

Labour Market Segmentation, Flexibility and Precariousness in the Italian North-East¹

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Abstract

Official Italian statistics undervalue the presence of short-term labour contracts. A more careful calculation of short-term labour contracts more than doubles the official figures ranking Italy among the countries with a large amount of temporary work. Temporary labour contracts represent half of the total yearly labour flows and has doubled in recent years in France, Italy and Spain in an attempt to avoid labour market rigidities imposed by the national employment legislations. But temporary contracts have larger potential costs.

Very little is known about temporary workers in Italy and it is therefore important to improve our understanding of their career opportunities and to assess the impact of this form of labour market flexibility. Using data from the Social Security archives (INPS) for the manufacturing sector we found evidence that short job spells are concentrated on young workers and that a succession of temporary jobs can push workers towards more permanent forms of employment, so that worse conditions received during the temporary contract period are compensated for by better conditions in the future. But people working for short spells can also be considered as an extreme case of outsiders, who receive low wages and have worse conditions compared to permanent workers, and this situation may last for their entire working life. In the nineties the divide between movers (non tenure workers) and stayers has increased and a considerable quota of the work force is destined to never stabilize.

Jel. J21; J44; R23;

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Since the late 1970s, inequalities have been on the rise in a number of OECD countries. Many factors enter into the determination of income inequality: low-pay jobs, new flexible “non-standard” patterns of employment, unemployment, especially of people other than the head of family. These factors play an important role in determining households’ poverty, as they are only partially counteracted by the various responses of government transfer programs and social policies.

Official Italian statistics grossly undervalue the presence of short-term jobs estimated through the number of people working with a time limit and a more conscious calculation of various forms of short-term contracts more than doubles the official figures ranking Italy among the countries with a large amount of temporary work. The (supposedly) rigid Italian labour market is not so rigid as it appears on first sight.

Temporary contracts avoid some labour market inflexibilities imposed by the employment legislation, but have larger potential costs. A succession of temporary jobs can promote some form of specific human capital that can lead the worker to move into a more permanent labour contract with the same firm or with other firms with possible higher wages, so that the worse conditions received during the temporary contract period are compensated for by better conditions in the future. But temporary workers can also be considered as an extreme case of outsiders, who receive low wages and have worse conditions compared to permanent workers, in a situation of precariousness that extends to their entire working career. In the Italian manufacturing sector, where the quota represented by tenure workers is traditionally high, a double shift took place during the last decades. First the quota of tenure workers declined through time. Second the divide between movers (non tenure workers) and stayers (tenure workers) increased and a non-marginal quota of the employees is to be counted as permanent movers.

These issues are important since the Italian government provided in June 2003 additional forms of temporary contracts and the desirability of such a policy depends upon whether temporary contracts are assumed to be at present insufficient to grant the labour market necessary flexibility and whether temporary contracts are to be considered dead ends or stepping stones towards more permanent work.

The paper has the following structure. Section 2 discusses the relationship between flexibility and the precariousness in the Veneto labour market. Section 3 ‘measures’ the augmented presence of ‘non standard’ forms of employment in Veneto labour market during the last 20 years and draws some conclusions about the downward bias in the measures adopted in Italian official statistics and in international comparisons. Section 4 is restricted to manufacturing. Workers in manufacturing are divided between movers and stayers. Both categories appear less stable at the end of the period. Stayers are less stable, as the quota of tenure workers over total workers decreases. Movers, low qualified workers, increase with time in a significant way and the wage drift between movers and stayers increases. Movers’ working careers, chaotic careers as they are called, are briefly analysed. Section 5 concludes.

Part 1. Temporary work.

1.1. Flexibility and precariousness.

A flexible labour contract means that firms can easily draw up a new labour contract and easily lay off the worker without incurring redundancy payments or restrictions imposed by work legislation. A flexible contract contemplates possible changes in labour hours, wages and functions.

Of course, self-employment is the first labour contract that comes to mind when flexibility is at stake. Self-employment has no stated working time, no stated conditions and compensation. It is noteworthy that after a long period of decline the self-employed fraction of the labour force has increased since the mid-1970s in several Western countries (Blau, 1987; Evans and Leighton, 1989; Magnac and Robin, 1994). As in other countries, the self-employment quota in terms of total employment in Italy has grown since the mid-seventies. The minimum level of self-employment in the total manufacturing sector was attained in 1974 (14%): subsequently the self-employment quota has risen, peaking in the late seventies, to rise again in most recent years to the high values of the late fifties (+3.3% yearly rate, 1974-1994. Rapiti, 1997, 176-180; Chelli and Rosti, 2002). The increase of the self-employment quota in manufacturing is the result of a double movement: the decline in employees (-2.2%) and the increase of self-employed workers (+ 1.7%). In the rest of the economy self-employment grew at 3.0% per year but the self-employed quota itself grew much less, as the number of employees was increasing at the same time (Tattara and Volpe, 2001).

The net flow in the number of self-employed is, for the most part, the result of a net flow away from the employee category, and only to a limited degree is the result of an inflow of people entering the labour market for the first time or previously unemployed. The positive variation through time that has been registered in self-employment over the last twenty years, is largely explained by the net flow originating in the category of employees: people looking for a job move into self-employment directly only to a very limited extent (OECD, 1992, table 4.8; Rapiti, 1997, 181; Chelli and Rosti, 1998, 13). Not all movements from employment into self-employment are associated with a significant change in the worker status and in labour conditions. A large part of workers just substitutes a stable form of employment with a more precarious form of employment.

Other forms of temporary labour are Collaborazioni Coordinate e Continuative (continuous and coordinated collaboration), Lavoro Interinale (job on call) and other minor contracts. The typical nature of Collaborazioni is represented by being legally autonomous but substantially subordinate to the principal (as the word coordination). Lavoro Interinale a-typical nature is due to the relation between worker and employer, because the employer is hired by the temporary labour agency and not by the firm on whose premises the work is given. The very recent Italian labour market law (June 2003) allows temporary labour agencies to draw up labour contracts with no time limit, so that the new Lavoro Interinale is going to become the new form of labour hiring, a form deprived of any formative content and, in this respect, very different from the various forms of apprenticeships already in existence (Bianco, 2003).

Other forms of labour precariousness should be added. For example, workers-memberships in small cooperatives, direct participation in shared societies. Workers employed in small firms with permanent labour contracts, that are de facto time limited contracts, with a signed resignation letter with no date, should also be included.² Short duration in many cases is known a priori and should be considered as an explicit index of precariousness.

² Frequently used in case of female employment, just to be sure the worker will leave with the arrival of the first pregnancy. See a research by the Ministero del Lavoro quoted in Saraceno (2002). According to that 20% of female *voluntary* quits in the Northern regions happen during pregnancy.

