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Ca' Foscari University of  
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Rikke Ibsen

Elisabetta Trevisan

Niels Westergaard-Nielsen

Job Mobility and Skill  
Transferability. Some  
Evidencens from Denmark  
and a Large Italian Regione



## **Job Mobility and Skill Transferability. Some Evidences from Denmark and a Large Italian Region**

**Rikke Ibsen**

*CCP (Center for Corporate Performance), Aarhus Business School*

**Elisabetta Trevisan**

*Università Ca' Foscari Venezia*

*CCP (Center for Corporate Performance), Aarhus Business School*

**Niels Westergaard-Nielsen**

*CCP (Center for Corporate Performance), Aarhus Business School*

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### **Abstract**

This paper investigates the effect of job mobility and tenure on wage dynamics. In this respect, theory assesses that high job mobility and low tenure are associated to lower wage drop when workers experience a job change.

We test this theory first comparing two labour market (i.e. Denmark and a large Italian region, Veneto) characterized by different job mobility and tenure, as a consequence of different level of EPL. Secondly, we perform a within Veneto analysis, comparing the different effects when workers are employed in small rather than big firms. Data drawn from the VWH (Veneto Workers History) and IDA (for Denmark) registered data, from 1987 to 2001, are used. In Denmark job mobility has a positive effect on wage increases, while built up on firm-specific human capital has a negative effect. In Veneto, instead, it appears that long tenure are more rewarding. Some evidences of positive impact of moving from job to job when the barriers are lower come from the analysis of the differences between small and big firms in Veneto.

### **Keywords**

Job Mobility, Skill Transferability, Wages, Propensity Score, Fixed Effect Estimator.

### **JEL Codes**

C14, C23, J24, J31, J63

*Address for correspondence:*

**Elisabetta Trevisan**

Department of Economics

Ca' Foscari University of Venice

Cannaregio 873, Fondamenta S. Giobbe

30121 Venezia - Italy

Phone: (+39) 041 2349231

Fax: (+39) 041 2349176

e-mail: [trevisel@unive.it](mailto:trevisel@unive.it)

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Department of Economics  
Ca' Foscari University of Venice  
Cannaregio 873, Fondamenta San Giobbe  
30121 Venice Italy  
Fax: +39 041 2349210

# 1 Introduction

In the last decades, there have been a large debate about wage structure and the rise of wage inequality<sup>1</sup> in many advanced economies.

Most of this literature attributes part of this rise in inequality, in particular for US, to expanding wage differentials between educational and experience groups<sup>2</sup>. However, measurable characteristics such as education and experience can explain at most half of the total surge in wage inequality (Violante (2002)). Juhn et al. (1993) conclude that the majority of the increase in US wage inequality, for example, is residual, i.e. due to unobserved attributes of workers belonging to the same educational or demographic group.

This rise in residual inequality (or within group inequality) is a crucial feature of the recent dynamics of the wage distribution in some developed countries such as, for example, US, Canada and UK (Violante (2002)).

These changes in residual inequality have become of major interest for labor and macro economist. In particular, the literature focused on the determinants of the residual inequality trying to understand if the forces that have expanded between group differentials also affect within groups differentials. The conventional view of the existing literature is that this phenomenon is the result on an increase in the return to ability, i.e. some permanent (model specific) attribute driving the ex-ante unobserved heterogeneity among observationally similar workers<sup>3</sup> (Violante (2002)).

The main empirical implication of this kind of models is that the rise in residual inequality should be extremely persistent because workers would tend to become more stratified in the wage distribution on the basis of their innate skill dimension. However, the empirical literature shown that a sizeable part of the sharp rise in residual inequality is attributable to factors that have a very temporary nature (Violante (2002)).

Consistently with this view, Violante (2002) proposes a theory based upon the dynamics of post-schooling skill accumulation along the labor market history of ex-ante identical workers (so-called *Skill Dynamics Hypothesis (SDH)*).

The two crucial hypothesis of this theory are the technological acceleration and vintage-specific skill. With respect to this second feature, there is extensive empirical work showing that skill cumulated in the labor market have a large specific component: First, there is evidence of significant returns to tenure<sup>4</sup> and, second, workers are subject to substantial and persistent wage losses upon displacement. Both facts suggest that the knowledge cu-

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<sup>1</sup>Wage inequality is defined as the ratio between the ninth and the first deciles of the weekly log-wage distribution.

<sup>2</sup>See, for example, Katz (1994).

<sup>3</sup>This mechanism can be called *Innate Ability Hypothesis (IAH)*. See, for example, Galor and Moav (2000), Caselli (1999).

