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Consorzio Interuniversitario

ALMALAUREA

XVIII Survey

Graduates' Employment

Condition

Survey 2016

Methodological Notes

Con il sostegno del:



MINISTERO DELL'ISTRUZIONE DELL'UNIVERSITÀ E DELLA RICERCA

METHODOLOGICAL NOTES

1. Data sources

The variables used come from the following sources:

- administrative data: these information come from the administrative archives of universities that are involved in the survey. The variables that have been taken into consideration are: gender, date of birth, information related to the attended degree course, year of enrolment, graduation date and mark and duration of studies;
- Survey on graduates' employment condition: it includes all information related to the employment status of graduates at one, three and five years on from graduation. The statistic data collected 1 year on from graduation are related only to post-reform graduates; those collected 3 and 5 years on from graduation concern only second-level degree holders.

2. Survey methods

The 2015 survey on graduates' employment status was carried out by using substantially the same survey technique that was successfully tested in the previous years, even though the last method applied is inevitably more and more complex than the previous ones. The 2015 survey collected data on post-reform first- and second level graduates of different cohorts, who were examined one, three and five years on from degree completion¹. Thanks to the large numbers involved, the survey provides information down to degree-course level. In this way, the information needs of the Ministry for Education, University and Research² as well as of universities, especially the smaller ones, are met.

A dual data collection method CAWI (*Computer-Assisted Web Interview*) plus CATI (*Computer-Assisted Telephone Interview*) was

¹ Two experimental surveys were carried out: they regarded first-level graduates not enrolled in further studies interviewed three and five years on from graduation. However, because of the experimental origin of the surveys and the data collection method (only web instruments), data related to these surveys were not published.

² See Ministerial Decree 544 of 31st October 2007 (DM 544/2007), Director's Decree 61 of 10th June 2008 (DD 61/2008), the further Ministerial Decree 17 of 22nd September 2010 (DM 17/2010), Ministerial Decree 50 of 23rd December 2010 (DM 50/2010), Ministerial Decree 47 of the 30th January 2013 (DM 47/2013) and Ministerial Decree 104 of the 14th February 2014 (DM 104/2014).

used also this year to cut costs and data collection time. Remarkable savings were achieved by many universities. In particular, all graduates having an e-mail address (generally over 85%) have been contacted via e-mail and asked to answer to a questionnaire which has been entirely programmed by the ALMALAUREA Consortium and which can be found on the web site of ALMALAUREA itself. The survey procedure also included four e-mail reminders. Subsequently, all the students who had not answered to the on-line questionnaire – together with all the students who have no e-mail address at all- have been contacted by phone, so that the high response rates, that normally characterise the ALMALAUREA surveys could be achieved. In order to guarantee the fundamental time gap between the achievement of the degree and the interview, the graduates have been contacted in two different periods: those who graduated in the period between January and June have been interviewed from April to June 2015, whereas from September and December have been contacted those who graduated in the period between July and December³.

It should also been taken into account that in some cases the number of graduates involved in the survey do not exactly coincides with the figures reported in the statistics related to the graduates' profile. This is mainly due to subsequent integrations or changes made on the databank after writing this report. The survey on graduates' employment includes also Bergamo University, Brescia University, Milano University, Pavia University, Pisa University and Palermo University, taken part in the ALMALAUREA Consortium in 2015 and not available in the 2015's Profile Survey.

3. Universities involved in the survey

There are 71 universities taking part in the 18th survey; all of them are involved in the survey focused on collecting data one year and three years on from graduation and 64 of them in the one regarding the data collection carried out five years on from graduation.

³ In order to obtain the utmost uniformity and comparability of data, the reference date of the telephone surveys has been fixed in both surveys for respectively the 1st May and the 1st October 2015. This means that all the people contacted after these dates have been asked to give information concerning their employment situation as from 1st May (1st October) 2015.

On the basis of the aims of the tables elaborated for each university (i.e., guaranteeing to each university taking part in the Consortium the access to a set of data that in the case of post-reform graduates is so detailed that it even supplies information on the single degree courses), the data have not been subjected to a re-proportioning statistical procedure. This procedure is generally used for the data that are presented during the yearly ALMALAUREA meeting. In this case the re-proportioning is fundamental to make sure to obtain representative estimates of the overall population of Italian graduates.