The discussion on a flexible labour market is usually limited to employees and the word flexibility is applied to labour contracts. The more restrictive assumptions have not however landed us on safe ground, as flexibility remains very difficult to measure empirically. Statistical measures for overtime, changes in functions, and other forms of flexibility are not reliable or are lacking.

An usual indicator of flexibility is the quota of a-typical workers over total employees. A-typical is the translation of the Italian *atipico* meaning all the contracts are not collected under the heading of the typical labour contract, which is the full time contract with no time limit, or tenure.³ A-typical contracts are the sum of part time workers and temporary workers. So flexibility is identified with a-typical. Part time work with no time limit (although sometimes not voluntary) is a contract profoundly different from temporary work because of its permanent character and is not considered a-typical. We underline a notion of flexibility that points mainly to the limited duration of the contract and the connected risk of instability and refers explicitly to a measure of the time limit stated in the contract (Anastasia and Maurizio, 2002).

1.2. Underestimation of temporary work in Italian official statistics.

The study deals with the Veneto, a region in the North East of Italy, which offers a significant point of observation for several reasons. The increase in mobility, in a rich and dynamic setting close to full employment as the one we are studying, is at first sight counter-intuitive. First, the aging population and the increase in education are expected to lead to more permanent jobs and to less precariousness, which it is not. Second, employment increase is usually associated with an increase in trade union strength, in higher wages and in more stable forms of employment, while mobility and precariousness in our territory seem to be increasing with time, parallel to the employment increase.

In the Veneto labour market the quota of temporary workers was in 2001, according to the data of the Italian Central Statistical Office, around 8% of total employees. In absolute values 102.000 over 1.300.000 employees (Istat, *Rilevazione trimestrale delle forze di lavoro*, henceforth Rtl). A similar ratio is for Italy. Such a number has rapidly increased in recent years, both in absolute and in relative values, doubling since 1993. The yearly average rate of increase is 5% and 5000 employees is the average yearly increase value.

Moving to flow values, temporary work has been absolutely dominant among yearly hirings since the early nineties and this is the first reason to look at temporary work as a sign of the prospective erosion of the stock of stable employees, although stock values, which are very slow to change, remain dominated by permanent contracts.

The official Italian data for temporary work is rather low in comparison with Spain and Portugal, two countries particularly marked by the large diffusion of temporary labour, and below the data of the large continental countries, Germany and France, and the Nordic countries, the Netherlands and Sweden. They are larger than in the United Kingdom and Ireland, but these are countries where the absence of a protective legislation makes the recourse to temporary work much less interesting. Italy (the Veneto as well) has the same average number of female temporary workers (12%) as OECD countries in 2000 but this percentage is positively inferior for males. More relevant OECD countries between 1990 and 2000 did not show a tendency to an increase in temporary work, while Italy doubled its temporary work quota over total employment (Anastasia and Maurizio, 2002).

Italian official data is from Rtl. This is a survey delivered every three months to a member of the resident families. As noticed by de Angelini and Giraldo (2002, 105) and Anastasia and Maurizio (2002) the data reflects the self-perception of the nature of the labour contracts of

³ On the historical origin of such a situation, going back to the populist nature of the fascist regime, see Accornero (2000, 191-192)

various family members by the interviewed person (the head of the family) more than the juridical nature of the contract. The way the interview is structured leads to a relevant bias in the case of cfl (work and training contracts) and of apprentices, as these contracts are in many cases, eventually, transformed into permanent jobs and are often perceived as stable contracts by the worker and more so, by the other family members who are not normally aware of the juridical nature of the labour contract.⁴ As a consequence, in international comparison, Italian data for temporary work is heavily downward biased.

Netlabor archives for 4 Veneto provinces have been used with many precautions to provide alternative evidence for temporary work. As a result of the Veneto Lavoro study, the number of temporary workers more than doubles the number of the same workers counted by Istat. Temporary workers go from 7 to 13% of the stock value for the four Veneto provinces. If the same correction applied at the national level, the quota of temporary workers would jump to around 20% and Italy would rank just below Spain, close to Portugal, among the countries with the highest number of temporary workers, leaving behind Germany and France. With the relevant difference that in Portugal and Spain the number of temporary contracts is decreasing, while in Italy it is still increasing and this makes the Italian situation more critical (Anastasia and Maurizio, 2002).

The longitudinal panel we operate, based on the Social Security archives (Appendix), provides some additional evidence for the two provinces of Treviso and Vicenza. The number of apprenticeships and cfl is a specific Inps entry (OIM records) and is easily computed. Temporary work is much more problematic: temporary work is identical to permanent work as far as Social Security is concerned so that the juridical distinction is not recorded in the Inps declaration. We estimate time-limit contracts as working spells lasting less than 6 months not followed by quick re-association into employment,⁵ so as to avoid counting temporary work as short-term voluntary movements. Table 1 counts the number of workers with a short-term contract – cfl, apprentices and time-limit – at yearly intervals: temporary workers employed at the beginning of the period and workers hired during the period are counted. Table 2 brings the previous results up to date, taking into account Netlabor data computed for the same provinces. Netlabor data refers to total employment (private and public) and concerns cfl, apprentices, time-limit contracts, Lavoro Interinale, which began in 1998, daily workers and workers at home. Netlabor data is yearly stock data, computed from the flow history.⁶ Veneto Lavoro has kindly provided the data for the two provinces of Treviso and Vicenza so as to make them comparable with our Social Security series. The update is important because years 1997-2001 show an increase in the temporary work percentage well behind what one could imagine from the previous table. The rapid increase (yearly 10%) is the result of the law 196/97 that broadens the age range and generalizes the apprentice contract to all sectors and to people with almost all kinds of formal education (de Angelini and Boldrin, 2002). Table 3 presents official Italian figures from Rftl for Veneto and from 1993 onwards for the two Veneto provinces of Treviso and Vicenza, manufacturing and total private employment, kindly supplied by Veneto Lavoro, and allows an indirect comparison with the series obtained from the various administrative institutions so that the downward bias in the official figures is crystal clear. Table 4 provides a flow measure: yearly temporary work over yearly total engagements.

⁴ 30% of time limit labour contracts are due to be transformed in contracts with no time limit by the same firm. See Ministero del lavoro (2003). Computations on the Social Security longitudinal panel provide a larger quota of transformations both for cfl and for apprenticeships.

⁵ Quick re-associations, within 4 months or less from the preceding separation, are the vast majority of re-associations (> 50%). The rationale for this assumption is that separations not followed by a quick hiring are not voluntary in nature but due to the labour contract expiry.

⁶ The stock is computed from flow movements. Netlabor flow data is available from 1994-1995 and allow a reasonable stock estimate in the case of short-term contracts.

