

Young Entrants, Temporary Jobs and Career Opportunities: Short-Term Perspectives of Young Italian Workers

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Abstract

Because of the high unemployment rate and the low chances to get a permanent job, young people in Italy face major problems in entering the labour market. In this paper, we address the issue of the labour market entry of young Italian workers by using a sample dataset of the new Compulsory Communication data for the period 2008 - 2010. We ask whether there are some individual characteristics which are more favourable for open-ended contracts. Then, we analyse how different types of temporary jobs have different probability of transforming into permanent ones. Finally, we estimate a survival model on the duration of temporary jobs.

1 Introduction

The last estimates from the labour force survey in Italy state that more than 1 out of 3 economically active individuals aged between 15 and 24 years are officially unemployed. Furthermore, the incidence of temporary contracts is higher for the younger cohorts and young workers exhibit very low initial wages. Berton et al. [2009a] show that the cost associated with some temporary contracts (wage and salary) can shrink to half the one of standard workers in Italy.

However, as worker security is interpreted as a way for firms to create and retain in-firm specific skills, employers do not necessarily have an interest in indiscriminate use of short temporary contracts, i. e. extensive flexibility.

The use of open-ended contracts induces more human capital accumulation, especially of the firm-specific form, because a higher expected duration of the employment spell (see Berton et al. 2009b) provides more incentives to both workers and firms to invest in training.

As for career expectations in Italy, the ambiguous nature of temporary contracts - on the one hand the opportunity of receiving training, on the other hand the risk of being trapped in temporary jobs - seems to be correlated with the duration of the contract.² The probability of transition to an open-ended contract decreases with the number of temporary

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² On the contrary, in Britain temporary contracts were still a port of entry to non-temporary contracts during the '90s (Booth et al., 2002).

experiences and the duration of unemployment spells, as shown in Gagliarducci (2005), who used the ILFI dataset (Indagine Longitudinale sulle Famiglie Italiane).

Moreover, Berton et al. (2009b), using the WHIP database (Work Histories Italian Panel), find that different types of temporary contracts lead to different impacts on the probability of obtaining an open-ended position. They also show a significant difference between temporary contracts with training (“contratto di formazione lavoro e apprendistato”) with respect to freelance ones (“lavoro parasubordinato”).³

According to Picchio (2008), who uses the SHIW database (Survey of Italian Households’ Income and Wealth), in Italy workers employed on temporary basis have a higher probability of obtaining a permanent position than the unemployed ones, although there are state-dependence effects on being held in temporary positions.

It is worth noting that temporary contracts imply a higher volatility of wages over time. In Italy, the unbalanced generational wage dynamic stands out by comparing the average wage of different generations and their levels of instability (Staffolani et al., 2009).

The paper aims at evaluating the job market entry of the younger cohorts in Italy by using more than two years job histories from the new data from Compulsory Communications (“Comunicazioni Obbligatorie”, CC hereafter). Since the beginning of 2008, each employer has to communicate some events related to his employees’ contracts, namely activation, fixed-term extension, transformation and anticipated termination (see Strano et al., 2010).

At a first stage we ask whether there are any individual characteristics as well as employer features which are more favourable for obtaining permanent jobs.⁴ Then, we follow cohorts of young individuals which entered the job market at the beginning of 2008, observing their career profiles in the following two years.

The next section presents the data. Section 3 analyses the characteristics of the entry and exit processes of young cohorts in the Italian labour market and presents a survival analysis on jobs duration. Section 4 concludes.

2 Data: from contracts to jobs

The sample dataset comes from the CC system and refers to the events for all the workers born on 15 of March, June, September and December: about 1 out of 91 of all Italian workers have been included in the CC sample.⁵ In order to avoid some problems related to the early development of the system and to the failure to review the latest communications, CC have been selected for the period from April 2008 up to June 2010.