<sup>4</sup>See, for example, Bingley and Westergaard-Nielsen (2003).

mulated in the job can only be partially transferred to new occupations. Accumulation and transferability of specific knowledge represent important determinants of individual wages, so they should be regarded as potential sources of changes in cross sectional wage inequality (Violante (2002)).

Moreover, the theory of firm specific human capital predicts that workers build up firm specific human capital in the current job, which they will lose if they leave or change job. Thus, workers with long tenure are more likely to have more specific human capital than workers with less tenure (Bingley and Westergaard-Nielsen (2003)).

The empirical microeconomics literature for US offers some interesting results in this direction. In fact, a series of studies<sup>5</sup>, using firm level data, shows that there is strong positive empirical relationship between advanced technology and skill. Advanced technology interacts with each component of skill quite differentially: firms that use advanced technology are more likely to use high ability workers, but less likely to use high-experienced workers. Most of the literature in this field is represented by macroeconomics studies or firm-level studies. Moreover, the majority of the studies are for US.

Moving from the literature presented and focusing more on wage variability overtime rather than on cross sectional wage inequality, some questions arise: are there any effects of job mobility on wage variability? Is it better to built up on firm specific human capital or not? Considering that different levels of Employment Protection affect the job mobility, does the mobility affects differently wages in countries with different level of EPL?

The aim of this paper is then to investigate how job mobility and skill transferability affect workers wage changes, when different level of Employment Protection are enforced.

The analysis is divided in two part. First, we compare Denmark and a large Italian region, Veneto. This comparison is particular compelling because the two area are very similar in the level of unemployment, GDP growth, firm size distribution and so on<sup>6</sup>, but they differ in the level of EPL enforced. This difference in protection should lead to high mobility and low tenure for Denmark and low mobility and high tenure for Veneto; in this way, we are able to detect differences in the impact of job mobility and tenure on wages dynamics.

For the same reason, we perform also an analysis within Veneto distinguishing between small and big firm, considering that in Italy the Employment Protection is enforced differently depending on firm size.

In the empirical analysis, data drawn from the VWH (Veneto Workers History) and the IDA data set have been used. Both data sets are built on administrative data and they contains information about all the population of workers and firms. We combine the propensity score matching with a

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<sup>5</sup>See, for example, Haltiwanger et al. (2005) and Abowd et al. (2007).

<sup>6</sup>See section 2 for further details.

fixed effect estimator.

The paper is organized as follow. Next section introduces briefly the theoretical framework of the study. Third section gives a brief description of the institutional features of the labor markets in the two countries and discuss the comparability between Denmark and Veneto. The fourth presents the data and the empirical model. The fifth presents the estimation results. Finally, last section offers some concluding remark.

## 2 Theoretical framework

The theoretical framework behind the analysis proposed in this study refers mainly to the economic model proposed by Violante (2002).

In the paper the author proposed a macroeconomic model the reduction on workers ability to transfer skill when changing job, due to acceleration in the rate of quality improvement of the equipment, increases the cross sectional variance of skills and, therefore, wages (Violante (2002)).

The economic mechanism of the model is as follow. Ex-ante identical workers face a frictional labor market where they search for jobs (machines). Machines embody different vintages of technology, and the productivity of the leading edge machine advances exogenously at a constant rate. In every period workers choose whether to keep the current match with the machine or separate and search for a new match. When matched, workers learn vintage-specific skills. When moving they can only partially transfer their skills across machines: the amount of skills they can transfer depends on the technological distance between machines, hence it is decreasing in the speed of technology. A technological acceleration implies that workers have less ability to transfer skills from old to new machines. As a consequences, the typical labor market history of the worker involves lower average skills (but skills of a younger vintage), larger wage losses upon separation and higher wage growth on the job (Violante (2002)).

In other words, from a microeconomic point of view, if a worker moves a lot and doesn't accumulate firm-specific human skill she will incurs in a lower wage drop, when she changes job, rather than a workers with low mobility and high tenure. This is due to the fact that it's easier to transfer general rather than firm-specific human capital.

## 3 The institutional features

### 3.1 Denmark

The Danish labor market has some distinguishing features of its own (Eriksson and Westergaard-Nielsen (2007)). Some of these are: decentralized wage bargaining, high trade union membership and union coverage, weak job pro-

tection for blue collar workers and modest protection for white collar workers, agreement between employers and trade unions as main regulatory mechanism.

The key feature of the so-called "Danish Model" is, in fact, that most of the regulatory issues related to labor market are regulated by agreements between trade unions and employers. The social partners take responsibility and make agreements for wage bargaining and wage setting, normal working hours, overtime and work environment (Eriksson and Westergaard-Nielsen (2007)). The role of the government is instead to provide unemployment benefit, to retrain workers who have lost their job, to provide health care and disability pension (Eriksson and Westergaard-Nielsen (2007)).