Table 1. Number of temporary workers in private employment and in manufacturing[§] in Treviso and Vicenza. Social Security Longitudinal Panel (October stock value).

year	Cfl		Apprentices		Cfl + Apprentices		Cfl+App/total employees	
	Manufac turing	total private	manufa cturing	Total private	manufa cturing	total private	manufac turing	total private
1982			17607	27014	17607	27014	9,10	8,02
1983			15464	23733	15464	23733	8,31	7,32
1984			16040	23805	16040	23805	8,71	7,43
1985	1941	2560	18711	26735	20652	29295	10,81	8,82
1986	7333	10774	19496	27328	26829	38102	13,67	11,18
1987	14856	22678	21836	30402	36692	53080	18,03	15,10
1988	19855	31094	22769	31502	42624	62596	20,25	17,62
1989	22271	34242	22024	30968	44295	65210	20,19	17,71
1990	22244	34431	19829	28406	42073	62837	18,72	16,65
1991	15959	24795	17563	26018	33522	50813	14,93	13,33
1992	10174	16463	14945	22718	25119	39181	11,46	10,41
1993	7864	13246	12948	19902	20812	33148	9,76	9,01
1994	9144	14065	13196	19840	22340	33905	10,13	9,01
1995	11239	16700	12937	19290	24176	35990	10,53	9,24
1996	11223	17588	11797	17849	23020	35437	9,86	8,96
1997	10571	16818	11346	17304	21917	34122	9,34	8,59

Method: § restrict definition: no energy, gas etc. and building (Ateco 1981, 3 and 4).

Table 2. Number of employees (total employment) hired with a time-limit contract in Treviso and Vicenza. Netlabor yearly averages.

year	cfl	apprentices	time-limit contracts	job on call	others	total	temporary/ stock [°]
1997	18204	20082	21246	-	564	60096	15,54
1998	16362	22703	21708	120	591	61484	15,35
1999	12937	26708	22028	703	668	63044	15,90
2000	9329	28912	24737	2078	738	65793	14,96
2001	7154	29098	23518	3650	791	64211	14,51

Source: Netlabor archives. We have kindly been provided with data by Bruno Anastasia and Danilo Maurizio, Veneto Lavoro. Netlabor provides a specific class for time limit contracts as the juridical nature of the contract is explicitly recorded and report the new yearly hirings.

[°] Stock values are from total employment recorded in Rtfll..

Table 3. Quota of temporary workers in total employment in Veneto and in Treviso and Vicenza according to Rtfl.

year	Veneto	
	manufacturing [§]	total
1982		
1983	2,42	4,04
1984		
1985	2,17	3,32
1986	2,17	3,43
1987	3,29	4,51
1988	4,01	4,87
1989	3,73	4,90
1990		
1991		
1992		
	Treviso and Vicenza*	
1993	3,64	4,01
1994	4,68	5,37
1995	3,97	4,28
1996	4,42	4,69
1997	4,15	4,58
1998	4,51	5,19
1999	5,16	5,59
2000	5,17	5,85
2001	5,32	6,10
2002	5,79	6,56

Method: § Ateco 1981, 3 and 4.

Table 3 definitions are comparable with table 1 definitions.

Source: Rtfl. *Rtfl data is not published for the Province and have been kindly supplied by Anna de Angelini, Veneto Lavoro.

Table 4. Number of associations and separations relative to Cfl and Apprentices over total associations and separations in Treviso and Vicenza.

year	manufacturing	total private
1982	40,58	24,44
1983	36,75	21,83
1984	39,52	23,82
1985	44,09	28,33
1986	49,72	34,08
1987	55,44	40,49
1988	55,92	43,61
1989	52,53	41,87
1990	47,86	38,55
1991	42,81	32,36
1992	37,62	28,84
1993	35,89	26,38
1994	33,58	26,35
1995	30,43	25,84
1996	28,81	24,46

Several activities in the service private sector are characterized by unstable employment, as it is well known, and to have limited the analysis to manufacturing, building excluded, appears a conservative measure. The Social security data for temporary work contracts suggests an estimate for temporary workers in 1997 close to 14,0%, more than triple the temporary workers estimate reported by Istat Rtfl for the comparable 1997 population (5.0%). Netlabor estimate lies in between (7.5%).

Let us abandon the juridical nature of the labour contract and move to the assessment of work spells of short duration. This analysis provides a different measure of short time employment: an ex-post measure of worker tenure with the same firm, independent of the nature of the work contract.

Short employment spells have increased with time. Spells <12 months duration have increased from 6 in 1982 to 13% and spells >12 months and <24months have moved from 12 to 21% in 1996. Short spells are much more numerous for females than for males in manufacturing. The series of short spells has little to do with the previous series, as it includes voluntary quits (of workers possibly hired with permanent contracts) and excludes renewals and transformations of temporary contracts, although the renewal of cfl is made difficult by the law and apprenticeship can be renewed up to 5 years in length. But of course temporary contracts are liable to constitute the larger part of the people characterised by the short labour spells. The increasing number of short term working spells contrasts with the increased average duration of time limit contracts: the average duration of an apprenticeship contract was on average 11 months 20 years ago, 19 months in 1982, 20 months in 1990 and cfl have followed a similar pattern; but their absolute number has increased and some kind of very short spells has increased too. For example the number of seasonal workers, a work spell very short by definition, has trebled in 15 years (from 2500 in 1982 to 7650 in 1997).⁷ While most of the labour force is employed in long-term contracts, there are many short-term jobs.

The number of de facto short labour spells and the number of de-jure temporary contracts share the same cyclical pattern although in the nineties short spells were rather high in respect to what one would have expected from the number of time-limit contracts. Possibly because voluntary quits were high in a labour market becoming tighter and tighter and because of many labour spells of very short duration (seasonal work).

Table 5. Labour spells according to their time duration.

year	number of short labour spells/total employees			
	manufacturing§		total private	
	0-12 months	13-24 months	0-12 months	13-24 months
1982	6,80	5,38	11,73	6,88
1983	6,46	4,84	10,98	6,07
1984	7,26	5,02	11,34	6,00
1985	9,10	6,01	12,71	6,77
1986	9,56	7,17	13,06	7,92
1987	10,99	7,97	14,67	8,54
1988	12,13	8,48	15,97	9,18
1989	12,95	8,71	16,48	9,46
1990	12,73	8,50	16,27	9,47
1991	11,03	7,77	15,20	8,94
1992	9,99	6,75	13,96	7,99
1993	8,52	6,19	12,30	7,36
1994	12,06	6,63	14,82	7,62
1995	15,05	7,66	18,21	8,40
1996	13,66		17,26	

Method: §Ateco 1981, 3 and 4.

Short spells are spells at the beginning of the year plus new spells.

Total employees are initial stock + yearly hirings per capita to the Inps archive.

