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Luigi Fabbris* and Manuela Scioni**

Abstract: In this paper, we aim to understand the extent to which salary is negotiable for graduates when they search for a job after graduation. To this end, we created an experimental survey designed to identify their salary expectations. Graduates from an Italian university were randomized into four salary levels and asked about their willingness to accept a job with a predefined salary level. Moreover, in order to highlight the job aspects that could substitute salary considerations at the decision-making stage, we contrasted a hypothetical salary reduction with nine non-monetary aspects. In addition, the salary level associated with graduates' ideal job was explored. The data analysis showed that a new graduate hesitates if presented with a job offer implying a trade-off between career prospects, work roles, and contractual advantages on the one hand, and salary on the other hand. Moreover, salary expectations differ according to gender, educational pathways, and other social and attitudinal variables.

Keywords: salary expectation, salary acceptability, ideal salary, logistic regression, trimmed regression

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Introduction

Salary is often the main benefit people expect in return for their work, although it may not be of equal importance to people of varying life stages and working values. In this paper, we aim to understand the extent to which salary is negotiable for graduates when they search for a job soon after graduation.

The Italian National Institute of Statistics (Istat, 2016) highlights that, due to the economic downturn, the unemployment rate of young adults has increased dramatically in Italy. As a result, high school and higher education graduates often compete for the same jobs. Moreover, AlmaLaurea (2017) shows that the unemployment rate of bachelors degree graduates one year after graduation increased from 11.2% in 2007 to 26.5% in 2012. This then slowly decreased to 20.8% in 2015. The unemployment rate of masters graduate increased from 10.8% in 2007 to 22.9% in 2012 and then decreased to 19.8% in 2015. Moreover, the average salary of graduates decreased by about 260 euros from 2007 until 2012, when the trend inverted and the average salary increased.

The market difficulties could jeopardize graduates' endurance chances in the labour market. The necessity for graduates not to give up searching for a job in such a complex and tough market is a social issue. For the following analysis, we assume that graduates will decide to accept or refuse a job offer according to the consistency between their own expectations and the offer. We will assume the viewpoint of a new graduate in evaluating the match between offer and work demands, approaching jobs as a source of income, professional satisfaction, and social fulfilment. Production and business considerations are secondary. This is partially useful for matching offer and labour demands but could also be relevant to understanding graduates' attitudes toward labour and, indirectly, to improving their chances of gaining a 'good' or 'decent' job. 'Good' jobs are what higher education institutions have in mind for their students when they organize and deliver education and are what graduates compete for (Jencks, Perman & Rainwater, 1988; Tilly, 1996; Clark, 2005; Fabbris & Favaro, 2012). 'Decent' jobs are those that respect fundamental human rights with regard to the safety, remuneration, and physical and mental integrity of workers (UN Ecosoc, 2005; Leschke & Watt, 2008; Burchell et al., 2014).

To understand new graduates' possible behaviour when they face the labour market, we carried out a survey of students who graduated from the University of Padua between June 2014 and March 2015 (excluding those who majored in medicine and surgery). The survey was carried out through a Computer Assisted Web-based Interviewing (CAWI) questionnaire. An email containing a link to an electronic questionnaire was sent to 7,102 graduates

and 3,628 graduates (51.1% of those contacted) filled in the questionnaire. Respondents had to complete the questionnaire alone, using their own computer, and in their own time. The questionnaire content was repeatedly discussed with experts involved in the PETERE (Preference Elicitation of job Traits as Expected by Recent graduates) project, an Italian study on the employability of university graduates.

A statistical experiment was embedded in the questionnaire in order to detect the lowest level of acceptable salary (see *Design of the Experiment*). As far as we know, this is a unique experiment carried out on a large sample of new graduates to examine both their level of acceptable salary and the strategies they adopt for trading off salary with other elements of a possible job offer. Moreover, a question was posed to graduates about the salary associated with their ideal job.

While the salary expectation issue has been analysed in and across various countries, it has not been applied in the Italian case so far. The University of Padua is a state-owned, medium-to-large university in Italy, offering eighty bachelors programmes and ninety-two masters programmes across the full spectrum of academic disciplines. The university system in Italy, as in many European countries, is state-dominated, and is therefore standardized enough to be studied through exemplar cases. For these reasons, it is possible to use the available data to infer information about new graduates in general.

Hypotheses and models

Research questions

The following research questions will be statistically ascertained:

Q1: Which is the minimum salary level that new graduates consider acceptable?

Q2: If salary is negotiable, what are the characteristics of a job that may compensate for a given salary level?

Q3: Is there a gap between the acceptable and the ideal salary of a new graduate?

Our analysis is limited to the offer of salaried job positions and does not examine the possibility that people orient their after-graduation decisions with direct self-employment in mind. We will also assume that job choices are rational decisions, and that individuals shape their expectations about job attributes and choose jobs matching their own expectations. The last assumption is that, during hard times for employment, people become more aware of both the opportunities and threats in the labour market. It is then

possible to pose research questions that are less viable in times of easier employment.

Design of the experiment

In order to answer research Q1 a statistical experiment was embedded in the questionnaire. The experiment consisted of asking graduates about their willingness to accept or refuse a job whose eventual salary had one of these four levels: 600, 800, 1,000, and 1,200 euros. The experimental question was worded as follows: “Suppose you are offered a full-time job with a monthly salary of [Z] euros, after tax deduction. How would you behave? (1) accept the offer at once, (2) apply for a different job before accepting, (3) apply for other jobs before accepting, (4) refuse the offer; it is not an adequate salary.” The value of Z changed at each contacted graduate according to a rotation basis: for instance, the first graduate was presented with a 600 euros salary, the second with 800, the third with 1,000, the fourth with 1,200, and then again from 600. This form of systematic randomization, being of the full factorial type, guarantees that each graduate of the sample was assigned a random salary. So, on average, all levels of the experimental variable (i.e., the hypothetical salary) have equal frequency and are independent of the graduates’ characteristics.

