Ministry of Employment and Social Security through a compulsory questionnaire to firms employing salaried workers in Portugal<sup>4</sup>. We selected from the 1992 and 1997 databases all salaried workers employed full time in firms located in mainland Portugal. Information on nearly 1.7 million workers in 1992 and 1.8 million workers in 1997 was considered.

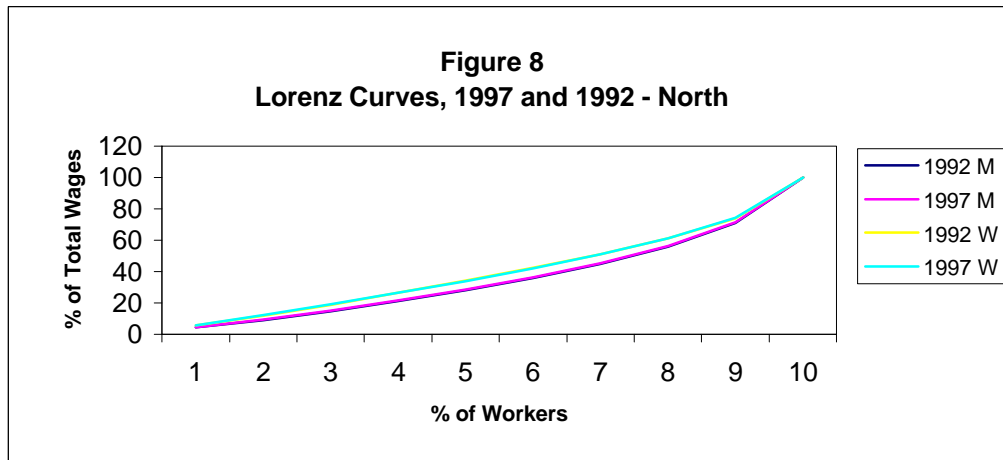
#### **1. Wage distributions**

To evaluate wage distributions we consider monthly earnings before tax which gives the closest idea of actual earned income from work, because it includes normal and overtime payments and all the regularly pay subsidies, bonuses and benefits.

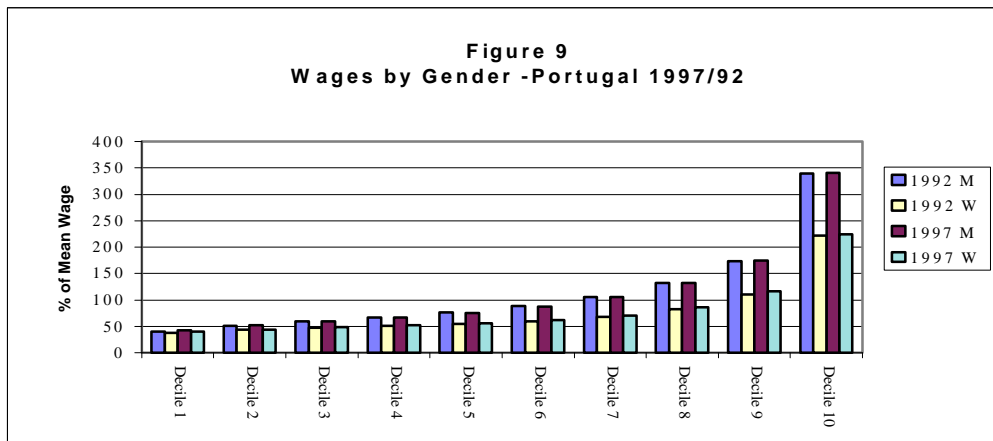
The Lorenz curves for Portugal by gender show that the inequality in wage distribution for each gender did not suffer a significant evolution from 1992 to 1997.



In the North Region the wage distribution evolution was similar to that found for the whole country.



It is interesting to notice that women distribution is less unequal than that of men, although as we see from the following figures, women distribution of wages had values that were below those of men. The gap between women and men in wage distribution was narrower for the lower deciles, and wider for the upper deciles.



## 2. Average wages

From table A1 in appendix we can see that women wages are 69% (1992) and 71% (1997) of men wages which means that at national level there was a very slight reduction of the gender wage differences.

It is also relevant to notice that the wage gap remained when men and women with equal education and skill level are compared. The wage gap, here represented by the ratio of mean wages of women towards men, did not narrow for higher education levels. On the contrary, it was wider for those with a medium or college full degree. It is also worth notice that, from 1992 to 1997, it was for the higher education level, full college degree, that the wage gap increased mostly.

The analysis by skill level shows a favourable evolution of the wage gap from low skilled to highly skilled, and also from non-skilled to apprentices. The wider gap is found for executives. This seems to reveal wage discrimination against women and/or occupational vertical segregation at top of qualification range.