⁷ As far as the international situation is concerned, the number of workers that are temporarily employed in our territory is rather small. Around 15% of the employees work less than 12 months in the Veneto (table 5). The figures reported for Italy in international comparison are liable to underestimate the real Italian situation as they are possibly derived from Istat Rtfli. In the States 20% of the employees (26-45 age class) was employed for less than 12 months, 20% in Holland, 11% in France, 16% in Germany, 8% in Italy and 4% in Japan, according to the comparison proposed by Burgess (1998).

Part 2. Chequered careers and long lasting careers in manufacturing.

Workers' careers valued ex-post according to the succession of the labour spells, independent of the juridical form of the labour contracts that build them up, are directly considered.

First a definition. Employees at a certain date can be labelled movers or stayers. The union of the two sets exhaust the population.

Employees enter, at a certain date, a work contract that can develop into a long lasting career with the same firm and are labelled stayers. The tenure can be preceded by a succession of short spells leading to a successive permanent occupation (short spells for a stayer). Alternatively employees can move from one short spell to the next and never stabilize. Short spells are a dead end in relation to the working career and the individual is labelled mover.

Short term jobs are peculiar to a set of workers, movers, that shift from one short-term job to another with high frequency or are typical of a well-defined time period of the employee's economic life, the years preceding the tenure.

2.1. Tenure employment.

Comparative studies tell us the USA is the country where tenure is shorter, 6,6 years, while longer tenure are recorded in Greece, Italy and Sweden, followed by Belgium, Japan and Portugal (Auer and Cazes, 2000, 381; Dell'Aringa and Piccirilli, 2000). Less than one-year tenures are present in every country, but they represent a particularly large quota (>20%) especially in the States, in Spain and Denmark.

Long term commitments in the labour market, tenures, are traditionally considered a characteristic of the rigid Italian labour market. The computation of tenure is not an easy task. But the extended coverage of our longitudinal panel allows us to compute directly the complete tenure for a significant number of years. The computation has been performed for manufacturing, without building and construction. The complete tenure of length T in t is defined if the employee in t was employed with the same employer both in $(t - i)$ and in $(t + T - i)$, $i = 1 \dots T$. In the following analysis we opt for a 7-year tenure, which allows us to compute tenure data for the years 1982-1990, without incurring in censorships problems.⁸ (Tattara and Valentini, 2002).

In our territory around 70-80% of employees between 27 and 54 years old have tenure of 7 or more years. At the end of the seventh year of tenure the probability to break the labour contract is rather low, and almost all tenures continue till the tenth year.⁹

The importance of long lasting tenures on the employee population has declined through time, while shorter relations have increased. Working contracts that last less than 60 months have increased from 15% to 26%. This in spite of the aging of the population, which would have led one to think that the quota of tenure workers over stock should have increased. Table 6 shows interesting movements in the tenure through time in relation to the population aged 27-54. Gender does not seem to be very relevant: both males and females look similarly stable. More interesting is the distinction according to education. Education is not an entry of the Social Security declarations and is not an entry in the longitudinal panel we are using, but can be depicted indirectly. The age of the employee in the year of entrance in the employee social security archive (entrance not compatible with the carrying on of education¹⁰) is used to infer a

⁸ A ten year tenure would have shortened our window to a couple of years, 1986 and 1987. The 7-year tenure has no particular meaning but is a compromise.

⁹ The retention rates product allow the estimate of the probability that 7 years' employment will last another 3 years with the same firm. The probability to work three additional years with the same firm, after 7 years tenure, for males, is 75%. The probability to work three years with the same firm as first employment is much lower, 44%.

¹⁰ Basically no seasonal work or other short-term summer work. Details are in Canu and Tattara (2003).

divide between primary and secondary (or higher) education. The label primary education is attributed to all blue collars that entered the Social Security archive before 19 years of age, while white collars that entered after 19 years of age are labelled workers with secondary education. Nothing is said about blue collars that entered the employee's archive at 19 years of age or more, so the result is a subset of the total population. This assumption is grounded on the idea that the Veneto labour market has been in full employment since the early nineties, so the interval between the end of formal education and the starting of a job as an employee is extremely reduced.

Females with lower formal education have much lower tenure than the average and of females with a higher formal education.

Table 6. Employees in manufacturing with tenure of 7 years or more in Treviso and Vicenza, according to gender and education relative to the respective flows. Ages 27-54. Years 1982-1990.

year	employees in thousands	tenure on employee population aged 27-54						
		total	males	females	white collars entering Inps ≥ 19 years of age		blue collars entering Inps < 19 years of age	
					males	females	males	females
1982	115681	84.2	84.7	83.1	78.1	84.5		
1983	114560	85.0	85.3	84.2	78.7	84.1		
1984	114414	85.0	85.5	83.9	79.1	83.4	78.0	83.6
1985	116461	84.0	84.7	82.7	79.2	82.9	78.1	81.4
1986	119389	83.2	83.8	81.9	78.7	82.2	78.0	80.2
1987	122840	81.8	82.4	80.6	77.5	81.8	76.8	78.0
1988	127489	80.4	80.8	79.7	76.4	80.4	75.9	77.2
1989	134376	78.2	78.8	77.2	74.6	79.1	75.1	74.3
1990	142076	75.9	76.5	74.8	73.3	77.3	74.8	72.3

Method: Ateco 1981, 3 and 4. The four last columns refer to an employee's population (1990) of 6342 F, 13601 M, 8002 F and 19450 M.

The denominator is the flow concept defined as initial stock plus yearly hirings.

Table 7. Employees in manufacturing with tenure of 7 years or more in Treviso and Vicenza, according to size relative to the respective flows. Ages 27-54. Years 1982-1990.

Year	Establishment average dimension at the beginning of the tenure			
	< 50	$\geq 50 < 100$	$\geq 100 < 200$	≥ 200
1982	70.4	83.7	86.8	92.1
1983	67.4	84.7	88.5	94.3
1984	68.4	85.8	86.6	94.0
1985	66.3	86.1	85.6	94.4
1986	65.8	86.3	86.0	94.2
1987	64.7	85.7	85.4	93.9
1988	64.2	84.7	85.1	93.8
1989	61.9	80.8	83.7	91.9
1990	60.0	78.3	81.5	91.4

Method: see previous table.

Larger establishments have a larger quota of tenures almost by definition, as larger units internalise many changes in occupation, which in smaller firms appear as tenure breakdowns. Additionally, small firms have high birth and mortality rates and this makes tenures less likely. Nonetheless tenures are very relevant in small firms as well and this appears of specific

importance in a territory like our two provinces where establishments with less than 100 employees hire 73% of the entire employee population.

The overall pattern is that of a decline in the tenure quota through time. The general trend is independent of the workers' qualification, gender and establishment dimensions: the decline in tenure characterises small and medium size establishments ($\geq 50 < 100$) more than larger establishments (≥ 200).