The frequency of graduates responding to the experimental question was 634, 634, 630, and 634 for the four salary levels, respectively. Following the literature (Blau & Ferber, 1991; Dominitz & Manski, 1996; Carvajal et al., 2000), we decided to elicit graduates’ own salary expectations by involving them in personal, cogent choices throughout the questionnaire. In terms of human capital theory, this elicitation approach is also called a conditional approach (Brunello et al., 2004).

The experimental salary levels were kept low to purposely elicit people’s attitudes toward non-monetary aspects of jobs, and also to evaluate the tendency of graduates to accept lower-paying jobs. The experimental question was posed only to non-working respondents, as we wished to collect only genuine responses.

The analytical models

The analytical model hypothesized to answer research question Q1 consists of a criterion variable, Y (e.g., the graduate’s decision after a job offer) to be explained by the following sets of predictors:

- a) *Graduate’s personal background.* In this paper we refer mainly to the possibility that gender influences work expectations.
- b) *Human capital, measured by the educational and training curricula and labour background.* We will define various classes of indicators:

1. *Field of study.* Usually, this discriminates graduates' expectations, at least at the early career stage. Technical and scientific graduates have higher expectations than those in the social and human sciences (Taylor, 2007; Ballarino & Bratti, 2009; Argentin, 2010; Riggs Larsen, 2015; US Department of Labor, 2015; De Luigi & Santangelo, 2017). In this study, we will group majors into five categories: (a) engineering; (b) sciences (also termed 'hard sciences'), (c) life sciences, (d) social sciences, and (e) humanities.
 2. *Level of higher education.* We will examine the difference between people possessing a bachelors degree and people possessing a masters degree.
 3. *Final degree mark.* With respect to job acceptability, the hypothesis is that higher degree marks are correlated to more qualified jobs and lower ones to just decent jobs. Table 1 describes the relationships between field of study, gender, degree level, and average final mark.
 4. *Supplementary education.* Two aspects seem relevant for our analytical purposes: (a) if the graduate has completed an internship within a company or an institution, and (b) if the graduate has gone abroad as part of an Erasmus programme or similar educational programme.
 5. *Labour background.* We will distinguish between graduates who have had, before graduation, (a) a job for at least one consecutive year, (b) episodic jobs, or (c) no job history.
- c) Social variables as follows:
1. *Social background.* We will consider only students who the attendance of a lyceum, since this type of high school pathway is more oriented than others toward higher education and is typical of students belonging to more affluent families. Of course, territorial variables could also operate as differentiators, but since all respondents come from the same university, and the majority come from the same Italian region, we assume that all graduates belonged to the same territory.
 2. *Personal and social barriers to higher-profile jobs.* A multi-item question was posed to highlight if (and if so, which) educational, physical, or familial factors could influence the decision to accept or refuse an offered job. The question was phrased as: "How important to you are the following aspects in deciding to accept or refuse a possible job offer (four ordinal levels): (a) parents' expectations, (b) distance from beloved persons needing care, (c) sentimental relationships, aspiration to settle down, (d) motoric, physical, sensorial, or other impairments, (e) difficulty with foreign languages, (f) difficulties with nationality or the Italian language, (g) difficulty with computer use, (h) parents' education and social class, (i) socialization difficulties, (j) self-perception of professional or cultural inadequacy?"

3. *Attitudes toward labour values.* A multi-item question¹ was posed to highlight graduates' attitudes: "Suppose that, in the next few years, the local economy and labour market remain as tough as they are now. How much do you agree with the following statements (four ordinal levels): (a) Worrying about work is hopeless; there are not enough jobs for youths; (b) I'll look for work abroad; there is no hope in Italy for youths; (c) I'll accept any job or contract; working matters; (d) Graduates have the right to do only job activities for which they studied; (e) I must study longer; the market requires more qualified competencies; (f) Finding a job is the top existential problem of young people; (g) If I remain without a job, the state should give me economic aid; (h) I belong to a generation without any real possibility of social participation; (i) People who help at home should be assigned an income as if they worked; (j) If young adults would leave home early, they could find a job more easily." This question offers various possibilities for socially and psychologically interpretable answers, going from a combative to a submissive perspective and from a lingering to a determined attitude toward life and labour, as well as from a demanding to a sceptical feeling toward the social community and from a passive vs. an active seeking mood. Schematically, the regression model to answer research question Q1 is:

$$Y_1 = f(Z_i; X_1; X_2; X_3; X_4), \quad (1)$$

where in case a graduate accepts a job offer compensated with euros and in case s/he refuses; denotes the personal background variables; the block of human capital variables; the block of social variables; and the attitudes toward labour values.

The Z variables are forced into the model and the blocks of predictors enter the model in sequence: first , then , and then the other blocks. Within each block, the predictors are selected through a stepwise criterion that retains only the statistically significant variables of the block.

To answer research question Q2, we analyse the proportion of respondents indicating whether each of nine factors could compensate for a limited reduction of job salary. To estimate the relevance of each of the considered aspects, we examine the responses to a multi-item question, phrased as follows: "Would you accept a job with a salary reduced, let's say, by a hundred euros per month, in order to: (a) be free all Saturdays and evenings, (b) work no more than thirty-six hours per week, (c) get an open-ended contract, (d) work close to home, (e) perform job activities related to studies, (f) perform work activities autonomously, (g) have reasonable prospects for professional advance-

¹ The items of the questions related to the attitudes toward labor values and the one related to the personal and social barriers have been shown to respondents in a randomized order so as to prevent order effects in responses.

ment, (h) have social security and a retirement fund, (i) work in a youthful environment?”