Initially, the sample dataset consisted of more than 303.000 contracts. However, temporary contracts which started before 2008 and ended in the following period at the due date of termination are not included. Therefore, the labour contracts terminations are

³ It is a peculiar Italian labour contract which presents both the characteristics of the employment contract and the self-employment.

⁴ Permanent jobs are open-ended contracts, while temporary jobs refer to contracts with a scheduled ending date. In our data we observe five different types of temporary contracts, i.e. fixed-term, apprenticeship, freelance, interim and internship.

⁵ Since January 2008 each employer, both in the public and the private sector, must communicate via the website <http://www.co.lavoro.gov.it/> his employees’ contracts. The CC database does not include self-employed.

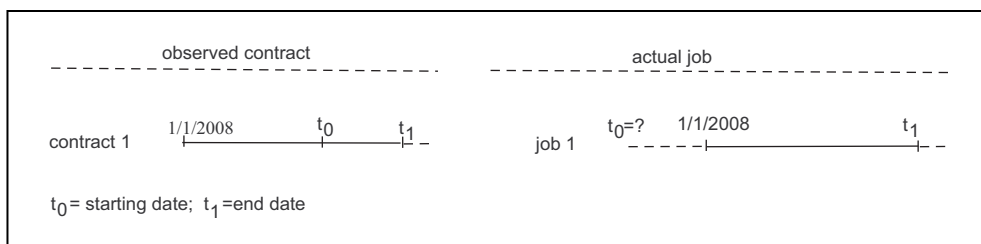
underestimated and the analysis of the differences between activations and terminations of labour contracts - inflows and outflows - is misleading at the moment.

The discussion about our CC sample dataset needs a preliminary caveat. While the CC dataset refers to contracts, identified by a starting date of a job appointment between an employer and an employee, the one we used in the following analyses has been modified to focus on jobs, characterized by a continuous relationship - or almost continuous, as we will see below - between the same employer and employee. In order to move from contracts to jobs, we carried out the following steps:

- there are many cases of transformation, extension, early termination of contracts with a starting date after 2008, nevertheless their activation is missing even if the registration should have been compulsory. In these cases, we can assume that employers probably incorrectly specified the starting date of the contract: the job should be started before 2008. For our purposes, the starting date of these contracts has been substituted with a missing value - see figure 1 - ruling out these jobs from the analyses (about 9.000 contracts);
- many temporary contracts have been extended once or more with no interruption. A unique job has then been considered with the final expiry date equal to the termination of the last extension, keeping the counts of the extensions;
- sometimes the employer takes the employee back after a short period from the end of the previous temporary contract. If the time between the ending date of the first contract and the starting date of the second one is lower than a given number of days, namely τ , these cases represent "hidden extensions" (see Figure 2);
- finally, two different contracts (for instance, fixed-term and open-ended) between the same worker and firms actually could represent "hidden transformation", when the ending date of the first contract and the starting date of the second one (the distance, τ) is lower than a given number of days (see Figure 3).

We set $\tau = 30^6$ for the cases of hidden extension and hidden transformation (about 47.000 cases). It is worth stressing that our jobs differ from the administrative definition of contracts, because we are interested in the almost continuous job relationship between a worker and a firm. Hence, one job can refer to several consecutive contracts.

Figure 1 - "Implausible" contract created by a communication



⁶ The choice of a monthly period is made because this is the minimum length analysed in the empirical researches based on survey data, see Gomes (2012).