Moreover, with respect to the two elements of interest of our analysis, wages and Employment Protection Legislation the Danish labor market has its own specific features that make it look much like to the United States labor market than to those of other European countries (Eriksson and Westergaard-Nielsen (2007)).

In Denmark, there is no minimum wage legislation. The collective wage bargaining has been for long time the predominant mode of wage determination. In more recent years, wage bargaining has become more and more decentralized, mainly in the private sector. Nowadays, the wage bargaining is mainly at industry or firm level, and wages have become more and more individualized (Bingley and Westergaard-Nielsen (2003)).

Finally, the level of Employment Protection in Denmark is among the lowest in the Oecd countries. There are in fact few barriers to mobility between firms. For employers the cost of laying off workers are low because of the absence of severance pay legislation and experience rating in the unemployment insurance system as well as the weak job security of particularly blue collar workers (Eriksson and Westergaard-Nielsen (2007)). In the other hand, for the employees, costs of changing employer or experiencing unemployment spells are reduced by generous unemployment benefits and by the fact that many social benefits, pensions and vacation are independent of the individual's current employer and are hence transferable (Eriksson and Westergaard-Nielsen (2007)).

### **3.2 Italy**

The Italian labor market, differently with respect to the Danish one, is more similar in its structure and its rigidities to those of other European countries. Some of the main characteristics of the Italian labor market are: high level of protection for workers, low level of unemployment benefit, decentralized wage bargaining, government as main actor of the regulatory mechanism.

The first differences with respect to Denmark relates to this last aspect. In fact, in Italy government plays the main role on the regulatory mechanism of the labor market and the agreement between trade unions and employers

act mainly (and merely) on collective wage bargaining.

Secondly, the level of Employment Protection is dramatically higher in Italy than in Denmark. The costs of laying off workers are very high, depending on firms size, in term of severance payments and additional costs related to unjust-dismissals<sup>7</sup>.

For employees, the costs of change employer and experiencing unemployment is higher than in Denmark. The level of Unemployment Benefit are in general very low, excepts for some special unemployment program provided for displaced workers coming from big firms<sup>8</sup>.

Italy and Denmark are more similar in term of wage determination and wage bargaining. In fact, in Italy there is no minimum wage legislation, but collective agreements between trade unions and employers establish the minimum wages at the industry level.

The wage bargaining is organized in three level, economy-wide, industry-wide and firm-level agreements. The bargaining process as become more and more decentralized in these years and nowadays, there is an increasing diffusion of firm-level wage determinations (Leonardi and Pica (2007)).

### 3.3 Denmark and Veneto

In the analysis, we decide to compare Denmark with a large Italian region, Veneto. Behind this choice there are two main reason. First, Veneto is more comparable with Denmark than all Italy, considering the big regional and geographical variability in the all country. Secondly, for Veneto we have register employer-employee (similar to the Danish one) data that permit us to reconstruct the entire career of workers.

As described in previous section, the wage determination and wage bargaining mechanism have a similar structure and a similar level of decentralization. Moreover, both Denmark and Veneto are characterized by a big concentration of small firms.

More generally, looking at the GDP growth and the unemployment rate, they are both characterized by low unemployment rate and similar GDP dynamics, in particular in the nineties.

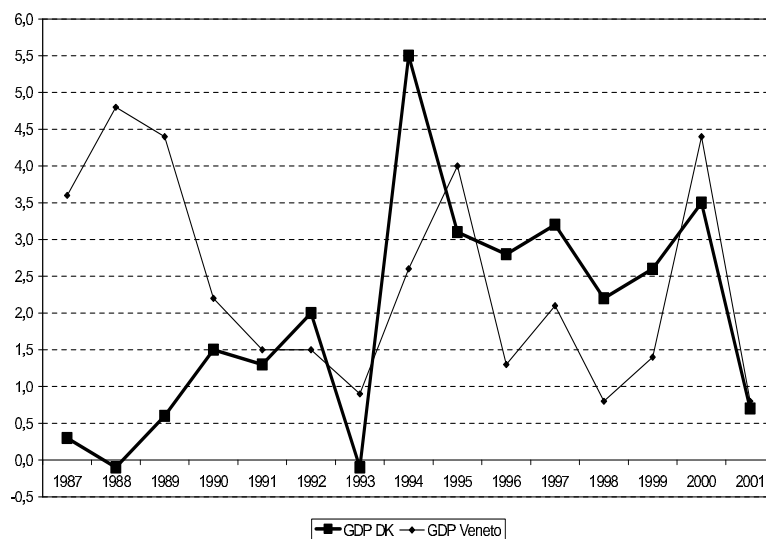
The main difference between the two labor market relies instead on the different level of Employment Protection that determines differences in the job mobility and tenure between the two "countries".