There is a clear challenge in the question format, since it supposes graduates are able to effectively imagine alternatives to salary reduction, while respondents can imagine the work world just from indirect descriptions. The non-triviality of hypothesis of salary substitutability is supported by various scholars who stated that salary is not the only, and often not the primary, motivator for job applicants (Jurgensen, 1978; Turban et al., 1993; Rynes et al., 2004; Grund, 2011; Setiffi, 2011).

Finally, in order to answer research question Q3, we hypothesize the following analytical model:

$$Y_2 = f(Y_1Z_i; X_1; X_2; X_3; X_4), \quad (2)$$

where Y_2 is the salary a graduate would consider ideal, the product measures her willingness to accept a job compensated with Euros, and all the other symbols have the same meaning as in equation (1).

A graduate’s ideal job salary was elicited with an open-ended question: “Suppose you find your ideal job. What monthly net salary would you consider appropriate for that (in your first year of work)?”

Results

The sample was composed of graduates who achieved a bachelors (62.6%) or a masters degree (36.7%). 0.7% of respondents also had a degree higher than a masters (see Table 1). For the sake of clarity, from now on we will consider only the responses of people possessing either a bachelors or a masters degree, and discount those possessing a higher degree.

Table 1. Percent proportion of contacted graduates according to disciplinary field, gender, and other curricular characteristics

Field of study	% female	% with a masters degree	Mean final mark
Engineering (n = 675)	21.9	38.8	98.0
Life sciences (n = 955)	68.0	27.3	102.2
Science (n = 268)	40.3	49.6	103.4
Social sciences (n = 1044)	74.3	43.0	101.9
Humanities (n = 543)	83.2	33.5	104.0
Total (n = 3485)	61.2	36.9	101.7

Female respondents were the majority (61.2%). The fields of study characterised by a female majority were the humanities (83.2% of female respondents), social sciences (74.3%), and life sciences (68.0%). Fields characterised

by a male majority were engineering (78.1% of male respondents) and science (59.7%). The average final mark of graduates was 101.7 (out of 110), with marked differences according to major: the minimum average was that of engineering (98), followed by social sciences (101.9), then life sciences (102.2), then science (103.4), and finally the humanities (104).

The main results of the experiment are presented in Table 2. The following considerations are apparent:

- a. There is a slight proportion (5.5%) of non-responses. The rate is independent of the salary level. This could mean that non-responses were randomly determined and should not be associated with a precise subset of graduates. This is a further confirmation that we are allowed to ignore nonresponses to the experimental question without the risk of biased inference.
- b. As expected, the quota of graduates immediately accepting a job offer increases with the salary, with a minimum of 19.1% for offers of 600 euros and a maximum of 63.4% for offers of 1,200 euros. Conversely, the proportion of people refusing the job offer is negatively correlated to the offered pay level (though the proportions are much more restrained) with a maximum of 8.4% refusal at the level of 600 euros and a minimum of 0.2% at the level of 1,200 euros.
- c. The proportion of graduates who would accept a job for a salary of 1,000 euros is about the same as those who would wait for a higher offer. Above this level, the tendency is more towards acceptance than refusal. Besides, even though a minority of graduates would refuse, on the spot, a job offer of 1,200 euros a month, more than 30% of them would look around (if allowed) before accepting this salary.
- d. The average salary of graduates who would immediately accept an offer from recruiters is 995 euros, while the average refused salary is 702 euros. The other positions relate to intermediate values between these two extremes, with that of graduates who stated they would make another attempt at getting another job higher (881 euros) than those who would make more than one attempt (809 euros) before accepting.

The acceptable salary equals 995 euros (Table 2, first column) and it is computed as the mean of the four offered salary levels, each one weighted for the proportion of graduates accepting that salary level with respect the total of graduates who accepted.

Table 2. Percent distribution of graduates according to offered salary and stated behavior

Salary in euros	Would accept job	Another attempt	Various attempts	Would refuse job	No response	Total
600 (n = 634)	19.1	21.5	46.5	8.4	4.5	100.0
800 (n = 634)	29.5	20.3	39.3	4.1	6.8	100.0
1000 (n = 630)	48.7	21.3	24.1	1.3	4.6	100.0
1200 (n = 634)	63.4	16.2	14.2	0.2	6.0	100.0
Total (n = 2545)	40.2	19.8	31.0	3.5	5.5	100.0
Mean offered salary	995	881	809	702	909	900

Table 3. Median monthly salary that graduates considered ideal by field of study, gender, and degree

Field of study	Male (n = 1246)	Female (n = 2007)	Bachelors (n = 2035)	Masters (n = 1218)	Total (n = 3253)
Engineering (n = 626)	1453***	1274	1432	1407	1422
Life sciences (n = 891)	1390*	1290	1323	1275	1313
Science (n = 255)	1461***	1239	1291	1431	1354
Social sciences (n = 975)	1346***	1224	1252	1230	1241
Humanities (n = 506)	1271**	1197	1192	1229	1207
Total (n = 3253):	1414***	1236	1292	1280	1288
Median Mean	1466	1312	1372	1370	1371

Note: The Kruskal-Wallis test was applied to evaluate the significance of differences. Significance levels: *: < 5%; **: < 1%; ***: < 1%

Let us now consider the starting salary that graduates consider appropriate for their ideal job (Table 3). The median (instead of the mean) ideal salary was computed in order to neutralise haphazard responses due to abnormal responses. The presence of such responses is made evident by a +2.3 skewness, denoting a pronounced right tail of the response distribution. This 'skewness affection' is a common characteristic of this type of data because people obviously appreciate favourable odds of very high salaries than very low ones (see, for example, Dominitz & Manski, 1996; Schweri et al., 2011; Alonso-Borrego & Romero-Medina, 2016). The gap between the salary that graduates considered acceptable and the salary they considered ideal is particularly eye-catching: the median ideal salary is 1,288 euros, about 300 euros more than the mean acceptable salary.