The positive evolution of the wage gap for the lowest levels of skill is due to the fact that those workers are, generally, poorly payed (low wages incidence are 59.8 and

80.4% for Non Skilled workers and 79.1 and 86.8% for Apprentices respectively for men and women) and so their wages movement is restricted by the minimum wage barrier.

Considering now variables, which have a significant impact on wages <sup>5</sup> from the demand side, it is clear that the wage gap is wider as the firm size grows.

For the more representative sectors in terms of employment in Portugal<sup>6</sup>, Textiles, Trade and Personal Service the wage gap grew from 1992 to 1997, specially for the last two which registered the highest increases in their employment share, in particular, in what women are concerned. Inversely the Textiles where the wage ratio W/M remained almost unchanged suffered a 3% decrease in its women employment share.

Comparing the values of the North Region (table A2 in appendix) with those for Portugal the differences are not significant although some deserve a mention; namely the smaller decrease in the ratio W/M for College degree, Executives and Personal Service sector and the small increase for Trade sector.

### 3. Low wages incidence

In accordance with low wage cut off proposals<sup>7</sup>, the low wage line was set to two thirds of the mean monthly earnings in each year, which means a monthly wage of 67 426 Pte in 1992 and 91 332 Pte in 1997.

Using the workers and firm characteristics above mentioned as decomposition variables, we determine the low wages incidence and low wage population profile following Fernandes and Ferreira (1999).

Global low wages incidence in Portugal was around 45% in 1992 as well as in 1997. From data in table 1 is clear that low wages incidence was higher for women than for men either for Portugal or the North Region, and irrespective of the variable considered in both years analysed. However, the values for the ratio W/M of low wages incidence is slightly lower in the North.

The positive evolution of the women situation towards men from 1992 to 1997 is due, in some cases, to a bigger increase of low wages incidence for men than for women. In general, incidence had a light increase for men and a more significant decrease for women as we can see in the following table.

**Table 1**  
Low wage incidence

	1992			1997			Variation 97/92		
	M (%)	W (%)	W/M	M (%)	W (%)	W/M	M (p.p.)	W (p.p.)	W/M
North	44.2	75.4	1.7	44.7	72.1	1.6	0.5	-3.3	-0.05
Portugal	33.7	63.8	1.9	34.7	60.7	1.8	1.0	-3.1	-0.07

Low wages incidence evolution across educational levels is in favour of women, meaning that from 1992 to 1997 women low wages incidence relative to men decrease for under Technical degrees but increase for College Full degree. This seems coherent with the analysis of the average wages. The same tendency is found when skill levels are considered. We registered also that the evolution in favour of women is stronger for the higher skill levels while the situation had no changes for the lower skill levels.

The analysis by firm size allow us to say that the positive evolution of women position towards men grows with firm size in the North Region, but this tendency isn't found in the Portuguese labour market as a whole. It is worth mention that there was an increase in incidence for firms with more than 500 workers which is stronger in the North but only for men while the incidence decrease for women is substantially greater in the North.

For those sectors retained in our study, the low wages incidence evolution was almost the same either in Portugal or the North Region. It was characterised by an increase

of the ratio W/M incidence in the Personal Service sector, a slight decrease in the Trade sector, and a stabilisation in the Textiles sector.

### 3.4 . Employment structure

In order to find some explanations for the facts that in 1997 women average wage was still only around 70% of men's, and women low wage incidence was 1.75 times men's incidence, we proceed by analysing cross information about employment structure by education, skill levels, firm size and sector.

Women in full time employment<sup>8</sup> were, in the years analysed, characterised by low education degrees associated with low skill levels. In 1992 and 1997, respectively, 74.6 and 69.7% of women had a primary or preparatory degree and from those 81.6 and 84.1% were non-skilled. On the other side, and for the same years, only 3.8 and 3.9% of women had a college full degree but from those only 35.9 and 55.3% are executives.

**Table 2**  
Women skill level structure for education levels<sup>9</sup>

	Primary	Preparatory	Secondary	Technical	Medium	College
Non Skilled	14.9 (19.5)	5.9 (9.4)	1.7 (4.3)	1.1 (2.7)	0.5 (0.3)	0.1 (0.1)
Low Skilled	33.8 (34.2)	21.2 (23.2)	9.9 (11.2)	5.5 (7.6)	2.5 (1.5)	1 (0.8)
Skilled	31.7 (34.5)	39.3 (44.1)	49.3 (50.7)	56.5 (46.8)	18.2 (20.3)	9.9 (13.9)
High.Skill.	2.7 (3.2)	5.6 (5.9)	14.4 (14.4)	18.9 (23.0)	40.7 (26.4)	16.3 (14.5)
Executives	0.3 (0.7)	1.7 (1.6)	4.4 (5.1)	8.9 (10.7)	17.9 (42.4)	35.9 (55.3)

Most of women with intermediate degrees of education (Secondary, Technical, and Medium) were skilled or highly skilled.

