Flexicurity and multi-dimensional job satisfaction in Italy:

A comparison of different contract arrangements.

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Abstract

In this paper we use the ISOL-PLUS 2005, 2006, 2008 and 2010 waves for constructing micro-level measures of flexicurity. In particular, we disaggregate workers according to the detailed information available on employment contracts, that allows us not only to distinguish permanent from temporary contracts, but also dependent temporary workers from the recently introduced contractual figures of autonomous temporary workers. The objective level of legal protection of the different contracts is interacted with a subjective measure of job security (the perceived probability of converting a contract from temporary to permanent) and their impact on different domains of job satisfaction is evaluated for the different groups of workers. We find that 1) the different domains of job-satisfactions follow heterogeneous patterns and 2) the perceived level of job security has always a significantly positive effect on all dimensions of job satisfaction and, for some of them, it even permits temporary workers to overtake permanent workers.

JEL classification: J28, J81.

Keywords: flexicurity, job satisfaction, temporary jobs.

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1. Introduction

It is well known that in the last decades increasing labour market flexibility has been the main target in all the OECD countries. The implementation of this goal has followed different strategies in different countries, mainly according to the existing and desired level of EPL (Employment Protection Legislation): in some countries efforts have been made to reduce the degree of EPL of existing permanent contracts, whereas in others the existing high levels of EPL have been joined by new contractual forms of temporary jobs (*reforms at the margin*).

The widespread use of temporary contracts for implementing labour market flexibility has raised concerns about job-security since, generally, temporary contracts are much less protected from the loss of the job than the permanent ones. If some countries (such as Denmark and Netherlands) have joined policies of EPL reduction with the extension of unemployment benefits and the introduction of active labour market policies, therefore being able of implementing the so-called model of *flex-security*, in other countries (such as in Italy) temporary workers are still mainly an unprotected category, so that we might say with the words of Berton et al. (2009) that a *flex-insecurity* model has been implemented. As a consequence, a worrisome duality in the labour market requires deep analyses and solutions. In fact, in such environments, also protected workers might feel insecure if there is a chance that they lose their job.

That employment stability is a desirable outcome of the labour market is clear both from the point of view of firms and from the point of view of workers. For firms having a stable employment is a way of taking the highest advantage from its investments in human capital, and reducing the costs of workforce screening and selection. For workers employment stability is ranked as one of the most important factors of job satisfaction (European Commission, 2001). And in the literature it has been shown that workers' job satisfaction is important for at least two reasons: 1) it increases labour productivity (Freeman, 1978; Hamermesh, 1997) and therefore firms' profitability (Oswald, 1997); and 2) from the point of view of social welfare, it is extremely correlated to overall individual happiness and well-being (social life, family, etc.).

While many studies have deeply analyzed the potential effects of flexibility on labour market outcomes, only a few papers have studied the impact of flexibility on job satisfaction (among others, Blanchflower and Oswald, 1999; Bailey et al., 2001; Freeman et al., 2000; Bauer, 2004;

Theodossiou and Vasileiou, 2005), or of perceived security and job satisfaction (Origo and Pagani, 2009). However, due to the enormous diffusion of temporary contracts, these are clearly relevant issues to analyse.

In this study we consider the case of Italy, where the *flexibilization process* of the labour market has followed the way of the *reforms at the margin*: therefore, without reducing the degree of EPL for permanent jobs (considered as the "standard" type of contract), a number of new contractual forms for temporary jobs have been introduced (in the form of so-called "atypical" or "non-standard" job[1]). The first attempts go back to the 80's (with the introduction of the so called work-and-training contracts for employees) but the main process of the labour market flexibilization started out in the second half of 90's with the so called Treu reform (law n. 196/1007), that substantially introduced the temporary work agencies as well as the temporary contract, and continued with the D. Lgs n. 368 /2001, that regulated the temporary contracts, and the so called Biagi Reform (law 30/2003-), that increased the contractual forms of non-standard jobs. In particular, the recent reforms have introduced some worker figures, such as *collaborators*, *contracting/consulting worker* and *occasional workers*, who contract the execution of specific duties for the firm in a fixed time-limit, without formally being hired as employees. While these workers are formally "autonomous" or self-employed workers, as far as their contracts are continuously renewed, they become a very cheap toll for firms for implementing their goal of flexibility that hides a dependent working performance (*lavoro parasubordinato*). This explains why in the recent years a lot of attention has been centered on self-employment, also considering that traditionally it accounts for a large share of employment in Italy (Mandrone, 2008): on the one hand, it could be considered a "typical" form of employment as it is not characterized by limited duration, nor it is dependent employment, on the other hand, over the last years it has tended to include the most unprotected part of "non-standard"/"atypical" temporary employment: the one of 'autonomous' temporary workers.