2.2. Pre-tenure spells.

The study refers to the period 1982-1990 and candidates are employees of 25-30 years of age. The choice of the age cohort allows a sufficient representativity and reduces the effect of the left censorship due to the fact that our longitudinal panel starts in 1975.

The period of time preceding the tenure can be represented through the survival function applied to employees that enter 7 years' tenure, referred to the preceding years. The values of the survival expresses the probability of an employee to survive as an employee till year t , where t is an index of time.¹¹

The first consideration derives from the comparison of the survival functions as times goes on. Pre-tenure years in 1982-83 were characterized by shorter spells than ten years later for both sexes. Males had pre-tenure periods shorter than females (the difference is around ten months) with a larger number of contracts with different firms and a definitively inferior average spell length. The average waiting period in pre-tenure status was on average 2 years in 1990, independent of gender. In 1990 Males had on average 3,5 pre tenure labour spells per capita. Females 3. In 1982 the average pre-tenure time was 30 months for males and 44 for females. As females had lengthy spells, the number of spells was inferior (2,1 females and 2,9 males). As time elapses females reduce the number of pre tenure average duration, from 44 months to 39 and the gender difference tends to disappear.

The bi-modal spell distribution in the arc of the working life, many short spell and a subsequent long spell (tenure) was typical of males. Women had relatively uniform and long spells.¹² As the time moves on, the difference between genders tends to vanish, and females share the short and repeated spells that were the characteristic of males.

All this reflects some peculiarity of the legal system. The surge in cfl that have characterised the late eighties, the subsequent reduction in fiscal benefits for this kind of labour contract, the wider age range established for apprenticeships and the gradual substitution of cfl by apprenticeships. It is plausible that the enlargement of the age range of apprenticeship that was introduced at mid-nineties acted as a force increasing the rapidity of work-to-work shifts in the pre-tenure period, job shopping, both for males and females.

¹¹ Pre-tenure months are truncated at 120. Few cases refer to workers that work continuously 120 months with the same firm and the tenure starting year, 1982-83 or 1990, represents in fact a transition from stable employment to stable employment. The pre tenure period is assessed on the entire population, including labour spells accomplished out of Treviso and Vicenza and in all private sectors.

¹² This does not imply that the large majority of the pre-tenure working time is distributed among all workers: on the contrary. The total work performed before tenure is due to the significant contribution of few employees that stay in the situation for a long period of time, much more than the two years that characterize the average.

2.3. Permanent movers.

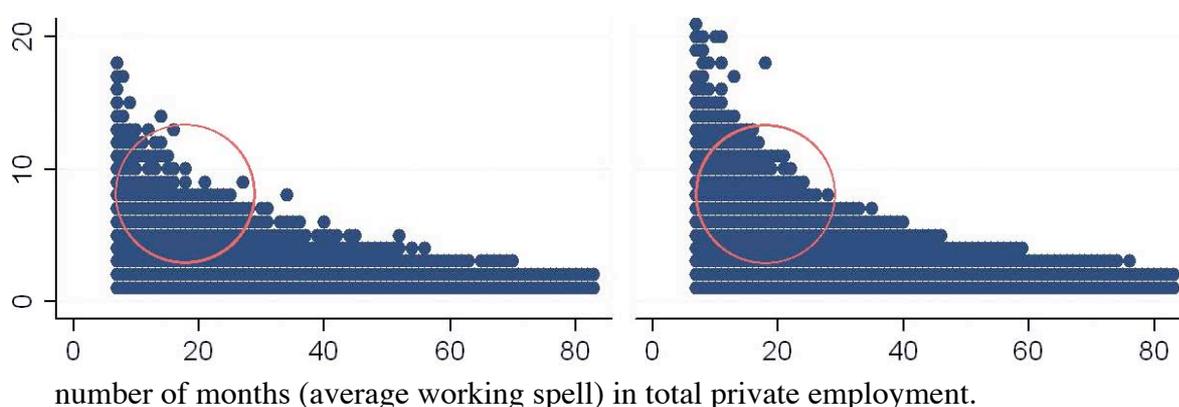
The remaining part of the labour market is filled with unstable labour. Movers are workers that never significantly stabilize, during their entire working life.¹³ Workers that never had and will not have tenure within the whole longitudinal panel time span. They are employees in manufacturing (Ateco 3 and 4) in Treviso and Vicenza, 35-54 years old (i.e. the ages that are more favourable to the constitution of a stable labour relationship), which in the period 1975-1997 have no uninterrupted work contract of 7 years or more (considering all the work contracts available to them, although contracts are drawn up with establishments outside our territory).

The rather strict constraints that have been imposed on the mover definition divide movers from workers that work short spells leading afterwards to tenure. Short working spells accomplished by movers are dead end jobs, while temporary jobs that precede the tenure are in a way functional to the tenure, stepping stones, according to the expression adopted by Boot, Francesconi and Frank (2000).

Are movers really workers with a chaotic career or are they just on the border of the tenure definition? Do these workers embed a potential tenure relation or are they quite different people? Let us take away from our total candidate movers, the employees close to the stayer definition (movers similar to the stayers, i.e. workers with two working episodes with average duration ≥ 60 months). Take away also very short movers, for a very different reason, i.e. because very short episodes are liable to be confused with temporary commitments – commissions, juries etc. – which do not substitute a permanent labour contract but mostly add to it. We are left with 2/3 of total mover labour contracts. The circled area in figure 1 represents the bulk of authentic movers: people with a range of working episodes between 3 and 14 and with an average duration between 6 and 30 months. The average number of working spells lies between 7 and 10 and the single spell average duration lies between 17 and 20 working months.

These are really employees with chequered careers. According to gender, males are proportionally more represented than females. Females tend to be a bit more clustered on the distribution extremities. The quintile distribution makes it clear that the spell distribution is rather even, and that the average spell value and the average number of spells represents the behaviour of the majority of the employees.

Fig.1 Number of working spells (Y axis) in relation to their average duration (X axis). Female movers (left) and male movers (right).



¹³ The definition is independent of the labour contract at the reference date.

Movers amount to a significant quota of employees in manufacturing, for the relevant age cohort. Movers are counted adding up labour spells and are related to the employee population in the same period in tables 8 and 9 (measured as usual the initial stock plus new hirings of people aged 35-54). Their number varies between 10% and 13% of the total. Movers have a strong gender and professional specification as the larger quota is made by females and by non-educated people. The divide is clear and stable for the whole period, underlying a structural segmentation of the employees' labour market in manufacturing, not usually taken in due account and worth considering. Education is significant both for men and females; among people with limited education movers are double than among people with secondary education and the divide seems to be increasing markedly with time.