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<sup>7</sup>See, Leonardi and Pica (2007), for further details on the Employment Protection Legislation in Italy.

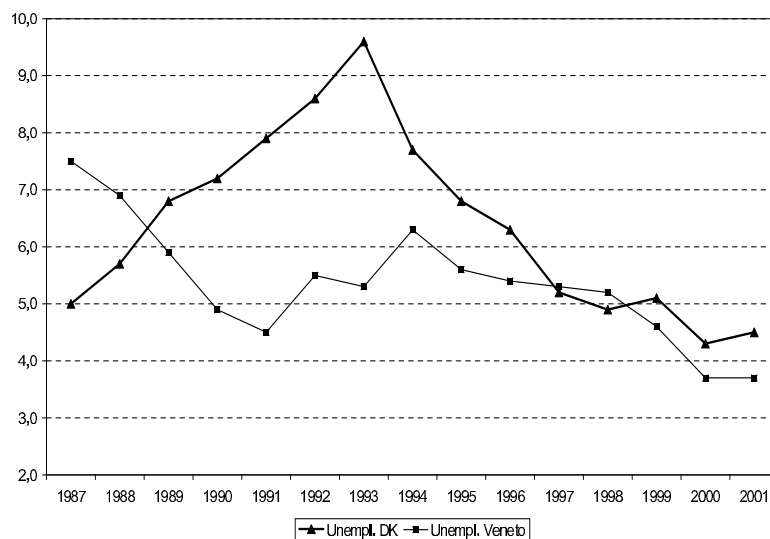
<sup>8</sup>The level of Unemployment Benefit in Italy (so-called *Disoccupazione ordinaria*) are 40% of salary/wage. If workers are part of some special regime ("Lista di mobilità", for example) the unemployment benefit is set to 80% of the salary/wage

Fig. 3.1: GDP growth - Denmark and Veneto 1987-2001



Note: Oecd and Istat data.

Fig. 3.2: Unemployment rate - Denmark and Veneto 1987-2001



Note: Oecd and Istat data.

## 4 Data and methodology

### 4.1 The data

#### 4.1.1 Denmark

The data source use in the empirical analysis for Denmark is the so-called IDA database kept by Statistics Denmark.



The IDA is a longitudinal database that contains information about all individuals aged 15 to 74 and employees in all plants in Denmark during the period 1980-2001. Information about demographic characteristics, education, labor market experience, tenure and earnings for workers is provided. In the same way, several information<sup>9</sup> is provided also for firms. All these information have been collected from several registers in Statistics Denmark with the help of unique identification numbers for individuals and plants. The persons and plants are matched at the end of November in each year (Eriksson and Westergaard-Nielsen (2007)).

#### 4.1.2 Veneto

The Veneto Worker History (VWH) is a longitudinal panel built at the Department of Economics of the University of Venice on the ground of the Social Security administrative data of the Italian Social Security System (Inps). It refers to the entire population of employers and workers in Veneto (i.e. a large Italian region).

The database covers each single plant and each single individual employed in the private sector and the total period covered is 1975-2001. Inps data include 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, independently of the workers place of residence.

In the VWH demographics<sup>10</sup> and job related information<sup>11</sup> for workers are provided. In the same way, information about location, size, date of creation, closure date, industry are provided for each firm.

#### 4.1.3 Sample composition

The sample selected for each country contains men and women employed in the private sector in the period from 1987 to 2001; to avoid left censoring of the careers, we select workers with at least 5 years of experience in the labor market at 1987. The panel contains men and women between 25 and 55 years of age. Additional information related to the education level of workers has been drawn from the Giove data set<sup>12</sup> kept by Veneto Lavoro. In sample we insert also some information related to the unemployment rate for Denmark and Veneto. Table 3.1, 3.2, 3.3 show the compositions of the samples.

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<sup>9</sup>For example, locations, size, industry

<sup>10</sup>Sex, date of birth, place of birth.

<sup>11</sup>Type of job, contract, wage, industry.

<sup>12</sup>Giove is a public database built upon EPS (Employment Public Services) administrative archives. The data are acquired from the flow of firms compulsory communications. It contains all Veneto employment data of the private sector since 1995, both workers and firms.

Both in Denmark and Veneto, workers are mainly men (about two third of the sample) and equally distributed between blue collar and white collar.

With respect to the variables of interest - job mobility and tenure - the differences between the two "countries" arise. In fact, every year between 10 to 20% of workers change job (see *movers*) and most of the workers have a tenure in the previous job shorter than 2 years.