Splitting graduates by field of study, it is evident that the more technical the field, the higher the initial salary expectation. The gap between salary expectations of engineers and people in the humanities is greater than 210 euros.

If respondents are classified according to gender, it is evident that males tend to expect higher salaries than females, independent of discipline. The difference between the medians is about 180 euros, which is 13.8% of the median ideal salary of all graduates. The gap between genders differs with respect to the field of study. For instance, the median ideal salary of a male engineer is around 1,450 euros, and that of a female engineer is about 180 euros lower. The differences between male and female graduates in other disciplines are lower but still significant. The smallest difference is about 80 euros for people in the humanities.

Let us stress that the gap between genders intersects with that amongst disciplines. This makes the gender gap even more significant because, in Italy, male students make up a larger proportion of those enrolled in study programmes in technical fields while female students enroll much more frequently in social and humanistic courses.

Strangely, there is no significant difference, on average, between the salary expected by graduates possessing a bachelors degree and those possessing a masters degree, nor are there significant differences between the two degree levels in the same study field. This topic deserves further attention in the following analyses.

Let us now consider the proportion of graduates who would sacrifice one hundred euros to gain better working conditions (Table 4). The results show that any of the working conditions can be considered an alternative to a salary quote; in fact, no single job aspect scores less than 45% among the whole set of graduates.

The aspect that graduates consider most important is career prospects: 91.2% of graduates would be willing to sacrifice part of their salary to achieve better career prospects. The other aspects are, in order of preference; the possibility of performing activities related to one's own field of study (80.5%), then tenure (76.7%), followed by social security and a pension at the end of the work period (71.1%).

The least likely consideration for which graduates would renounce a part of their salary would be working in a youthful environment, even though 45.2% of graduates would pay a non-irrelevant fee for that. Two other aspects were chosen by less than 50% in this trade-off with salary: working thirty-six hours per week at most (48.7%) and having Saturdays and evenings always free from work (48.9%). These latter aspects are those that make employers fly into a rage if revealed by graduates at the recruitment stage.

Let us now jointly model the variables that may affect propensity to accept a job. In the first step, we considered only the experimental salary levels, and then we included graduates' personal and educational variables. Study progression after graduation was inserted as a control variable (in order to partial out its effect), and its possible effects will not be commented on. In

the last step, we allowed for the social and attitudinal variables described above to enter the model. Our analytical model is formally static, but the insertion of the possible predictors in the model was ordered in terms of causal remoteness, which parallels a historical perspective.

Table 4. Percent of graduates open to sacrifice one hundred euros of their monthly salary to gain better working conditions by condition, gender, and degree

Work condition	Male (n = 1251)	Female (n = 2012)	Bachelors (n = 2012)	Masters (n = 1251)	Total (n = 3263)
Saturdays and evenings free	48.7	49.0	47.4	51.3*	48.9
No more than 36 hours per week	47.2	49.6	48.3	49.2	48.7
Open-ended contract	73.5	78.7***	77.4	75.6	76.7
Close to home	60.2	66.4***	64.5	63.2	64.0
Activities related to studies	76.5	83.0***	78.5	83.8***	80.5
Autonomy in work activities	61.3	60.1	60.0	61.5	60.6
Career prospects	92.6	90.4*	90.8	91.9	91.2
Social security + retirement fund	67.9	73.1**	71.1	71.2	71.1
Youth work environment	43.6	46.2	43.9	47.4*	45.2

Note: Significance levels: *: < 5%; **: < 1%; ***: < 1‰

For the analysis, we employed a logistic regression method (Cox, 1958), the results of which are described in Table 5. The pseudo R^2 goes from 10.3% (with just the offered salary level as a predictor) to a noteworthy 19.3% if gender, study field, degree final mark, prior participation in an Erasmus programme, prior attendance at a lyceum programme, and being a student at the time of the interview are considered. It goes to 25.7% if social and attitudinal variables are included in the model. The significantly increasing values of the pseudo R^2 of the three estimated models signal that all three sets of variables are relevant when explaining the propensity of graduates to accept a low-paying or medium-paying job. In all three estimated models, the offered salary level remains significant as a predictor of propensity to accept a job.

Table 5. Logistic regression model of job acceptability according to offered salary and graduates' characteristics (stepwise selection, only significant predictors listed)

	Offered salary	Salary and individual v's	Salary, individual, and attitudinal v's
Intercept	-1.386***	-1.153***	-3.114***
Salary: 800 euros vs. 600 euros	0.616***	0.719***	0.789***
1000 euros vs. 600 euros	1.430***	1.549***	1.707***
1200 euros vs. 600 euros	2.115***	2.431***	2.585***
Male vs. female	=	-0.327**	NS
Final mark: 89-99 vs. ≤ 88 (/110)	=	-0.641**	-0.715**
100 or more vs. ≤ 88	=	-0.624**	-0.620**
Life sciences vs. engineering	=	1.170***	1.174***
Science vs. engineering	=	0.470*	0.510*
Social sciences vs. engineering	=	1.232***	1.384***
Humanities vs. engineering	=	1.527***	1.647***
Erasmus program participation	=	-0.510**	NS
Student at time of interview	=	-0.773***	-0.695***
Lyceum high school diploma	=	-0.326**	NS
Would accept reduced salary for permanent work	=	=	0.332**
Would accept reduced salary for working close to home	=	=	0.331*
Worrying hopeless, not enough jobs for youth: very much agree vs. not at all	=	=	-1.257*
Worrying hopeless, not enough jobs for youth: somewhat agree vs. not at all	=	=	0.045
Worrying hopeless, not enough jobs for youth: slightly agree vs. not at all	=	=	0.069
Accept any job, working matters: very much agree vs. not at all	=	=	2.380***
Accept any job or contract, working matters: somewhat agree vs. not at all	=	=	1.700***
Accept any job or contract, working matters: slightly agree vs. not at all	=	=	0.816**
Young adults should leave home earlier: very much agree vs. not at all	=	=	-0.206
Young adults should leave home earlier: somewhat agree vs. not at all	=	=	-0.346*
Young adults should leave home earlier: slightly agree vs. not at all	=	=	-0.212
Distance from persons needing care: very much important vs. not important	=	=	-0.586**
Distance from persons needing care: somewhat important vs. not important	=	=	-0.721***
Distance from persons needing care: slightly important vs. not important	=	=	-0.415*
PC difficulty: very much important vs. not important	=	=	0.583*
PC difficulty: somewhat important vs. not important	=	=	0.244
PC difficulty: slightly important vs. not important	=	=	0.210
Parents' education: very much important vs. not important	=	=	0.702*
Parents' education: somewhat important vs. not important	=	=	-0.028
Parents' education: slightly important vs. not important	=	=	-0.033
Performance parameters	n = 2393; AIC = 2936; BIC = 2959; Pseudo R ² = 0.103	n = 2393; AIC = 2662; BIC = 2743; Pseudo R ² = 0.193	n = 2300; AIC = 2395; BIC = 2560; Pseudo R ² = 0.257

