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Employment and Earnings Expectations of Jobless Young Skilled: Evidence from Italy

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Employment and Earnings Expectations of Jobless Young Skilled: Evidence from Italy

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Employment and Earnings Expectations of Jobless Young Skilled: Evidence from Italy*

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Abstract

This paper uses an innovative survey instrument on employment and earnings expectations merged with administrative level data for Italy to propose new measures of job instability and insecurity for jobless young skilled. The results show that these measures accurately capture the amount of employment and earnings' uncertainty that the jobless face, negatively correlate with several important choices and behaviors, and depend on individual-level factors rather than on local labor market conditions.

Key Words: Job instability and insecurity; Earnings risk; Subjective expectations; Youth unemployment.

JEL Codes: J31; J6; J62; D84.

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1 Introduction

Since the 2008 financial crisis jobs have become scarce and more precarious. The job crisis hit young European particularly hard. Between 2007 and 2012, employment in Greece, Ireland and Portugal declined by 1.6 million, but 75 per cent of this reduction was concentrated among young people aged 15-34 years (ILO 2014). At the same time, the use of fixed-term contracts and temporary employment significantly increased: in most EU member States, between 2007 and 2014 the share of temporary employees among all workers increased on average by 23 per cent (European Commission 2016).

Experiencing joblessness and insecurity at a young age imposes substantial costs on individuals and societies (Bell and Blanchflower 2011; Dolado 2015). For societies, early unemployment is associated with a number of social illnesses such as increases in crime and drug offences (Bell and Blanchflower 2011). For individuals, it is associated with ‘scarring effects’ on future wages and employment (e.g. Gregg and Tominey 2005; Fairlie and Kletzer 2003; Arulampalam 2001), and physiological effects such as depressive symptoms (Goldsmith, Veum, and Darity 1996), lack of self-confidence, self-blame, stress, and resignation (Hammarström and Janlert 1997).

The availability of few and unstable jobs creates a context of scarce and precarious opportunities that affect individuals’ employment and earnings’ expectations and, through these expectations, their choices and behaviours. The goal of this paper is to study these expectations, their determinants and the effects they have on outcomes and behaviours.

The contribution is twofold. First, this paper uses the quantitative expectations data methodology to design new survey questions that allow, for the first time, to robustly measuring the amount of job instability and job insecurity that the jobless perceive. I fielded these questions using an original survey instrument, the Italian Youth Employment Survey (IYES), which I designed and administered in early 2015 to a nationally representative sample of Italian University graduates aged 25-34 that were out of employment at the time of the survey. I then merged the IYES data with province-level administrative data from the Italian Social Security Institute (INPS) to control for relevant local labour market conditions that characterize the economic context where people form expectations. Second, this

unique dataset allows investigating one unstudied aspect of the psychology of joblessness, namely the impact that not having a job has on future employment and earnings' prospects, and thus on the amount of job instability, insecurity and earnings' risk that the jobless perceive, and how these expectations depend on individual-level factors and local labour market conditions. This is important since future expectations matter for current choices and life outcomes (Manski 2004).

The remainder of the paper is as follows. Section 2 discusses the traditional and new approach to measure job instability and insecurity; section 3 describes the data; section 4 presents the new measures of job instability and insecurity, and validates the expectations data used to construct these measures. Section 5 and Section 6 discuss the determinants, and the consequences of job instability, insecurity and earnings' risk for the jobless young. Section 7 briefly concludes. All tables are reported in the Appendix.

2 Measuring job instability and insecurity

Job instability and insecurity refer to perceptions and expectations of job turnover, duration, and changing quality of employment prospects. The traditional approach has been to infer expectations from realizations, or to use qualitative proxy measures. This Section reviews this approach and proposes new measures of job instability and insecurity constructed by eliciting quantitative subjective expectations.

2.1 Traditional approach

In the literature, job instability and job insecurity are clearly defined concepts that are used to describe the prospects of changing job type and duration for individuals that have a job. Job instability refers to jobs' turnover and duration: a worker faces a higher job instability if she is more likely to have a job of a short duration. Job insecurity refers to the subjective probability of exogenous job destruction and the subjective distribution of its outcome if the worker looks for new employment (Lippman and McCall 1976; Mortensen 1986). As discussed by Gottschalk and Moffitt (1999), job instability differs from job insecurity, which has been used to label turnovers associated with less desirable outcomes. In addition to jobs

of short duration or even if jobs' duration has not changed, a worker may face turnovers that lead to worse outcomes, such as an increase in the probability of unemployment spells or a decrease in the wage gains from changing employers.

While the definitions are clear and precise, researchers have used several alternative measurement methods (Sverke, Hellgren and Naswall 2006). Two main approaches have emerged. The first and most common approach has been to infer expectations from realizations, such as statistics on unemployment rates and durations, and data on job losses to measure subjective probabilities of job destruction (for example, Aaronson and Sullivan 1998). The second approach has been to proxy subjective probabilities with information collected through qualitative questions that ask individuals about the likelihood or chance that they assign to losing their current job and finding a new job (for example, Origo and Pagano 2009 and Clark and Postel-Vinay 2009).

Both approaches suffer from important limitations that result into measurement bias. On the first approach, credible inference from realizations to expectations is difficult since the researcher has to make strong assumptions on the information that individuals have and how they use it to form expectations. These assumptions remain untestable and drive the empirical results that may or may not reflect individuals' perceptions and future job prospects. On the second approach, most national surveys ask respondents to report whether they "think" or "expect" that an event will occur and express the strength of this belief by attaching one option among "definitely," "high chance," "fifty-fifty", "low chance" or "not at all" likely. As discussed by Dominitz and Manski (1997) and Manski (2004), these qualitative or verbal expectations (VE) questions lack clarity and a well-defined numerical scale for responses: respondents interpret qualitative answers in different ways, providing only ordinal information, thus responses are not interpersonally comparable.¹

¹In particular, Dominitz and Manski (1997) note that the probability of job loss may be confounded with its subjective cost. This is the case, for example, for the question in the European Community Household Panel on how satisfied respondents are with their job in terms of job security (Clark and Postel-Vinay 2009).

2.2 New measures

An alternative approach to measuring expectations through realizations and VE questions is the probabilistic elicitation of quantitative expectations (QE) questions. Because of their quantitative nature, QE questions provide a well-defined numerical scale for responses, thus individuals' responses are interpersonally comparable, and allow respondents to indicate the subjective probability of a future event on a continuum of empirical frequencies, thus reducing the bias induced by the coarseness of the response options of VE questions.²

To the best of my knowledge, in the literature on job instability and insecurity, Manski and Straub (2000) is the only paper that uses the QE methodology to elicit employment expectations that they use to construct a measure of job insecurity. In particular, they focus on a sample of adult workers in the United States and ask three quantitative subjective probability questions on job loss (What do you think is the percent chance that you will lose your job during the next 12 months?), job search (If you were to lose your job during the next 12 months, what is the percent chance that the job you eventually find and accept would be at least as good as your current job, in terms of wages and benefits?), and voluntary quits (What do you think is the percent chance that you will leave your job voluntarily during the next 12 months?). They find that individuals answer meaningfully each of the three QE questions, and that these questions provide an informative description of the degree of employment insecurity that individuals perceive.

2.2.1 New measures for the jobless

Manski and Straub (2000) measure job insecurity for a sample of employed adults, and consistently elicit the probability of losing the current job and finding a new job with worse conditions. The robustness of their results and the improvement with respect to VE measurements leave an open question: could we use the QE methodology to measure job instability and insecurity for a sample of individuals that do *not* have a job?