On the other hand, in Veneto, each year only 5 – 10% of the workers change job. Moreover, the majority of workers have a tenure in the previous job longer than 5 years.

## 4.2 Estimation strategy

### 4.2.1 Comparison between Denmark and Veneto

The aim of this paper is to investigate the impact of job mobility and tenure on the yearly wage variations of workers. In particular, we are interested to verify if high mobility and low tenure reduces wage variability when workers change job.

Considering the existing relations between wage and tenure (i.e. returns to tenure), we distinguish the workers in two categories, *movers* and *stayers*. The first is our group of interest (i.e. workers that in a given year change job with respect to year before); the second is a "control" group that should help us to show the different effect of job mobility and tenure for movers with respect to stayers.

The job careers of the workers and the likelihood to move depend strongly from the characteristics of the workers and their potential experience in the labor market.

Given these considerations, the empirical strategy used is composed by two steps. First, we matched movers and stayers on the basis of some observable characteristics, using a propensity score matching method<sup>13</sup>.

Eventually, a fixed effect analysis on the matched sample has been performed. In practise, we estimate the following equation:

$$Y_{it} = \alpha_i + \delta_t + \beta X_{it} + \gamma_1 movers + \gamma_2 job\_mobility + \gamma_3 tenure\_lastjob + \gamma_4 movers * job\_mobility + \gamma_4 movers * tenure + \varepsilon_{it} \quad (1)$$

$Y_{it}$  is the outcome variable and it measures the log of the yearly wage(hourly) change;  $\alpha_i$  and  $\delta_t$  are respectively the individual fixed effect and the time

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<sup>13</sup>For further details on propensity score see chapter 1. To match the two groups we use a *Kernel matching* method. See, Becker and Ichino (2002) and Leuven and Sianesi (2003) for further details.

effect; and,  $X_{it}$  is a set of control variables<sup>14</sup>. The variable *movers* is a dummy variable taking value 1 if workers change job in that year and 0 otherwise. The variable *movers* is a dummy variable taking value 1 if workers change job in that year and 0 otherwise; *job\_mobility* is a dummy variable taking value 1 if workers in the previous 3 years change job and 0 otherwise; and, *tenure* is a variable measuring the year of tenure of the previous (actual job in the case of stayers) job. Finally, there are two interactions variables, respectively *movers\*job\_mobility* and *movers\*tenure* that should captures the different effect of job mobility and tenure on wage changes of movers with respect to stayers.

The analysis has been performed on the overall sample and separately for men and women, blue collar and white collar.

#### 4.2.2 Within Veneto: Small and big firm

As said in the introduction, the job mobility and the tenure are influenced by the level of EPL enforced. In the previous part, in fact, we compare two countries with two different level of Employment Protection.

However, the Italian Employment Protection Legislation is characterized by different level depending on firm size. Thus, we investigates the effect of job mobility and tenure only for Veneto, distinguishing between small (i.e. firm with less than 15 employees) and big (i.e. firm with more than 15 employees) firm.

As before, we first match movers and stayers and, then, we perform a fixed effect analysis on the matched sample. In practise, we estimate the following equation:

$$\begin{aligned}
Y_{it} = & \alpha_i + \delta_i + \beta X_{it} + \gamma_1 movers + \gamma_2 D_{15} + \gamma_3 job\_mobility + \gamma_4 tenure + \\
& + \gamma_5 D_{15} * movers + \gamma_6 (D_{15} * movers) * job\_mobility + \\
& + \gamma_7 (D_{15} * movers) * tenure + \varepsilon_{it}
\end{aligned} \tag{2}$$

where, with respect to equation (1), we introduce a new variable:  $D_{15}$ . It is a dummy variable taking value 1 if individuals work in a firm with less than 15 employees and 0 otherwise. In the regression, we interact this dummy with the variables *movers*, *tenure* and *job\_mobility*.

In particular, the two parameter of interest are  $\gamma_6$  and  $\gamma_7$  that describe the different effect of job mobility and tenure on wage changes, when workers are changing job and they work in a firm with less than 15 employees with respect to others.

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<sup>14</sup>The control variables used are age,  $age^2$ , sex, education, type of job (white or blue-collar), industry, firm size, unemployment spell, unemployment rate.

## 5 Results

In this paper, we analyzed the effect of job mobility and tenure on the yearly hourly wage variations, first comparing Denmark and Veneto and, secondly, looking at the differences between workers employed in small and big firms. In both cases, using registered data from 1987 to 2001 (IDA for Denmark and VWH for Veneto), we run an analysis organized in two steps: first, we match movers and stayers using a propensity score matching and, secondly, we run a fixed effect regression on the matched sample.