Figure 2 - "Hidden" extension

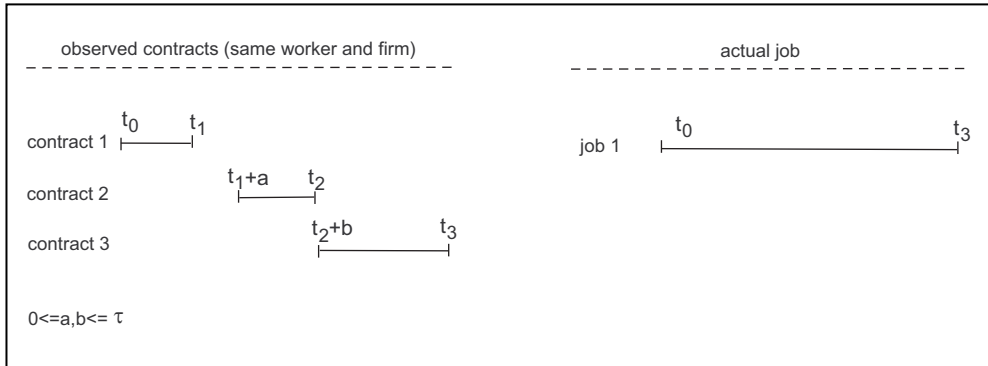
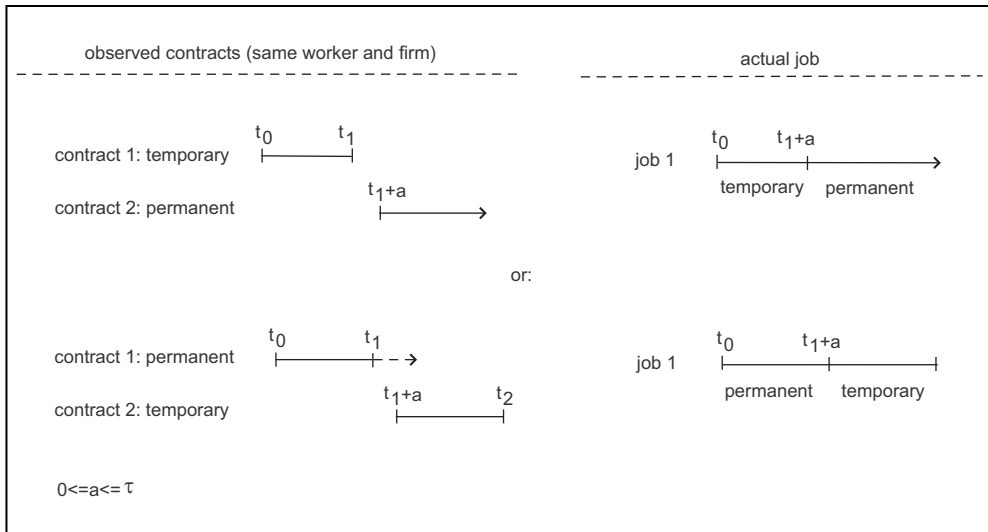


Figure 3 - "Hidden" transformation



Following the steps outlined above, we end up with the *jobs* employer-employee dataset. The analyses presented thereafter refer to *young workers*, defined as individuals born between 1974 and 1993, whose job started from April 2008 up to 30 June 2010, ending with 82.419 “jobs” included in the sample.

Note that our analyses refer to labour relationships and not to workers. When a worker has multiple jobs during the period, or she moves to another firm, or she leaves her job (or she is laid off) and later is newly hired by the previous employer (and unless the period between the two contracts is lower or equal to 30 days, see above), then there are multiple observations for the same worker.