To answer this question, I designed an original survey instrument, the Italian Youth Employment Survey (IYES), which targets jobless young adults and includes an extensive

²Two examples of surveys that include quantitative expectations questions are the US Survey of Economic Expectations, and the Italian Survey of Household Income and Wealth.

battery of QE questions on future employment prospects and earnings. Building on the definitions of job instability and insecurity in Section 2.1, the IYES includes three subjective probability questions on the length and duration of future jobs (the subjective probability to start working in the next twelve months, the expected duration of the job that one expects to find, and the probability of finding a full time job), and three questions on the prospects to find a secure and high quality job (the probability to find a job that offers adequate health insurance and pension benefits, the probability to find a job that is adequate to one's qualifications and previous job experience, and the probability to find a job without using family and personal contacts). The main question that I will use to measure

The subjective probability questions use the per cent frame format by asking the respondent to provide, in a scale from 0 to 100, the chance probability of a given event. A typical employment probability question is the subjective probability to start working in the next twelve months:

"On a scale from 0 to 100, what is the probability that you will start working in the next 12 months? In other words, if you were to assign a number between 0 and 100 to the probability that you will start working in the next 12 months, what would this number be? "0": you are certain that you will not start working in the next 12 months. "100": you are certain that you will start working in the next 12 months."

As the main measure of job stability I will use the question on the subjective probability to start working in the next twelve months multiplied by the subjective expected duration of the job (up to 6 months, between 7 and 12 months, between 1 and 3 years, more than 3 years); as the main measure of job security, I will use the subjective probability to find a job that offers adequate health insurance and pension benefits.

Together with the questions on future employment prospects, the IYES includes an extensive module on earnings expectations, which are elicited using the format used by an established literature (e.g. Dominitz and Manski 1997a; Guiso, Jappelli and Pistaffferri 2002) by asking respondents to provide the minimum and maximum value of expected earnings together with the subjective probability that the expected earnings will be at least equal to the mean expected earnings. A typical earnings expectations question and the related subjective probability question are the following:

"Assume that you will start working in the next 12 months. What is the minimum monthly net earnings that you expect to be able to earn? What is the maximum monthly net earnings that you expect to be able to earn?"

"On a scale from 0 to 100, what is the probability that your monthly net earnings will be at least equal to the average monthly earnings between the minimum and the maximum monthly net earnings that you expect to be able to earn? In other words, if you were to assign a number between 0 and 100 to the probability that you will earn at least the average of the monthly earnings between the minimum and the maximum monthly earnings that you expect to be able to earn, what would this number be? "0": you are certain that your earnings will be lower than the average between the minimum and the maximum earnings that you expect to be able to earn. "100": you are certain that your earnings will be at least as high as the average between the minimum and the maximum earnings that you expect to be able to earn."

As discussed in Section 4.2, the earnings' expectations questions allow constructing a consistent measure of the volatility of earnings and thus of the amount of earnings' risk that individuals face. Taken together, the employment and earnings' expectations questions provide robust measures of the extent of job instability, job insecurity and earnings risk that the jobless young adults perceive.

3 Data

3.1 The Italian Youth Employment Survey

The Italian Youth Employment Survey (IYES) is an innovative survey instrument designed to collect a rich set of quantitative expectations data on future earnings and employment prospects of jobless young aged 25 to 34 in Italy. The age and regional focus of the survey are of policy relevance. Young adults aged between 25 and 34 have been the most affected by jobs' scarcity and instability with long term consequences: in the age of family formation, a precarious job situation and the lack of financial stability are major obstacles to planning for the future (Chung, Bekker, and Houwing 2012). Italy is one of the countries that suffered the highest rise in unemployment and temporary jobs among young adults. Since 2011 the

unemployment rate for the 25 to 34 age group has been increasing at a higher rate than the unemployment rate for any other age group, and at the end of 2014 it reached 19 per cent, which is 6 per cent higher than the EU average.³ The young with a University degree were also affected:⁴ since 2011 the unemployment rate for Italian University graduates aged 25-34 increased by 46 per cent, while, for those employed, real wages decreased by 20 per cent, and temporary employment and over-education sharply increased (AlmaLaurea 2014 and ISFOL 2014).⁵

Using an online platform between January and February 2015 I administered the questionnaire to a nationally representative sample of 1,462 Italian males and females aged between 25 and 34 that were out of employment at the time of the survey and graduated between 2011 and 2013 at one of the 64 universities that are members of the AlmaLaurea universities' consortium.⁶ The survey starts with two compulsory questions to establish the eligibility of the potential participants. The first compulsory question asks respondents to confirm that there are not currently working, and the second question asks to confirm to be between 25 and 34 years old. 1,238 young provided valid answers to both compulsory questions, which made them eligible to take part in the survey, and 1,074 continued to fill in the survey. Therefore, I obtained an exceptionally high response rate of 85 per cent young that started the survey, 87 per cent of whom responded to the full survey.

The IYES questionnaire consists of 71 questions divided in three main sections: a first long section on socio-demographic information and political, economic, and social attitudes, a second section on job search and job experience, and a third section that contains a rich battery of questions on subjective employment probabilities and expected earnings in different scenarios.

³Evidence from the Italian Labour Force Survey: <http://dati.istat.it/Index.aspx>

⁴The job crisis hit the young skilled Italian despite Italy having one of the lowest shares of University graduates in Europe: in 2014 the share of Italian University graduates in the age group 30-34 was 22 per cent compared to a EU average of 37 per cent (<http://ec.europa.eu/eurostat>).

⁵Consistently with this employment crisis, unemployment is felt as top priority problem: according to the Eurobarometer 2015, in Italy 46 per cent think that unemployment is among the top two most pressing issues the country is facing, and 44 per cent think that life for future generation will be harder.

⁶At the time of the survey the AlmaLaurea universities' consortium was representative of 76 per cent of all Italian graduates: <http://www.alma laurea.it/en>

3.1.1 Descriptive statistics

Table 1 presents descriptive statistics for the main variables of interest, with the exception of the expectations variables, which will be discussed in detail in Section 4. 63 per cent of the sample are female, in good health and predominantly under-30 with 78 per cent aged between 25 and 29. 99 per cent of the sample have Italian citizenship and almost 60 per cent have lived in the same place of residence since birth. The sample is well balanced between geographical areas of residence and areas of study, and most of the young have a University degree among one of the three main types of undergraduate degrees that are available in Italy.⁷

Confirming that Italian parents represent an important source of financial support, 79 per cent of the young live in a house that is either owned by their parents or the parents pay the rent, and 84 per cent report that they can turn to the family of origin in case of financial difficulties. 66 per cent are in a stable relationship and 70 per cent plan to have children in the future. Importantly, 68 per cent of the sample have both parents that have at most a high school degree.⁸ Therefore, the sample is characterized by a high upward educational mobility.

On political participation and satisfaction with democracy, 82 per cent are politically active having voted at the last national political elections in 2013, and 90 per cent are unsatisfied with the functioning of the democratic political process in Italy. On job search, 77 per cent are actively looking for a job and 47 per cent have never worked or have worked for less than one year. While for 39 per cent of the sample personal and family contacts are the most important factor to find a job, only 14 per cent of the sample think to have sufficient personal and family contacts to find a job. Overall, 93 per cent of the survey participants (994/1,074) responded to all the questions included in the expectations module

⁷Following a series of higher education reforms, in Italy there are three main types of undergraduate degrees: "laurea triennale di primo livello", "laurea di 4 o piu' anni" (also called "laurea magistrale a ciclo unico"), and "laurea specialistica/magistrale biennale". "Laurea triennale di primo livello" is a three year undergraduate degree, which is comparable to a UK and American bachelor degree. "Laurea di 4 o piu' anni" is a 4 to 5-6 year undergraduate degree that is specific to some fields of studies such as medicine and engineering. "Laurea specialistica/magistrale biennale" is a 2 year specialistic degree that is comparable to a postgraduate Master degree.

⁸This result is consistent with the finding that 70 per cent of all Italian graduates have parents without a University degree (Almalaurea 2015).

with response rates that vary negligibly by observable characteristics.

Importantly, the survey elicits information on two crucial aspects that affect the process of expectations' formation: risk attitude, and a proxy for the inaccuracy of predictions to account for how much individuals know about the economic reality where they form expectations.