The results obtained are shown in table 3.4, 3.5 and 3.6.

Before to go to the comment of the results, it's important to underline the main criticism that emerges in this study. Unfortunately, we have not, in our data, an high number of observable to control for heterogeneity, and it's plausible that remains a lot of unobserved heterogeneity, probably correlated with the three key variables: *movers*, *job\_mobility* and *tenure*. This unobservable heterogeneity is partly captured by the individual fixed effect.

Given these cautions, we gives a brief description of first main results that come form our analysis.

In tab. 3.4, the results relatives to the overall sample for Denmark and Veneto. In Denmark, there are evidence that job mobility has a positive effect on wage increase for movers and, on the other hand, built up on firm specific capital (i.e. to have a long tenure in the previous job) has a negative effect on wage increases.

In Veneto the results are quite different. First of all, to be a mover has a negative and significant impact on wage variations. Secondly, to have been mobile in the past has a positive effect, while the tenure has not effect on wage variations for movers with respect to stayers.

These results probably reflect the fact that in Denmark that wage structure is very compressed and the returns to tenure are low (Bingley and Westergaard-Nielsen (2003)), thus the only way for workers to get wage increases is to move frequently. In Veneto, instead, the returns to tenure are higher and thus it's more rewarding to remain in the firm rather than to move. Although to have been mobile in the past has a positive effect. Finally, in Veneto tenure has not a negative effect on wage variations and this is probably due to the fact that in this region the existence of cluster make the firm specific human capital more valuable when moving within the cluster. The results hold also looking separately men and women, blue collar and white collar.

The second part of the analysis looks effect of tenure and job mobility on wages when changing job, depending on the size of the firm in which the individual is employed. Tab. 3.7 shows the estimation results for the overall sample.

The results are similar to the previous case. Thus, job mobility and tenure have positive effect of wage variations, but there is no evidences of different

effect for workers employed in small firms. However, it's important to notice that to be employed in a small firms reduce significantly the negative effect of changing job.

## 6 Concluding remarks

In this paper, we evaluate the effect of job mobility and tenure on wage variations for Denmark and Veneto.

Using data drawn from IDA (for Denmark) and VWH (for Veneto) from 1987 to 2001, we combine the propensity score matching with a fixed effect analysis. We, firstly, estimate the relation comparing Denmark and Veneto e, secondly, we perform a within analysis for Veneto, comparing wage dynamics for employees in small and big firms.

Despite a problem of unobserved heterogeneity due to the few number of observable available, some first results emerge.

We provide evidences that in Denmark job mobility has a positive effects on wage increase, while built up on firm specific capital has a negative impact. In Veneto, the situation is different and there are evidences that long tenure are more rewarding in term of wage increases than short tenure.

This differences is probably due to the fact that wage structure is more compressed in Denmark than in Veneto and, moreover, the existence of cluster in the Italian region make firm specific capital more valuable.

When looking within Veneto to the differences between small and big firm, it appear that to be in a small firm (subject to a lower level of Employment protection) reduces dramatically the negative impact of changing job.

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## 7 Appendix

## 8 The data

Tab. 3.1: Panel composition

N. Workers	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
<b>Denmark</b>	683,287	681,821	682,928	693,566	712,375	717,523	712,839	716,491	743,729	779,767	819,689	839,739	854,048	888,770	895,073
<b>Italy</b>	307,402	328,515	347,161	355,965	368,976	421,150	438,252	451,442	463,154	480,867	487,473	510,066	512,619	541,884	575,855

Note: INPS and IDA data.

Tab. 3.2: Sample composition: Denmark

Variables	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Women	218,881	223,091	226,653	231,657	241,097	244,714	241,946	235,817	239,698	257,630	272,600	282,413	291,244	310,052	312,574
Men	464,406	458,730	456,275	461,909	471,278	472,809	470,893	480,674	504,031	522,137	547,089	557,326	562,804	578,718	582,499
White collar	331,523	339,489	341,913	349,004	368,902	369,479	363,765	359,664	367,067	381,921	403,148	412,749	418,908	446,206	448,194
Blue collar	351,764	342,332	341,015	344,562	343,473	348,044	349,074	356,827	376,662	397,846	416,541	426,990	435,140	442,564	446,879
Tenure1	264,663	251,373	241,202	246,328	275,456	279,064	251,436	242,716	266,447	292,245	301,437	299,187	349,605	384,262	396,978
Tenure2	79,839	85,643	86,488	83,993	80,410	82,729	98,885	95,930	82,941	96,049	108,928	115,770	93,978	98,255	119,491
Tenure3	65,242	68,418	74,747	75,444	72,374	70,994	73,915	86,560	83,330	71,579	83,104	92,382	81,982	77,827	72,507
Tenure4	45,826	49,470	52,461	52,461	56,041	55,583	54,324	56,586	68,599	62,859	56,982	64,329	68,382	62,941	53,436
Tenure5+	227,717	226,917	228,030	229,929	228,094	229,153	234,279	234,699	242,412	352,987	269,238	282,380	260,101	265,515	216,661
Movers	129,862	116,019	106,113	104,630	115,706	108,251	99,937	112,109	115,056	123,361	125,671	133,651	144,217	156,806	173,184
Job mobility >0	58,822	58,315	48,219	43,688	47,433	47,387	44,221	45,696	45,451	51,075	54,017	54,470	60,021	66,233	75,038