Considering that, as we have previously remarked, in Italy the flexibilization process of the labour market has not matched the introduction of adequate policies of unemployment benefits, there is a wide consensus among labour economists that the Italian labour market is a dual market populated by protected and unprotected workers. A simple, although quite

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[1] The concept of "standard" refers to the Fordist model of production in which the work contract of unlimited duration was the typical contractual form regulating work.

rough, partition identifies the class of protected workers with permanent workers and that of the unprotected with temporary workers. This, however, misses two crucial elements of heterogeneity in the class of temporary workers. First, as we have seen, temporary workers can be sorted between the two subclasses of "typical"(or dependent) and "atypical" (or autonomous) workers. Second, within each ('objective') subclass, temporary workers are different according to their own perceived ('subjective') probability of becoming permanent. This second aspect might be extremely relevant in the analysis of the relationship between job-security and job-satisfaction.

While some studies in the existing empirical literature on job satisfaction (Origo and Pagani, Clark-Postel-Vinay) have tried to accommodate the broad element of heterogeneity between permanent and temporary workers, to our knowledge there is no empirical analysis focusing on more detailed definitions of temporary workers and in particular no specific study for Italy. The ISFOL survey permits us to analyse instead in detail: 1) the different contractual forms of workers; 2) individual perceptions about job stability in any of the temporary contractual arrangements observed; 3) the relationship between 'objective' and 'subjective' measures of job stability and a number of aspects of job-satisfaction, therefore intended as a multi-dimensional phenomenon.

The paper is structured as follows: in Section 2 we describe the data and define the variables used for the empirical analysis; Section 3 explains the econometric strategy adopted and discusses the results of our analysis; Section 4 concludes.

2. Data

We use the 2005, 2006, 2008 and 2010 waves of the ISFOL-PLUS survey. The data-set has been constructed trough individual surveys that have involved about 38,000 people for each wave. On the methodological ground, the representativity of the sample follows exactly the same criteria of the national source of data collected by the Italian National Institute of Statistics (ISTAT): the Labour Force Survey (RCFL). But the general purpose of the questionnaire asked by ISFOL (Istituto per lo Sviluppo Professionale dei Lavoratori, Institute for Workers' Professional Development) is to register people's auto-perceptions about different aspects of their lives, and especially of their jobs, therefore completing in many

aspects the canonical information available in the RCFL. Moreover, for the 2005-2006 waves also the panel-version is available, therefore allowing for unobserved heterogeneity controls in the econometric estimates.

In our study we focus in general on the population of working people. The number of individuals contained in this sample year by year, and the distribution between men and women, are reported in Table 1. As we can see, the number of observations is almost stable over time, as well as the (quite even) distribution between men and women.

Table 1: number of observations by sex, sample of working people.

Year	2005		2006		2008		2010	
	Freq.	Percent	Freq.	Percent	Freq.	Percent	Freq.	Percent
Men	8,042	49.05	8,429	51.16	7,531	49.23	8,340	50.28
Women	8,355	50.95	8,046	48.84	7,768	50.77	8,247	49.72
Total	16,397		16,475		15,299		16,587	

Source: ISFOL-PLUS 2005, 2006, 2008, 2010.

2.1 Definition of variables

One of the advantages of ISFOL-Plus data is that very detailed information is collected about employees' contracts. In particular we can distinguish, among the variety of temporary contracts available in Italy, between the two categories of 'temporary employees' and 'autonomous collaborators'. We therefore can distinguish 5 'objective' categories of workers that reflect 5 different 'objective' positions with respect to job-flexibility and job-security. Namely, from the most rigid and secure to the most flexible and insecure job, we have: permanent employees, temporary employees, other (minor) categories of temporary employees, autonomous collaborators, and autonomous workers.