Risk attitude is a key determinant of individual choices and behaviors such as occupational choices (Bonin et al. 2007), financial and moving decisions (Guiso and Paiella 2005), and educational choices (Brunello 2002), and therefore it is an important factor to account for when examining how individuals form expectations about the future. Using the two main measures of risk aversion that are common in the literature, the survey asks for the reservation price of a hypothetical lottery, and contains a self-assessment question on risk attitude on a 0-10 scale.⁹ Using the self-assessment question on risk, the sample mean risk aversion is almost 6 with a distribution that is skewed towards low risk aversion.¹⁰

The inaccuracy of predictions affects the extent to which employment and earnings' expectations are biased by lack of information. In order to measure the inaccuracy of the individuals' forecasts on their employment and earnings' prospects, the IYES includes a question asking respondents to report the rate of unemployment for their age group. On average, the young in the sample perceive an unemployment rate for their age group of 39 per cent, which is 20 percentage points higher than the actual unemployment rate for the 25 to 34 age group in the last trimester of 2014.¹¹ For each respondent, the percentage difference between the actual unemployment rate and the perceived unemployment rate gives a measure of the respondent's amount of information on the unemployment rate; assuming that the information on unemployment rate proxies for overall information on relevant economic outcomes and macroeconomic conditions, I use the deviation of the respondent's prediction from the actual value of the unemployment rate as a measure of inaccuracy of predictions

⁹As discussed by Ding, Hartog and Sun (2010), these two measures correlate with experimental measures of risk aversion by generating valid indicators of choices under risk in an experimental setting where real money is at stake.

¹⁰The reservation price question delivers results that are consistent with the self-assessment question, and are all available upon request.

¹¹Using data for 16 countries in 2008 from the European Social Survey, Cardoso, Loviglio and Piemontese (2016) construct a similar measure and also find that people significantly overestimate the unemployment rate in their country of residence.

when forming expectations about the future.

3.2 INPS data

Employment and earnings' expectations are likely to reflect the macro-economic context where individuals live. For example, we expect someone living in a high income area to face, and thus to expect, a higher probability to find a job than someone living in a low income area. In order to account for the local economic context where people form expectations, I constructed several measures of relevant labour market conditions by province using administrative data from the Italian *Istituto Nazionale della Previdenza Sociale* (INPS)¹² for the universe of the population of adult workers aged 18 to 65, and for the population of those aged between 25 and 34 in January 2015, that is at the time when the IYES data were collected.¹³

I used two main INPS datasets: the Income Support Measures Database (*Banca dati delle Prestazioni a Sostegno del Reddito*), to compute the amount and the duration of unemployment subsidies, and the Monthly Labour Markets Survey (*Rapporto del Lavoro Mensile*), to compute several aggregate indicators of job instability and insecurity (percentage of open-ended, fixed term, seasonal, and part time jobs), and moments of the earnings distribution (average, median, minimum, maximum, and variance). I computed these employment and earnings summary statistics for each of all 110 Italian provinces as objective aggregate measures of the degree of job stability and job security that characterize the local labour market where individuals form expectations. I merged the INPS and IYES data with the information on the individuals' province of residence in the IYES sample.

Table 2 presents the mean, standard deviation, minimum and maximum value of the INPS variables for the overall population of adult workers, and for the population of workers aged between 25 and 34 in January 2015. Table 2 shows that, compared to the overall

¹²INPS is the Italian equivalent of the Social Security in the United States and National Insurance in the United Kingdom. These data were collected in Rome (Italy) during the Summer of 2016 as part of a research project funded by the VisitINPS Scholars Program 'Expectations of Job Instability, Job Insecurity and Earnings Risk of the Italian Skilled Unemployed: Patterns and Impact on Behavior.'

¹³Unfortunately, the administrative INPS data do not report the information on the individual's level of education; therefore, I constructed the averages by province using the universe of the 25-34 years old unconditional on the level of completed education.

population of workers, young Italian adults aged 25-34 have much more unstable and less secure jobs having a lower percentage of open-ended jobs, a higher percentage of temporary, seasonal and part time jobs, and lower average earnings. The next Section will assess how much individuals' expectations reflect these objective economic realities.

4 Employment and earnings' expectations

This Section presents the new measures of job instability, job insecurity and earnings risk constructed using the quantitative expectations data, and tests their validity.

4.1 Job instability and job insecurity

Tables 3 and 4 present the sample distribution of the employment expectations questions. The response distributions are highly skewed and the sample is characterized by a substantial degree of both job instability and job insecurity.¹⁴

60 per cent of the sample perceive a low probability to find a job in the next 12 months, as well as a low probability to find a full time job, and over 70 per cent expect to be employed for at most one year, over half of the sample for at most 6 months. Consistently, the mean subjective probability to find a job in the next 12 months is 44 per cent and only 6 per cent of the sample expect to find a permanent job.

Not only the young expect high jobs' turnover, but they also expect to find bad jobs. 60 per cent of the sample perceive a low probability to find a job that is adequate to the acquired qualifications and experience, up to 80 per cent expect to have a less than 50 per cent chance to find a job that offers adequate health insurance coverage and pension benefits, and 60 per cent expect a low probability to find a job without using family and personal contacts. While personal contacts are considered a crucial factor to find a job, having contacts is not common. While 39 per cent of the sample rank family and personal contacts as the most important factor to find a job, 86 per cent do not have sufficient personal and family contacts to find a job.

¹⁴By denoting as "low" a subjective probability that is either lower or equal to 50 per cent, a low subjective probability perceived by a given respondent denotes high job instability and job insecurity.

Without personal contacts and facing high job instability, it is not surprising that while 68 per cent of the sample have both parents with at most a high school degree, only 22 per cent of the young University graduates expect to be able to earn more than the highest earning parent. Therefore, the sample’s upward educational mobility does not map into a proportional upward income mobility showing an alarming trend of young generations that will most likely financially rely on their parents’ savings and pensions. Consistently with low earnings’ expectations, only 20 per cent of the sample expect to be able to earn more than 1,200 Euros net per month and 80 per cent have to postpone important decisions due to high uncertainty about the future, while feeling demoralized and pessimistic about future professional prospects.

4.2 Earnings risk

I can use the earnings’ expectations questions to compute a robust measure of earnings risk. Improving on traditional measures of risk that use data on actual earnings, an established literature has shown that QE data allow obtaining a better measure of earnings risk by capturing the risk that individuals actually perceive without confounding risk with unobserved heterogeneity (e.g. Attanasio and Kaufmann 2013, and Guiso, Jappelli and Pistaferri 2002).

Following Guiso, Jappelli and Pistaferri (2002), I measure earnings risk using the coefficient of variation of the expected earnings, which can be computed as the ratio between the standard deviation and the mean expected earnings, and provides a measure of earnings risk that is convenient for comparisons across individuals, groups and samples.

In order to compute the standard deviation and mean of expected earnings, let us define y_i as the expected earnings of individual i . For earnings expectations, the IYES elicits information on the points of support of the distribution, that is on the maximum and minimum value that y_i can take, $[y_{\min}, y_{\max}]$, and on the probability mass to the midpoint of the support, $\text{Prob}(y_i \leq (y_{\min} + y_{\max})/2) \equiv \theta$ (see Section 3). Using these three pieces of information, I can compute the expected value and variance of y_i using the following equations, where, for simplicity, I am omitting the i subscript:

$$E(y) = \int_{y_{\min}}^{y_{\max}} yf(y)dy \quad (1)$$

$$Var(y) = \left[\int_{y_{\min}}^{y_{\max}} y^2 f(y)dy - \left(\int_{y_{\min}}^{y_{\max}} yf(y)dy \right)^2 \right] \quad (2)$$

In order to operationalize these equations, I have to make some assumptions about $f(y)$. Following the previous literature, I consider the two intervals $[y_{\min}, (y_{\min} + y_{\max})/2]$ and $[(y_{\min} + y_{\max})/2, y_{\max}]$ and I make two main assumptions: over each of the two intervals I first assume that $f(y)$ is uniformly distributed, and I then assume that $f(y)$ follows a triangular distribution. As discussed by a number of previous papers (e.g. Attanasio and Kaufmann 2013, and Guiso, Jappelli and Pistaferri 2002), the triangular distribution is the preferred assumption since it provides a more realistic description of the probability distribution of earnings as outcomes further away from the midpoint receive less weight.¹⁵

Given equations 1 and 2, and the assumption on the distribution of $f(y)$, I can compute the mean and the variance of future expected earnings for each individual in the sample, and therefore obtain a cross-sectional distribution of means and variances, which is presented in Table 5.