It seems that the slight improvement in women education was not followed by an equal improvement in qualification for low levels of education and skill. Nonetheless for women with a college full degree these figures points to a clear improvement from 1992 to 1997.

The percentage of women in full time employment with low degrees of education (primary or preparatory) was high for all firm sizes, but the percentage of women with a college full degree grew with firm size only to a maximum value of 3.9 (1992) and 6.4% (1997) for large firms.

**Table 3**

Women educational level structure for firms by size<sup>10</sup>

	Primary	Preparatory	Secondary	Technical	Medium	College
1 – 9	41.9 (31.3)	34.1 (38.4)	12.4 (18.7)	1.8 (3.2)	1.0 (1.6)	1.1 (2.3)
10 – 49	41.8 (33.9)	33.9 (36.6)	10.6 (15.7)	2.0 (3.4)	1.6 (2.7)	1.4 (3.0)
50 – 249	43.3 (36.9)	33.5 (36.2)	8.6 (13.3)	2.0 (3.1)	1.7 (2.5)	1.8 (4.1)
250 – 499	44.1 (34.9)	31.4 (36.4)	8.7 (13.3)	2.2 (3.2)	1.9 (2.5)	2.3 (4.8)
500 or more	34.7 (25.5)	33.4 (37.3)	13.2 (20.5)	5.3 (2.4)	1.8 (2.4)	3.9 (6.4)

From 1992 to 1997, firms have registered a decrease in their share of women with a primary degree and an increase in those with all the other educational degrees, for all firm sizes, which was the result of a general improvement in education in last decades.

An analysis of education levels across activity sectors shows that Textile industry presented the highest percentage of women with low educated levels (88.6 in 1992; 91.7 in 1997 had a primary or preparatory degree). The values for these two educational levels were substantially lower for Trade (58.1 in 1992; 62.3 in 1997) and Personal Services (60.2 in 1992; 54.5 in 1997) sectors.

These three sectors can be hierarchically positioned in crescent order by the education level of the majority of their female employment, as can be seen from the two highest figures of educational levels across sectors for each of the sector in table 4.

From 1992 to 1997 there was a general improvement in education in all the categories analysed for each sector.

**Table 4**

Women educational level structure in selected sectors

	Primary	Preparatory	Secondary	Technical	Medium	College
Textile	40.9 (34.1)	34.2 (29.8)				
Trade		24.8 (29.1)	29.9 (33.9)			
Personal Services					48.9 (53.1)	32.2 (39.0)



## **V – Conclusion**

The study of gender differentials in labour market in the period of 1992 to 1997 reveals that a great deal of gender inequality still persists in Portugal. Women are present in every economic branch and profession, and even if its evolution has been positive, women continue to be over represented in economic activities and professions with lower status and salaries. They are also under represented in economic activities and professions with higher status and salaries. In this respect, North Region exhibits a similar, yet more uneven, pattern.

Education levels of men and women have been improving, with a much more expressive evolution for women than men, and in North than mainland Portugal. However, a deeper analysis of education and skill levels reveals that skill improvement was much weaker, especially for women with lower educational levels.

The stabilisation of women activity rates in a level lower than that of men's is probably associated with a more extensive "discourage effect" on women, in a period where unemployment rose significantly in national and regional spaces. This gender asymmetrical effect is in line with sociological characteristics of Southern European societies, where men are the main income providers of families, and women are more likely to withdraw from labour market and engage in household provision in periods of higher unemployment.

Gender differences in wage distribution were still wide in Portugal, even when analysed for equal educational degree and skill level. However, there was a tendency of reduction of those differences by education and skill levels except for the college full degree and executives categories. This points to the existence of wage discrimination against women and/or occupational vertical segregation at the top of qualification range. This tendency is reinforced as firm size increases.

Low wages incidence was also higher for women than for men, whatever the variable retained, although, once more, the evolution favoured women relative to men as incidence increased for men and decreased for women.

The North Region registered a parallel evolution but with higher incidence values in both years analysed and for both men and women.

At national as well as regional level women employment was characterised by low education degrees associated with low skill levels which help to understand wage distribution differences found in our study.

<sup>1</sup> This region accounts for near 37,5% of the inhabitants and 36,7% of employment of Portugal.

<sup>2</sup> In 1997 this difference is 6.4 percentage points for workers with less than 25 years, and 24.2 percentage points for workers aged 45 to 54, in Portugal, and 2.5 and 26.7 in North Region, respectively, which seem to show a more rapidly catching up of North Region.

<sup>3</sup> In this analysis we consider part time employment and employment on term-contracts.

<sup>4</sup> This process does not cover public administration and non-market services. The agriculture sector is very poorly covered.