For each temporary and autonomous worker we also have a 'subjective' measure of job-flexibility, intended as a probabilistic evaluation of becoming permanently employed. Precisely, the following question is asked: *"How do you evaluate the probability of converting your current temporary contract in a permanent one?"*. The four possible levels declared in the answers have been aggregated in two levels: *low (impossible, low),* and *high (quite high, high)*. Using this information, we have therefore distinguished each 'objective' category of workers in two groups according to the subjective (high or low) evaluation of job flexibility. This

allows us to analyse not only the 5 'objective' categories of workers but also the following 8 'subjective' ones: permanent employees, temporary employees *p1 (with low probability of becoming permanent)*, temporary employees *p2 (with high probability of becoming permanent)*, other (minor) categories of temporary employees *p1,* other (minor) categories of temporary employees *p2*, autonomous collaborators *p1*, autonomous collaborators *p2,* and autonomous workers.

For all workers *job satisfaction* is evaluated in 8 dimensions, available in all the waves as answers to the following questions: *"Overall, which is your level of satisfaction with respect to 1) work environment (relationships with colleagues and superiors); 2) work organisation (timetable, shifts, overtime, holidays); 3) duties; 4) protection against sickness, accident and industrial injury; 5) career perspectives; 6) pay; 7) competence and skill development; 8) job-security".* Answers have been reported in 4 possible levels, that we have re-ordered homogeneously for increasing intensity as follows: *low, medium-low, medium-high, high.* The *'do not know'* and *'not applicable'* options have been eliminated from the sample.

Being the 8 possible aspects of *job satisfaction* the dependent variables of our regressions, we have then used the following controls: sex, age, age squared (*a2*), foreign citizenship, education (3 levels: primary, secondary and tertiary), region (4 macro-areas: north-west, north-east, centre, south and isles), sector (public or private).

2.2 Descriptive evidence

Before turning to the econometric analysis, we present in Table 2 some descriptive evidence on the 5 'objective' categories of workers considered and then the disaggregation of each of them in workers who declare to have respectively a *low (p1)* and a *high (p2)* probability of converting their contract from temporary to permanent. As we can see, permanent workers are the majority, however more than 30% are in insecure job position. The proportion of 'typical' temporary employees (dep. temporary) is on average 11%. The proportion of 'other types' of temporary employees is increased over time up to about 5%, and the percentage of 'atypical' autonomous temporary workers (collaborators) is more than 7%. Autonomous workers (mainly entrepreneurs and professional people) are 13%.

However, as we can see from the second column for each year, whereas the majority of 'typical' temporary employees evaluates the probability of becoming permanent as high, the

other types of temporary employees consider their position much more precarious, especially the *autonomous collaborators*. The fact that also slightly more than 1% of autonomous workers consider themselves as becoming permanent with high probability can probably reflect the fact there are still in this category masked forms of subordinate jobs.

It is therefore the case of considering also this last, more 'subjective' classification for capturing the real degree of flexibility of contractual arrangements.

Table 2: percentage of observations by 'objective' categories of contract and 'subjective' probability of becoming permanent.

	2005		2006		2008		2010	
dep. permanent	65.73	*75.37*	61.82	*69.35*	62.98	*71.98*	62.93	*72.42*
dep. temporary	11.52		10.16		11.55		12.07	
dep. temp. p1		*6.83*		*4.9*		*4.81*		*5.55*
dep. temp. p2		*6.38*		*6.5*		*7.55*		*7.06*
dep. other	2.92		4.86		4.61		5.02	
dep. other p1		*0.22*		*1.41*		*1.11*		*1.32*
dep. other p2		*0.03*		*0.8*		*1.02*		*0.73*
aut. collaborator	3.82		8.05		7.76		7.25	
aut. coll. p1		*3.18*		*6.28*		*5.42*		*5.2*
aut. coll. p2		*1.2*		*2.75*		*2.88*		*2.21*
autonomous	16.02		15.11		13.11		12.73	
autonomous p1		*5.76*		*6.54*		*4.16*		*4.29*
autonomous p2		*1.01*		*1.46*		*1.07*		*1.22*
TOTAL	16,397	*14,298*	16,475	*14,686*	15,299	*13,385*	16,587	*14,414*

Source: ISFOL-PLUS 2004, 2005, 2008, 2010.

3. Empirical analysis

3.1 The model

We carry out joint estimation of eight job-satisfaction equations, one for each dimension considered in the data, accommodating the possibility of cross-equation correlation. This

would be troublesome in the context of ordered probit ML estimation, involving computation of 8-variate normal integrals. Therefore, we adopt the computationally easier linear approach to ordered response models described in Van Praag et al. (2004) and (2006), also known as cardinal OLS (COLS), and extended to seemingly unrelated regression equations (SURE) by Van Praag et al. (2008). Estimation is carried out through the Stata command, `sureg.`

Our SURE results are reported and discussed in the next section. But ahead of leaving this section, we mention two methodological issues.