The second and third column of Table 5 present the mean and the coefficient of variation of expected earnings. In both columns the mean is higher than the median, which is evidence that both the cross-sectional distribution of expected earnings and their variability are rightly skewed. Monthly expected earnings after taxes are low reaching a maximum of 1,333 Euros per month for the top decile of the distribution, and are consistent with the actual average net monthly earnings of young University graduates in Italy (see Section 4.3).

Not only the young expect low earnings, but also highly volatile earnings. The fourth column of Table 5 presents the coefficient of variation (CV) of expected earnings reported in Table 1 in Guiso, Jappelli and Pistaferri (2002) who have computed the CV of expected earnings for a representative sample of the Italian adult population in 1995. The comparison between the third and fourth column shows that at each decile of the distribution the coefficient of variation and therefore the expected earnings risk in the IYES sample is much

¹⁵All results under the uniform distribution's assumption are very similar and are not reported for brevity.

higher than the one estimated by Guiso, Jappelli and Pistaferri (2002) for the Italian population, and, on average, three times higher.¹⁶ For robustness, the last column of Table 5 presents the variance of log of expected earnings in the sample as an alternative commonly used measure of future earnings' variation (e.g. Attanasio and Kaufmann 2013). The results obtained with the variance of the log confirm the pattern of earnings' risk described by the coefficient of variation with a rightly skewed distribution and substantial earnings risk at the top half deciles.

4.3 Validating the expectations data

Despite the challenges posed by the elicitation of the QE data (De Weerd 2005), a large literature has established that people are willing and able to answer in a meaningful way and that expectations significantly affect behavior in a variety of settings and countries (Manski 2004 and Delavande, Gine', and McKenzie 2011). However, concerns are sometimes raised about these data. These concerns range from the ability of individuals to answer such questions meaningfully to the endogeneity of future expectations, possibly induced by ex-post rationalization.

A diverse literature suggests that respondents may think about uncertain events using less than the full structure of modern probability theory (Camerer and Webber 1992). If respondents have difficulties in thinking in terms of probabilities, they should be unwilling to provide answers to subjective probability questions, while the very high response rates given to this type of survey questions suggests otherwise.¹⁷ However, it could still be the case that the responses are not meaningful and respondents answer in a perfunctory manner. As discussed by Dominitiz and Manski (1997), there is no definite way to assess how seriously respondents answer to probability questions; however, we can look for patterns of responses that may indicate a lack of care and perform validation exercises of the expectations data.

The first validation exercise is to compare the earnings expectations and the data on the

¹⁶Guiso, Jappelli and Pistaferri (2002) use data before the 2008 financial crisis; therefore, we would expect the estimated amount of earnings' risk being lower than the one estimated using data in the post crisis period. However, the three fold size difference between the estimates suggests that only part of the difference can be attributed to the financial crisis.

¹⁷93% response rate in the IYES survey and equivalently high response rates in comparable surveys eliciting future expectations such as Dominitiz and Manski (1997).

subjective employment probabilities with data on actual realizations. For the IYES we can do so by using the latest available AlmaLaurea survey of Italian University graduates, which provides detailed data on net monthly earnings and type of jobs one year after graduation up to the year 2013, that is up to the cohort of students that graduated in 2012.¹⁸ In order to make the IYES and AlmaLaurea data comparable, I exclude from the sample the 15 observations of young that have completed a PhD since PhD graduates are not included in the AlmaLaurea sample.

The expectations data closely match the actual data. The mean expected net monthly earnings in the sample is 1,097 Euros, and the actual mean net monthly earnings in the AlmaLaurea sample is 1,034 Euro. The mean subjective probability to find a job in the next 12 months is 44 per cent with meaningful regional differences (52 per cent in the north, 46 per cent in the center, 39 per cent in the south and 40 per cent in the islands),¹⁹ and the actual proportion of young that has found a job in the AlmaLaurea data is 51 per cent. We can also compare both the expected and actual earnings and the subjective probability to find a job in the next 12 months with the actual employment rate 12 months after having graduated by type of undergraduate degree. By comparing expected earnings with actual earnings data from AlmaLaurea, we find a lack of significant variation by type of undergraduate degree that reflects the actual data: in the IYES mean expected earnings for "laurea di primo livello", "laurea specialistica/magistrale" and "laurea a ciclo unico" are, respectively, 1,103, 1,069, and 1,221 Euros, while actual average net monthly earnings one year after graduation are, respectively, 1,013, 1,065, and 1,024 Euros.

If we consider the probability to find a job in the next 12 months, we find that those with "laurea specialistica/magistrale" expect the highest probability of finding a job in the next 12 months (46 per cent), followed by those with "laurea di 4 o piu' anni" and "laurea di primo livello" facing, respectively, a job finding probability of 43 and 42 per cent. These expected probabilities compare with actual employment probabilities of 61, 56 and 34 per

¹⁸AlmaLaurea XVII Survey (2015) - Graduates' employment condition: <https://www.almalaurea.it/en/universita/occupazione/occupazione13>

¹⁹For each individual the IYES survey provides detailed information on the city and province where the individual is currently living. The region of residence has been constructed by mapping each individual city and province with the corresponding region and by locating the region either in the north, center, south or in the islands (Sardinia and Sicily) of Italy. An Appendix with all details of this mapping is available upon request.

cent for, respectively, "laurea di primo livello", "laurea specialistica/magistrale" and "laurea di 4 o piu' anni" using the latest available data for 2013 (AlmaLaurea 2014). Finally, the subjective probability to find a permanent job is 17 per cent, and the actual percentage of graduates that have found a permanent job one year after graduation in the AlmaLaurea sample is 21 per cent. We can also check if there is any correlation with past realizations by correlating the amount of work experience (the inverse of the length of unemployment duration) with the probability of finding a job. As expected, the correlation is positive and significant: the more labour market experience an individual has, the higher the subjective probability of finding a job.

A second validation exercise is to check how many individuals think probabilistically by assessing the extent of rounding bias in reporting subjective probabilities. As discussed by Manski and Straub (2000), even if respondents asked to give probabilistic responses are most likely expected to use few rounding values (0, 50, 100) instead of exploiting the refined reporting possibilities permitted by the 0-100 per cent chance scale, the findings are contrary to this rounding bias. In particular, Manski and Straub (2000) find that most respondents do not round their responses to the values (0, 50, 100), but rather to the nearest multiple of 5, and that respondents perceiving very low or very high probabilities of events provide "refined" responses, with many reporting 1, 2, 98, or 99 per cent.

I can assess how many individuals think probabilistically by checking, for each subjective probability question, the extent of bunching around no answers and 50 per cent answers. Table 6 presents the proportion of no answer and 50 per cent answers in the sample. Table 6 shows that the proportion of no answers is below 10% in 8 out of 10 probability questions, and the proportion of 50 per cent answers is below 30% in 6 out of 10 probability questions. Overall, Table 6 shows that only the questions on the probability to earn at least the mean expected earnings are characterized by a relatively high proportion of both no answer and bunching around 50 per cent, which is not surprising since these questions require the most advanced understanding of the probability concept.

In addition to considering each subjective probability question separately, an effective and informative way to assess how individuals think probabilistically is to compute a summary index of the proportion of no answer and 50 per cent answers out of all expectations questions

that use the per cent chance format in the questionnaire (Delavande and Rohwedder 2008, and Lillard and Willis 2002). By doing so, I find that the average index is 15 per cent, which is lower than the value of equivalent indexes previously computed in the literature (e.g. Delavande and Rohwedder 2008). Therefore, consistently with the findings reported in Manski and Straub (2000), I find no evidence of substantial bunching and rounding bias.

