EGGE – EC's Expert Group on Gender and Employment

National Reports on the Unadjusted and Adjusted Gender Pay Gap

Italy

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THE GENDER PAY GAP.

ITALY

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1. PAY TRENDS IN ITALY

1.1 Gender pay gap in international comparison

The gender pay gap provides the starting point for comparing the level of gender pay equality across countries. It is well known that the (unadjusted) gender pay gap is only a very crude measure of gender pay equality that cannot provide information on whether the major problems for women's employment lie in the occupational pattern (horizontal and vertical segregation) or on in high levels of inequality within job areas or organisations.

As it has been recognised, the sources available for international comparisons presents several limitations that do not allow straight forward comparisons across countries at EU level [Rubery et. al. (2001)]. Nevertheless, the gender pay gap still provides a summary measure of progress towards gender equality in labour market outcome.

Depending on the data source and on the time period considered, Italy is usually located either among the countries with a narrow gender pay gap (Blau, Kahn 2000) or halfway between the average and the countries recording the highest pay gaps (ITER ed., 2001).

Table 1 presents some of the most recent available estimates of the gender gaps in pay and income - at the EU level and at the national level - in order to point out the relative position of Italy. As is well known in the literature, different sources are available both at the EU and national level; but these sources are not directly comparable. They differ in methodology of data collection, population coverage, definition of variables used, as well as time span considered. In order to reduce the elements of discrepancy across sources, the estimates of the gender pay gap reported in table 1 refer to year 1995 (or 1998). Even though one has to expect some difference in the pay gap for Italy across the different sources, the magnitude of these differences is quite astonishing.

The ratios listed in table 1 differ quite significantly from one source to another, therefore it is almost impossible to identify unambiguously the relative position of Italy with respect to the gender pay gap. What is striking is the discrepancy recorded in the gender pay gap in Italy (and the corresponding ranking position within the EU) by two sources referring substantially to the same population sub-group (private sector, all employees) and using the same pay variable (gross hourly earnings). According to

ESES (1995) the female-male earnings ratio was 71% (private sector, all employees) in Italy, ranking 10. However, according to ECHP data (wave 5, 1998) the ratio for the same population (private sector, all employees) was 90.6%, ranking 1.

Table 1 – Female/Male earnings ratio in Italy and in the EU (%).

Database	Description of variables	IT	*ranking*	EU	Calculations
A. DATA SOURCES AT EU LEVEL					
ESES (1995)	average gross hourly earnings, private sector (individuals employed in firms with =10 employees)				ITER (2001: 39)*
	FT	80.9	*6*	76.8	
ESES (1995)	All (overtime earnings excluded)	71	*10*	70	Rubery et al.
	FT (")	70.77	*12*	72.02	(2001: 86-87)
	PT (")	90.26	*5*	79.71	
ECHP (1996)	average net hourly earnings (all employees working at least 15 hours/week)				Rubery et al. (2001: 86)
	Total	90	*4*	83	
ECHP (wave 5) (1998)	average gross hourly earnings (employees working at least 15 hours/week)				EC (2002: 35)
	Total	91.4	*3*	83.8	
	Private sector	90.6	*1*	76.3	
	Public sector	108.1	*1*	89.3	
B. NATIONAL DATA SOURCES					
MF (1994)	gross annual income (all income sources)				ITER (2001: p. 185)
	All persons		63.4		
	All employees		76.0		
INPS (1995)	monthly gross earnings (before taxation and social contributions)				LABORatorio Revelli (in Contini, ed., 2002)
	Private sector, all employees		83.1		
SHIW (1995)	monthly earnings (after taxation)				Banca d'Italia (2002: Tav. B24, p. 138)
	All employees (in the sample)		78.0		
	FT		82.2		
(1998)	total annual net earnings (after taxation)				ITER (2001: p. 166 and p. 178)
	All employees (in the sample)		77.8		
	FT		78.2		
	PT		74.6		

* computed from: Eurostat, The European Structure of Earnings. Survey 1995, in Population and Social Conditions, 2/200/E/n. 15 (2000)

National sources[1] do not help to provide a clear cut picture. Data on hourly earnings are not made available by national sources (either administrative or sample survey). Thus, one has to rely an annual income (and estimates of monthly earnings) to compute

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[1] See Appendix for a synthetic description of the national sources.

gender pay gaps. The (unadjusted) gender pay gap according to national sources (computed with respect to either monthly or annual earnings) ranges between 76% (all employees, according to MF, 1994) and 83% (all employees in the private sector, according to INPS, 1995).

Even though data from national sources are not directly comparable with data available for international comparison at the EU level, national sources portray a picture of the gender pay gap in Italy which appears less extreme with respect to both the 'optimistic' and the 'pessimistic' description emerging from data sources at EU level. This supports the hypothesis that Italy has an 'above the average' gender pay gap in comparison with its partners in the European Union, but not necessarily it should be put among the countries having successfully compressed the gender pay gap.

A discussion of reasons behind these very different estimates of the gender pay gap in Italy is beyond the scope of the present report. However, one has to say that existing discrepancies implies that any comparative analysis on the gender pay gap including Italy should be extremely cautious in drawing straightforward conclusions.

1.2 Pay trends over time (the unadjusted gender pay gap)

Italy lacks good national sources on earnings and working hours (ITER ed. 2001, pp. 139-146), consequently it is not straightforward to produce evidence on trends in gender pay differentials. In particular, all sources available present severe limitations:

- information by gender on hours worked and earnings are not surveyed, therefore data on hourly earnings (gross or net) are not made available;
- all data sources present some temporal discontinuity (related to changes in methodology of surveys, not availability of data in certain years, delays in updating databases, etc.).
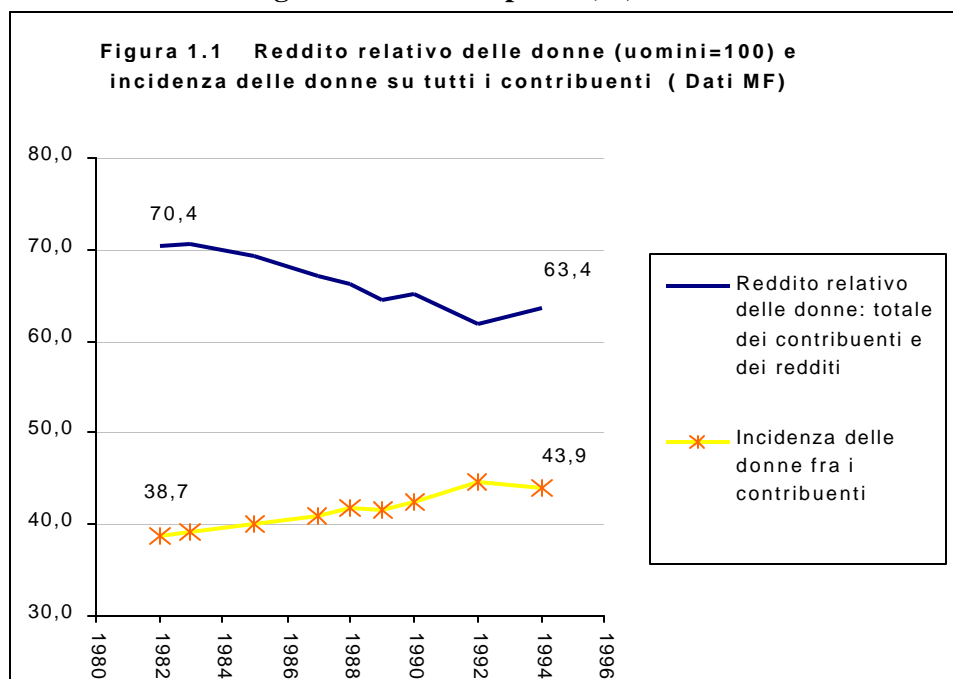
Lack of good national data implies difficulties in empirical analysis; it follows that relatively little research has been done on the gender pay gap in Italy over the last decade.

Recently, the CNPO, the Equal Opportunities Body at the Ministry of Labour, commissioned a research project on gender wage differentials to fill this gap in gender studies (ITER ed., 2001). Within this project, trends in the gender pay gap were

analysed, pulling together information from all available statistical sources. Two data sources were used to describe pay trends over time:

- Ministry of Finance data (MF), on annual personal income (before taxation);
- Bank of Italy Survey on Households (SHIW), on annual earnings (after taxation).

Figure 1 – Gender income gap (average total income for men = 100) and female share among total income recipients (%). 1982-1994

Figura 1.1 Reddito relativo delle donne (uomini=100) e incidenza delle donne su tutti i contribuenti (Dati MF)

Source: MF (all types of personal income), in ITER ed. 2001 (p. 6)

To start with, the authors provided an overall picture by computing (from the MF source) the gender income differential for the time period 1982-1994. All types of personal income were considered (before taxation). Over this time period, the share of women (among income recipients) increased from 38.7 to 43.9 per cent. However, their average total income (inclusive of all types of income) lost ground. In relative terms (by setting the male average total personal income equal to 100), female total personal income declined from 70.4 in 1982 to 63.4 per cent in 1994 (see Figure 1). This outcome has also a positive implication: the decline in average total income for women is in fact due to the increasing female share among employees and among pensioners (retirement pensions).