Movers are more present in garment, furniture, leather and industries. The rate of increase of movers is high and positive for most sectors as time goes by and movers overflow into sectors that were previously excluded such as mechanics and plastics. Movers are not important in machine production, where the demand for high specialization and the required learning time are possibly longer than in most traditional sectors. As one can imagine, movers are much more relevant in small firms although their quota stabilizes just under 50 employees.

Table 8. Movers in Treviso and Vicenza in manufacturing per gender and education 1982-1990. Age 35-54. Labour spells in relation to the yearly stock

year	labour spells	movers (labour spells) on the yearly population (people aged 35-54)						
		total	males	females	white collars entering Inps \geq 19 years of age		blue collars entering Inps < 19 years of age ^o	
					males	females	males	females
1982	116759	13,8	12,1	17,1	14,18	10,68		
1983	115310	12,4	10,9	15,2	12,86	11,12		
1984	115141	12,1	10,9	14,5	12,06	9,60	13,81	9,96
1985	117168	12,2	11,0	14,5	11,01	8,71	15,24	11,23
1986	120164	13,0	11,9	15,1	10,52	8,00	16,51	11,77
1987	123822	14,2	13,3	15,9	10,38	7,30	17,52	13,32
1988	128728	15,6	15,1	16,6	10,62	7,79	19,06	14,11
1989	136474	18,6	18,2	19,3	11,69	8,06	22,11	16,91
1990	144418	21,8	21,5	22,4	12,21	8,62	23,42	18,97

Method: Ateco 1981, 3 and 4. Yearly movers are measured by the number of labour contracts pertaining to people labelled movers. The number of employees and the number of labour contracts differ widely, due to the fact that employees who move are often the same in different years and, on average, movers draw several labour contracts during the same year.

Labour contracts pertaining to movers in 1990 are 1531 M, 405 F, 3832 M, 2458 F for the last four columns.

^o age 27-54.

Table 9. Movers in manufacturing in Treviso and Vicenza per gender and education 1982-1990 and establishment size in relation to the yearly total flows. Age 35-54.

year	Ateco 1981								establishment average dimension at the beginning of tenure			
	31 metal	32 machin	41 food- bev	43 txtiles	44 leather	45 garmen	46 furnitu.	48 plastic	<50	≥50<100	≥100<200	≥200
1982	10,35	11,16	12,99	6,77	17,96	17,92	13,10	15,35	19,66	11,14	9,50	5,40
1983	8,50	9,09	12,81	6,05	16,67	16,09	11,02	11,79	17,27	9,62	7,78	4,57
1984	7,59	7,83	12,67	5,96	14,74	14,74	9,51	12,37	15,63	8,71	6,80	4,11
1985	7,96	6,43	12,94	5,84	14,18	13,96	8,38	11,38	15,20	8,28	6,53	3,44
1986	7,82	5,15	12,00	6,11	15,17	13,73	8,20	10,93	14,99	8,07	6,24	3,06
1987	8,29	4,87	11,26	5,73	15,71	13,92	8,29	10,97	15,18	7,94	5,94	2,83
1988	9,55	5,27	12,41	5,64	17,20	13,78	8,87	11,07	16,10	8,02	5,97	2,58
1989	11,44	6,04	13,85	6,67	20,88	15,25	10,50	12,59	18,08	9,08	6,98	3,14
1990	13,37	6,47	15,97	7,80	22,80	16,57	12,55	15,20	20,09	10,28	7,83	3,66

Method: quotas are the ratio among the specified employees and the employees exposed to the risk. Firm size and sector are at the beginning of the labour spell.

The population numbers (first eight columns) in 1990 are: 6853 (31), 1934 (32), 906 (41), 4035 (43), 2455 (44), 5600 (45), 3220 (46), 1504 (48).

Movers' working life can be described through the concept of chaotic careers, that are working life chequered trajectories that embed an inherent incoherent effect. While ordered careers are accompanied by strong integrating elements, chaotic careers, because of the high workers mobility among different jobs, particularly when movers are placed at the bottom level of the market, prevent professional learning processes and push towards workers' isolation. The establishment of a solid relationship network in the working milieu is prevented and, as time goes by, the impoverishment of the human capital and the debasement of social relations reduce the same chances to move to a better job (Bianco 1996).

The obvious temptation is to measure career perspective differences through wage differences. Although Inps wages have been subjected to considerable debate they represent a unique source of information that is cautiously exploited. Inps wages are probably contractual wages and not the actual compensation paid to workers: the number of declared working days can be inferior to the actual days worked (to appear coherent with the paid contractual wage) and overtime is not (usually) declared.¹⁴ The first element is bypassed considering only spell episodes ≥ 12 months for the stayers (with a range of working days between 290 and 320) and monthly intervals for movers (the monthly wage is divided by the number of worked days). The comparison between stayer wages and mover wages is limited to working episodes in manufacturing (Ateco 3 and 4): this cuts drastically the number of episodes but makes the comparison more significant as wages for stayers in manufacturing are meaningfully compared with wages for movers computed in relation with movers' working spells in manufacturing only.¹⁵ The dispersion around the average is rather large and there is always a composition effect embedded in the comparisons. The wage distributions are skewed so the median wage is directly considered and the average is to be avoided. Mover wages are positively inferior to stayer wages, as expected, with a wage gap of around 15%. The difference between mover and stayer wages increases rapidly in time both for males and females and in the end movers are much worse off than stayers (Tables 10 and 11).

¹⁴ On the appropriateness of Inps wages to represent the actual compensation paid to the workers, see Ginzburg, Scaltriti, Solinas and Zoboli (1998;1999), Gavosto and Rossi (1999), Contini Filippi and Malpede (2000, 2001). Inps provide data for total wages paid without detailing the hours worked, so we really don't know if overtime and how much of it has been included.

¹⁵ We have excluded managers, whose salary can be so different and so variable that the inclusion would distort the average.

The wage difference is larger for males, and so is the standard deviation and the increase with time is bigger for males than for females.

Table 10. Males. Movers and stayers average wages in manufacturing episodes according to gender.

	wages at 1995 prices					
	median		average		st. deviation	
	stayers	movers	stayers	movers	stayers	movers
1982	92,50	89,76	99,50	100,65	26,69	44,24
1983	92,69	91,00	99,54	101,52	26,57	43,35
1984	94,88	92,85	101,13	105,62	26,63	44,69
1985	95,64	93,69	102,65	121,90	31,97	42,45
1986	95,78	92,81	103,18	108,65	29,47	52,55
1987	99,78	92,81	107,47	110,64	30,94	54,77
1988	101,15	92,19	109,24	109,90	33,59	52,89
1989	102,56	92,32	111,52	110,80	34,98	54,75
1990	102,78	91,42	112,55	110,21	36,73	54,95
1991	107,89	94,10	117,96	111,66	38,91	54,97
1992	108,21	94,32	118,45	111,87	39,49	55,19
1993	108,30	94,88	118,79	111,99	39,48	54,56
1994	108,89	94,08	119,51	109,88	40,60	53,18
1995	109,06	92,39	119,90	106,75	41,33	48,69
1996	109,08	91,97	119,03	105,27	39,34	44,52
1997	112,67	94,47	122,28	107,18	40,02	44,32

Method: Ateco 1981, 3 and 4.