5 Determinants of job instability, job insecurity and earnings risk

Having validated the expectations data, one important question is whether employment and earnings expectations depend on individual-level variables, or rather on the economic context where people form these expectations. This question has relevant policy implications in order to design effective policy instruments to support the transition of the jobless young into the labour market.

Table 7 presents the correlations between four main province-level measures from INPS (average earnings, the percentage of temporary jobs out of all jobs in the province, and both the average duration - in number of days - and the average amount of unemployment subsidies), and the two main indicators of job stability and job security (the subjective probability to start working in the next twelve months multiplied by the expected job duration for job stability, and the probability to find a job that offers adequate health insurance and pension benefits), as well as the mean and variance of the logarithm of individuals' expected earnings. Panel A of Table 7 presents the OLS regressions of the employment and earnings' expectations and the province-level measures from INPS for the population of workers aged 24-35; panel B of Table 7 presents the same regressions run with the province-level measures from INPS constructed for the overall population of all adult workers.

Average earnings of the actual earnings distribution correlate in the expected direction with individuals' expectations of both job stability and security, while aggregate measures of job stability and security at the province level have a statistically significant correlation only with expectations of job stability; both mean and variance of individuals' expected

earnings only weakly correlate with the province-level measures from INPS. As expected, the correlations are stronger in panel A than in panel B, which is consistent with individuals' expectations being most affected by the labour market conditions that directly characterize their age group rather than the overall population.

In order to formally assess the role of local labour market conditions for expectations' formation, I specify a two-level hierarchical linear model, where each measure of job stability, security and earnings risk is estimated as a function of a rich vector of individual characteristics, and the vector of province-level variables constructed from INPS. In particular, I estimate the following equation:

$$y_{ij} = \gamma_{0,0} + \beta_{1,j}\mathbf{X}_{1,ij} + \gamma_{0,1}\mathbf{X}_{2,j} + \mu_{0j} + \varepsilon_{ij} \quad (3)$$

where y_{ij} is the relevant outcome variable (job stability, job security or earnings risk) for individual i in province j . \mathbf{X}_1 is a rich vector of individual-level variables including average expected earnings, age, gender, health status, level of education, field of study and previous schools' marks (laurea and secondary education), area of residence, risk aversion, job experience, parental background information (level of education and last job of mother and father, parents' health status), house owned/rented and who pays the rent, personal and family contacts to find a job, help from the family of origin in case of financial difficulties, accuracy in predicting the unemployment rate. \mathbf{X}_2 is the vector of the four province-level variables (average earnings, percentage of temporary jobs, and both average duration and amount of unemployment subsidies). ε_{ij} is a normally distributed error term. $\gamma_{0,0}$ is the constant term and μ_{0j} is the province fixed effect.

Table 8 presents the results. The first two columns of Table 8 report the results for job stability and job security. Having a degree in hard and social sciences relative to humanities, being a home owner relative to paying rent, having personal and family contacts to find a job, being able to turn to the family of origin in case of financial difficulties, and being risk-taker increase both job stability and job security. The lack of statistical significance of work experience is driven by the lack of substantial variation of this variable in the sample (half of the sample having never worked or having worked for less than one year). The proxy for the

inaccuracy of predictions is an additional important determinant of both job stability and security. Including this variable is particularly important to control for the role of knowledge and information provision rather than uncertainty about the future by reflecting how much information individuals have about job prospects and the labour market. The results show that making mistakes on predicting the actual value of unemployment among the 25-34 year old has a strong and statistically significant negative effect on both measures. Overall, the main determinants of both job stability and security are having personal and family contacts to find a job, being able to turn to the family of origin in case of financial difficulties, being risk taker and being informed on the level of unemployment that affects the 25-34 years old.²⁰

The dependent variables in the last two columns of Table 8, are, respectively, mean expected earnings and earnings' risk, which is measured as the variance of the logarithm of expected earnings. Earnings' expectations and risk are statistically significantly affected by fewer determinants than job instability and insecurity. For earnings' expectations, males, those having a degree in hard and social sciences as well as in medicine (relative to a degree in humanities), and a higher propensity to taking risks expect higher earnings. Interestingly, neither having personal and family contacts nor making smaller mistakes when predicting the unemployment rate are relevant determinants of earnings' expectations. For earnings' risk, having more than an undergraduate University degree and having personal and family contacts to find a job are associated with a higher volatility of future expected earnings.

Consistently with the correlation results in Table 7, among the aggregate province-level variables constructed from the INPS data, average earnings are statistically significant and in the expected positive direction for job stability and security, and the amount and duration of unemployment subsidies are significant for earnings' risk.

Overall, the results in Table 8 deliver two main results. First, individual-level factors are the main determinants of employment and earnings' expectations, while local labour market conditions only play a marginal role. Second, expected earnings and subjective probabilities of finding a job vary with observable characteristics in a way similar to observed earnings and

²⁰The estimation results, all available upon request, of a system of equations that allows job stability and security to be correlated are substantially the same, and are available upon request.

likelihoods of finding a job using data on realized outcomes, which gives additional support to the validity of the new measures constructed using the QE data, since we expect people to draw inferences about their own potential earnings and subjective employment probabilities from what they observe from others.

6 Consequences of job instability, job insecurity and earnings risk

The previous sections propose new measures of job instability, job insecurity and earnings risk for the jobless young. If these measures meaningfully capture the employment and earnings' uncertainty that the jobless young face, they should correlate with important life choices and behaviors, and these effects could depend on the local labour market conditions and context where the young live and form expectations.

In order to assess these correlations accounting for the effect of local labour market conditions, I estimate the following two-level hierarchical linear model:

$$y_{ij} = \delta_{0,0} + \rho_{1,j}\mathbf{X}_{1,ij} + \delta_{0,1}\mathbf{X}_{2,j} + \rho_{2,j}\mathbf{X}_{3,ij} + \xi_{0j} + \eta_{ij} \quad (4)$$

where y_{ij} is a relevant outcome for individual i in province j (being actively looking for a job, being actively looking for a job that matches own qualifications and experiences, planning to have children, being pessimistic about future professional prospects, being satisfied with life, having to postpone important decisions due to future uncertainty, being satisfied with the political democratic process, being politically left, center or right). As in equation 3, \mathbf{X}_1 is the vector of individual characteristics, and \mathbf{X}_2 is the vector of the four province-level variables (average earnings, percentage of temporary jobs, and both average duration and amount of unemployment subsidies). \mathbf{X}_3 is a vector that contains job stability (measured as the subjective probability to start working in the next twelve months multiplied by the expected job duration), job security (measured as the probability to find a job that offers adequate health insurance and pension benefits), and earnings risk. η_{ij} is a normally distributed error term. $\delta_{0,0}$ is the constant term and ξ_{0j} is the province fixed effect.

Table 9 and 10 present the results for each relevant outcome variable. When job stability increases, individuals intensify job search and look for jobs matching their qualifications and job experience; life satisfaction, being optimistic about future professional prospects, not having to postpone important decisions due to future uncertainty, and planning to have children are all positively correlated with increased job security. In addition, job security is also correlated with political attitudes. In particular, it is positively associated with satisfaction with democracy, which confirms the findings in Loveless and Binelli (2017) that estimate a comprehensive model of the determinants of satisfaction with democracy. Finally, and consistently with the results in Table 8, the context variables barely change the impact of the individual-level controls, and job instability, insecurity and earnings' risk remain important determinants of choices and behaviors.

Overall, the results show that job instability, insecurity and earnings' risk are significantly associated with important choices and behaviors. While remaining descriptive evidence, these correlation results are consistent with a substantial literature that has found significant effects of economic insecurity on individual choices (for example, Becker et al. 2010 for co-residence decisions and Kim and von dem Knesebeck 2015 for health risks).

7 Conclusion

Since the 2008 financial crisis young people around the world have entered a labour market that is characterized by a record high unemployment and an increased use of flexible, fixed-term and temporary contracts. This has resulted in growing earnings risk and job instability for young people at the start of their professional career with many of them taking up temporary jobs below their qualifications. The “generation Y” of young men and women stands apart from its predecessors for the precariousness of their place in a society they struggle to enter; they are experiencing a growing “job-cynicism” and systemic uncertainty about the future with little to guide their expectations of what tomorrow will bring (Bauman 2012).