First, Van Praag et al. (2006) show that ordered probit and COLS estimates are almost identical up to a proportionality coefficient, namely both methods provide virtually the same estimates of trade-off coefficient ratios in the satisfaction equation. To validate COLS, therefore, we carried out pairs of ordered probit and COLS regressions for each dimension, separately. For each pair, we were able to replicate the foregoing finding (results are available on request).

Second, *unobserved heterogeneity* may arise from a number of causes in empirical models of self-reported satisfaction, mainly from subjective interpretation of the satisfaction questions. It is therefore important to take it into account in empirical analysis. To this purpose, we are currently working on the 2005-2006 panel version of the ISFOL survey. Our aim is to apply a SURE model with correlated individual and time effects, which will accommodate both cross-equation correlation and individual and time unobserved heterogeneity. To be concrete, this can be easily done in Stata by setting up the `sureg` instruction with all variables transformed in deviations from the individual means (notice that here standard error estimates must be adjusted to incorporate the correct degrees of freedom correction in the estimated variance). This will be accomplished for the final version of the paper.

3.2 Results

Table 3 shows the results of our SURE analysis. For each dimension of job satisfaction we show two different specifications: the first one considers the 'objective' categories of workers, defined on the basis of their contractual arrangements; the second one distinguishes the three categories of temporary workers, according to their 'subjective' evaluation of becoming permanent, in two sub-categories.

Overall, we can see that satisfaction decreases non-linearly with age. Ceteris paribus women are less satisfied than men only with respect to particular aspects of their jobs, such as protection against accidents, career perspectives and development of skills. Workers with foreign citizenship are not statistically significantly different from natives in terms of job satisfaction, except for organizational aspects (more satisfied) and development of skills (less satisfied). Job satisfaction increases with the level of education, especially for the aspects of jobs regarding duties, career perspectives and the development of skills, whereas satisfaction for job security is not strongly correlated with education and in particular decreases with the level of education obtained. With respect to the North-West , workers residing in the other regions do not report statistically different levels of satisfaction, except in the South and Isles where the level of satisfaction is lower for all the aspects except career prospects. If working in the public sector increases significantly the level of satisfaction for job-security with respect to the private sector, all the other dimensions of job satisfaction except career prospects result quite penalised. It is interesting to note that the above results are robust to the two alternative specifications considered.

Importantly, having the opportunity of disaggregating temporary workers with respect to their evaluation of the possibility of converting their contract in permanent allows us to further understand some specificities of their job satisfaction with respect to people with a permanent contract. If for job-security and for protection against job accidents and injuries all the other categories of workers are less satisfied than permanent workers, for the other dimensions of job-satisfactions temporary and autonomous workers are instead more satisfied, especially (and sometimes only) if their subjective probability of converting their contract from temporary to permanent is high.

4. Conclusions

Although preliminary, the analysis carried out in this paper suggests that although temporary workers are less satisfied than permanent ones with respect to job-security, self perception of precariousness is important in determining the degree of this correlation. Moreover, looking at the different dimensions of job satisfaction, we find that there are many aspects for which temporary workers might fell more satisfied that permanent, such as pay, development of skills,job environment, etc. But this is true only if their evaluated probability of becoming

permanent is high, both for 'typical' and 'atypical' figures. Overall, temporary workers with very low perspectives of increasing their yob stability are always less satisfied than permanent workers.

Further analysis is needed for improving our estimation results, and it can go in the following directions: 1) analyse more deeply the disaggregation of temporary contracts, trying to determine more precisely the category of lavoratori *parasubordinati*; 2) correct our estimates for unobserved heterogeneity using the panel version of the data; 3) explore the incidence of our results on workers' job-transitions.

Tab. 3 Regressions on different aspects of job satisfaction.