Table 11. Females. Movers and stayers average wages in manufacturing episodes according to gender.

	wages at 1995 prices					
	median		average		st. deviation	
	stayers	movers	stayers	movers	stayers	movers
1982	80,40	74,97	83,04	74,38	17,38	22,82
1983	80,95	75,92	83,18	75,16	17,54	23,75
1984	81,23	75,70	83,58	75,89	17,48	23,19
1985	81,53	76,72	84,72	79,62	17,14	26,53
1986	82,66	76,28	86,13	78,38	17,40	25,34
1987	85,05	76,56	88,91	79,62	18,20	26,00
1988	85,94	75,07	90,17	81,28	22,41	30,94
1989	85,36	76,00	90,41	82,21	21,64	26,94
1990	85,34	75,36	90,85	82,43	22,38	29,35
1991	88,13	76,97	94,28	83,18	24,42	27,56
1992	89,05	77,13	95,50	84,48	26,30	32,42
1993	89,34	77,74	96,15	84,40	25,85	28,71
1994	88,56	78,65	95,32	85,65	26,57	28,09
1995	86,87	76,64	94,20	83,19	27,39	28,93
1996	87,11	76,86	94,60	82,98	27,04	26,34
1997	89,21	78,82	97,15	85,65	29,04	29,11

Method: Ateco 1981, 3 and 4.

Towards more precariousness?

The rise of inequality in the late seventies in the Veneto is discussed taking into account the distinction between the new flexible “non standard” patterns of employment and the traditional Italian full time labour contract with no time limit. These non standard patterns of employment or a-typical labour contracts have been on the government agenda and have developed into a labour contract reform that substantially increases the number of a-typical contracts (Boeri, 2003).

Conclusive evidence has been provided that the official Italian statistics grossly undervalue the number of people employed with a-typical labour contracts and that a more precise account of various forms of short term contracts would almost double the official figures, ranking Italy among the European countries with a large amount of temporary work. The number of a-typical labour contracts has increased rapidly in time and, although the increase seems to have halted in recent years, the process of erosion of tenure labour contracts appears very clearly. A more conscious account of the dynamics of the Italian labour market would have provided evidence that temporary labour contracts were already widely diffused in Italy and there was no need for a reform in order to foster their further diffusion. Other aspects of the labour market, firstly the Italian anomaly of absence of an unemployment benefit, should have been directly faced.

But a second question comes immediately to mind. Do a-typical labour contracts develop the role of training contracts, are they a stepping stone that will lead to more permanent contracts and better working conditions in the future or should they be considered dead ends? The majority of a-typical contracts refer to people at a young age, they allow young workers to shop around looking for better matches and develop into contracts with no time-limit. But there is a substantial quota of a-typical contracts that accompany workers during all their working life and give rise to the so-called chaotic careers. Careers where mobility develops into an inherent/incoherent effect, particularly evident if workers are placed at the bottom level of the market, blue collars with low education, and earn low wages. Such a quota has increased markedly through time and wages differences have sensibly increased too. In such a case the cost of the diffusion of temporary forms of employment is much larger than the benefits that could be expected by the labour market’s increased flexibility, if flexibility can be considered an issue in the Italian labour market to-day.

References

Accornero A. (editor). 2000. *Solo una grande giostra ? La diffusione del lavoro a tempo determinato*. Agenzia per l’impiego. Angeli: Milano.

Accornero A., 2002, Flessibilità e stabilità del lavoro. *Economia e società regionale*. 77.78.

Akerlof G. A. and B. G. M. Main. 1981. An Experienced-Weighted Measure of Employment and Unemployment Durations. *American Economic Review*. Vol 71, pp. 1003-1011.

Anastasia B. and D. Maurizio, 2002, La rilevanza dell’occupazione temporanea: una misura da focalizzare. Comunicazione presentata al seminario PRIN. Padova 25 ottobre.

Anastasia B., 2002, Le tendenze generali del mercato del lavoro. In Veneto lavoro. *Il mercato del lavoro del Veneto. tendenze e politiche. Rapporto 2002*. Angeli. Milano.

Auer P. and S. Cazes. 2000. The resilience of the long-term employment relationship: Evidence from the industrialized countries. *International Labour Review*. vol 139.n.4:378-408.

Bianco M.L., 2003. Il genere della flessibilità. Università del Piemonte Orientale A. Avogadro. Presented to Cirsde meeting: Che "genere" di conciliazione? *Famiglia, Lavoro e Genere: equilibri e squilibri*, Turin May 28-29. 2003.

- Bingley P., T. Eriksson, A. Werwatz, N. Westergård Nielsen, 2000, Beyond “Manucentrism”. Some Fresh Facts About Job and Workers Flows, mimeo.
- Blau D. 1987, A time-series analysis of self-employment in the United States, *Journal of Political Economy*, 95, 445-467
- Böckerman P., 2002, *Perception of job instability in Europe*. Labour institute for economic research discussion paper 184. Helsinki.
- Boeri S. 2003. www.Lavoce info.
- Booth A. L., M. Francesconi and J. Frank, 2002, Temporary Jobs: Stepping Stones or Dead Ends? *Economic Journal*, June, 189-213.
- Canu R., G. Tattara, 2003, Quando le farfalle mettono le ali. Riflessioni sull’ingresso delle donne nel lavoro dipendente.
- Chelli F. and L. Rosti, 2002, Age and gender’s differences in Italian workers mobility, *International Journal of Manpower*, v. 24, n. 4, 313-325.cccccc
- Contini B., M. Filippi and C. Malpede, 2002, Safari nella giungla dei salari. Labor WP. n.3.
- Contini B., M. Filippi and C. Malpede, 2001, Differenziali retributive Nord-Sud: distorsioni attribuibili alla normativa previdenziale. Labor WP.
- de Angelini A. and A. Giraldo, 2002, Mobilità e percorsi di stabilizzazione nel mercato del lavoro veneto. Confronti fra evidenze statistiche e evidenze amministrative. In Veneto lavoro. *Il mercato del lavoro del Veneto. tendenze e politiche. Rapporto 2002*. Angeli. Milano.
- Dell’Aringa C. and G. Piccirilli, 2000, La mobilità occupazionale nelle fasi iniziali della carriera. *Lavoro e relazioni industriali*. 1 gen-giu.:3-35.
- Evans D. and L., Leighton, 1989, The determinants of changes in US self-employment. *Small Business Economics* 1, 111-120.
- Farber H. S., 1999, Mobility and Stability: the Dynamics of Job Change in Labour Markets. In Orley Ashenfelter and David Card (eds.) *Handbook of Labour Economics*, North Holland.
- Gavosto A. and F. Rossi, 1999, Giornate retribuite e differenziali salariali nei dati Inps. *Politica economica*, XV,2.
- Ginzburg A., M. Scaltriti, G. Solinas and R. Zoboli, 1998, Un nuovo autunno caldo nel mezzogiorno. Note in margine al dibattito sui differenziali salariali territoriali. *Politica economica*, XIV,2.
- Ginzburg A., M. Scaltriti, G. Solinas and R. Zoboli, 1999, Il mistero dei salari in Italia. *Politica economica*, XV,2.
- Heisz A., 1996, Changes in Job Tenure and Job Stability in Canada. Business and Labour Market Studies. Statistics Canada. WP. n. 95.
- Istat, *Rilevazioni trimestrali delle forze di lavoro*. Roma
- Magnac T., and J.M Robin, 1994, An econometric analysis of labour market transitions using discrete and tenure data, *Labour economics*, 1, 327-346.
- Ministero del lavoro e delle politiche sociali, 2002, *Monitoraggio delle politiche occupazionali e del lavoro. Nota di aggiornamento*. n.1.
- Ministero del lavoro e delle politiche sociali, 2003, *Monitoraggio delle politiche occupazionali e del lavoro*.