Note: Significance levels: *: <5%; **: <1%; ***: <1%; NS: Not Significant at 5% level. Abbreviations: V's: variables; PC: Personal Computer; AIC: Akaike Information Criterion; BIC: Bayesian Information Criterion

As already discussed, being male induces a lesser propensity to accept a lower-paid job. This tendency is evaluated *ceteris paribus*, that is, independently of the field of study and of the final degree mark. Male graduates expect higher salary offers than same-category females just because they position themselves higher as labourers in monetary terms. However, the gender gap is less significant than that reported in Table 2, since other variables partially account for the observed difference.

Gender is no longer significant if attitude variables are added as predictors (see last column of Table 5). In fact, women stated significantly more than men that they would accept any job (even a low-salaried one) since working matters, the labour market is as it is, and a job acceptance decision has to be balanced with the need to be close to relatives who need care. Moreover, women are much more inclined than men to give up part of their salary provided the work contract is permanent, the workplace is close to home, and the job activities pertain to one's completed studies. All these aspects highlight the less flexible attitude toward labour of women, something that would be more and more difficult to maintain in times of job shortage.

The higher the final mark, the greater the propensity to refuse or postpone the decision about a job offer. This follows the logic that the more graduates invest in education, the more they hesitate to accept the first offer they receive.

Among the examined study fields, engineering (and, in a lower proportion, sciences) raised graduates' aspirations for a higher-salaried job, while people with degrees in the social sciences or the humanities were prepared to accept, *ceteris paribus*, job offers characterised by lower salary levels. In the middle, we have graduates in the life sciences.

Graduates who achieved a masters degree seem as prone to accept a job offer on the spot as those with a bachelors degree. This, at first glance, could be considered a contradictory result, because it seems reasonable that people who invested more in education would be more reluctant to accept modest salaries. However, the reason why graduates with a bachelors degree appear to have the same salary expectations as those with a higher degree is that many graduates with a bachelors are studying for a higher degree,² and so the necessity to accept a job offer is postponed. In fact, being a student at the time of interview is negatively correlated with the probability of accepting a job on the spot. Moreover, work experience did not affect the propensity of graduates to accept a proposed salary level.

As regards graduates' social and attitudinal variables, it may be unexpected that their states of mind are so relevant once the other descriptors

² The trade-off between degree level and being a student at the time of the interview as predictors of job acceptability is not obvious from Table 5 because the former variable is no longer significant once the latter enters the model.

and the salary levels are already in the model. The apparent simplicity of the statements, *“I’ll accept any job or contract: working matters”*; *“Worrying about work is hopeless; there are not enough jobs for youths”*; and *“If young adults would leave home early, they could find a job more easily”* helped to elicit the so-called socially disappointed³; both those who have been accustomed since they first tried to enter the workforce to consider refusal in their job search unavoidable and those who are insecure enough not to be able to negotiate the salary of a possible job. Of course, low salary acceptability is positively related to strong disappointment.

Another push to accept a lower-paying job is the possibility that graduates’ relatives need help. It is not possible to know if this event is actual or just potential, but this mental obstacle is particularly high among female graduates. On the other hand, the decision to accept only ‘good’ jobs is more frequent among male graduates who consider the superior expectations of their parents.

Finally, we model the ideal salary by considering the same groups of variables considered for the previous analysis and applying a trimmed, or win-sorized, regression method using 95% of the data (Table 6). Data trimming consists of cutting extreme tails of the data distribution so as to exclude abnormal cases and make a more robust analysis. Our assumption is that the salary of an ideal job is something that the surveyed people positioned in their mind with difficulty, because no unifying scale was offered in the questionnaire for them to visualize realistic values. So, this may have caused haphazard responses, in particular at the extreme points of the scales. A robust analysis, fixing a breakdown point beyond which observations are ignored for the analysis, avoids the high leverage of the extreme values (He et al., 1990).

³ We prefer the term “disappointed worker” to the more popular “discouraged worker” to identify a person of employment age who is not actively seeking employment or who does not find employment after long-term unemployment.