Note: IDA data.



Tab. 3.3: Sample composition: Veneto

Variables	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Women	95,989	100,755	107,420	107,293	110,089	126,457	131,732	138,623	144,361	152,553	155,209	162,298	158,539	169,854	181,406
Men	211,410	227,757	239,738	248,669	258,883	294,883	306,515	312,815	318,788	328,308	332,259	347,768	354,080	372,030	394,449
White collars	118,006	130,869	139,066	148,016	153,207	173,082	182,805	185,712	189,952	200,107	202,926	214,010	229,799	241,187	260,511
Blue collars	144,922	157,170	162,879	166,869	170,262	195,175	200,576	205,458	208,242	209,315	213,163	224,416	234,665	255,159	263,717
Tenure1	6,280	6,786	8,369	9,687	9,821	9,730	8,274	9,540	11,521	11,314	12,853	13,701	16,976	20,095	22,983
Tenure2	10,825	11,921	13,606	14,799	16,102	16,920	15,403	15,954	16,864	18,808	20,048	24,835	27,447	31,362	111,791
Tenure3	13,702	14,241	15,070	16,693	17,031	19,452	20,365	19,510	19,275	25,049	28,779	27,799	31,395	89,389	83,866
Tenure4	14,859	14,873	15,989	16,163	16,511	20,169	21,064	20,861	20,737	38,886	37,888	43,280	67,430	64,316	57,638
Tenure5+	261,736	280,694	294,127	298,623	309,511	354,879	373,146	385,577	394,757	386,810	387,905	400,451	369,371	336,722	299,577
Movers	18,947	21,801	27,304	33,506	29,552	33,210	29,594	30,114	62,111	40,471	40,032	43,095	55,355	55,418	61,481
Job mobility > 0	39,584	42,618	47,884	55,599	53,695	74,853	70,076	67,170	62,047	95,306	100,350	83,118	87,097	103,492	120,374

Note: Inps data.

## 8.1 Estimation results

Tab. 3.4: Estimation results: Denmark and Veneto - overall sample.

	Denmark		Veneto	
Movers	0.0029	**	-0.009	***
	(0.0001)		(0.0002)	
movers*mobility	0.0031	***	0.002	***
	(0.0001)		(0.0001)	
movers*tenure	-0.0034	***	0.000	
	(0.0004)		(0.000)	
women	0.0012	**	-0.004	**
	(0.0001)		(0.0001)	
age	-0.0032	***	-0.0002	**
	(0.0001)		(0.000)	
secondary	0.0075	***	0.007	***
	(0.0002)		(0.0003)	
vocational	0.0004	***	0.002	***
	(0.0001)		(0.0001)	
college	0.0114	***	0.015	***
	(0.0001)		(0.0003)	
bluecollar	-0.0012	***	0.001	***
	(0.0001)		(0.0001)	
unemployment spell	-0.0012	***	-0.0001	
	(0.0007)		(0.0001)	
unemployment rate	-0.0211	***	-0.019	***
	(0.0050)		(0.0040)	
industry dummies	yes		yes	
year dummies	yes		yes	
N.Obs	3, 235, 784		1, 854, 624	

Notes: The standard error are indicated in parenthesis. \* corresponds to 10%, \*\* to 5% and \*\*\* to 1% level of significance.