Occari F. and S. Pitingaro, 1997, Demografia di impresa e mobilità' del lavoro: una stima della componente spuria sulla base degli archivi Inps. WP CNR, Occupazione e livelli di sttivita' in Italia.

Occari F., G. Tattara and M. Volpe, 1997, Occupazione, mobilità' e componente femminile nel mercato del lavoro: i lavoratori dipendenti a Treviso e Vicenza. In Regione del Veneto, Veneto Lavoro (ed.) *Il mercato del lavoro nel Veneto*. Milano: Angeli, 460-488.

OECD, 1992, Employment Outlook. July.

Ostermam P., 2001, Flexibility and Commitment in the United States Labour Market. Employment paper. 2001/18. ILO Ginevra.

Rapiti F., 1997, Lavoro autonomo, lavoro dipendente e mobilità': un quadro statistico sull'Italia. In Bologna S. and A. Fumagalli (eds.). *Il lavoro autonomo di seconda generazione. Scenari di postfordismo in Italia*, Milano: Feltrinelli, 173-191.

Revelli R., 1995, Potenzialità degli archivi Inps ai fini della stima degli aggregati dei conti economici territoriali, *Quaderni di ricerca Istat*. nuova serie n.1

Saraceno C. 2002, Paradossi della flessibilità: una prosettiva di genere e generazionale. in M. Magtti e G. Fullin (eds.). *Percorsi di lavoro flessibile*. Carocci. Roma.

Tattara G. and M. Valentini, 2003, Flessibilità e attaccamento al posto di lavoro. Due tipi di carriera o due aspetti di una sola carriera lavorativa ? Venice workshop: La mobilità del lavoro in un mercato di piena occupazione. 17 June.

Tattara G. and M. Valentini, 2003, L'elevata mobilità del lavoro in Veneto. Una grande giostra ma non per sempre e non per tutti. In *Economia e Società Regionale*. n. 1.2003.

Appendix. 1. The Longitudinal Social Security Database.

The ideal dataset for analysing the divergence between worker and job flows is provided by the universe of employers matched by the universe of workers, because job flows are defined on the employer behaviour over time. We are able to exploit a long panel of such data. The longitudinal panel used in this research is constructed from the administrative records of the Italian Social Security System (Inps). It refers to the entire population of employees and workers in two provinces, Treviso and Vicenza, of an Italian region, the Veneto. The database covers each single plant and each single individual employed in the private sector (no state and local government, with few exceptions) except for those who are self-employed, farm workers and people receiving no salary.

The Veneto labour market has been characterized for almost a decade by almost full employment and by a positive rate of job creation in manufacturing, compared to a negative national rate. It is a dynamic manucentric territory, with a large population of small firms; the average establishment size is 19 employees. The stock of manufacturing workers in the two Veneto provinces of Treviso and Vicenza has varied between 194.000 employees in the early eighties and 233.000 employees in 1996, with a yearly positive average rate of variation of 1.4%. The average rate of growth in employment is the result of a marked increase of white collars and women (Occari, Tattara and Volpe, 1997).

The Veneto longitudinal panel has records on establishment and worker flows from 1982 to 1997, a rather long period of time, compared with other studies of the same kind; employers are classified in the three-digit ATECO 1981 standard classification.¹⁶

Inps data includes register-based information on all establishments and employees that have been hired by those establishments for at least one day during the period of observation, independent of the workers place of residence.¹⁷ The unit of observation is the employer-day; such pieces of information are used to build a monthly history of the working life of each employee. Employers are identified by their identification number, which changes if ownership, in a strict sense, changes. This has been amended and any time more than 50% of all employees are taken over by the new legal employer, the employment spell is said to be continuing. Similarly, if there are short breaks in the employment spell, as long as the worker continues with the old employer, his spell is considered uninterrupted.¹⁸

Data includes all individual employment spells with an employer, of whatever duration, and this probably results in a lot of very short spells. Although short spells characterize the average job, they are concentrated on the workers' young age, while long spells characterize the mature worker's current experience.

We keep every employment size in our data set, because our territory is characterized by a multitude of very small units (establishments with ≤ 5 employee account for almost 12% of the total manufacturing employment).¹⁹

¹⁶ Revelli (1995) and Rapiti (1998). On the Inps data base used in the present paper, see Occari, Tattara and Volpe (2001, 18-22).

Establishments and not firms, as Inps contributions can be paid at the establishment, although the payments for different establishments can be reunited on demand (and the database tends to unify scattered payments through a thorough study of the most relevant situations).

¹⁷ The entire working life for all employees that have worked at least one day in Treviso and Vicenza has been reconstructed, considering the occupational spell out of Treviso and Vicenza as well.

¹⁸ A 'cleaned' social security archive has been used. The engagements/separations and the creations/destructions that are due to a change in the unit that pays the social security contribution not matched by a corresponding change of the working population assessed at the establishment level are defined as 'spurious' and have been deleted. The complex matching procedure is explained in Occari and Pitingaro (1997). This procedure is common practice among people working with social security data. For a similar procedure, see Bingley and Westergård-Nielsen (2002).

¹⁹ The absolute importance of small establishments makes the comparison with other countries doubtful; for example in our territory the percentage of employment in establishments with ≥ 100 employees is 27% while in Denmark is more than 40% and is still larger in the United States. On the uncertain meaning of the mobility measures for small establishments, see Tattara and Valentini (2003).