This paper uses a unique dataset merged with province-level administrative data for a nationally representative sample of skilled young jobless Italian to study how joblessness

affects occupational and earnings expectations. The results show that jobless Italian young skilled face substantial job instability, insecurity and risk with 60 per cent of the young expecting low chances of finding a job in the next 12 months and 80 per cent facing low prospects of finding a job that offers adequate health insurance and pension benefits. While 68 per cent of the sample have both parents with less than a University degree, up to 80 per cent of the sample expect not to be able to earn more than their parents. Having personal and family contacts as well as being able to turn to the family of origin in case of financial difficulties are the main driving factors reducing job instability and insecurity, which is consistent with Italian family networks being an important economic and financial support mechanism and with the Italian labour market being characterized by lack of meritocracy and familism (Pellegrino and Zingales 2014).

In addition, job instability, insecurity and earnings' risk negatively correlate with job search, support for and engagement with the democratic political process, fertility choices, life satisfaction and wellbeing. The outcomes of these choices and behaviors influence the potential backsliding of the jobless young into a self-perpetuating cycle of demotivation and low chances of finding a job.

Joblessness affects expectations and expectations impact on choices and behaviours. The condition of not having a job affects future employment and earnings prospects; it is not just the absence of income, it introduces significant uncertainty to individuals' future work and job opportunities. As outlined in the 1997 European Employment Strategy, a key policy goal is the creation of more and better jobs that promote quality and productivity at work with job security and stability featuring among the main indicators of job quality (Davoine et al. 2008). The results of this paper provide further evidence that a first order policy priority should be the creation of high quality jobs that allow planning for the future.

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Appendix

Table 1

Variable	Obs	Mean	Std. Dev.
Male=yes	1074	0,37	0,48
Age	1064	27,78	2,31
Health status			
<i>Excellent</i>	348		
<i>Very good</i>	428		
<i>Good</i>	228		
<i>Fairly good</i>	63		
<i>Not good</i>	8		
Italian citizenship=yes	1065	0,99	0,11
Area of residence			
<i>North</i>	256		
<i>Center</i>	222		
<i>South</i>	364		
<i>Islands</i>	182		
Degree type			
<i>Undergraduate degree*</i>	942		
<i>Postgraduate degree</i>	118		
<i>PhD</i>	15		
Degree area			
<i>Medicine</i>	57		
<i>Hard Sciences</i>	422		
<i>Social Sciences</i>	404		
<i>Humanities</i>	191		
House			
<i>Owned by you</i>	76		
<i>Owned by parents</i>	690		
<i>You pay rent</i>	100		
<i>Parents pay rent</i>	152		
<i>Someone else pays rent</i>	47		
Help from family of origin if financial difficulties=	1073	0,84	0,37
Father's education			
<i>Less than high school</i>	348		
<i>High school</i>	461		
<i>Undergraduate degree</i>	187		
<i>Graduate and postgraduate degree</i>	62		
Mother's education			
<i>Less than high school</i>	349		
<i>High school</i>	483		
<i>Undergraduate degree</i>	176		
<i>Graduate and postgraduate degree</i>	45		
Stable relationship=yes	1069	0,66	0,48
Risk aversion	1003	5,83	2,28
Vote in 2013=yes	1052	0,82	0,38
Personal and family contacts to find a job=yes	1025	0,14	0,35
Actively looking for a job	1031	0,77	0,42
Perceived rate of unemployment 25-34 age group	995	39,04	18,64

Notes: *the "undergrate degree" category includes "laurea triennale primo livello" (369), "laurea di 4 o piu' anni" (120), and "laurea specialistica/magistrale biennale" (454).

Table 2

	All				Aged 25-34			
	mean	sd	min	max	mean	sd	min	max
Percentage open ended jobs	83.909	5.919	52.003	97.071	79.932	7.407	44.465	100
Percentage fixed term jobs	14.367	4.263	1.673	32.406	18.167	5.902	0	37.453
Percentage seasonal jobs	1.724	4.078	0	37.599	1.901	4.521	0	40.698
Percentage part-time jobs	29.663	6.138	4.184	45.960	34.589	9,665.745	15.535	54.423
Average earnings	1,515.966	285.442	1,126.476	3,119.678	1,258.138	191.077	1,010.812	2,407.9
Median earnings	1,414.327	225.898	1047	3035	1,248.583	219.878	939	2,463.5
Minimum earnings	0.630	14.866	0	351	2.226	52.517	0	1,240.00
Max earnings	2,291.916	338547.4	8,921	2078840	2,311.81	1,9108.57	3,937	100,324
Amount unemployment subsidy	4,444.93	802.667	1,835.081	6,127.341	3,401.101	667.568	1,009.961	6,047.16
Number of days unemployment subsidy	154.917	22.620	89.227	201.899	120.109	18.352	62.831	161
N	1,114							

Notes: mean, standard deviation, minimum and maximum value of employment and earnings' variables constructed from INPS data for all adult 18-65 workers and for workers aged 25-34 in January 2015.

Table 3

Panel A							
Prob to start working in the next 12 months				Prob to find a full time job			
Mean	Quantile			Mean	Quantile		
	0,25	0,5	0,75		0,25	0,5	0,75
44,16	10	50	70	42,54	20	40	60
Panel B							
Deciles	Prob to start working in the next 12 months	Prob to find a full time job					
I	0	1					
II	10	10					
III	20	20					
IV	40	30					
Median	50	40					
VI	50	50					
VII	60	60					
VIII	75	70					
IX	90	80					
Panel C							
For how long do you expect to be hired?	Frequency	Percent	Cumulative				
Less than 1 month	20	1,99	1,99				
1-6 months	509	50,65	52,64				
7-12 months	185	18,41	71,04				
1-3 years	105	10,45	81,49				
4-6 years	6	0,6	82,09				
7-9 years	1	0,1	82,19				
10 or more years	4	0,4	82,59				
Permanent job	58	5,77	88,36				
Don't know	117	11,64	100				
Total	1.005	100					

Table 4

Panel A											
Prob to find a job that is adequate to own qualifications and job experience				Prob to find a job with adequate health insurance and pension benefits				Prob to find a job without using family and personal contacts			
Mean	Quantile			Mean	Quantile			Mean	Quantile		
	0,25	0,5	0,75		0,25	0,5	0,75		0,25	0,5	0,75
44,12	20	50	68	29,87	10	30	50	44,53	20	50	65
Panel B											
Deciles	Prob to find a job that is adequate to own qualifications and job experience	Prob to find a job with adequate health insurance and pension benefits	Prob to find a job without using family and personal contacts								
I	4	0	2								
II	15	5	20								
III	30	10	30								
IV	35	20	40								
Median	50	30	50								
VI	50	30	50								
VII	60	50	60								
VIII	70	50	70								
IX	80	60	90								

Table 5

Deciles	Mean expected earnings	CV expected earnings	CV expected earnings from Table 1 GJP (2002)	Variance of log expected earnings
I	566,67	4,33	0,00	0,19
II	700,00	5,87	0,99	0,36
III	800,00	7,41	1,67	0,57
IV	893,33	8,16	2,24	0,68
Median	983,33	10,10	3,14	1,06
VI	1066,67	11,87	3,87	1,52
VII	1200,00	13,61	4,91	2,00
VIII	1333,33	15,29	6,26	2,66
IX	1333,33	18,68	8,84	3,90
Mean	1100,97	11,10	4,13	2,00

Notes: expected earnings are net monthly earnings that the young expect to earn if finding a job in the next 12 months.