Comments on some cohorts which have not been investigated

The survey did not include those graduates who have achieved more than an academic qualification. In particular, as for first- and second-level degree holders, only the second-level degree has been taken into consideration, whereas in case of students having two degrees of the same level, only the first one (i.e., in terms of graduation date) has been taken into account for the analysis. If a student earned a Primary Schooling sciences degree and then a second cycle degree, the prominence has been given to the second cycle one.

It has also been preferred to exclude the graduates who have earned the academic degree on the basis of special conventions. This case mainly regards: the workers of the health sector whose professional experience has been acknowledged by the University of Chieti-Pescara, which awarded them a first-level degree in one of the health sectors' faculties; the members of the armed forces and police officers who have concluded the degree-course in Management and Organisational Sciences at the Tuscia University or first level degree course in Industrial Engineering at Aquila University or the first level degree course in Security legal sciences at Rome Tor Vergata University.

4. Availability of data

The search engine has three options for consulting data: after having select the survey of interest on the basis of the survey year, the kind of degree course and the number of years on from graduation, you can select some subcohorts of the graduate population. In this way, you can focus the analysis on a well defined cohort. You can also compare several groups of graduates through an analysis based on a specific comparison variable.

Available variables for selecting the survey

You can select the survey of interest on the basis of these variables: **survey year, years on from graduation** (one, three and five) and the **kind of degree course** (first-level, second-level, single-cycle second level degree, Primary Schooling sciences degree course).

Available variables for selecting the cohort

The available variables for selection are: **university, faculty/department/school, degree subject grouping, degree course grouping, degree course**. In order to facilitate the consultation of the data, all available variables are displayed, but some of them become active only after having made a particular selection: for example, the variable "degree course grouping" can be displayed only after having selected a degree course (except for Primary Schooling sciences degree course) or the variable "faculty/department/school" can be displayed only after having selected a university.

Likewise also the variable "degree course" becomes active and can, therefore, be selected only after having made a further choice among kind of degree course (except for Primary Schooling sciences degree course) universities and after having selected at least one variable among faculty, degree subject grouping and degree course grouping. This is determined by the fact that the variable uses the codes of the databank containing information on the supply of study opportunities: to each degree course activated in a given university (or sometimes even in a given city) is associated a univocal code, which do not allows aggregations of different universities. In some cases a degree course activated by a given university may change its identification code, although its name may remain the same. This may happen, for example, as a consequence of changes made to the subjects of the degree course or of a change of the degree course grouping in which the course is included and so on. In such cases the same courses are treated separately, since the codes they have are different. In order to facilitate the finding of such particular cases, next to the name of the course has been indicated the academic year up to which the course was still active (e.g. "up to the academic year...") or the academic year in which the course was started ("from the academic year ..."); in other cases the location of studies was specified . It is also possible that a course has changed its name while not changing its Off.F. code. If the course includes one or more courses with significantly different denomination from the most

recent one, next to that name course is given also the oldest one, preceded by "già".

Available comparison variables

The available variables for comparison are: **kind of degree course, university, faculty/department/school, subject area grouping, degree course grouping, degree course, gender, employment condition at graduation, enrolment on a second-level degree, full-time/part-time job**. The last four variables can be selected only as comparison variables and not as variables for selection. In particular, the variable "enrolment on a second level degree" is available only for post-reform first-level graduates. Moreover, for post-reform graduates the variable "degree course" identifies each degree course activated in a given university (or even in a given city). Therefore, you cannot compare different universities, since every degree course is associated to a univocal code.

To conclude, a further comment on second-level degree holders should be done. It rarely happens that no graduates at all result from a comparison based on the years on from graduation. In this case all relevant elaborations have not been reported.

Variables available only for some cohorts

Some information are available only for some degree courses. They mainly regard:

- all the questions of the 2nd section of the tables ("Attendance of a 2nd level degree course") which are available only for first-level graduates (see § 6);
- the participation to training activities like PhD and postgraduate courses are not available for first-level graduates (see § 6);
- "employment and training opportunities" is available only for first-level graduates (see §.6);
- the answers on the "employment conditions at graduation", which have been collected through different methods for second-level graduates (see § 6);
- "Usefulness of the 2nd level degree course for the current job" is available only for second level graduates.