It has been pointed out that the gender income gap (all types of personal income included) is greater for the whole population of income recipients with respect to

employees alone (see table 2). Two income categories contribute to lower the gender income gap: pensioners (among whom women are in large numbers and receive a low income) and professionals (whose average income is relatively high also among women, but recording a very high gender income gap).
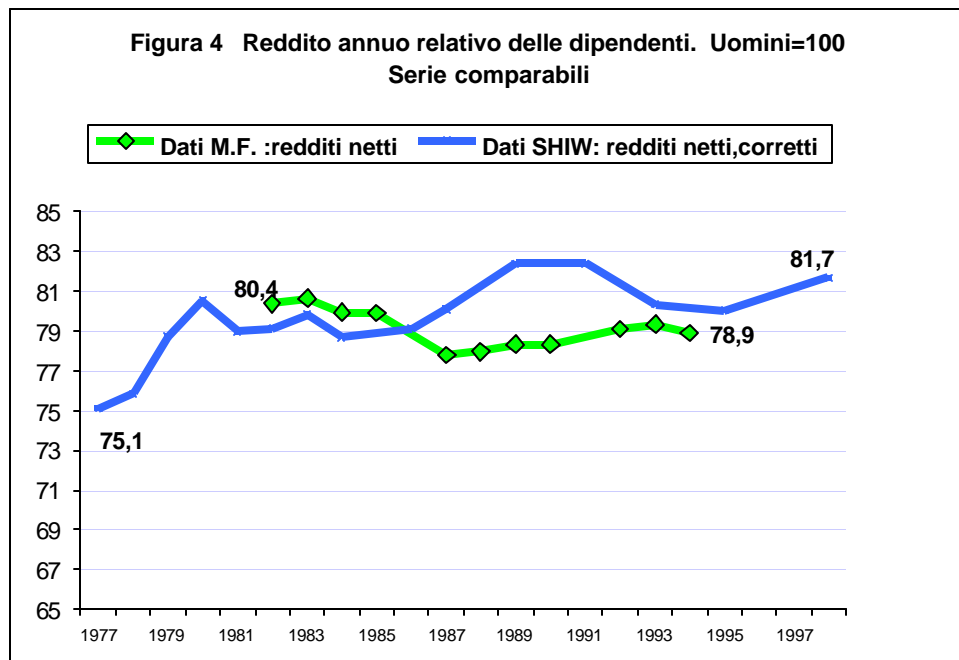
Table 2 – Gender income gap in Italy, 1994 (%).

	% distribution	***%F***	**annual gross income, M (000 lire)**	**gender income gap**
All income recipients (all types of income) *of which:*	100	43.9	28,955	63.4
- employees	46.1	38.7	30,815	76.0
- pensioners	23.5	49.4	23,186	72.9
- entrepreneurs	12.0	32.1	25,767	79.7
- artisans	4.8	22.6	26,685	84.3
- professionals	3.1	29.5	66,860	52.3
Employees (annual income from employment) *of which:*	(data not made available in ITER ed. 2001)			76.44
- manual workers				74.53
- clerical workers (line)				72.94
- clerical workers (staff)				72,32
- managers				56.16
- school teachers				88.52
- university teachers				71.13

Source: MF, in ITER ed. (2001, p. 7 and p. 187).

According to data from the Ministry of Finance (table 2), the income gap for all employees (excluding other types of income) was 76.44 per cent in 1994, ranging from almost 90 among school teachers to 56 among managers.

Looking at the gender income differential among employees in the long run (1982-1994), the data from the Ministry of Finance show a steadily improvement up to the early 1980s, in opposition to the trend recorded for the whole population of income recipients. Since then, the gap   widened slightly in the second half of the 1980s, than fluctuated around 75-80 per cent in the early 1990s. This temporal pattern appears more or less evident depending on the definition of income (gross or net income), the occupational considered and the corrections made to the original data set. The temporal pattern of the gender income gap for all employees (net annual income), computed by ITER (ed. 2001) on the basis of the Ministry of Finance data set, for the years 1982-1994 is shown in Figure 2.

Figure 2– Gender income gap (average total net income for men = 100). A comparison of MF and SHIW data sources (comparable series). 1977-1998

Figura 4   Reddito annuo relativo delle dipendenti. Uomini=100
Serie comparabili

◇ Dati M.F. :redditi netti   ▬ Dati SHIW: redditi netti,corretti

80,4

81,7

78,9

75,1

1977 1979 1981 1983 1985 1987 1989 1991 1993 1995 1997

Source: MF and SHIW, comparable series (in ITER ed. 2001 p. 9)

It has been argued that this by and large steadiness in the gender income gap since the mid-1980s is the outcome of opposing tendencies. On the one hand, the increase in earnings dispersion and the spreading of atypical employment (in particular, part-time work) have exerted a pressure towards a widening of the gap. On the other hand, the improvements in the characteristics of the female labour supply (related to age, seniority and educational attainment) have exerted a pressure towards the closing of the gap. At the same time, the changes in the occupational structure of women have acted in opposite directions, counterbalancing each other.

The phenomenon of the close association between movements in earnings dispersion and changes in the gender pay gap is once again found for Italy. The increase (decrease) in dispersion of earnings is closely related to the deterioration (improvement) of the gender pay gap simply because women are still over represented in the medium-low strata of the earning pyramid (table 3).

Table 3 – Composition of the SHIW samples. Shares of women in labour force and in quartiles of earnings distribution.

	Labour force	IV quartile	III quartile	II quartile	I quartile
1977	0.30	0.11	0.22	0.35	0.53
1987	0.36	0.15	0.33	0.44	0.57
1995	0.38	0.21	0.37	0.40	0.59

Source: ITER ed. (2001)

Over the last decade and half a gradual (even though partial) deregulation of the labour market took place, involving significant institutional changes in the wage formation process and a progressive enlargement of atypical employment contracts. It has to be acknowledged that this process has produced some effects on the distribution of earnings, nevertheless the different sources available locate differently the turning point. According to the MF database (more reliable with respect to long term trends in the gender pay gap), the turning point is located around 1983 (at the time of the first significant institutional changes made to automatic indexation). According to the Bank of Italy database (SHIW) the turning point is located around 1989 (see figure 2).

The Bank of Italy data on the gender pay gap are subject to some intrinsic instability (due to the relatively small sub-sample of female employees). Nevertheless, they show a clear long run tendency towards the opening of the gap (since 1989). In particular, it has been argued:

"Gender differentials showed fairly large variations from year to year, probably amplified by the small size of the female sub-sample (…). However, a rather clear tendency towards closing the gap emerged from 1977 to 1989, as the ratio of women's to men's mean earnings rose by 10 percentage points to over 80 per cent; the ratio declined in the mid-1990s, but returned to 81 percent in 1998. The narrower gap based on median earnings exhibited the same pattern. Differentials were smaller for full-time workers, part-time work being concentrated among women. In the 1980s, the bottom two deciles of the female distribution gained sharply relative to the national median, whereas in the 1990s a rise at the top corresponded to a deterioration for the lowest decile (…)." (Brandolini, Cipollone and Sestito 2001, p. 21)

Table 4 presents trends in earnings dispersion and the gender pay gap for all employees and for full-time employees since 1989, according to the Bank of Italy survey (SHIW). The two indicators, Gini index and interdecile ratio, show an increasing dispersion of earnings (higher among all employees). Over the same period, the gender pay gap for all employees deteriorated (from 82.3 to 79.2); that for full-time employees fluctuated

around 82-84 per cent. The different pattern shown by the two trends suggests that the expansion in atypical employment is responsible for the increasing dispersion in earnings, and the deterioration recorded in the gender pay gap.

Table 4 –Real monthly net earnings (thousand lire at 2000 prices)

	1989	1991	1993	1995	1998	2000	2000 Euro
All Employees							
All	2396	2297	2329	2240	2183	2213	1143
Gini Index	0,193	0,194	0,241	0,234	0,241	0,240	
Ratio 9th/1st Interdecile	2,2	2,4	2,8	2,8	3,1	3,1	
M	2562	2472	2541	2455	2368	2414	1247
F	2109	2007	1993	1916	1914	1914	988
F/M%	**82,3**	**81,2**	**78,4**	**78,0**	**80,8**	**79,3**	**79,2**
Full time Employees							
All	2424	2336	2400	2308	2295	2326	1201
Gini Index	0,187	0,186	0,227	0,220	0,216	0,217	
Ratio 9th/1st Interdecile	2,2	2,2	2,5	2,4	2,6	2,4	
M	2571	2484	2562	2471	2432	2462	1272
F	2155	2072	2112	2031	2069	2087	1078
F/M%	**83,8**	**83,4**	**82,4**	**82,2**	**85,1**	**84,8**	**84,7**

Source: Relazione del Governatore, Banca d'Italia (2002: Tav. B24, p. 138)

It has to be pointed out that average *real earnings* (monthly net earnings) deteriorated in the 1990s. Between 1977 and 1989 real monthly net earnings rose by 1.8 per cent per year. In the following decade they declined by almost 1 per cent per year. The loss in purchasing power was due a combination of factors, including the spreading of atypical employment, income taxation[2] and the economic recession. Employment fell sharply in the early 1990s and returned to grow only after 1995. The recovery coincided with a profound modification in the composition of employment by personal characteristics (by sex, age, educational attainment) and by employment contract. In particular, the increase in the female employment rate went along with the progressive enlargement of available forms of atypical work and an increase in their weight. These changes contributed, together with the institutional changes in the wage formation process, to

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[2] Data on gross wages are not available in the SHIW. According to Brandolini, Cipollone and Sestito (2001, p. 15) much of the fall in net earnings in the 1990s may have been caused by the rising fiscal burden.

halt the progressive closing of the gender pay gap that characterised the previous decades.

Aggregate trends in earning differentials hide differences across occupational groups. In particular (ITER ed. 2001, table 15, pp. 186-7), given an aggregate deterioration in relative women's pay (measured by MF data as the difference in the ratio of earnings between 1983 and 1994) of 2 points, the deterioration for manual workers is serious (-5), it is less dramatic for clerical workers (-3), skilled clerical workers and managers have gains gained (+3 and +1, respectively)[3]. Thus, along with the widening of pay differentials, an increasing differentiation among women is taking place. In occupational categories at the middle or at the top of the employment pyramid women have made enough career progression to improve their relative pay position, while at the bottom the picture is one of losses relative to men.

To sum up, by the mid-1980s gender wage differentials had narrowed in Italy to levels unprecedented in many other industrialised countries. They have widened back since then, along with most other differentials, with an acceleration of the trend over the 1990s. Different sources put different figures on this relative deterioration, but they show the same trend. Moreover, they place differently the turning point (either in the mid-1980s or towards the end of the 1980s), but the temporal pattern is similar.