<sup>5</sup> See Dias and Fernandes (2000).

<sup>6</sup> Textiles, Clothing and Footwear, Trade, Restaurants and Hotels and Personal Services with employment shares of 17.53, 21.65 and 7.18 in 1992 and 14.1, 25.2 and 13.2 in 1997.

<sup>7</sup> Albuquerque (1999), Bell and Wright (1996), Sloane and Theodossius (1996).

<sup>8</sup> We refer where to employment information on Quadros de Pessoal only.

<sup>9</sup> Values in parenthesis are for 1997. In this table as well as in the following ones we omit data for No Formal education, which represent only 3.3% in 1992 and 2.2% in 1997 of women labour.

<sup>10</sup> Values in parenthesis are for 1997.

## Appendix

**Table A1 – Mean Wage Variation Rates - Portugal**

	<b>Variation rate 97/92 M</b>	<b>Variation rate 97/92 W</b>	<b>1997 Ratio W / M</b>	<b>1992 Ratio W / M</b>	<b>Variation rate 97/92 W / M</b>
<b>Total</b>	<b>0,35</b>	<b>0,39</b>	<b>0,71</b>	<b>0,69</b>	<b>0,03</b>
<b>Education Level</b>					
No formal education	0,28	0,29	0,79	0,78	0,01
Primary	0,32	0,35	0,68	0,67	0,02
Preparatory	0,27	0,29	0,71	0,70	0,02
Secondary	0,40	0,39	0,69	0,69	-0,01
Technical	0,22	0,15	0,70	0,74	-0,06
Medium	0,27	0,30	0,60	0,59	0,02
College Degree	0,32	0,22	0,68	0,73	-0,07

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**Qualification Level**

Executives	0,32	0,22	0,70	0,76	-0,08
Highly skilled	0,34	0,35	0,85	0,84	0,01
Skilled	0,27	0,28	0,78	0,78	0,01
Low skilled	0,24	0,33	0,74	0,69	0,07
No skill	0,30	0,30	0,84	0,84	0,00
Apprentices	0,42	0,43	0,91	0,91	0,01

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**Firm Size**

1-9 workers	0,43	0,42	0,87	0,88	-0,01
10-49 workers	0,45	0,44	0,77	0,77	0,00
50-249 workers	0,47	0,48	0,67	0,66	0,00
250-499 workers	0,48	0,44	0,63	0,64	-0,02
500 or more workers	0,34	0,35	0,69	0,69	0,01

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**Sectors**

Textiles, Clot. & Footwear	0,38	0,36	0,71	0,72	-0,02
Trade, Rest. & Hotels	0,58	0,21	0,73	0,95	-0,23
Personal Service	0,00	-0,22	0,66	0,84	-0,22

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**Table A2 – Mean Wage Variation Rates – North**

	<b>Variation rate 97/92 M</b>	<b>Variation rate 97/92 W</b>	<b>1992 Ratio W / M</b>	<b>1997 Ratio W / M</b>	<b>Variation rate 97/92 W / M</b>
<b>Total</b>	<b>0,35</b>	<b>0,40</b>	<b>0,70</b>	<b>0,72</b>	<b>0,04</b>
<b>Education Level</b>					
No formal educ.	0,26	0,33	0,80	0,84	0,05
Primary	0,35	0,35	0,72	0,72	0,00
Preparatory	0,27	0,33	0,70	0,73	0,05
Secondary	0,22	0,26	0,69	0,71	0,04
Technical	0,19	0,14	0,71	0,68	-0,04
Medium	0,26	0,27	0,61	0,62	0,00
College Degree	0,29	0,25	0,72	0,69	-0,03

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<b>Qualification Level</b>					
Executives	0,34	0,28	0,75	0,71	-0,05
Highly skilled	0,33	0,37	0,82	0,85	0,03
Skilled	0,27	0,31	0,75	0,78	0,03
Low skilled	0,26	0,31	0,74	0,77	0,04
No skill	0,31	0,30	0,86	0,86	-0,01
Apprentices	0,43	0,44	0,92	0,92	0,01

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<b>Firm Size</b>					
1-9 workers	0,42	0,41	0,91	0,91	-0,01
10-49 workers	0,42	0,43	0,78	0,79	0,01
50-249 workers	0,43	0,43	0,67	0,67	0,00
250-499 workers	0,51	0,45	0,66	0,64	-0,04
500 ou mais workers	0,37	0,44	0,63	0,66	0,05

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<b>Sectors</b>					
Textiles, Clothing & Footwear	0,38	0,37	0,73	0,72	-0,01
Trade, Restaurants & Hotels	0,30	0,33	0,76	0,78	0,02
Personal Service	0,66	0,44	0,80	0,69	-0,14

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