In this document there are further information on the majority of the variables. These explanations regard both how the questionnaires were submitted and the answer modalities. Consult the relative paragraphs for further information.

5. Conventions and further notes

Lacking data and no-answers

The administrative data are always complete.

As for the survey on graduates' employment condition, the only variable for which a remarkable share of "no-answers" is found (i.e., some people decided to take part to the survey but not to answer to a specific question) is- as it could be expected- the "Average monthly net earnings"⁴. For all the other variables that have been analysed the no-answers rate is lower.

In order to facilitate the reading and the comprehension of the tables, all no-answers have been omitted: for this reason the sum of the percentages may be in some cases lower than 100.

A share of lacking data is found for the comparison variables: employment condition at graduation, enrolment on a second-level degree and full-time/part-time job. To facilitate the comprehension of the tables, this share has never been reported, although it is included in the relevant total, i.e. "selected cohort".

Rounded-off numbers

Percentages have been approximated to the first decimal place: because of this rounding off of the figures, the sum of percentages is sometimes different from 100 (with the exception of "no-answers"; see §5).

Conventional signs

The hyphen "-" is used in the tables when a phenomenon has been analysed, but no cases of it have occurred. The percentage value 0.0 indicates that the phenomenon has been found and that some cases occurred, but with a percentage that is lower than 0.05.

The symbol "*" indicates that statistics have not been calculated, since they would have referred to a very small cohort (less than 5 units; see § 5)

⁴ "No-answers" represent 3-6% of interviewees depending on the examined set.

Useful information for a correct interpretation of the results

As already stated before, the tables give a detailed report of all cohorts having at least 5 graduates. Therefore, if the relevant group is below 5 units only the number of graduates, the number of interviewees and the response rate concerning the survey on the employment condition have been reported. All the remaining statistics have been left out and percentages have been replaced by the "*" symbol.

While analysing the results, it is important to keep into account the number of people in each cohort: if the number of graduates to be analysed is low, then you should interpret the results with all the required attention.

Moreover, you should also take into consideration with all the required attention some cohorts of graduates that are characterised by particular educational and training backgrounds. There are some degree courses which stand out among all the others because of their importance and peculiarity. In these courses (in particular single-cycle second level ones) a huge number of graduates take part to postgraduate training activities and, as a consequence, they inevitably retard their access to the labour market. The most common examples are the Medicine and Law faculties. However, it's also important to take into consideration other variables, like the employment condition at graduation, or, as for first-level graduates- the choice to combine study and work or, more specifically, full-time/part-time job. These elements significantly influence other factors, like employment opportunities and the characteristics of the job held. As for the first variable, it should not be forgotten that those who worked at the time of graduation generally experience an easier access to the labour market, since they already have the necessary experience for getting a job, even at better conditions. Obviously, those who stay in the job they held before graduation (and, in particular, one year on from graduation) have even better conditions as for employment security and earnings. Also the second factor that has been highlighted (that is the choice of first-level graduates to combine study and work) has a great influence on the characteristics of the job that has been held, which is generally a temporary or a part-time job and whose wages are low. Similarly, the employment characteristics of those who have a full-time job are obviously different from the ones of those who work on a part-time basis, in particular as for job security and wages. These variables can be taken into consideration as comparison variables in the tables, so that immediate comparisons can be done between different cohorts.

Comments on some faculties

If a university or a faculty has its courses in different seats, the presentation of data in the tables reflects this subdivision, so that the results about the employment status of graduates can be distinguished for each seat. This subdivision is done even more so when within a single university there are faculties whose courses are officially distributed among different seats.

It's important to stress that some faculties can be found in just one university. In this case, the interpretation of the results of the overall group of investigated universities needs all the required attention.

Meaning of the word "degree" in the available elaborations

In order to facilitate the consultation of the tables, the Consortium ALMALAUREA decided to use the term "degree" without any other more specific information related to the kind of degree that had been analysed (first-level, second-level etc). The only exception are the elaborations that are available for only one kind of degree course. In this case the kind of degree is specified, so that the analysed cohort can be better identified.