1.3 Wage inequality trends over time

Two national studies on earnings dispersion in Italy were very recently published. Borgarello and Devicenti (2002) analysed trends in earnings distribution in 1985-1996 using a panel of administrative Italian data (INPS database); this analysis was complemented by another study focused on earning mobility (together with Villosio)[4]. Brandolini, Cipollone and Sestito (2001) studied earnings dispersion and low pay in 1977-1998 using the historical archive of the Bank's of Italy survey on households income and wealth (SHIW). These studies are based on two different sources of data[5] (differing in terms of years considered, nature of the data, population coverage and

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[3] See ITER (ed. 2001, pp. 186-187)

[4] These two papers (Borgarello, Devicienti 2002 and Borgarello, Devicienti, Villosio 2002) are part of a larger project on the dynamics if the Italian labour market published in Contini ed. (2002).

[5] A short description of these sources is provided in the Appendix.

methodology). The conclusions reached by the two studies differ in some respect. But they are not to be considered contradictory, rather they shed light on different aspects of a complex phenomena. I will fist summarise the main results reached by the two studies, than I will try to draw some general conclusions.

The INPS database.

Using a panel of administrative data (from the INPS database), the authors (Borgarello and Devicienti 2002) provides new empirical evidence on the changes in the earnings distribution that occurred in Italy over the time period 1985-1996. The income variable used is real gross monthly earnings at 1996 prices (gross of income tax and of the social security contributions paid by the worker).

The study starts the analysis by focusing on the population as a whole. Various statistical indicators have been used to document a slight, but not negligible, increase in earnings inequality (see table 5).

The gap in earnings between the richest tenth (p90) and the poorest tenth (p10) of the distribution broadened, but by less than what happened to the distance between the richest tenth and the median (p90/p50). This implies that the poorest tenth managed to reduce over time the distance between its position and that of people in the median position.

Table 5 – Wage distribution indicators (values expressed in thousand lire at 1996 prices)

	percentile levels (values)					percentile ratios			Inequality measure		
	Mean	Std	p10	p50	p90	p90/p10	p90/p50	p50/p10	Gini	Theil	Var-logs
1985	2674	988	1635	2519	3790	2.32	1.50	1.54	189	62	122
1991	3065	1341	1918	2742	4579	2.39	1.67	1.43	213	80	138
1996	2977	1314	1888	2612	4544	2.41	1.74	1.38	214	81	137
% change 1985-96	+11.3	+33.0	+15.4	+3.7	+19.9	+3.9	+15.6	-10.4	+12.7	+30.4	+11.5

Source: Borgarello and Devicenti, in Contini ed. (2002, p. 276 and 282).

Breakdowns by population subgroups have been used to shed light on the underlying causes of the observed distributional changes. For all the population partitions used (activity sectors, gender, age groups, geographical areas) inequality is mainly explained

by its within-group component which, in all cases, is increasing too. With respect to activity sectors, occupations and age groups these are the main outcomes found.

- *Activity sectors* (constructions, manufacturing, services). Modifications of the industrial structure contributed to the increase in earnings inequality. The share of employees in manufacturing and constructions declined while in services (private sector only) expanded. Both manufacturing and construction experienced a reduction in relative mean earnings with respect to services. The service sector was also found to be the one with the highest inequality levels in both 1985 and 1996. However, in terms of inequality growth, earnings differentials opened up faster in manufacturing, followed by constructions and services.

- *Occupations*. Among occupations, white collars have the most unequal earnings distribution, with inequality growing fastest in the period considered. Inequality seems to have lowered for apprentices, but no clear statement could be made about managers and blue collars.

- *Age groups*. The standard wage-age profile was found, with monthly earnings increasing as the employees grow older. Relative to the population mean, that for the youngest fell while that of the more senior increased, suggesting that structural changes in the labour market may have pushed the return to seniority and experience upwards. An increase in inequality is found within each age subgroup but the youngest.

The disaggregation of the sample by gender confirm some empirical regularities. In particular, the frequency density function for women appears to be characterised by smaller modal earnings, as expected, than for men. Moreover, the men's distribution presents a thicker right tail (towards the top of the earning scale), providing hints that earnings are more disperse than for women. Conversely, women present a fatter left tail (at the bottom of the earning scale). In particular, the female distribution displays a 'bump' on the left tail in 1985 (much more accentuated with respect to men).

Male's earnings are more unequally distributed than female's, even though the two subgroups are found to get more similar to each other over the period considered in terms of distribution and mean earnings. Men's inequality, though, is still growing faster than women's.

Between 1985 and 1996, the female distribution (based on monthly real earnings) moved to the right, to some extent getting closer to the shape of men's. Yet, notable differences persist both in the extent of concentration around the mode (much higher for women) and in the amount of right-tail skewness (thicker for men).

Table 6 – Wage distribution indicators by gender (values expressed in thousand lire at 1996 prices)

	percentile levels (values)				percentile ratios		
	Mean	**p10**	**p50**	**p90**	**p90/p10**	**p90/p50**	**p50/p10**
A) Men							
1985	2839	1841	2682	4010	2.18	1.50	1.46
1991	3251	2008	2918	4876	2.43	1.67	1.45
1996	3151	1958	2772	4836	2.41	1.74	1.42
% change 1985-96	+11.0	+6.3	+3.4	+20.6	+13.4	+16.7	-2.8
B) Women							
1985	2289	1387	2222	3129	2.26	1.41	1.60
1991	2650	1799	2412	3781	2.10	1.57	1.34
1996	2623	1804	2349	3832	2.12	1.63	1.30
% change 1985-96	+14.6	+30.1	+5.7	+22.5	-5.8	+15.8	-18.7
C) Gender pay gap (%)							
1985	80,6	75,3	82,8	78,0			
1991	81,5	89,6	82,7	77,5			
1996	83,2	92,1	84,7	79,2			

Source: Borgarello and Devicenti, in Contini ed. (2002, p. 294-295).

Table 6 documents some of the differences in the dynamics of earnings by gender. As expected, mean earnings for women are lower than for men in the three years considered, with a gender pay gap (for average earnings) around 80-83 per cent. The growth rates reported (last rows in table 6) show that according to this database female employees have been catching up with men: average real earnings grew by 14.6% for women and by 11% for men. The better performance for women (in average earnings) is by and large due to the pay raise of the poorest female tenth (p10), which increased by 30%, compared to 6% for men. Thus, much of the reduction in the distance between the poorest tenth and the median earnings in the whole distribution can be explained by this growth in the least well-paid jobs for females.

The SHIW database

Brandolini, Cipollone and Sestito (2001). This study examines the distribution of net monthly earnings in Italy in the period 1977-1998 computed from the micro-data of the Historical Archive of the Bank of Italy's Survey (SHIW). The basic sample includes all

primary job positions held as employees[6]. In addition to the basic sample, two sub-samples were constructed: the first includes employees in full-time positions (from 1986 onwards)[7], the second isolates *core employment* (identified with non-farm male employees, aged 30-50, working year-round). Earnings are defined as "real monthly net earnings"[8].

The evidence suggests a definite temporal pattern for overall wage inequality. The inequality in the distribution of net earnings decreased from the late 1970s until the end of the 1980s; it abruptly increased in the early 1990s and underwent little modification in the rest of the decade. This pattern found for all employees included in the sample also broadly fits the evolution of earnings inequality within major population subgroups (full-time employees, men and women, residents in the North and residents in the South). However, this picture is not found among prime-age (30-50 years old) non-agricultural male workers employed throughout the whole year. Their wage distribution is much more equal than that of the entire sample. For this sub-group inequality diminished until the early 1980s and then tended to increase, through ups and downs. The tendency towards greater inequality emerged earlier and manifested itself in a much less extreme form. The asymmetry found between core employment and the full sample indicates that the relevant changes in wage inequality were concentrated among employees at the margins of the labour market, where women are over-represented.

The temporal pattern for overall wage inequality is similar between men and women (all employees), but the intensity of medium-term movements in the distribution of earnings differs significantly (see Brandolini et al., 2001, Chart 5, p. 25):

- between 1977 and 1989, inequality, as measured by the Gini index, diminished for both men and women, but at a much faster pace for women (from 23.8 to 19.3 for men, from 23.6 to 17.2 for women);
- between 1989 and 1993, inequality showed a sharp widening, larger among women, going back to the values recorded at the beginning of the 1970s; inequality underwent little modification in the following years.

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[6] Jobs held in addition to the main occupation are excluded. These secondary job positions (as employees or as self-employed) accounted for 1.4 per cent of total positions in 1998.

[7] Data on self-declared part-time jobs are only available from 1986 on. The share of part-time jobs (in the whole sample) increased from 5% in 1986 to 9% in 1998.

[8] Real monthly net earnings are obtained by dividing total annual earnings (net of taxes and social security contributions), by the number of months worked in the year in each job and deflating by the consumer price index.

The decile ratio (90th percentile/ 10th percentile) shares this same pattern but, again, medium-term changes are much larger for women (all employees). This is to be explained by the fact that women tend to work shorter hours and their involvement in part-time work is much higher. In fact, the Gini index is systematically higher for the whole female sample (all employees) than for the female sub-sample including full-timers only. However, the spreading of part-time jobs among women since the mid-1980s is not responsible for the whole increasing dispersion in female earnings. As a matter of fact, also among female full-time employees wage inequality increased after 1989 (see Chart 5, in Brandolini et al. 2001, p. 25).

There is a fairly general consensus that the long phase of diminishing earnings inequality has to be linked to the strongly egalitarian demands of the trade union movement in the late 1960s/early 1970s. These demands translated into the 1975 reform of the wage indexation mechanism (which granted a flat-sum wage increase for each percentage point rise in the cost of living index). In the presence of high inflation rates this mechanism imparted a strong egalitarian push to the earning structure, compressing all wage differentials, including the gender pay gap.