	Environment		Organ.		Duties		Accidents-inj.	
females	0.02612183	0.0287334	0.0046013	0.00746549	0.00204967	0.00522944	-.03205351*	-.03316234*
age	-.02768077***	-.0249664***	-.02364502***	-.02158029***	-.0229625***	-.02032924***	-.01800013***	-0.004468
age2	.00027525***	.00024607***	.00026439***	.00024273***	.00025954***	.00023262***	.00021343***	0.00007157
foreign	0.10133639	0.10042074	.15834394*	.15645197*	-0.10334238	-0.10607687	-0.02645226	-0.02646576
edu2	0.03187238	0.03089992	.03761335*	0.03615084	.07503371***	.07382497***	.06399355***	.07810282***
edu3	0.03685224	0.03605834	0.0213072	0.02049905	.13514386***	.13315474***	0.01352732	0.00477519
north-east	0.00384217	0.00329382	0.03167602	0.03175689	0.00678277	0.00727677	0.00847333	0.00599098
centre	-0.00255524	-0.00257178	-0.02396131	-0.02356699	-0.03248191	-0.03215189	-.04937165*	-.05914736**
south&isles	-.06258642**	-.06227833**	-.05821695**	-.05782325**	-.0498171**	-.05042578**	-.11500262***	-.14024687***
public sector	-.04842323**	-.04646255**	-0.03136517	-0.02992297	0.03007566	0.03203803	-.07724855***	-.06095262***
dep. temp. /dep.temp. p1	.11930294***	0.01943591	.08293922***	0.0014662	0.03551844	-0.04351308	-.18331915***	-.23581132***
dep.temp. p2		.24110527***		.18147352***		.13914913***		0.00374255
dep. other / dep.other p1	-0.04128935	-0.07790155	-0.03597201	-0.21557749	-.08552768*	-.46972083**	-.86140418***	-.37648001*
dep.other p2		0.34107072		0.03243561		0.08878308		-0.74813467
aut. coll. / aut. coll. p1	.11472303**	0.08587786	0.02166114	-0.05234607	-0.03213869	-.10294896*	-.96585409***	-1.0356741***
aut. coll. p2		.21046234**		.23053266**		.18016871**		-.57936897***
autonomous	.26620153***	.26878347***	.33083635***	.33241631***	.388352***	.3915062***	-.46271907***	-.42425543***
cons	.56668929***	.50562023***	.42508121***	.37777537***	.34079275***	.27837967**	.54153677***	.21309819*
	Career		Pay		Skills		Job-security	
females	-.24125466***	-.23479468***	-.13852739***	-.13777135***	-.12828673***	-.12387308***	-0.02410179	-0.02019402
age	-.05220463***	-.04413277***	-.03438958***	-.02766182***	-.05300411***	-.05063781***	-.0655711***	-.04925893***
age2	.00047647***	.00038989***	.00032058***	.0002497***	.00056159***	.00053636***	.00079213***	.00061964***
foreign	-0.09075882	-0.09525849	-0.0619105	-0.06251257	-.25017266***	-.25245814***	0.00107761	-0.00108081
edu2	.11992822***	.11860393***	.10112036***	.10671512***	.21819669***	.21494211***	.06125858***	.06888494***
edu3	.20191384***	.19986322***	0.02688661	0.0241978	.34431118***	.34451955***	.04600601*	0.03902692
north-west	.04594197*	.04563896*	0.02199831	0.02184461	0.00035848	0.00015671	.04363157*	.04263575*
centre	0.04109673	0.04051141	-0.03260571	-0.03694139	-0.0389666	-0.03726177	-0.02284717	-0.03093553
south&isles	0.017686	0.0160292	-.12329698***	-.13375635***	-.05156627**	-.04880341*	-.10967231***	-.12858165***
public sector	-0.02999032	-0.02372947	-.32927951***	-.32213411***	-0.00373534	-0.00273352	.20787954***	.22367396***
dep. temp. /dep.temp. p1	-.15448822***	-.39258477***	-0.04330887	-.10054572**	-0.04392612	-.17859441***	-.78548731***	-1.0266155***
dep.temp. p2		.14623078***		.08031363*		.10418132**		-.38944649***
dep. other / dep.other p1	-.19537782***	-0.28866939	-.37394201***	-0.11708986	0.01822899	-0.2850574	-.80094834***	-.79862341***
dep.other p2		0.09038417		-0.36797984		0.67121915		-0.52419413
aut. coll. / aut. coll. p1	-.25042217***	-.39742866***	-.22041835***	-.26727708***	0.00657172	-.08989323*	-.96668781***	-1.061777***
aut. coll. p2		.2034034**		-0.00186849		.26087727***		-.50757626***
autonomous	.37969944***	.39004991***	.14811422***	.16556714***	.35317646***	.35251016***	-.26384965***	-.22856372***
cons	1.2237634***	1.0398073***	.98297284***	.82098752***	.97396238***	.92215485***	1.3437262***	.95852656***

Source: ISFOL-PLUS 2005.   * p<0.05; ** p<0.01; *** p<0.001

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