3 Temporary and Permanent Jobs

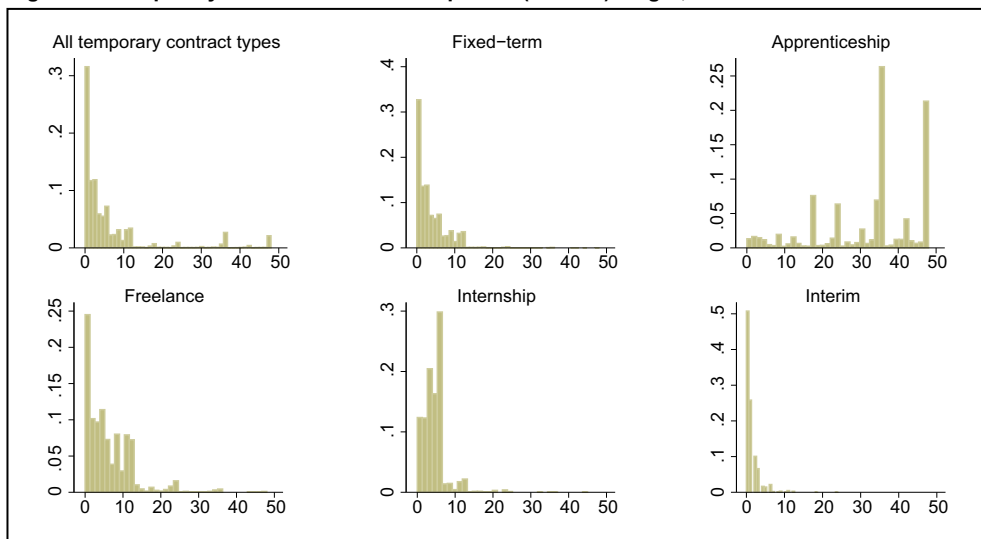
The average number of jobs for young workers is around 2.6 during the period that we considered, 60% of young workers shows only one presence in the dataset, 23.4% are present two times and only a small fraction had 3 or more jobs during the period. Table 1 shows the type of contract under which young people are hired. More than 3 out of 4 jobs start as temporary.⁷

Table 1 - Jobs by types of contract

	Jobs	%	Expected (ex-ante) average length, months
Permanent	22022	27	-
Fixed-term	39387	48	3,99
Apprenticeship	7030	9	37,20
Freelance	6507	8	9,33
Internship	2513	3	4,52
Interim	4960	6	1,32
Total	82419	100	8,23

The 25% of all jobs started in the second quarter of 2008 was permanent; the same figure went down to 19% in the same quarter of 2010. The expected lengths of jobs by type of contract⁸ are shown in figure 4. Different types of contracts are characterized by very different distributions of the expected length. The median for the length of fixed-term and interim contracts is one month, whereas the other types of contracts have higher medians. The highest average length is for the apprenticeship contract (37 months) and the lowest is for the interim one (1.3 months). The average length of temporary contracts is equal to 8.2 months.

Figure 4 - Temporary contracts and their expected (ex-ante) length, months



⁷ The same figure for older workers is less than 2 out of 3.

⁸ In the graph were plotted those jobs with an expected length lower or equal to 50 months, which account for the 97% of temporary jobs. The "actual" length of temporary jobs takes into account that some temporary contracts have been transformed in permanent ones, while other contracts have been deferred or ended in advance.

The freelance contracts mostly regard workers with an academic degree, that are also the less engaged in apprenticeship. Permanent contracts are most associated with primary education as shown in table 2.⁹

Table 2 - Jobs distribution by types of contract and education, column %

	Primary	Secondary	Tertiary	Total
Permanent	25.7	20.3	17.3	22.5
Fixed-term	52.0	47.0	43.6	48.9
Apprenticeship	10.5	10.0	4.6	9.5
Freelance	4.1	11.4	20.6	9.1
Internship	2.3	3.7	8.7	3.7
Interim	5.6	7.6	5.3	6.3
Total	100	100	100	100

Permanent jobs concern men more than women and immigrants than Italians. Freelance jobs concern more frequently women and italians.

Table 3 - Jobs distribution by types of contract and gender/nationality, column %

	Male	Female	Immigrant	Italian	Total
Permanent	29.4	23.6	41.0	21.4	26.7
Fixed-term	46.7	49.0	45.5	48.6	47.8
Apprenticeship	8.9	8.0	6.2	9.4	8.5
Freelance	6.1	10.0	1.9	10.1	7.9
Internship	2.5	3.6	1.1	3.8	3.1
Interim	6.4	5.6	4.3	6.7	6.0
Total	100	100	100	100	100

Interesting differences emerge also by considering the geographical dimension: permanent jobs were used more frequently in the North-West, Islands and South while interim jobs are widely used in the northern regions as shown in table 4.