The severe economic crisis of the early 1990s (accompanied by a contraction in total employment), the concomitant institutional changes (culminated in the abolition of the automatic indexation, in 1991), the weakening of egalitarian demands (and the spreading of performance-related premia in bargaining agreements at company level and individual bonuses) favoured a decompression of the wage structure. In summing up the evidence on earnings dispersion Brandolini (et al.) assert:

"… this drop in employment was accompanied by a substantial widening of wage spreads. In the rest of the 1990s, inequality did not revert to the low levels of the previous decade and, if anything, it showed a tendency to increase further. The economic crisis as well as concomitant institutional changes may have unleashed a decompression of the wage structure, originating in factors already at work in other advanced countries. […] A further factor in the 1990s may have been the spread of part-time and fixed-term employment contracts. In any case, our evidence suggests that changes in the wage structure mostly affected marginal employees, or those at the bottom of the wage scale." (Brandolini et al., 2001, p. 28).

Not surprisingly, while in the 1980s the bottom two deciles of the female distribution gained sharply relative to the national median, in the 1990s they lost ground (see Chart 4, in Brandolini et al., 2001, p. 23).

Concluding remarks.

On the one hand, both the study based on the INPS longitudinal panel and the study based on SHIW support the hypothesis of an increasing earning dispersion in the long run. The two analyses do not focus explicitly on trends in the gender pay gap, nevertheless they both provide some information by gender (and put forward some hypotheses). While, according to the INPS database the gender pay gap (at the aggregate level) did not deteriorate between 1985 and 1996, according to the SHIW database gender differentials declined in the mid-1990s for all employees, while they stop closing down for full-time employees.

A possible (tentative and partial) explanation of the different trends in gender pay gaps recorded by the two sources has to consider existing differences in population coverage. The INPS database covers all employees (in the private sector) who comply with the social security regulations; this implies that marginal workers (i.e. irregular employees, those at the very bottom of the wage scale) are excluded. And women tend to be over-represented among them (as data available on the share of women in low-paid jobs show).

1.4 Low pay trends over time

The debate on atypical work in Italy has recently been shifted from the discussion about "precariousness" connected to atypical employment (duration/stability of work) towards the investigation on the monetary conditions of atypical employment (Frey, Pappadà 2002). The only database covering also employees at the margin of the 'official' labour market is SHIW.

The study by Bank of Italy experts (Brandolini, Cipollone and Sestito, 2001) provides detailed evidence on the evolution of low pay in the period 1977-1998. Low pay is here defined in the usual terms, i.e. low-paid workers are those who earn less than two thirds of the median earnings for all full-time workers (OECD, 1996, p.69).

As expected, the composition of the low-paid employment by personal characteristics (gender, age, geographical area, educational attainment) resembles the pattern found in other industrialised countries. At the end of the 1990s (a decade characterised by an increasing incidence of low pay), the incidence is more pronounced among the young

(34% in 1998), the southern employees (26.2% in 2000) and women (25.4% in 2000). Information available on employment positions by job duration suggests that lack of continuity in employment (i.e. the increasing volatility of employment opportunities among employees) is highly responsible for the recent increase in low pay. In 1998 (the last year available) over 50% of those not in employment all year round were low-paid workers (see table 7).

Brandolini, Cipollone and Sestito (2001) show that the diffusion of low-paid jobs evolved in parallel with that of earnings inequality and, with opposite signs, that of the ratio of the bottom decile to the median.

**Table 7 - Incidence of low-paid employees, 1989-2000 (%)**

	All job positions						Full time positions					
	1989	1991	1993	1995	1998	2000	1989	1991	1993	1995	1998	2000
All employees (primary job positions)	8,1	10,3	15,7	13,7	18,3	16,8	6,4	7,9	11,9	9,7	12,2	10,5
Prime workers*	1,7	1,7	2,0	2,4	4,1	..	1,6	1,5	1,8	2,1	3,3	..
Sex												
M	4,9	6,1	9,7	8,2	13,0	11,1	4,5	5,5	8,8	7,5	9,8	8,9
F	13,8	17,2	25,1	22,0	25,9	25,4	10,0	12,4	17,3	13,5	16,1	13,4
ratio F/M	2,8	2,8	2,6	2,7	2,0	2,3	2,2	2,3	2,0	1,8	1,6	1,5
absolute gap (F-M)	8,9	11,1	15,4	13,8	12,9	14,3	5,5	6,9	8,5	6,0	6,3	4,5
Age												
under 30	15,0	18,5	29,5	23,8	34,0	..	13,1	15,3	25,7	19,7	26,2	..
31-50	5,0	6,7	10,0	10,1	12,5	..	3,4	4,7	6,1	6,0	7,0	..
51 and over	4,6	6,7	9,7	7,0	13,6	..	3,2	4,9	6,9	4,0	9,6	..
Geographical area												
Centre-North	8,1	9,2	13,7	11,4	14,4	13,2	6,2	6,7	9,4	7,0	8,6	7,4
South	8,2	13,0	20,6	19,2	27,6	26,2	7,0	11,2	18,1	16,3	20,9	20,9
Job duration												
all year	7,3	8,2	11,3	10,9	13,2	..	5,8	6,1	8,5	7,2	9,1	..
part year	18,7	32,7	40,2	29,2	50,3	..	16,6	30,3	34,0	25,5	37,7	..
* non-farm prime-age male workers employed all year-round												
Source: Brandolini, Cipollone, Sestito (2001, p.32) and Banca d'Italia (2002, Tav. B24, p. 138)												

In particular, the gains at the bottom of the distribution for all job positions (whole sample) were rather substantial in the 1980s: the proportion of low-paid workers halved (from 16.9 in 1977 to a minimum 8.1 in 1989). Afterwards the incidence of low pay rose (reaching a peak 18.3 per cent in 1998), with some fluctuations around an increasing trend. The incidence was 16.8 in 2000, thus back to the level recorded in
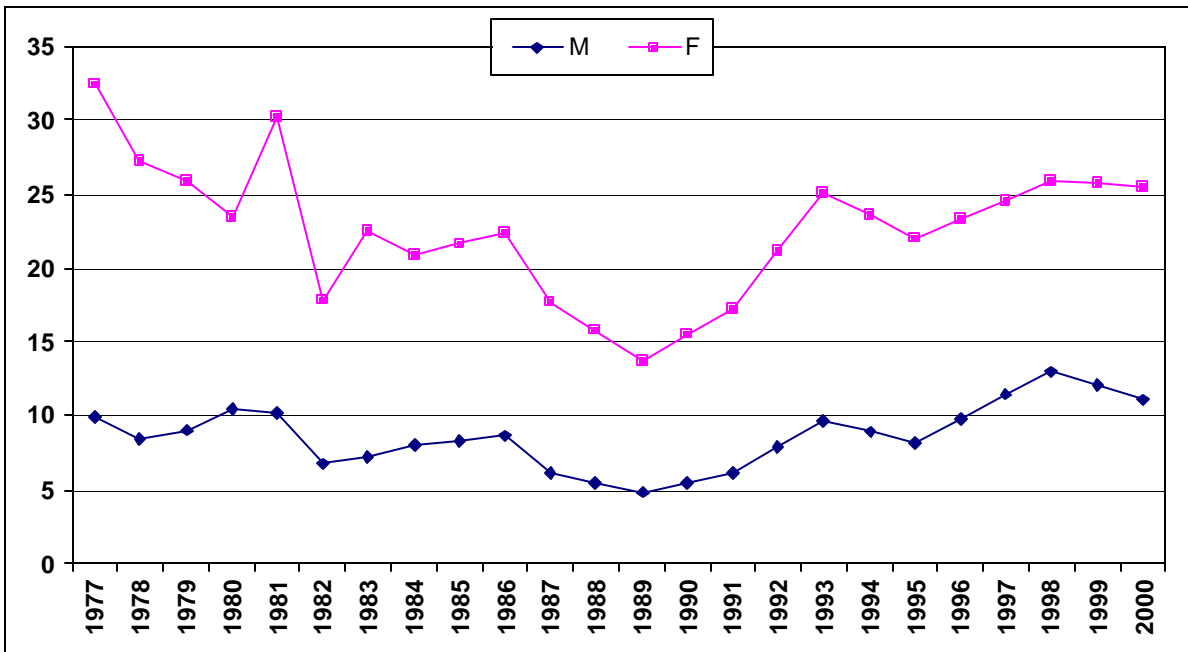
1977 (see Figure 3.A). Among "core employees", the incidence of low pay remained law and rather stable (around 2 per cent) until the mid-1990s; it recorded a 2 percentage points rise in more recent years.

FIGURE 3 – INCIDENCE OF LOW-PAID EMPLOYEES, 1977-2000 (per cent).