Table 6

	Total number of answers	No answer	50% answer	% No answer	Share of 50% answer
Prob to find a job without using family and personal contacts	1033	41	223	4%	22%
Prob to find a job with adequate health insurance coverage and pension bene	1029	45	164	4%	16%
Prob to start working in the next 12 months	1006	68	210	7%	21%
Prob to earn at least mean expected earnings	969	105	300	11%	31%
Prob to find a job that is adequate to own qualifications and job experience	997	77	192	8%	19%
Prob to find a full time job	994	80	178	8%	18%
Prob to find a permanent job	992	82	71	8%	7%
Prob to earn monthly more than highest earning parent*	538	22	179	4%	33%
Prob to find a job after completing program of study**	553	20	120	4%	22%
Prob to earn at least mean expected earnings after completing program of stu	516	57	181	11%	35%

Notes: *560 answered either yes or do not know whether to expect earning more than highest earning parent. **573 answered either yes or do not know to intention of enrolling in a program of study.

Table 7
Panel A

	Employment Expectations		Earnings Expectations	
	Stability	Security	Mean	Variance of the Log
Average earnings	0.143** [0.037]	0.037** [0.010]	-0.002 [0.402]	0.001 [0.001]
Amount unempl subsidy	-0.060+ [0.031]	-0.009 [0.008]	-0.206 [0.333]	-0.003* [0.001]
Num days unempl subsidy	2.096* [0.994]	0.285 [0.269]	-1.647 [10.826]	0.051 [0.037]
Percentage temporary jobs	0.911 [0.934]	0.238 [0.253]	-13.149 [10.166]	-0.039 [0.034]
Constant	-156.56* [73.563]	-23.375 [19.924]	2271.683** [801.054]	4.549+ [2.714]
<i>N</i>	103	103	103	103

Notes: OLS regressions of employment and earnings expectations as a function of province-level averages from INPS data for workers aged 25-34 in January 2015. Standard errors in brackets. + $p < 0.10$, * $p < 0.05$, ** $p < 0.001$.

Panel B

	Employment Expectations		Earnings Expectations	
	Stability	Security	Mean	Variance of the Log
Average earnings	0.080* [0.024]	0.026** [0.006]	0.068 [0.260]	0.000 [0.001]
Amount unempl subsidy	-0.032 [0.033]	-0.009 [0.009]	-0.329 [0.360]	-0.002* [0.001]
Num days unempl subsidy	1.074 [0.946]	0.226 [0.253]	4.706 [10.233]	0.057 [0.036]
Percentage temporary jobs	1.043 [1.247]	0.145 [0.334]	-12.642 [13.499]	-0.029 [0.047]
Constant	-68.871 [56.128]	-5.827 [15.021]	1936.133* [607.449]	2.792 [2.125]
<i>N</i>	103	103	103	103

Notes: OLS regressions of employment and earnings expectations as a function of province-level averages from INPS data for all adult 18-65 workers in January 2015. Standard errors in brackets. + $p < 0.10$, * $p < 0.05$, ** $p < 0.001$.

Table 8

	Employment Expectations		Earnings Expectations	
	Stability	Security	Mean	Variance of the Log
Male	7.648 [6.470]	4.780* [1.687]	105.735+ [55.954]	-0.339 [0.412]
25<=age<=29	-4.024 [7.928]	-3.177 [2.066]	5.468 [69.543]	-0.035 [0.511]
Being in good health	-6.504 [4.893]	0.916 [1.277]	-14.426 [41.430]	-0.010 [0.310]
Laurea primo livello	-11.357 [26.240]	2.056 [6.847]	-221.054 [221.365]	-12.226** [1.636]
Laurea magistrale	0.340 [25.709]	1.649 [6.708]	-193.323 [215.833]	-11.748** [1.602]

Laurea 4 or more years	1.538 [26.841]	-0.828 [7.004]	-74.868 [225.317]	-12.236** [1.674]
Master	0.302 [26.935]	-1.016 [7.029]	-173.363 [226.982]	-12.028** [1.681]
Medicine	19.979 [15.340]	1.714 [4.003]	324.632* [131.629]	-0.145 [0.970]
Hard Sciences	17.705* [8.662]	4.327+ [2.260]	219.251* [76.044]	-0.652 [0.556]
Social Sciences	7.809 [8.931]	2.169 [2.330]	188.765* [78.267]	-0.604 [0.575]
Mark maturita'	22.350 [26.136]	19.778* [6.818]	231.861 [225.498]	-1.872 [1.672]
Mark laurea	-71.946 [52.472]	-22.857+ [13.693]	-206.395 [458.630]	-0.746 [3.374]
Work experience	4.019 [8.190]	1.259 [2.135]	21.721 [70.811]	0.717 [0.520]
Work experience^2	-0.221 [1.181]	-0.432 [0.308]	-2.928 [10.185]	-0.099 [0.075]
Having contacts to find job	42.269** [8.853]	13.733** [2.310]	62.157 [75.751]	1.189* [0.560]
Able to rely on family help	14.500+ [8.652]	6.026* [2.252]	3.712 [73.106]	0.130 [0.547]
Home owned by parents	-35.423* [12.007]	1.654 [3.131]	-44.194 [103.577]	0.839 [0.770]
Paying own rent	-48.809* [15.195]	5.961 [3.965]	16.080 [132.374]	-0.106 [0.968]
Rent paid by parents	-33.781* [13.971]	-0.436 [3.644]	-7.451 [119.767]	0.651 [0.891]
Rent paid by others	-10.203 [19.125]	3.351 [4.991]	1.214 [167.689]	0.528 [1.205]
Being in stable relationship	-2.324 [6.345]	-0.592 [1.654]	-68.105 [53.950]	-0.717+ [0.404]
Risk propensity	11.331* [3.721]	2.649* [0.970]	82.209* [31.958]	0.078 [0.236]
Inaccuracy of predictions	-8.200* [3.721]	-2.938* [0.970]	-0.629 [31.958]	-0.211 [0.236]

	[3.538]	[0.923]	[30.425]	[0.225]
<i>Province-level variables</i>				
Average earnings	0.059* [0.025]	0.011+ [0.007]	-0.180 [0.458]	0.002 [0.002]
Amount unempl subsidy	-0.021 [0.024]	0.007 [0.006]	-0.094 [0.391]	-0.004* [0.001]
Num days unempl subsidy	0.467 [0.719]	-0.217 [0.187]	-5.605 [12.140]	0.089+ [0.046]
Percentage temporary jobs	0.289 [0.730]	0.031 [0.190]	-13.062 [11.285]	-0.044 [0.047]
Constant	104.327 [95.287]	2.997 [24.867]	2390.435* [1122.443]	16.805* [6.091]
<i>N</i>	858	859	830	821

Notes: HLM regressions. Province-level variables are averages by province from INPS data for the universe of Italian 25-34 year old in January and February 2015. OLS regressions. Dummy variables for parental level of education, job type and health status included. Excluded category for type of housing arrangement is "living in home that you own". Excluded category for type of degree is PhD. Excluded category for area of degree is Humanities. Standard errors in brackets. + $p < 0.10$, * $p < 0.05$, ** $p < 0.001$. Source: IYES Survey 2015.

Table 9

	Search for job	Search for job matching qualifications	Life satisfaction	Postponing due to uncertainty	Pessimistic about future prospects
Earnings' risk	0.024 [0.024]	-0.037* [0.016]	-0.006 [0.018]	0.000 [0.029]	-0.024 [0.025]
Job stability	0.005* [0.002]	0.002 [0.001]	-0.001 [0.001]	-0.001 [0.002]	-0.001 [0.002]
Job security	-0.008 [0.006]	0.008+ [0.005]	0.027** [0.006]	-0.014+ [0.008]	-0.030** [0.007]
Expect earn more than parents	-1.272** [0.347]	0.374 [0.262]	0.649* [0.307]	-0.861+ [0.486]	-0.819* [0.357]
Male	0.342 [0.304]	0.342 [0.228]	-0.125 [0.261]	0.207 [0.429]	-0.584+ [0.322]
25<=age<=29	1.087* [0.521]	-0.762* [0.282]	-0.811* [0.290]	1.204+ [0.697]	-0.015 [0.510]
Being in good health	0.077 [0.209]	-0.160 [0.167]	0.562** [0.170]	-0.081 [0.306]	-0.546+ [0.286]
North	-1.100 [0.811]	-1.000+ [0.561]	-0.845 [0.630]	-1.638 [1.284]	0.402 [0.841]
Center	-1.043 [0.643]	-0.761+ [0.443]	-0.411 [0.493]	-0.763 [1.025]	-0.190 [0.637]