Table 4 - Jobs distribution by types of contract and geographical area, column %

	North-West	North-East	Center	South	Islands	Total
Permanent	29.9	21.2	25.7	28.5	29.5	26.7
Fixed-term	38.6	52.3	46.1	53.7	51.7	47.8
Apprenticeship	9.2	10.8	9.8	5.3	5.9	8.5
Freelance	9.0	5.2	9.5	7.2	9.4	7.9
Internship	3.5	3.6	3.6	2.1	1.6	3.1
Interim	9.7	7.0	5.4	3.1	1.8	6.0
Total	100	100	100	100	100	100

⁹ Some jobs refer to individuals with missing data on education, the 23% of cases, many of them being immigrants. Therefore, the row totals differ from the previous table.

In order to sum up the previous evidences and check their significance, a logit model has been estimated, where the dependant variable is the probability for the job to start as permanent versus temporary.

Table 5 - Logit estimates of getting a permanent job, youngs

	A1	A2	A3
	Odd ratios	Odd ratios	Odd ratios
Quarters, ref: 2008q2			
2008q3	0.87***	0.89***	1.06*
2008q4	1.08**	1.08**	1.07*
2009q1	1.29***	1.15***	1.16***
2009q2	1.31***	1.13***	0.86***
2009q3	0.71***	0.65***	0.79***
2009q4	0.95	0.89***	0.91**
2010q1	1.12***	0.96	0.98
2010q2	0.73***	0.65***	0.66***
Age		1.07***	1.09***
Female		0.83***	0.85***
Italians		0.50***	0.59***
Education, ref: compulsory			
Primary		1.44***	1.23***
Secondary		0.86***	0.87***
Tertiary		0.61***	0.80***
Area, ref: North-West			
North-east		0.60***	0.64***
Center		0.81***	0.77***
South		1.06**	1.41***
Islands		1.16***	1.26***
Other control variables:	NO	NO	Occupation; Sector
N	82416	82394	77377
Pseudo-R2	0.008	0.072	0.216
LR χ^2	725.1	6949.9	20001.5

Some differences emerge from the different specifications of the model. In the following comments, we refer to the full specification in the A3 column. The probability for the job to start as permanent increased during the first period of the crisis, whereas it significantly decreased from the mid 2009 and increases with age among young individuals, and is higher for males and foreigners. Lower educational attainments (the reference group) imply a higher probability for the job to start as permanent. With respect to the North-West area, firms located in the North-East and in Central Italy make a widespread use of temporary contracts.

Focusing now on the temporary jobs, they can end at their expiry date, or be extended or transformed into permanent ones¹⁰ or end in advance. The above four different types of outcomes of temporary jobs are presented, for the different types of temporary contracts, in table.

¹⁰ Remind that we consider also the hidden extensions and the hidden transformations, see section 2.

Table 6 - Outcomes of temporary jobs at their expected ending date, by types of contract

TEMPORARY JOBS	Ended at expiry date	Transformed into permanent	Extended	Ended in advance	Total
Fixed-term	46.1	7.9	25.2	20.8	100
Apprenticeship	43.5	5.3	2.3	49.0	100
Freelance	50.9	2.0	26.4	20.8	100
Internship	52.1	3.6	24.9	19.3	100
Interim	33.8	5.1	52.6	8.6	100
Total	45.5	6.6	24.9	23.0	100

The highest probability of transformation concerns fixed-term jobs, the lowest one concerns freelancers. Apprenticeship shows the highest probability of ending before the expiry date, whereas interim jobs show the highest one of extension.