6. Definitions and indices

Enrolment on a second-level degree course

As for first-level graduates it should be taken into account that:

- "is currently enrolled on a 2nd level degree course" includes not only the first-level degree holders who have enrolled on a second level degree, but also the few who have declared to have enrolled on a Primary Schooling Sciences degree course⁵;
- "has been enrolled in a 1st/2nd level degree course, but is not enrolled anymore": in addition to those who gave up studying within the first year of enrolment, it also includes the graduates who successfully completed the new course of studies they had undertaken after graduating in 2014.

⁵ More generally, the processed data related to the characteristics of the second-level degree (i.e., reasons for enrolling on a second-level degree, the nature of the second-level degree compared to the first-level one, university and degree subject grouping of enrolment) also refer to the graduates enrolled on the Primary Schooling Sciences degree course.

Postgraduate training

For obvious reasons related to the training courses that can be attended after the achievement of the first-level degree, in the elaborations related to first-level degree holders are not included activities like "PhD" and "second level master's degree"⁶. As a consequence, it should be taken into account that the variable "has taken part to at least one training activity" is calculated in a different way for first-level graduates.

Employment and further training conditions of first-level graduates

The employment and further training condition of first-level graduates has been presented through two different elaborations: in addition to the traditional elaboration having three variables ("is working", "doesn't work and doesn't look for a job" and "doesn't work, but looks for a job"), which is useful to make comparisons with other kinds of analysed degree, also another subdivision into five variables has been reported ("works and is not attending a 2nd level degree course", "works and is attending a 2nd level degree course", "doesn't work and is attending a 2nd level degree course", "doesn't work, is not attending a 2nd level degree course and is not looking for a job" and "doesn't work, is not attending a 2nd level degree course but is looking for a job"). In this way prominence is given to the employment and training experiences made by graduates after the completion of studies.

The share of employed students is obtained from the sum of those who work and those who combine a job and the enrolment on a second level degree course. Likewise, the total number of those who enrolled on a second-level degree course has been obtained by summing the number of those who combine study and work and the number of those who just study.

Employment condition and employment rate

Similarly to the ISTAT survey on the employment condition of graduates, the interviewees who stated that they were carrying out a paid work activity are considered to be in employment. According

⁶ There are actually some graduates who have achieved a second-level degree course or the degree course in Primary Schooling Sciences already at one year on from graduation. Therefore, they could enroll on a PhD degree course or on a second-level Master's degree course. However, the very low number of them is the reason for which the Consortium decided not to analyse these training activities.

to this definition, graduates under training (traineeships, apprenticeships, PhD and schools of postgraduate studies) are considered unemployed. It can be deduced from this definition that having an income is a necessary but not sufficient condition to define a graduate as employed.

The "employment rate" results from the ratio between employed graduates and the interviewees and it is calculated in accordance with the ISTAT (Italian Board of Statistics) definition implemented in the Labour Force survey. According to this "less restrictive" definition, those who stated that they were carrying out a paid activity are considered to be in employment. All those under training are included in this category provided that they are paid⁷.

Unemployment rate

Unemployment rate has been calculated in accordance with the ISTAT (Italian Board of Statistics) definition within the continuous survey on Labour force.

Unemployment rate results from the ratio between the number of those seeking employment and the labour force. Employment-seeking people, i.e. the unemployed, are all those who are not in employment and who state that they are in search of a job, that have performed an "active" job-seeking action in the 30 days prior to the interview and are immediately prepared (within two weeks' time) to take up a job, if offered. To these ones should be added those who stated that they have already found a job, which they will nevertheless take up in the future, but who declared that they are prepared to accept a job within two weeks, should this be offered. By doing this, they would therefore anticipate the beginning of the work activity.

The labour force results from the sum of employment-seeking people and those holding jobs (according to the ISTAT definition of the Labour force survey).

Percentage of graduates who is not working, is not looking for a job, but is attending a degree course or is doing a training activity

In the tables are supplied all necessary information related to the percentage of graduates who do not work and do not look for a job because they continue studies (in another degree course or any internship/apprenticeship that is compulsory to enter the profession).