A. All employees and core employees (non-farm prime-age male workers employed year-round)
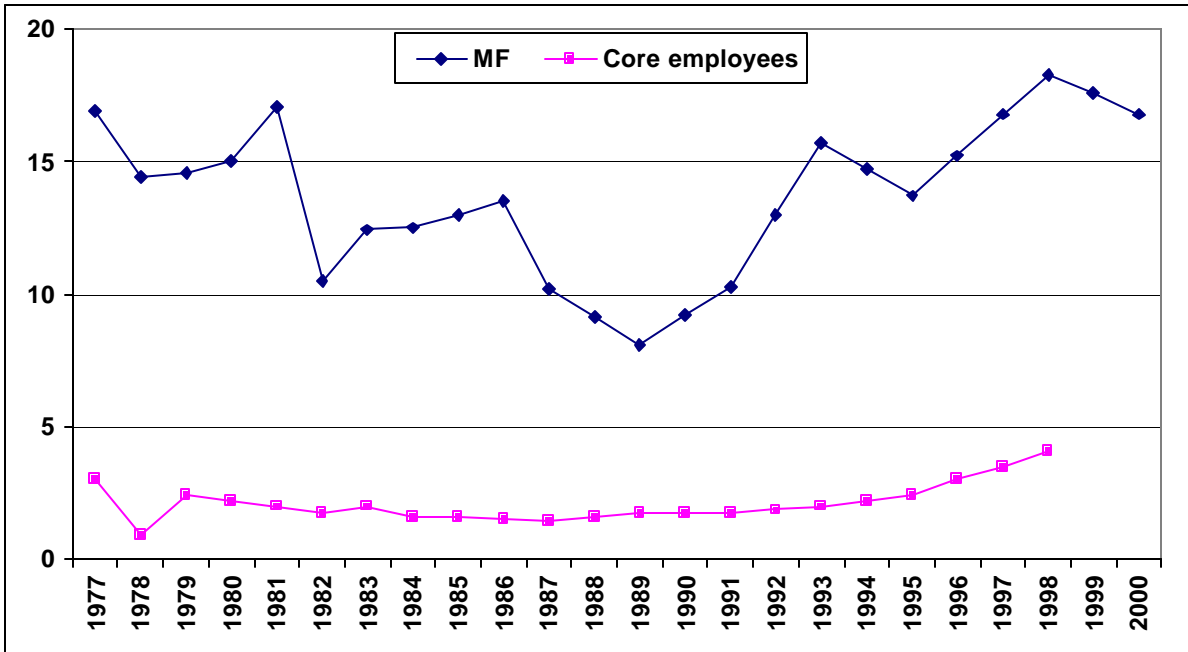
B. All employees by gender

Source: Brandolini et al. (2001) and Banca d'Italia (2002)

The time profile for the share of low-paid workers found for the whole sample is also found for men and women (see Figure 3.B). For the two groups, it declines up to 1989 and rises in the following decade. As expected, the incidence of low pay is much higher for female employees, throughout the period considered. Women's probability of being low-paid is between two and three times higher that of men; only in the second half of the 1990s, this difference narrowed slightly.

One could argue that the difference between men and women in the share of low-paid jobs is due mainly to differences in part-time work (being much more frequent among women). This does not appear to be the case, as the share of low-paid jobs among full-timers is also systematically higher among women (see Table 7).

2. NATIONAL STUDIES ON THE ADJUSTED GENDER PAY GAP

2.1 Source of data

Italy lacks national sources on earnings and working hours suitable for analysing the gender pay gap. All databases on pay available in Italy presents some severe limitations for the analysis of the gender pay gap. First of all, data on hourly earnings made available by ISTAT (the national statistical office) are not collected by gender. There are three other sources that make available some statistical information on earnings by gender (MF, SHIW and INPS). All these three data sets produce data on annual earnings and compute monthly earnings on the basis of some additional information. The time span covered by the different sources presents some several limitations, therefore it is almost impossible to have long time series on gender pay gaps.

The main features of the databases made available by these three sources (MF, SHIW and INPS) are presented in the Appendix.

2.2 Main findings

The lack of an 'ideal' database for the analysis of the gender pay gap helps to explain the relatively little work that has been produced in Italy in recent years. The most important studies produced (and analysing data on earnings in the 1990s) are listed in the references. Standard econometric methods such as Mincer-type earnings regression and Oaxaca-Blinder type decomposition techniques have been applied to assess the

relevance of different factors (educational background, job-specific skills, age, etc.) and to decompose the observed pay gap. The database used for these analysis is the SHIW, the only source providing microdata.

In what follows, the main findings of the most recent study on the gender pay gap are presented (ITER, ed. 2001).

In the year 2000 the Equal Opportunities Committee at the Ministry of Labour (CNPO) requested a Report on the trends in the gender gap in earnings in Italy for the period 1980-2000. The Report was structured in two parts, the first focusing on the economic analysis of the gender pay gap in Italy, the second focusing on the sociological analysis of the self-perception of discrimination by women in low-paid jobs. Elisabetta Addis and Francesca Bettio directed the economic analysis, and Tindara Addabbo, Mario Biagioli and Robert Waldmann were part of the research team. The CNPO Report has been published recently (ITER, ed. 2001).

Besides examining the trends in the unadjusted gender pay gap (as summarized in Section 1.2 above), the work proceeded to estimate the so called "discrimination" coefficient. This is the coefficient on the dummy variable for sex, in a regression on microdata, where the dependent variable is earnings or salary, and the independent variables are the individual characteristics (e.g. age, education, sector, etc.) of each worker taken as proxy of his or her productivity. Regression were run on each year of the ECHP (European Community Household Panel) survey and on each year of the SHIW (Bank of Italy Survey of Household Income and Wealth) survey (1977-98). This classical technique provides a representation of the entire earning structure by age education sector etc. at a given time, as well as a measure of the unexplained wage gap, called the discrimination coefficient.

As it is well known, this coefficient measures true discrimination only if there are no important omitted independent variables, otherwise it represents "the measure of our ignorance". However, in this case, two factors lead to believe that the coefficient reflects behavior related to the sex of the workers. The first is that the coefficient is of the same magnitude for the two - different - sources of data. The second is that the econometric strategy followed in the estimates was to start with a simple model containing only the dummy variable for sex, proceeding then to add the other variables

and noticing by how much their addition causes the coefficient on the sex dummy to shrink.

As an example, we show below (see table 8) the results of a regression on ECHP 1993. In the first column, there are the results for a model containing only the dummy for sex and the amount of time worked. In the second column, there are the coefficients on the other independent variables. Given hours and months worked, women on average earn 21% less than men, and the coefficient (-0,21) is robust, i.e. holds stable even when adding the other variables. Since we can show that by adding important information the coefficient does not change, we may also be confident that it would not change even by adding less important, now omitted, information, but that it reflects, instead, true sex discrimination.

**Table 8 – Econometric analysis of ECHP data for Italy (ECHP 1993)**

Explained variable: income (natural logs)	Basic model Coefficients	Complete model Coefficients
Dummy for female sex	-0,21	-0,21
Log of worked months	1,16	0,91
Log of hours worked per week	0,28	0,39
University degree		0,61
High school degree		0,27
Less than Junior high degree		-0,33
Experience (years)		0,03
Experience squared (years)		-0,001
Seniority (in the same job)		0,03
Seniority if greater than 14 years		0,30
Employed in Northern Italy		0,13
Employed in North East Italy		0,12
Employed in Central Italy		0,07
Constant	6,05	5,59

Source: ITER, ed. (2001, p. 25)

The same technique was applied to each wave of the Bank of Italy data set (SHIW). The SHIW microdata are collected every other year, even if the wording of the survey was slightly different and the survey was administered by a different organization in some of the years. The unexplained portion of the wage gap decreases from the beginning of the sampling period, in 1977, until 1981 and then stabilizes through the decade. In 1989 we notice a sudden improvement, which then

disappears, and there is reason to believe that such dent is due differences in the polling method. Starting in 1991, when a new and homogeneous survey begins, the gender wage gap appears to be growing (see Figure 4).

Figure 4. Temporal pattern of the discrimination coefficient in the SHIW database

Coefficienti di disparità per anno
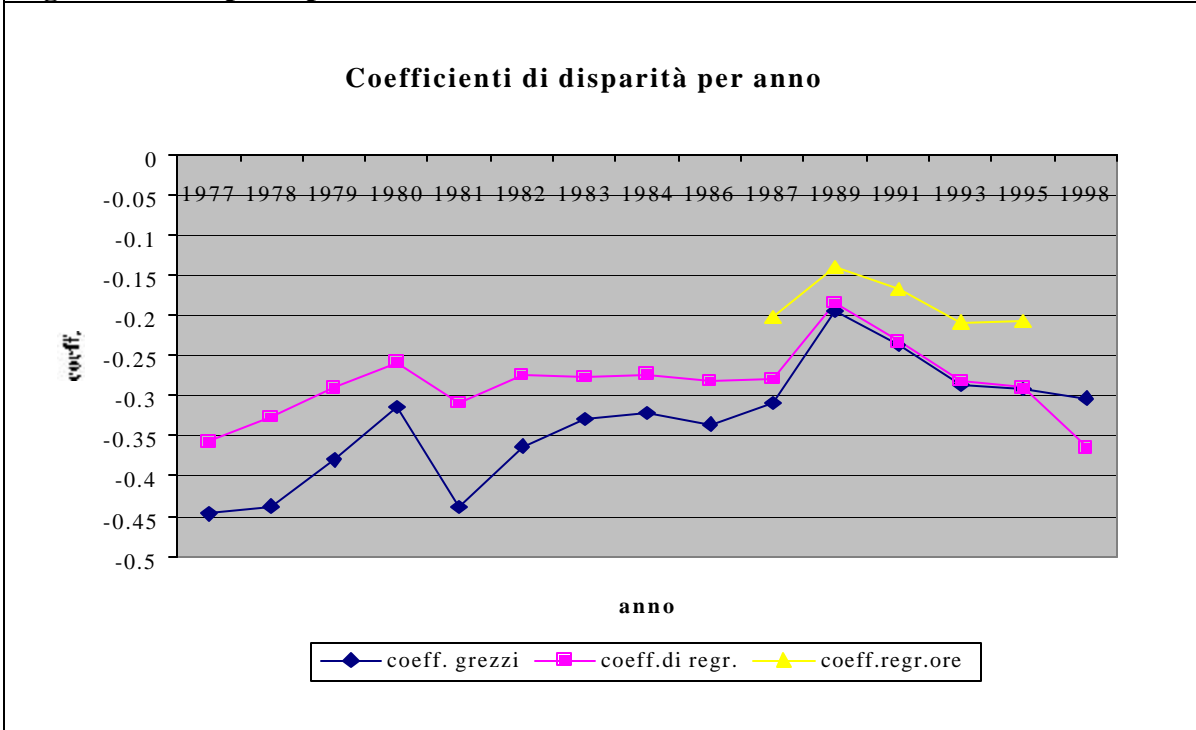
The CNPO report (in ITER ed. 2001) also analyzes the probability of men and women reaching the top echelons of the professional ladder, both on the ECHP data set and on the SHIW data set. Each set defines the hierarchical ladder in a different way. The SHIW data collects 4 levels of qualification (menial worker, white collar worker, professional white collar and director). In the ECHP data the ordering variable is according to the level of subordination or supervision of each position.