According to our CC data, only 6.6% of temporary jobs are transformed into permanent ones. Given that such transformation is the most important change that can affect a temporary job, we present in table a multivariate descriptive statistic based on a logit model.¹¹

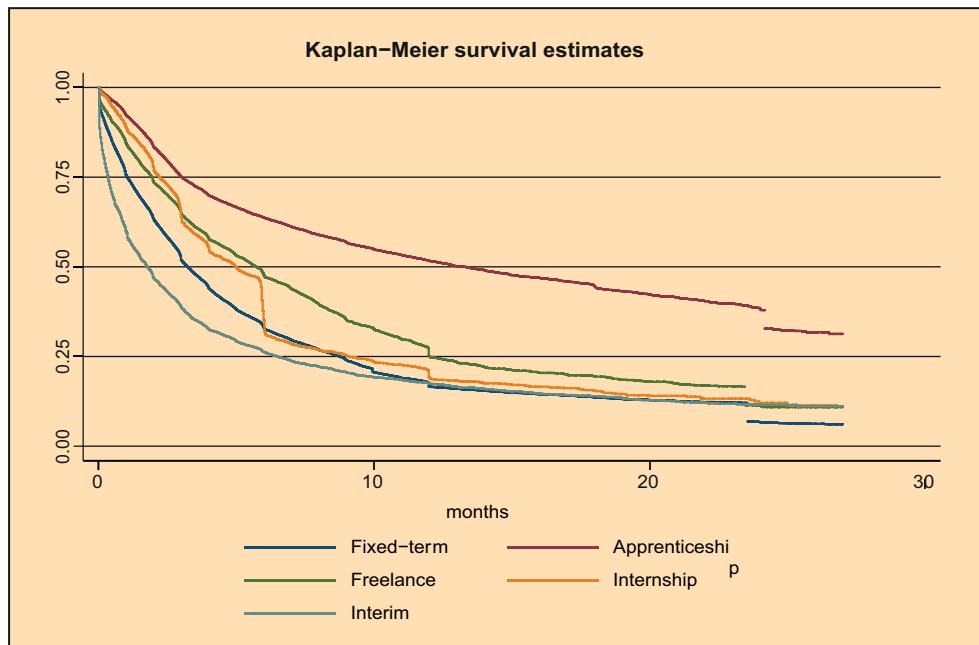
Table 7 - Logit estimates of transforming a temporary job into a permanent one, youths

	B1	B2
	Odd ratios	Odd ratios
Quarters. ref: 2008q2		
2008q3	1.02	1.00
2008q4	0.94	0.93
2009q1	1.04	1.07
2009q2	0.78***	0.77***
2009q3	0.76***	0.75***
2009q4	0.71***	0.71***
2010q1	-0.81***	0.82**
2010q2	0.83*	0.82**
Age	1.07***	1.06***
Female	0.87***	0.86***
Italian	0.81***	0.82***
Education, ref: compulsory		
Not Available	0.98	0.98
Secondary	1.05	1.06
Tertiary	1.30***	1.49***
Plant area, ref: North-West		
North-East	0.77***	0.74***
Center	0.78***	0.79***
South	0.46***	0.47***
Islands	0.41***	0.42***
Temporary Contract, ref: Fixed-term		
Apprenticeship		0.67***
Freelance		0.16***
Internship		0.27***
Interim		0.13**
Other control variables:	Occupation; Sector	Occupation; Sector
N	41277	41277
pseudo-R2	0.131	0.156
2	3275.6	3898.103
LR χ^2		

¹¹ We drop temporary contracts whose expected expiry date was later than 30/06/2010.

Starting from the second quarter of 2009, the probability of transformation of a temporary job into a permanent one strongly reduced. Jobs referring to women and Italian citizens show a lower probability of transformation as well as those concerning workers with educational attainments lower than tertiary education.. This probability is higher in the North-West, the reference area. The fixed-term contract is associated with a higher probability of transformation into a permanent one.

Figure 5 - Effective (ex-post) job duration (in months)



The main differences between expected (ex-ante) and actual (ex-post) durations respectively in figures 4 and 5 arise mainly from the different probabilities of being extended or ended in advance as shown in table. There are very different actual durations with respect to the types of temporary contracts (see Figure 5): apprenticeships are the most long-lasting while internships show the lower duration with major terminations after six months.