⁷ For further information, see ISTAT, La rilevazione sulle forze di lavoro: contenuti, metodologie, organizzazione, Metodi e norme n. 32, Roma, 2006.

The aim of this is to give to the universities taking part to the Consortium all useful information for meeting the "transparency requirements", as regulated by the article No. 2 of the already mentioned Ministerial Decree (D.M.) No. 544 of the 31st October 2007, by the Directorial Decree No. 61 of the 10th June 2008, by the Ministerial Decree (D.M.) No. 17 of the 22nd September 2010 and the Ministerial Decree (D.M.) No. 50 of the 23rd December 2010, by the Ministerial Decree (D.M.) No. 47 of the 30th January 2013 and by the Ministerial Decree (D.M.) No. 104 of the 14th February 2014. In particular, the adopted definition includes those who are carrying out a traineeship or a training practice, PhD courses, specialisation schools, Italian first level/second level master's degree courses and- as for first-level graduates- any other degree courses, including those activated at higher education institutions for fine arts, musical and choreographic studies (i.e., AFAM-Alta Formazione Artistica e Musicale): Fine Arts Academy, National Academy of Dramatic Arts, Higher Institute for the Preservation and Restoration of Cultural Property (Istituto Superiore per la Conservazione e il Restauro-ISCR), Higher Institute for Artistic Industries (Istituto Superiore per le Industrie Artistiche-ISIA) and conservatories.

Employment condition at graduation

All the relevant information on the employment condition at graduation are available for all the observed kinds of degrees. This is made possible by the distinction made between those who continue in the job undertaken before graduation, those who do not continue in the job undertaken before graduation and those who have started to work later. Moreover, as for second-level graduates, it is possible to isolate those who have started to work even before enrolling on a second-level degree course from those who have found a job while attending the second-level degree course.

Effectiveness of the degree within the current job

The effectiveness of the degree, which synthesizes two important aspects related to the usefulness and exploitability of the degree on the labour market, derives from the combination of questions concerning the use of the skills acquired at university and the necessity (both formal and substantial) of the academic qualification for the job activity. According to the interpretation offered in the scheme below, you can distinguish five levels of effectiveness:

- "very effective", for those holding jobs where the degree is required by law or *de facto* necessary, and where skills acquired at university are used extensively;

- “*effective*”, for those holding jobs where the degree is not required by law but is however useful and where the acquired skills are widely used, or where the qualification is required by law and the skills are used to a lesser extent;
- “*fairly effective*”, for those in jobs where the degree is not required by law but is de facto necessary or useful and where the skills acquired at university are used only to some extent;
- “*not very effective*”, for those in jobs where the degree is neither required by law nor useful to any extent whatsoever and where the skills acquired are used to a lesser extent, or where the qualification is not required by the law but it is useful and the acquired skills are not used at all;
- “*ineffective*”, for those holding jobs where the degree is neither required by law nor useful in any way and where the acquired skills are not used at all.

This classification excludes no-answers and also some “anomalous” characteristics which cannot be included in one of the above mentioned categories. As for the survey carried out, the modality “unclassifiable” corresponds to around 2% of the employed graduates, even though there are some differences among the various degree courses.

Table 1 -Definition of the effectiveness of graduation

Use of the skills acquired at university	Usefulness of the degree				
	Required by law	Necessary	Useful	Not required by law	No answers given
High	VE	VE	E	UC	UC
Low	E	FE	FE	NE	UC
None	UC	UC	NE	IE	UC
No answers given	UC	UC	UC	UC	UC

VE	Very effective	E	Effective	FE	Fairly effective
NE	Not very effective	IE	Ineffective	UC	Unclassifiable

7. Comments on some variables and relative aggregation

Age at graduation

The average age at graduation is calculated on the basis of the graduates' age (considered as an entire number), of the date of birth and of the graduation date.

Graduation Mark

In order to calculate the average graduation mark, it has been established that the mark 110/110 with honour corresponds to 113/110. For these reasons, you can find some cases of average graduation mark being higher than 110.