Table 6. Trimmed-regression model of the ideal salary of unempolyed graduates according to their characteristics and attitudes (stepwise selection, 5% trimmed data)

	Graduate characteristics	Characteristics and attitudes
Intercept	1392.0***	1456.6***
Would accept 600 euros	-215.6***	-226.3***
Would accept 800 euros	-207.0***	-208.8***
Would accept 1000 euros	-163.8***	-163.3***
Would accept 1200 euros	-124.6***	-116.7***
Male vs. female	59.0***	49.9***
Life sciences vs. engineering	7.2	-1.4
Science vs. engineering	-37.0	-46.9*
Social sciences vs. engineering	-77.3***	-67.3***
Humanities vs. engineering	-116.8***	-112.0***
Erasmus program participation	48.5**	NS
Student at time of interview	45.2***	49.5***
Lyceum high school diploma	34.8**	28.6*
Never worked vs. steady jobs	-58.3**	-73.7***
Odd jobs vs. steady jobs	-82.2***	-83.9***
I'd accept a reduced salary for permanent work	=	40.4**
I'll look for jobs abroad: very much agree vs. not at all	=	84.0***
I'll look for jobs abroad: somewhat agree vs. not at all	=	40.5
I'll look for jobs abroad: slightly agree vs. not at all	=	29.7
I'd accept any job: very much agree vs. not at all	=	-78.0**
I'd accept any job or contract: somewhat agree vs. not at all	=	-86.0***
I'd accept any job or contract: slightly agree vs. not at all	=	-62.3*
Jobs matching studies: very much agree vs. not at all	=	61.1**
Jobs matching studies: somewhat agree vs. not at all	=	34.4
Jobs matching studies: slightly agree vs. not at all	=	8.4
No hope for my generation: very much agree vs. not at all	=	-59.7**
No hope for my generation: somewhat agree vs. not at all	=	-30.6
No hope for my generation: slightly agree vs. not at all	=	-26.5
Subsidies for the unemployed: very much agree vs. not at all	=	60.3*
Subsidies for the unemployed: somewhat agree vs. not at all	=	26.5
Subsidies for the unemployed: slightly agree vs. not at all	=	4.1
Difficulty with Italian: very much important vs. not important	=	-69.7*
Difficulty with Italian: somewhat important vs. not important	=	-36.7
Difficulty with Italian: slightly important vs. not important	=	-19.7
Distance from persons needing care: very much important vs. not important	=	6.9
Distance from persons needing care: somewhat important vs. not important	=	-47.1*
Distance from persons needing care: slightly important vs. not important	=	-50.2*
Parents' social class: very much important vs. not important	=	78.2
Parents' social class: somewhat important vs. not important	=	50.7**
Parents' social class: slightly important vs. not important	=	12.3
Difficulty with PC: very much important vs. not important	=	-16.8
Difficulty with PC: somewhat important vs. not important	=	-24.4
Difficulty with PC: slightly important vs. not important	=	-28.0*
Performance parameters	n = 2379; R ² = 0.195	n = 2287; R ² = 0.232

Note: Significance levels: *: <5%; **: <1%; ***: <1%; NS: Not Significant at 5% level. Abbreviations: PC: Personal Computer

Even though the question about ideal salary preceded that on the acceptability of the experimental salary level, we forced the response on this latter question into the model so as to highlight further relationships with background and social and attitudinal variables. Hence, we created four dummy variables representing the acceptability of each of the four salary levels and forced them into the regression model before selecting any other variable. It turned out⁴ that responses on ideal salary are highly correlated with the response on acceptability of the experimental salary level.

With reference to background variables (Table 6, second column), results converge with those related to the salary level acceptability. Of course, all signs are reversed, since the propensity to accept lower-paying jobs is negatively correlated with higher ideal salaries. The model confirms that, *ceteris paribus*, males and graduates who achieved a degree in a technical or scientific discipline expect higher salaries than, respectively, females and those with majors in the humanities or social sciences.

An element distinguishing this model from the previous one relates to work experience during college. This variable correlates positively with higher values of ideal salary. This may mean that the more a graduate knows about current job compensation levels, the higher his or her expectations are for a new job.

Salary expectations are also higher for students who attended a lyceum. The lyceum variable was introduced in our analysis because we considered it as a social class indicator. It was a relevant predictor of graduates' salary expectations, although most of its significance was lost after attitude variables were introduced. This means that the attendance of a lyceum programme partly shapes graduates' personality, though this may change in time, in particular during university studies.

A surprising consideration is that participation in internship programmes is uncorrelated, while participation in Erasmus programmes is significantly and positively correlated with ideal salary until the attitudinal variables are inserted as predictors. The same occurred with the salary acceptance model presented in Table 5. Both internships and mobility programmes connote students' investments, and it would be reasonable to expect a positive and significant correlation to salary expectations. The variables in both models that compensated for the explanatory capacity of participation in an Erasmus programme are the ambitions to obtain an open-ended contract, to work close to home, and to get a job, either in Italy or abroad, as soon as possible. So, in our research context, participation in an international programme may indicate an experience that is necessary to improve employment chances.

⁴ The results of this analysis are not shown in detail, since salary acceptability is significant in all the estimated models.

If social and attitudinal variables are also eligible for analysis (last column in Table 6), the explained deviance goes from 19.5% to 23.2%. This makes it evident that these variables (such as the graduates' desire for tenure, for gaining a job related to the studies and close to home, and for working autonomously) are relevant to predict his or her ideal salary. On the other hand, although the graduates' willingness to participate in social life as labourers is recurrent in our analysis, many of them feel that jobs are scarce for the generation entering the labour market and expect lower salaries or, in case of forced unemployment, a public subsidy.

Lower salary expectations are determined by the possible care needs of relatives, difficulties with computer usage, and difficulty with the Italian language for foreign graduates. On the contrary, stronger salary ambitions are determined by a higher social class of parents. So, the less graduates are convinced of their skills and of the chances to exploit them, the lower their expected salary. In this sense, the ideal salary of a graduate can be considered the result of a blend of self-perception of his or her human capital and the psychological forces that push him or her toward higher targets or restrain his or her ambitions.

Finally, let us raise a methodological point: only people with a clear endorsement of the mentioned attitudes show high values of ideal salary. In fact, most of the social and attitudinal variables are selected as predictors only at extreme levels of agreement—for example, “very much agree” or “very much important.” This means that only people with stronger beliefs about their adherence with labour have precise expectations in terms of salary.