Islands	-0.337 [0.593]	-0.755* [0.384]	-0.843* [0.420]	0.337 [0.944]	0.597 [0.601]
Medicine	0.830 [0.704]	1.003* [0.511]	-0.003 [0.546]	0.812 [1.418]	-1.007 [0.834]
Hard sciences	0.159 [0.408]	1.079** [0.305]	0.329 [0.338]	-1.359+ [0.762]	-1.239* [0.566]
Social sciences	0.660 [0.442]	0.322 [0.300]	0.240 [0.341]	-0.942 [0.767]	-0.921+ [0.555]
Mark maturita'	-0.216 [1.326]	0.676 [0.939]	-0.259 [1.049]	6.121* [2.011]	2.760+ [1.447]
Mark laurea	1.531 [2.230]	1.354 [1.671]	1.752 [1.838]	-10.303* [3.579]	-4.296+ [2.608]
Work experience	0.158 [0.416]	-0.126 [0.289]	-0.540+ [0.325]	0.338 [0.597]	-0.590 [0.449]
Work experience^2	0.038 [0.064]	0.012 [0.041]	0.073 [0.047]	-0.033 [0.086]	0.113+ [0.067]
Having contacts to find job	0.023 [0.415]	-0.155 [0.319]	0.869* [0.440]	-1.328* [0.509]	-1.127* [0.389]
Able to rely on family help	-0.378 [0.440]	0.487+ [0.290]	0.278 [0.318]	-0.480 [0.637]	0.307 [0.479]
Home owned by parents	-0.539 [0.727]	-0.209 [0.422]	-0.604 [0.484]	1.336+ [0.773]	0.842 [0.684]
Paying own rent	-1.517+ [0.866]	-0.139 [0.556]	0.532 [0.681]	2.541* [1.136]	0.663 [0.868]
Rent paid by parents	-0.999 [0.800]	-0.028 [0.490]	-0.691 [0.543]	2.285* [1.088]	0.332 [0.772]
Rent paid by others	-1.413 [0.937]	-0.288 [0.640]	0.473 [0.846]	0.129 [1.120]	-0.467 [0.896]
Being in a stable relationship	0.018 [0.306]	-0.015 [0.223]	0.805* [0.246]	1.187* [0.431]	0.050 [0.344]
Risk propensity	0.311+ [0.170]	-0.192 [0.127]	0.037 [0.141]	0.129 [0.255]	-0.229 [0.185]
Inaccuracy of predictions	0.480* [0.180]	0.020 [0.114]	-0.138 [0.125]	0.324 [0.273]	0.548* [0.232]
<i>Province-level variables</i>					
Average earnings	0.001	0.002	0.001	0.002	0.002

	[0.002]	[0.001]	[0.001]	[0.002]	[0.002]
Unemployment subsidy	-0.001 [0.001]	-0.001 [0.001]	-0.000 [0.001]	0.002 [0.002]	-0.001 [0.001]
Num days unemployment subsidy	0.028 [0.037]	0.014 [0.026]	-0.008 [0.030]	-0.061 [0.058]	0.055 [0.039]
Percentage temporary jobs	0.015 [0.036]	-0.030 [0.025]	-0.037 [0.029]	-0.058 [0.048]	0.010 [0.036]
Constant	-2.963 [3.955]	-0.396 [2.793]	0.895 [3.097]	8.851 [6.025]	5.153 [4.344]
<i>N</i>	532	516	538	528	506

Notes: HLM regressions. Province-level variables are averages by province. Dependent variables are 1/0 indicator variables that are defined as follows: “search job” equals 1 when actively looking for a job; “search job matching qualifications” equals 1 when actively looking for a job matching own qualifications and experiences; “Life satisfaction” equals 1 when satisfied with life; “Having to postpone decisions” equals 1 when having to postpone important decisions due to uncertainty about the future; “Being pessimistic” equals 1 when being pessimistic about future professional prospects. Average monthly expected earnings, dummy variables for parents’ level of education, job type and health status controlled for. Excluded category for type of housing arrangement is “living in home that you own”. Standard errors in brackets. + $p < 0.10$, * $p < 0.05$, ** $p < 0.001$. Source: IYES Survey 2015.

Table 10

	Planning to have children	Satisfaction with democracy	Political position
Earnings’ risk	0.129* [0.064]	-0.018 [0.029]	-0.007 [0.009]
Job stability	0.002 [0.004]	0.001 [0.002]	0.001 [0.001]
Job security	0.040* [0.018]	0.033** [0.009]	0.006* [0.003]
Expect earn more than parents	-0.321 [0.816]	-0.778 [0.485]	-0.195 [0.143]
Male	-1.327* [0.642]	0.137 [0.392]	-0.133 [0.124]
25<=age<=29	-0.330 [0.681]	-0.608 [0.587]	0.012 [0.157]
Being in good health	0.563 [0.429]	0.264 [0.282]	-0.155+ [0.088]
North	-0.026 [1.458]	0.415 [0.960]	0.219 [0.302]
Center	0.105 [1.267]	-0.280 [0.775]	-0.188 [0.238]

Islands	-0.899 [1.030]	-1.467+ [0.794]	0.215 [0.216]
Medicine	0.936 [1.279]	-0.460 [1.322]	0.547* [0.278]
Hard sciences	0.036 [0.825]	1.579* [0.668]	0.466* [0.171]
Social sciences	1.546+ [0.894]	1.430* [0.653]	0.377* [0.172]
Mark maturita'	-0.322 [2.725]	-0.309 [1.740]	-0.033 [0.526]
Mark laurea	6.957+ [4.013]	-1.137 [2.717]	-1.668+ [0.917]
Work experience	0.619 [0.737]	-0.311 [0.509]	0.184 [0.159]
Work experience^2	-0.081 [0.105]	0.016 [0.077]	-0.020 [0.023]
Having contacts to find job	0.099 [0.886]	0.751 [0.482]	-0.082 [0.175]
Able to rely on family help	-0.095 [0.841]	-0.227 [0.536]	-0.256 [0.161]
Home owned by parents	-0.979 [1.168]	-0.467 [0.763]	-0.176 [0.232]
Paying own rent	-1.004 [1.472]	-1.430 [1.095]	-0.342 [0.300]
Rent paid by parents	0.334 [1.399]	-0.964 [0.883]	-0.065 [0.265]
Rent paid by others	-1.509 [1.851]	-1.052 [1.405]	0.240 [0.362]
Being in a stable relationship	1.468* [0.645]	-0.589 [0.371]	-0.022 [0.124]
Risk propensity	-0.192 [0.342]	-0.272 [0.208]	0.029 [0.070]
Inaccuracy of predictions	-0.166 [0.323]	-0.140 [0.219]	0.131* [0.064]
<i>Province-level variables</i>			
Average earnings	-0.011*	-0.002	-0.000

	[0.004]	[0.002]	[0.001]
Unemployment subsidy	0.006* [0.003]	-0.002 [0.001]	-0.000 [0.000]
Num days unemployment subsidy	-0.189+ [0.100]	0.035 [0.047]	0.008 [0.015]
Percentage temporary jobs	0.126 [0.098]	-0.030 [0.045]	-0.020 [0.014]
Constant	2.483 [8.252]	4.599 [5.038]	4.081* [2.002]
<i>N</i>	377	522	498

Notes: HLM regressions. Province-level variables are averages by province. "Planning to have children" equals 1 when planning to have children in the future; "Satisfaction with democracy" equals 1 when satisfied with political democratic process; logistic regressions. "Political position" has 7 values from "1=extreme left" to "7=extreme right"; OLS regression. Average monthly expected earnings, dummy variables for parents' level of education, job type and health status controlled for. Excluded category for type of housing arrangement is "living in home that you own". Standard errors in brackets. + $p < 0.10$, * $p < 0.05$, ** $p < 0.001$. Source: IYES Survey 2015.