Duration of studies

It is the period between the 5th November (a date that is conventionally considered as the beginning of the courses) of the year of registration and the graduation date. For the second level degree courses we consider the period between the 5th November (of the same year of registration to the above mentioned second level degree course) and the graduation date.

Reasons for not enrolling on another degree course

It should be taken into account that:

- "working reasons" includes the answers given by graduates who work/had already been working at the time of graduation or who have subsequently found a job which determined their decision to do not register in the second level degree or who decided to enter immediately the labour market.
- "other reasons" includes the following options: "the degree course applied selective entry and the student had not been admitted", "the student had problems with the attribution of educational credits", "other reasons".

Reasons for enrolling on a second-level degree course

This data processing is referred to all the students who enrolled on a second-level degree course or on the Primary Schooling Sciences degree course after having earned a first level degree. It does not take into account the fact that the students may be still enrolled or not one year on from degree completion.

Time-to-entry into the labour market

The time-to-entry into the labour market is calculated just for the graduates who have started the work activity that they currently

hold after the achievement of the academic qualification. Therefore, all the graduates who continue in the job held before completion of the studies have been excluded. The time elapsed between graduation and the beginning of the search for employment and also the time elapsed between the beginning of the search for employment and the finding of the first job were calculated by excluding those stating that they haven't ever sought an employment.

Type of work activity

It should be taken into account that:

- "a tutele crescenti" contract: it is introduced by Italy's Jobs Act and available from 07 March 2015 (according to the Legislative Decree No. 23 of 4th March 2015);
- "training contracts" includes training contracts, apprenticeships and contracts made available under a special "professional insertion plan";
- "non-standard contracts" includes: fixed-term contract, temporary work, "socially useful" employment contract and contract "of public usefulness", job on call and job sharing;
- "collaboration/consultancy" includes project-based contracts and coordinated ongoing collaboration contracts;
- "other kinds of self-employment jobs" includes: occasional collaboration contracts, supply-of-personal-service contracts (in particular, the supply of professional guidance), "occasional and accessory" work contracts and "associate" employment contracts;
- "total for permanent job" represents the sum of the modalities "regular self-employment" and "permanent contract".

Weekly work hours

The question related to the weekly hours of work takes into account the hours worked habitually in a week, including any overtime, paid or unpaid.

Economic and business sector of activity

The 21 branches of activity have been aggregated on the basis of the analogy that exists between the sectors and the percentage of answers of each option.

It should be emphasized that:

- the modality "building industry" also includes the "construction, planning, installation and maintenance of buildings and plants";

- the modality "chemistry/energy" also includes "petrochemistry, gas, water and mining";
- "manufacturing industry" also includes the following modalities: "press and publishing", "electronics and electrotechnics", "manufacturing" (i.e., food production, tobaccos, textile, clothing, leather, footwear, wood, furnitures, paper, gum and plastic);
- "commerce" also includes "hotels and other public commercial concerns, i.e., chemist's shops";
- "transport, advertising and communications" includes the following modalities: "postal service, transport, travels" and "advertising, communications and telecommunications";
- "consulting" also includes the following modalities: "legal advice, administrative advice, accountancy" and "other professional and guidance activities";
- "education and research" includes schools, universities, training institutes, research institutes both public and private;
- "other services" includes the modalities "cultural and recreational services and sports" and "other social and personal services".

Net monthly earnings

As for the question on net monthly earnings, there are several earning brackets in Euros: "up to €250", "251-500", "501-750", "751-1,000", "1,001-1,250", "1,251-1,500", "1,501-1,750", "1,751-2,000", "2,001-2,250", "2,251-2,500", "2,501-2,750", "2,751-3,000", "over €3,000". The average has been calculated by excluding no-answers and by using the central value of the earning bracket (except the first one, i.e. 200, and the last one, i.e. 3,250).

Kind of improvement observed in the job

This data processing regards only those graduates who continue in the job held before graduation. The percentages related to the various aspects in which graduates have observed any kind of improvement refer obviously only to the share of employed graduates who have experienced a job enhancement.

Reasons for not looking for a job

It should be taken into account that "waiting to be contacted by the employer" also includes in a broad sense those who are waiting to work on a self-employment basis. Moreover "other reasons" includes those who are attending the national voluntary civil service.