The CC dataset comes as a set of survival-time data where the subject is the job. Obviously, there is a censoring for the temporary jobs which should terminate after the end of the period we observe, June 2010.¹² Given this data structure, we can ask whether effective durations are associated to some individuals and job characteristics by means of a simple survival model. Table 8 shows the estimates for the hazard of the termination of a temporary job for some individual and job characteristics, controlling for time changes,

¹² These temporary jobs ending after 30th June 2010 are nevertheless included in the sample and treated as surviving ones as usual in survival models.

regions, occupations and sectors. Accounting for different types of temporary jobs may result in changes of the effects of the individual characteristics, i.e. there are significant differences across types of temporary jobs for the individual characteristics. Looking at the full specified model (column C2), women exhibit higher hazard rate for the termination of their temporary jobs - even if less significant - as well as for the Italian citizens. Age and education have a negative impact on the hazard, while the probability of termination increases from the North to the South Italy. With respect to the different types of temporary jobs, fixed-term jobs show the highest hazard of termination, and apprenticeships the lowest. These hazards have increased since the early 2009.¹³

Table 8 - Survival estimates of the hazard for a temporary job, workers 15-34

	C1	C2
	coeff.	coeff.
Quarters. ref: 2008q2		
2008q3	0.044**	0.010
2008q4	0.030	0.037*
2009q1	-0.193***	-0.189***
2009q2	0.106***	0.069***
2009q3	0.134***	0.056***
2009q4	0.074***	0.036*
2010q1	-0.212***	-0.203***
2009q2	-0.266***	-0.310***
Age	0.008***	-0.030***
Female	0.046***	0.021*
Italian	-0.043***	0.034**
Education, ref: Compulsory		
N.A.	0.076***	0.036**
Secondary	-0.096***	-0.054***
College	-0.357***	-0.412***
Plant area, ref: North-west		
North-east	0.099***	0.062***
Center	0.069***	0.071***
South	0.345***	0.259***
Islands	0.308***	0.243***
Temporary Contrat, ref: Fixed-term		
Apprenticeship		-0.962***
Freelance		-0.180***
Internship		-0.048*
Other		0.225
Working time, ref: Full-time		
N.A.		-0.341***
Part-time		-0.087***
Controls for:		
Occupation (9)	No	Yes
Sector (17)	No	Yes
N.		60153
Failures		40888
χ^2	2123.89	9619.40

¹³ The last two quarters of our period show lower hazard of termination even because of the right censoring.

4 Conclusive Remarks

The analyses focused on the job market entry of young individuals in Italy with respect to the temporary or permanent nature of their jobs. The tightness in the Italian labour market for new entrants and young workers as well as their high propensity to get temporary jobs suggest to deepen this subject.

Using the new CC data on contracts both in the public and the private sector, we exploited the detailed flows of information on jobs evolution over the period 2008–2010, accounting for the transformation of temporary jobs into permanent ones, the extension and the early termination of temporary jobs.

Young individuals have been selected from our CC sample dataset to study their probability to get an open-ended contract and to move from a temporary job to a permanent one as well as their temporary jobs durations.

In Italy the probability to get a permanent job is low and has been affected by the crisis. We found that it increases with age, as the probability to move from a temporary job to a permanent one. Therefore, the chances to get an open-ended contract seem to have been mostly offered to those individuals with more experience, which also have the long lasting temporary jobs.

On the other hand, young workers who have spent many years on education have low chances to start with a permanent job, however their temporary jobs are more easily transformed into permanent ones. More educated individuals usually working on temporary basis are engaged in long-lasting job relationships.

With respect to other types of temporary jobs, fixed-term contracts show the highest chance of transformation in permanent contracts. However, the estimates of the survival probability suggest that their expected length is the lowest. The apprenticeship contracts show the highest effective job duration.

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