With logit and probit analysis, as reported in Table 9, the CNPO report shows that 3% of the women in the ECHP 1993 sample get to the top level (supervisor). If the variable sex did not affect the probability of becoming a supervisor,(but accounting for the other characteristics) 7,2% should get to that level. In the SHIW sample, same year, for each woman who reach the top level, given what the other variables tell us we should find 1,1 men; we find, instead, 5,25.

Finally, the CNPO report shows that non standard workers earn disproportionately less, per hour worked, than standard workers. Choosing part-time employment in order to

reconcile employment and family life is a choice that comes only at a price. Among part timers, however, the gender gap, as measured by the discrimination coefficient, is smaller than among standard workers. For temporary workers, instead, is larger (Table 10).

Table 9 : Probability to rise to top levels in the ECHP database

	Supervisors		Probability of becoming a supervisor	
	Average value	Frequency	Average value	Frequency
Men	0,09	4428	0,10	3472
Women	0,07	2408	0,03	2135
All	0,08	6836	0,07	5607

SOURCE: ITER ED. (2001, P. 31)

Table 10. Econometric analysis of sex earning differentials, by kind of contract (permanent versus temporary). Italy (EHCP 1994)

Variable	All			Permanent			Temporary		
	Coeff.	err.St.	t	Coeff.	err.St.	t	Coeff.	Err.St.	t
Woman	-0,18	0,01	-14,67	-0,17	0,01	-14,07	-0,19	0,04	-4,45
Log hours	0,46	0,02	19,27	0,43	0,03	16,25	0,41	0,06	6,66
Log months	0,87	0,02	42,80	0,93	0,03	32,11	0,82	0,04	21,63
age16	-0,53	0,13	-3,99	-0,52	0,14	-3,81	-0,33	0,14	-2,29
age18	-0,36	0,12	-2,92	-0,46	0,12	-3,93			
age21	-0,16	0,12	-1,36	-0,22	0,11	-1,97	0,14	0,08	1,85
age31	-0,01	0,12	-0,10	-0,04	0,11	-0,34	0,25	0,08	3,07
age41	0,07	0,12	0,61	0,06	0,11	0,51	0,33	0,09	3,70
age51	0,07	0,12	0,58	0,07	0,11	0,64	0,23	0,10	2,36
University education	0,42	0,02	21,73	0,45	0,02	23,79	0,54	0,08	6,64
High school	0,19	0,01	15,45	0,20	0,01	17,09	0,20	0,05	4,36
Junior high school	-0,22	0,06	-3,38	-0,29	0,09	-3,41	-0,11	0,13	-0,89
North West	0,02	0,01	2,06	0,02	0,01	1,64	-0,00	0,04	-0,04
North East	0,03	0,01	2,26	0,01	0,01	1,14	0,08	0,04	1,81
Center	0,00	0,01	0,07	0,00	0,01	0,19	-0,05	0,05	-0,99
Public sector	0,12	0,02	7,27						
Pub. North Center	-0,01	0,02	-0,78						
Permanent	0,37	0,02	21,36						
Constant	5,65	0,16	36,01	6,07	0,16	36,94	5,68	0,26	22,06
R-squared	0,54			0,41			0,47		

Source: ITER ed. (2001, p. 171).

Special surveys covering information not collected in SHIW or ISTAT labour force survey show that for some non standard workers (as the so called 'continuous coordinated cooperation') where women's presence is increasing (especially in Southern Italy) we find that there is a gender gap regarding not only the level of earnings but the timing.

The CNPO Report also applied the technique first developed by Oaxaca (1973) to build indicators of the wage gap in Italy and compare them with similar indicators built with the ECHP data for other European countries. The comparison shows that the Italian unexplained earnings gap ranks in the intermediate range among the other European countries (see ITER ed. 2001, pp. 32-36).

The technique involves running two separate regressions, one on the male and one on the female sample. Then, it makes use of the fact that the average women's wage f equals, by definition, the sum of the regression coefficients of the female sample, fc, times the average value of the characteristics of the female sample, fv. If we instead multiply the coefficients of the regression run on the male sample, mc, by the average female characteristics, fv, we obtain a measure of how much women would be paid, given their characteristics, if they were paid on the same scale as men, called $fvmc$. The ratio $f/fvmc$ is an indicator of discrimination. If it was equal to 1, there would be no discrimination. Along the same line, the male wage m, could be divided by the product of the coefficients of the regression run o the female sample, multiplied by the average male characteristics, $mvfc$. This is an indicator of how much men would be paid if their skills were valued on the same scale as women. It is then possible to compare the rough ratio of women's to men's earnings, and the two indicators fvmc and mvfc, to gauge the source of discrimination in overvaluation of male characteristics or undervaluation of female's characteristics.

Table 11 ranks European countries according to the above described indicators. For example, in Italy in 1993 the average woman's wage was 81,1% of what it should be if women were paid on the male scale. This value is in the average range among European countries, that rank from the lowest, the United Kingdom, where women earn 66% of what they should , to the highest of Denmark, where women manage to get 86% of what they would get if they were paid as men.

Table 11– Oaxaca decomposition, ECHP data (1993-1995).

	First wave 1993			Third wave 1995		
	f/m	f/fvmc	mvfc/m	f/m	f/fvmc	mvfc/m
Germany	0,58	0,71	0,75	0,58	0,70	0,74
Denmark	0,75	0,86	0,85	0,75	0,84	0,83
Belgium	0,70	0,78	0,79	0,68	0,79	0,82
Luxembourg	0,66	0,81	0,84	0,66	0,80	0,87
France	0,66	0,74	0,77	0,66	0,75	0,75
U.K.	0,58	0,66	0,73	0,60	0,73	0,78
Ireland	0,69	0,77	0,77	0,67	0,72	0,77
Italy	0,75	0,81	0,81	0,80	0,84	0,82
Greece	0,75	0,81	0,78	0,76	0,81	0,79
Spain	0,77	0,79	0,80	0,76	0,81	0,80
Portugal	0,81	0,79	0,79	0,83	0,79	0,81
Osterreich				0,65	0,70	0,81
Finland				0,74	0,76	0,78

Source: ITER ed. (2001, p. 33).

3. NATIONAL INSTITUTIONAL FACTORS AND THE GENDER PAY GAP

3.1 The national system of wage setting and recent changes

Wage setting institutions exert a strong influence relative to market forces on the degree of wage inequality and therefore on the size of the gender wage gap. Countries with encompassing collective bargaining agreements that provide for relatively high wage floors are by and large characterised by relatively narrow gender pay gap. This applies to the case of Italy where unionisation is relatively high (even though decreasing), the collective bargaining system is highly centralised (and articulated in different levels) and legislation extends *de facto* the terms of national collective agreements (by sector) to non-union workers (see BOX 1).

BOX 1 – The multi-tiered wage bargaining system in Italy

Wage bargaining takes place at three main levels:

(i) nation-wide bargaining (providing the so called *inter-confederal agreements*) regulates all matters of some general interest (such as, just to mention a well known institution, the wage indexation system);

(ii) industry-wide bargaining (negotiating the *national industrial agreements*) provides, at the industry level, a regulatory net by setting the minimum standards for employment (including grading structure, pay structure by skill grade, advancement by seniority, etc.);

(iii) local bargaining (usually at the company level) might take place either to implement what has been specified in the industry-wide agreement or to introduce some improvements with respect to the minimum standards there specified.

The relative importance of each level of collective bargaining has changed over time, even though industry-wide agreements have continued to form the backbone of the bargaining structure. And it is the existence of these nation-wide industrial agreements that characterises the Italian system, as they have *de facto* the force of law, covering all workers employed in a given sector. Thus, the extension of the terms of the agreement is general, covering both union and non-union members. In other words, collective union coverage is, by definition, full.

The structure of the system changed little up to the early 1990s, although the emphasis shifted between tiers. In 1992-93 substantial institutional changes occurred, which modified drastically the whole wage bargaining system.

This picture is still true, but important qualifications have to be made as the last decade was a period of considerable transformation. Important institutional changes affecting

the wage formation mechanism were introduced; at the same time, significant innovations enhancing flexibility were passed by law[9].

The signing of two important inter-confederate agreements, so called "Protocols of concerted action" (*Protocolli di Intesa*) in July 1992 and July 1993 opened a new era, characterised by a tight incomes policy based upon the abolition of the *scala mobile* (automatic indexation) and a structural reform of the bargaining structure. After two years of negotiations, a framework agreement was signed between central trade unions, employers' associations and government representatives on July 1993, concerning a wide range of policy issues (see BOX 2).

BOX 2 – The Protocols of Concerted Action (1992-93)

More flexibility was advocated from different sides, for different reasons and, often, with different content. The cornerstone of the flexibility-income policy combination that was perfected in the first half of the 1990s are the two Protocols of Concerted Action (*Protocolli di Intesa*) signed in July 1992 and 1993, respectively, by the three main unions, the employers' association and government representatives. In the recessionary climate prevailing at the time the parties involved agreed to:

◊ complete the phasing out of the old wage indexation mechanism (*scala mobile*) and set wage rises within the *targeted* level of inflation. Unions insisted on revision and extension of entitlements to redundancy pay as a counterpart;

◊ further pursue flexibility by: (i) reformation of the Official Job Placement System (*Collocamento*); (ii) introduction of *travail interinaire;* (iii) fine tuning of 'atypical' contracts such as Youth Training Contracts (YTC), apprenticeship, part-time work, fixed-term contracts;

◊ revise social security contributions downward to reduce labour costs. The latter are relatively high in Italy, whereby the burden of competitiveness in the international market mainly falls on wage restraint or undervaluation of the currency;

◊ bring compulsory education forward to the age of 16 in order to align educational standards with those prevailing in Europe and in hope of reducing unemployment;

◊ revise working time and work schedules.