Discussion

Applying a statistical experiment, we elicited graduates' expectations both in terms of salary and possible behaviours at the acceptance decision stage. While the refusal of a job offer implies an unbridgeable gap between expectations and offer, its acceptance implies that the presented offer overcomes a certain threshold. However, most graduates reserve their right to gather more offers; only a few of them manifested the intention to accept the first ‘acceptable’ offer.

These results have to be assessed with the principle that motivational effects may be nonlinear across pay levels, a principle that could threaten the validity of the conducted experiment. This psychological principle mirrors the economic concept of the declining marginal utility of salaries, which suggests that the opportunity to earn, for example, an additional 100 euros will be more motivating for an individual receiving a monthly pay of 600 euros than an individual earning 6,000 euros. In fact, Rynes et al. (1983) showed that pay explained an average of 65% of the variance in subjects' overall

evaluations of job attractiveness when presented with a wide range of salary alternatives, as compared to only 40% when presented with a pay range half as great. Nevertheless, the short span (600 euros) of our experimental levels allows us to state that salary acceptability can be considered approximately linear in that interval.

There is a large gap, about 400 euros, between a minimally acceptable salary and the ideal salary graduates have in mind⁵. The ideal salary of Italian graduates is often lower than the current average salary of their counterparts from many European countries.

Background factors that make a difference with respect to expected salary are gender, major, and other types of investment in education. A large variability in the levels of both acceptable and ideal salary was found among majors. This is in line with the so called “horizontal stratification of tertiary education” (Van der Werfhorst, 2008; Argentin, 2010) meaning that there are large and increasing differences among disciplines in terms of labour markets the graduates may enter, in particular between the technical and scientific fields on one side and the humanistic and social ones on the opposite side.

Another large difference in terms of both acceptable and ideal salary was found between female and male graduates. This may not be a surprise, since scholars in various countries described similar patterns. In general, authors explain this result based on the fact that women are often paid less, so women waiting to enter the market expect less. Taylor (2007) and Lips & Lawson (2009) state that this phenomenon may depend on historically large wage gaps and on differences in females’ levels of authority and feelings of power compared to male workers. Daymonti & Andrisani (1984), Bokemeier & Lacy (1986), Phelan (1994), Setiffi (2011) and Rinaldi & Bonanomi (2011) theorise that women may have a different sense of entitlement and also different values than men concerning what makes them satisfied with a job. Indeed, women seem to aspire to less adventurous and less remunerated but more intrinsically rewarding jobs (e.g., jobs with task variety and feelings of accomplishment) than men. Female workers could be comparing themselves

⁵ With our data, it is not possible to state whether the expected return to education was overestimated by the surveyed graduates. The literature highlights that this tendency is common to students and graduates, even though scholars do not fully agree about the causes of such a demanding attitude. In fact, Brunello et al. (2004), comparing similar data of various European countries, found that students and graduates base their expectations on various outcomes of their educational investments and are inclined to overestimate their expected returns in comparison with specific labor market offers. Menon et al. (2012) found a similar tendency in Cyprus. Dominitz & Manski (1996) found, instead, that just female students overestimated their future salary, whilst males’ estimates were consistent with current data. Ng et al. (2010) stated that the propensity to overestimate is peculiar to the current generation of Canadian graduates and did not belong to previous ones. Previous research results reported in Betts (1996), Carvajal et al. (2000), and Botelho & Costa Pinto (2004) showed that students can predict rather realistically their future wages.

to other women in the workforce, so job satisfaction is not necessarily determined by factors such as salary and advancement opportunities.

Hubbard (2011) and Zafar (2013) conjecture that the expectation of non-pecuniary outcomes may be the driving force of the propensity of women to attend college more than men or to choose certain college majors in a larger proportion. As regards women's leaning toward social and humanistic majors, Bobbit-Zeher (2007), Smyth & Steinmetz (2008), Graduate Careers Australia (2012) and De Luigi & Santangelo (2017) envisage that gender segregation in higher education is often the prelude to a lower-profile occupational status⁶.

Lips & Lawson (2009) add that women also expect different work-life balance than men; in other words, while women expect both a reduced work commitment and a lower salary, they are laying the groundwork for the so-called motherhood penalty, that is, the condition of women who value family more than employment. Hence, while all the mentioned authors obtained similar evidence, hypotheses on causes are mixed.

A second point examined in this paper concerns the alternatives to a fair salary. The capacity of graduates to trade off pay with other aspects of work recognition emerged clearly from the data. All the alternatives to salary dealt with in our survey were shown to be suitable for composing a decision strategy at the job offer acceptance stage. Almost all graduates considered raises and autonomy with job activities to prevail over a higher salary, showing themselves to be willing to give up a part of their expected salary to start a more promising career and perform more fulfilling activities.

A large majority of graduates also stated they were ready to sacrifice part of their salary for a job matching their major discipline. This propensity involves graduates' self-conviction of having wisely chosen their university major – a very relevant choice as an adult – and, likewise, their fear of feeling inadequate because of wrong academic choices and behaviours.

Graduates may also trade off salary with contractual conditions, in particular with a tenure position and the guarantee of having social security and retirement funds. The mentality of our respondents who seek steady, possibly lifelong contracts is a legacy of a past that is going to vanish in Western economies. If we add that almost two thirds of the examined graduates are willing to give up 100 euros of their possible salary to get a job close to home, the graduates' emerging image is not of a fully dynamic population.

Women differ from men regarding the substitutability of salary. We have found that women, more than men, would give up part of their possible sal-

⁶ In fact, there are many factors that can influence starting salary differences—while males and females may have studied in the same field, differing employment factors such as duties, type, and location of the employer or hours worked can have a strong impact on earnings (see also Jurgensen, 1978; Major & Konar, 1984; McFarlin et al., 1989).

ary in return for a stable, time-delimited, and close-to-home job. It is worth saying that this attitude is not limited to females graduating in the humanities or social sciences but is general, although proportions differ throughout disciplines.