Tab. 3.5: Estimation results: Denmark and Veneto - Women and men

	Denmark Men	Denmark Women	Veneto Men	Veneto Women
movers	0.0057 *** (0.0002)	-0.0045 *** (0.0003)	-0.009 *** (0.0003)	-0.007 *** (0.0001)
movers*mobility	0.0010 *** (0.0002)	-0.0034 *** (0.0004)	0.001 *** (0.0003)	0.000 (0.0002)
movers*tenure	-0.0012 *** (0.0004)	0.0005 (0.0007)	0.0003 (0.0004)	0.001 *** (0.0001)
age	-0.0037 *** (0.0007)	-0.0053 *** (0.002)	-0.0003 *** (0.0001)	-0.0004 *** (0.000)
secondary	0.0097 *** (0.0003)	0.0061 (0.0037)	0.007 *** (0.0003)	0.005 *** (0.0001)
vocational	0.0009 *** (0.0001)	0.0427 *** (0.0026)	0.001 *** (0.0001)	0.002 *** (0.0003)
college	0.0119 *** (0.0002)	0.0337 *** (0.0031)	0.0181 *** (0.0006)	0.011 *** (0.0002)
bluecollar	-0.0126 *** (0.0002)	0.0002 (0.0004)	0.001 *** (0.0004)	0.001 *** (0.0004)
unemployment spell	-0.0002 *** (0.0001)	-0.0002 (0.0003)	-0.0002 (0.0003)	-0.001 *** (0.0001)
unemployment rate	-0.0025 *** (0.0002)	-0.0051 *** (0.0004)	-0.003 *** (0.0002)	-0.004 *** (0.0005)
industry dummies	yes	yes	yes	yes
year dummies	yes	yes	yes	yes
N.Obs	1, 721, 560	1, 535, 220	950, 567	904, 057

Notes: The standard error are indicated in parenthesis. \* corresponds to 10%, \*\* to 5% and \*\*\* to 1% level of significance.

Tab. 3.6: Estimation results: Denmark and Veneto - White and Blue collars.

	Denmark White	Denmark Blue	Veneto White	Veneto Blue
movers	0.0022 *** (0.0003)	0.0013 *** (0.0004)	-0.007 *** (0.0003)	-0.009 *** (0.0002)
movers*mobility	-0.0012 *** (0.0003)	0.0078 *** (0.0003)	0.003 *** (0.0002)	0.0001 (0.0001)
movers*tenure	0.0028 *** (0.0004)	-0.0013 *** (0.0005)	0.001 * (0.0007)	0.0005 (0.0007)
women	-	-	-0.003 *** (0.0002)	-0.004 *** (0.0004)
age	-0.0046 *** (0.0002)	-0.0061 *** (0.0002)	-0.0003 (0.0004)	-0.0003 (0.0004)
secondary	0.0044 (0.0037)	0.0217 *** (0.0044)	0.007 *** (0.0002)	0.005 *** (0.0003)
vocational	0.0332 *** (0.0033)	0.0595 *** (0.0019)	0.002 *** (0.0002)	0.001 *** (0.0003)
college	0.0341 *** (0.0031)	0.0569 *** (0.0033)	0.017 *** (0.0003)	0.013 *** (0.0004)
unemployment spell	-0.0002 (0.0004)	-0.0007 (0.0009)	-0.0002 (0.0005)	-0.0001 (0.0007)
unemployment rate	-0.0031 *** (0.0003)	-0.0058 *** (0.0006)	-0.004 *** (0.0004)	-0.005 *** (0.0003)
industry dummies	yes	yes	yes	yes
year dummies	yes	yes	yes	yes
N.Obs.	1, 543, 238	1, 723, 456	900, 765	984, 876

Notes: The standard error are indicated in parenthesis. \* corresponds to 10%, \*\* to 5% and \*\*\* to 1% level of significance.

Tab. 3.7: Estimation results: Within Veneto analysis - overall sample

	Overall sample	Men	Bluecollar
D15*movers	-0.001 *** (0.0001)	-0.001 *** (0.0001)	-0.001 *** (0.0004)
D15*movers*mobility	0.0001 (0.0004)	0.0001 (0.0005)	0.001 *** (0.0005)
D15*movers*tenure	0.0002 * (0.000)	0.0003 (0.0006)	0.0004 (0.0007)
age	-0.0001 (0.0003)	-0.001 *** (0.0001)	-0.001 *** (0.0007)
women	-0.004 *** (0.0003)	- (0.0006)	-0.003 *** (0.0006)
bluecollar	0.001 *** (0.0004)	0.001 *** (0.0004)	- (0.0004)
vocational	0.002 *** (0.0006)	0.001 *** (0.0004)	0.002 *** (0.0004)
secondary	0.007 *** (0.000)	0.001 *** (0.0005)	0.006 *** (0.0004)
college	0.015 *** (0.0003)	0.018 *** (0.0009)	0.013 *** (0.0006)
unemployment spell	-0.0002 * (0.0001)	-0.0002 (0.0005)	-0.0001 (0.0004)
industry dummies	yes	yes	yes
year dummies	yes	yes	yes
N.Obs	1,854,624	950,567	984,876

Notes: The standard error are indicated in parenthesis. \* corresponds to 10%, \*\* to 5% and \*\*\* to 1% level of significance.