The 1993 agreement includes general policy commitments on issues such as employment policy, investment, industrial policy, etc. But by far the most important points of the Protocol of July 1993 concern the incomes policy and the wage bargaining

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[9] Despite considerable changes introduced in the '80s, the Italian wage-labour market was still considered relatively 'rigid' at the beginning of the 1990s. In particular, an increase in wage flexibility was called for to exit from the recession and to move towards the Mastricht criteria (for entering the monetary union).

system. The crucial innovations introduced in the system of wage setting can be summarised as follows:

♦ the *scala mobile*, the system for the automatic wage indexation, was suspended first (December 1991), and finally abolished (on July 1993);

♦ decentralised wage bargaining (at the plant level) was frozen for most of the early 1990s;

♦ the demarcation of content between industry-wide agreements and local agreements (at the company level) was defined through specific timetables and procedures for bargaining at the different levels;

♦ in order to implement the incomes policy agreement, some bench-marks (linked to targeted inflation) was singled out with the understanding that all social parties should respect them in collective bargaining.

In the context of the re-designing of the system of collective bargaining in Italy, the restoration of wage flexibility was certainly one of the main goals. A set of 'ceilings' was introduced at the top, while (with the abolition of wage indexation) any strong safety net was eliminated at the bottom. Under the new system - as settled in July 1993 - there still are three different levels of bargaining, but they cover different grounds, and cannot overlap. In particular, *national-central negotiations* (taking place between government, unions, employers) determine the rules of bargaining (at each level) and the general policy goals (in particular, the "targeted" inflation rate). *Industry-wide agreements* negotiate minimum wage rates within the boundaries agreed in national-central negotiations. *Decentralised agreements* (at the company level) can set wage increased if linked to trends in productivity and profitability. Box 3 presents a comparison of the wage bargaining system before and after the institutional changes introduced.

As explicitly stated in the *Protocols*, all the innovations introduced to the institutional framework are geared to restrain wage claims, to break the link between inflation and wage increases, to reduce labour costs, and to favour the competitive position of Italian firms in the international markets. Given these very drastic changes, and in particular the abolition of wage indexation, the quantitative effects on the dynamics of wages has been rapid and substantial. The severe recession of the 1990s has compounded the effect of institutional changes and weak bargaining power, resulting in the following developments:

♦ the rate of increase in real wages slowed down at first (below productivity gains), it recorded negative changes during the recession of the mid-'90s and some positive changes in recent years;

- ◆ pay dispersion increased substantially (as discussed in Section 1.3, here above);
- ◆ the gender pay gap re-opened (as discussed in Section 1.2, here above).

BOX 3 – The wage bargaining system in Italy before and after 1992-93	
Before 1992-93	**After 1992-93**
The safeguard of purchasing power is guaranteed by an automatic wage indexation system (nation wide, therefore homogeneous for all employees).	The safeguard of purchasing power is transferred to national industrial bargaining (through the setting of wage increases every two years)
Content: Wage bargaining is based on two *overlapping* bargaining levels: - national industrial agreements can set wage increases additional with respect to those settled by the *scala mobile* (automatic wage indexation system); - decentralised bargaining (at company level): any improvement agreed at company level is possible (nothing is specified in terms of content, procedures, timing).	*Content:* Wage bargaining is based on two *not overalpping* and *separate* bargaining levels (a clear distinction is made in terms of content): - national industrial agreement can set wage increases within the limits defined by the "targeted inflation rate" (planned by the government); no specific formula for linking wage claims to targeted inflation were provided in the *Protocols*; however, a number of factors to be taken into account were listed[10]; - decentralised bargaining (at company level) can set wage increases above the targeted inflation rate, but only if directly linked to trends in productivity and profitability (realised by the enterprise or in the local labour market) (profit-sharing schemes are encouraged).
Timing: National industrial agreement take place every three years. Procedures and timing for decentralised bargaining are determined from below.	*Timing:* National industrial agreement take place every four years (with the possibility of re-negotiating minimum wage rates after the first two years). Decentralised bargaining (concerning wage increases) cannot take place at the same time national industrial bargaining is taking place.

Table 12 presents some evidence on trends in earnings (in nominal and real terms) for the all economy since 1993. Nominal contractual earnings refer to wage rates determined through national collective bargaining (industry wide agreements). As mentioned above, these agreements have to set wage increases on the basis of the

"targeted inflation rate" (and eventually adjusting *ex-post* for the gap with respect actual inflation rate). The "targeted inflation rate" has been systematically below the inflation rate (2.7 and 2.9 percent per year respectively over the period 1993-2001). Thus, contractual earnings, in real terms, have lost ground (-0.2% per year over the whole period).

Table 12 – Contractual earnings, actual earnings, inflation rate: annual average rate of increase. 1993-2001 (%)

	1993-1996	1996-2001	1993-2001
Total economy			
Contractual earnings ("minima")	3.1	2.6	2.8
Real contractual earnings	*-1.3*	*0.5*	*-0.2*
Actual earnings	4.0	3.0	3.4
Real actual earnings	*-0.4*	*0.9*	*0.4*
FOI (consumer price index for employees' households)	4.4	1.9	2.9
TIP (targeted inflation rate)	4.0	2.1	2.7

Source: Istat (2002: 180)

Decentralized wage bargaining (taking place at the enterprise level and, for some branches – such as construction and agriculture – at the territorial level) is now in charge of linking wage increases to productivity gains. Data on actual earnings include the increases recorded through this decentralized bargaining. At the aggregate level (for the whole economy) the annual average rate of increase in "real actual earnings" was negative in 1993-96 (-0.4) and positive (+0.9) in 1996-2001. On the whole, the increase in real terms appears small (+0.4% per year over the whole period).

The figures reported above (table 8) are averages referring to the whole economy. But decentralized wage bargaining is very unequally spread in Italy. The so-called "decentralized integrative bargaining" – which, according to the agreements on incomes policy of the early '90s, was supposed to distribute productivity gains through wage bargaining at the company level – did not spread evenly in the last decade. The bulk of employees of small and medium-sized enterprises (SMEs) are up till now not

[10] Such as: the competitiveness of the economic system, the economic conditions of the sector concerned, the goal of protecting the purchasing power of earnings, etc..

involved[11]. According to the Bank of Italy survey[12], about two thirds of small firms (20-49 employees) did not have any collective agreement in the last decade; the remaining third had bargained some collective agreement but less than half had included wage increases related to the economic performance of the firm. The spreading of decentralised bargaining, on the contrary, is almost full for larger firms (over 50 employees) in industry.

3.2 The regulation of low pay in Italy

Three main approaches to the determination of wages at the lower end of the earnings distribution are identified by the literature on law pay and wage regulation (Bazen and Benhayoun 1991). These are:

- national minimum wages (set by law);
- no statutory minimum wages but industry-wide collective agreements which cover nearly all workers;
- a mixture of coverage by collective bargaining and industry-based minimum wage fixing.

Italy has no statutory minimum wages. The determination of wages at the lower end of the distribution continues to be based on national industrial agreements (CCNL). Up to 1993, the automatic wage indexation system was responsible for safeguarding the purchasing power of wages (adjusting nominal wages on the basis of the consumer price index at regular intervals). Since the abolition of the wage indexation system, wage increases at the lower end of the distribution are determined by the industry-wide collective agreements on the basis of the "targeted inflation rate". On average, wage increases were systematically below actual inflation throughout the last decade. Therefore, in those areas where decentralised wage bargaining has not been taking place real earnings has been falling.

Moreover, Italy has no national system of social assistance (such as Income Support in the UK, or the *Ingreso minimo de inserción* in Spain). The absence of a national assistance programme providing benefits for all people who lack sufficient resources is

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[11] The relative number employed in SMEs varies significantly between countries. It is well known that it is higher in Southern countries. According to Eurostat data (Enterprises in Europe) in Italy some 51% of total employment was in small firms of less than 50 employees in 1994.

partially substituted by the intervention of local authorities, the church, voluntary bodies and the family.

The pursuit of labour market flexibility throughout the 1990s, implying uncertain employment opportunities for an increasing share of the working population, has not been matched by a simultaneous reform of existing redundancy schemes and unemployment benefits (so called "*ammortizzatori sociali*"), as originally planned. This has inevitably resulted in both an increasing share of low-paid workers and household poverty.

It is common opinion that the rapid increase in fixed-term jobs as well as other forms of contingent work (including some new forms of self-employment[13]) must have had a significant impact on the distribution of earnings and household income. Brandolini, Cipollone and Sestito in the introduction to their paper on earning dispersion and low pay in Italy write:

> "Some suggest that low-paid positions are on the rise, and the concern has been frequently voiced that holding a job is non longer sufficient to avoid poverty. The higher volatility of employment opportunities has exacerbated the deficiencies of the Italian social safety net, which is largely ineffective in protecting persons with poor work experience or trapped in contingent jobs. The debate on the reform of the Italian welfare state has begun, but changes have been minor to date; a fully-fledged reform of existing unemployment benefit schemes has been repeatedly delayed; trials of a social inclusion income support mechanism (*reddito minimo di inserimento*) only began in 1998" (2001, p. 7).

Some changes were introduced over the last decade to reduce existing inequalities in social policy in Italy. Nevertheless the system has not modified its basic feature. This has been identified by Ferrera (1996) as a *dualistic income maintenance system* in which very high benefits are provided for privileged groups with strong attachment to the formal labour force, alongside zero or low and discretionary benefits for the rest of the population (in particular, unemployed first job seekers, re-entrants to the labour

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12 Banca d'Italia, Indagine sugli investimenti delle imprese dell'industria in senso stretto (in Banca d'Italia, 2002, Tav. B23: 134).

13 A growing number of independent contractors, consultants or free-lance workers – called parasubordinati (i.e. quasi-employees) are engaged in marginal activities, in conditions frequently not very different from those of an employee except for being less well paid and less well protected.

market, people employed as quasi-employees, those working in the underground economy or on irregular basis)[14].