Another important difference in preferences for job aspects emerged between possessors of masters degrees and bachelors degrees. The difference is that the former are eventually willing to renounce part of their expected salary to work less, in fixed times, in better conditions, and with the possibility of exploiting the high competence achieved during their studies.

It is thus evident that people in higher education have developed a particularly demanding attitude, expecting from their jobs a return proportional to the investment they perceive themselves to have made. As posited by Adams (1963), individuals assess the fairness of their salary by comparing their own ratio of inputs (e.g., educational effort) and expected outcomes to analogous ratios of “comparison others” such as peers (e.g., those in same cohort of graduates, or people with the same title) or workers at other companies (see also McFarlin et al., 1989; Fabbri et al., 2011). Also, Slaughter et al. (2006) theorise – within the framework of “expectance theory” – that job choice decisions depend on the assessed importance applicants assign to the particular attributes of a job offer; that is, unpleasant job characteristics have to be compensated by higher wages or other benefits, and, conversely, favourable job attributes may substitute salary for employees.

All the indicators of graduates’ investment in education make graduates hesitant to accept the first job offer in terms of both expected salary and side aspects of job activities and employment contracts (analogous results can be found in McFarlin et al., 1989).

On the opposite side, disappointed people not only expect lower salary levels because they believe that entrepreneurs may perceive their competencies as weak, but they also extend their stay at university as long as possible, ruminating on their existential need to get a job and become economically independent; they shiver at statistics of youth unemployment and hope for a sudden end to the job market hardness, they perceive the market as too hard and they fear the number of possible competitors in the job market, and so on. Some of these people tried to forestall meeting the labour market by accepting odd jobs during their studies and thus worsening their situation, since the time lost due to odd jobs affected their educational career, resulting in a lower final mark. Thus, they are disappointed both with themselves and with the social system, including the university.

It has to be noticed that disappointment does not strictly depend on one’s major. In fact, the selected attitudinal variables do not modify the explanatory significance of the major. Hence, there are quotas of disappointed people among graduates of the social sciences and humanities as well as among en-

engineers and scientists. We are inclined to guess that the quota of disappointed people is larger among graduates who did not open the questionnaire, but we have no means to ascertain the truth of this hypothesis.

Finally, a main outcome of our research was that work values and attitudes are very relevant as explanatory variables of salary expectations and the acceptability of a job beyond personal and social attributes of graduates. Attitudes cross all the examined background variables as a determinant of the propensity to effectively enter the labour market.

Conclusion

In this paper, we analysed responses from more than thirty-five hundred recent graduates of an Italian university based on three research questions. The first related to the possibility for graduates to accept low-to-medium salary jobs, the second related to trade-offs between salary and other compensation items, and the third related to the salary derivable from their ideal job.

We highlighted that not only are many graduates willing to initially accept low-paying and low-profile jobs, but they are also willing to trade off a certain fraction of pay for other fulfilling rewards. Some of our results are coherent with previous research outcomes, for instance, the lower salary expectations of women and the variable expectations related to major. Other results are new. We have found that educational performance (final degree mark) and other types of investment in education (international mobility, internships, working during studies) differentiate graduates' salary expectations, but the directions of these expectations are sometimes counterintuitive. In fact, internships do not differentiate, nor do study levels (bachelors vs. masters degrees). Instead, social and attitudinal variables (in particular, a feeling of social disappointment and scepticism and anxiety about finding a job soon after graduation) enabled us to pinpoint people with very low salary expectations.

We are led to suggest that universities and work agencies become aware of students' mentality and intervene with educational and supporting services. In agreement with Bonnard & Giret (2016), we believe that orientation policies before students choose their study major and career guidance counselling before or after graduation can play a decisive role in fine-tuning students' expectations. This could improve, in particular, women's aspirations.

After thorough examination, we concluded that no bias to the estimates of substitution factors could be derived from graduates' selection at the sampling stage or from respondents' self-selection at the responding stage, though it is not possible to fully disentangle the ever-present social desirability effect from the genuine attitudes of respondents. Rynes et al. (2004) and Slaughter et al. (2006) state that employees report that pay is less important

to them than it actually is as compared with other aspects of a job due to socially desirable answers. In our survey, the provocative technique adopted for data collection might have drastically reduced this effect. In addition, a randomization of within-battery question order – which we applied – might have controlled the statistical error that commonly affects the response errors creeping into the data while administering batteries of questions.

Correlated with the above point is the fact that, in order for pay to be an important motivator, there has to be a larger variability in pay options offered to respondents in the questionnaire. In fact, we presented only four levels, spanning an interval of 600 euros, with a maximum level of 1,200 euros. Despite the validity of our experiment, we put forward that, if another experiment will be tried, a larger variability among salary classes should be assured.

Another possible improvement could result from posing questions on graduates' expected salary after a certain number of years on the job and/or of job-seeking experience. The analysis of an expectation series could highlight those graduates who expect much more from the future than what they see as attainable soon after graduation.

We deliberately surveyed only new graduates. Our data involve a homogenous population that, in particular, belongs to the same segment of the labour market, to a short time span in people's life, and to the same region. Consequently, our outcomes cannot apply, without discernment, to all graduates. In fact, in-the-field experience may modify job seekers' self-perception and behaviour.

The last limitation may be related to unobserved characteristics of graduates. One factor that could be important to measure in future surveys is having one's own family, and another is relatives requiring care so as to be able to understand if and how within-family relations may affect the expectations of graduates toward both salary level and factors which can compensate for salary (Turban et al., 1993). Another factor that could be worth considering is commuting during studies in order to predict the relevance of closeness to home on educational outcomes (Grund, 2011). Additionally, the educational and occupational background of the origin family could be considered in order to better understand the role of social capital in determining job and career expectations of graduates. All these issues were indirectly raised in our survey, but their incidence could be incontrovertible if questions were posed in direct terms.

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