It is was with surprise (and preoccupation) that I discovered in an official document of the Ministry of Labour (*Libro Bianco*) the idea of "national minimum wages" as a tool conceived to foster wage flexibility (downward), instead of a social policy tool setting a floor to prevent low-pay. The argument is the following:

> "The institutional system determining wages in Italy favours the endurance of an earning structure relatively little differentiated. Moreover, one has to point out the absence of national minimum wages set by law. This function, in fact, is played by sectoral collective agreements. With respect to other countries, this function is played less efficaciously, relatively to prevention of abuses, given that CCNLs [sectoral collective agreements] set relatively high wage rates, with respect to the average wage. As a matter of fact, the minimum wage rates set by CCNLs are between two thirds and three quarters of average wage, well above the 50% that is assured by statutory minimum wages in the majority of countries having this tool."(Ministero del Lavoro, *Libro Bianco*, 2001, p. 13)

It is implicitly argued that statutory minimum wages can be a useful policy tool as long as they are set at sufficiently low rates to favour downward wage flexibility. Nothing is said, on the other hand, about the need to provide a safety net for marginal workers.

4. NATIONAL POLICIES ASSOCIATED WITH EFFORTS TO CLOSE THE GENDER PAY GAP.

The closing of the gender pay gap, *per se*, has not been included within the national policy discussion over the last two decades. The issues at the core of the discussion on wages going on at the central level (between government, trade unions, and employers associations) are others (in particular, the discrepancy between the targeted inflation rate and the recent estimates on actual inflation).

Trends in pay dispersion and trends in gender differentials tend to follow the same pattern in Italy, supporting the hypothesis that pay differentials between men and women tend to move along with pay gaps. The rapid and significant improvement in female to male earnings differentials during the 1970s/early 1980s has been interpreted

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[14] In case of redundancy, income support schemes are generous for a minority of workers - industrial employees in large firms - and rather meagre for the remaining majority. The disproportionately feminised group of unemployed first job seekers and re-entrants to the labour market is still not eligible for income support.

as the indirect outcome of the egalitarian wage policy pursued by the trade unions (Bettio, 1988). Indeed, for almost two decades the trade unions pursued an egalitarian policy based on: (i) the compression of differentials among all grades, and (ii) an egalitarian wage indexation system (flat rate wage awards). The unplanned outcome of this policy was a rise in relative female pay. Conversely, the current tendency to the widening of pay differentials by gender has an adverse effect of the general patterns in earnings ratios.

The narrowing of gender differentials never was an explicit target of trade union wage policy in Italy. In fact, as pointed out by several Italian scholars, Italian trade unions have never shown a strong commitment to reducing gender differentials. The issue of women's low pay has traditionally been seen as part of the general problem of economic inequity; thus, the effort went into (i) the squeezing of pay differentials (by industry, by category of employment, by skill grade), up to the middle 1980s; (ii) the promotion of equal opportunities, in the 1990s.

The attitude of the unions with respect to the issue of gender differentials is mirrored, in some respects, by the attitude of the legislator. Both at the national and at the regional level, equal opportunity legislation does not consider the issue of gender bias in the pay determination system *per se*. Two most important Acts that were passed focus entirely on equal employment opportunities, including de-segregation and positive actions. Neither the anti-discriminatory legislation passed in 1977 (law no. 903/1977) nor the law on positive action (law no. 125/1991) make any specific provision towards equity of pay. In particular, the 1977 law (art. 7) states that women should receive the same pay as men when the job performed is the same or of equal value. However, nothing operational is said about the actual evaluation of jobs. Similarly, the 1991 Act, while stating the possibility of indirect discrimination (art. 2), admits statistical documentation on earnings as presumptive evidence to this effect (art. 5), but does not specify corrective measures.

The fact that Italian legislation does not provide any specific machinery for implementing equal pay is not surprising in view of the fact that job evaluation systems have hardly been implemented in Italy. Both employers and trade unions have no tradition of using analytical evaluation techniques. Moreover, the debate on comparable worth, which has flourished in other countries, has not even begun in Italy. In particular,

trade unions have never considered challenging the existing structure of pay in order to correct residual gender biases in the pay determination system. Women are perceived to be low paid because of their occupational position in the labour market, and not because of undervaluation of their jobs. De-segregation (through positive actions at the work place) is thus proposed as the appropriate solution.

APPENDIX A - STATISTICS ON EARNINGS : NATIONAL STATISTICAL SOURCES					
	Nature of the data source	**Period covered**	**Type of information on income and pay**	**Population**	**Specific features**
Ministero delle Finanze	Administrative database	1982-94	Total personal income: - all types of income - total annual income for employees	All people in employment (subject to income taxation)	- Aggregate data
Banca d'Italia, Survey of Household Income and Wealth	Microdata from household survey (national survey)	From 1977 onwards (every other year)	- The incomes earned and job status of each income recipient of the household; - earnings are recorded net of taxes and social security contribution, they include all monetary and in-kind payments received by the worker in the year; - monthly earnings are obtained by dividing the annual amount by the number of months worked.	Households (national sample)	- No information on the number of hours worked; - earnings: amounts reported are the result of computations performed by respondents; - from 1986: information on full-time and part-time jobs are made available (based on self-declaration)
INPS – LABORatorio Revelli (*)	Administrative database (a random sample of longitudinal panel from the universe of employees recorded by INPS)	1985-1996 (it will be updated)	- pre-tax earnings and a few individual characteristics; - monthly pre-tax earnings are estimated on the basis of the days worked in the year;	All employees in the private sector who comply with the social security regulations	- No information on the actual number of hours worked by an employee; - microdata (longitudinal panel); - it is possible to reconstruct the career of single individuals (earnings dynamics) - no information on educational attainment;

(*) A group of researchers based at the LABORatorio R. Revelli (Turin) has developed an important database of job histories for individuals working as employees in the Italian private sector. This employer-employee linked longitudinal panel has been derived on the basis of the Italian Social Security Office (INPS). It forms a random sample of size 1:90 drawn from the employee universe, with about 100 thousands employee records observed in each year from 1985 to 1996 and linked to some data of the firms where the employees work. Among other things, currently available data make it possible to reconstruct the career of single individuals (as long as they belong to the universe of firms subject to INPS contributions) and, therefore, to observe earnings dynamics.

LEGENDA

CCNL	Contratto Collettivo Nazionale di Lavoro (Sectoral Collective Agreements)
CNPO	Comitato Nazionale di Parità e Pari Opportunità (at the Ministry of Labour)
ECHP	European Community Household Survey
ESES	European Structure of Earning Survey
INPS	Istituto Nazionale di Previdenza Sociale (Italian Social Security Office)
MF	Ministero delle Finanze (Ministry of Finance)
SHIW	Survey of Household Income and Wealth

REFERENCES

Addis E. and Waldman R. (1996), Struttura salariale e differenziali per sesso in Italia, *Economia del Lavoro*, Anno XXX, n.1-2 (pp. 87-103)

Bazen S., Benhayoun G. (1992), Low pay and wage regulation in the European Community, *BJIR*, Vol.30, n.4, pp.623-38

Bettio F., Villa P. (1996), *Trends and Prospects for Women's Employment in the 1990s. Italy*, Network of Experts on the Situation of Women in the Labour Market, European Commission, Brussels

Blau F.D. and Kahn L.M. (2000), Gender Differences in Pay', *Journal of Economic Perspectives*, Vol. 14, n. 4, pp. 75-99

Blau F.D. and Kahn L.M. (2001), Understanding international differences in the gender pay gap, *NBER Working Paper*, n. 8200, in: http://www.nber.org/papers/

Brandolini A., Cipollone P. and Sestito P. (2001), Earnings dispersion, low pay and household poverty in Italy, 1977-1998, *Temi di discussione del Servizio Studi*, Banca d'Italia, Roma

Canziani P. (1996), I differenziali di reddito tra donne e uomini in Italia, *Lavoro e Relazioni Industiali*, n.2, aprile-giugno (3-15)

Contini B. (a cura di) (2002), *Osservatorio sulla mobilità in Italia*, Il Mulino, Bologna

Frey L., Pappadà G. (2002), Bad jobs and atypical work in Italy, 23rd Conference of the IWPLMS, Spetses (Greece), July 2002

Istat (2000), Inserimento professionale dei laureati. Indagine 1998, *Informazioni*, n. 28, settembre

Istat (2002), Lavoro e retribuzioni. Anno 2000. Istat, Roma, in: http://www.istat.it/Aproserv/noved/retribuzioni/premessa00.html

ITER (a cura di) (2001), *I differenziali salariali per sesso in Italia*, Ministero del Lavoro, Comitato Nazionale di Parità e Pari Opportunità, Roma, Istituto Poligrafico

Ministero del Lavoro e delle Politiche Sociali (2001), "*Libro Bianco sul Mercato del Lavoro in Italia. Proposte per una società attiva e per un lavoro di qualità*", Roma, October (downloaded from: http//www.minwelfare.it)

Bonjour D., Pacelli L. (1998), Wage formation and the gender Wage Gap: do Institutions Matter? Italy and Switzerland Compared., ….

OECD (1996), Earnings Inequality, Law-paid Employment end Earnings Mobility, *Employment Outlook*, Paris, OECD (pp. 59-108)

Rubery J. et al. (eds.) (2001), *Indicators on Gender Equality in the European Employment Strategy*, EC's Expert Group on Gender and Employment, in: http://www.umist.ac.uk/management/ewerc/

Rubery Jill, et al. (1998), *Equal Pay in Europe? Closing the gender wage gap.* ILO Studies. New York: St. Martin's Press; London: MacMillan Press

Santi P. (2001), Giovani, brave (e discriminate?), in *Osservatorio Italiano*, pp. 292-299

Villa P. (1996), (commento a Canziani) "I differenziali di reddito tra donne e uomini in Italia, *Lavoro e Relazioni Industiali*, n.2, aprile-giugno (27-35)

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