17TH ALMALAUREA REPORT ON GRADUATES' EMPLOYMENT CONDITIONS

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1. INTRODUCTION

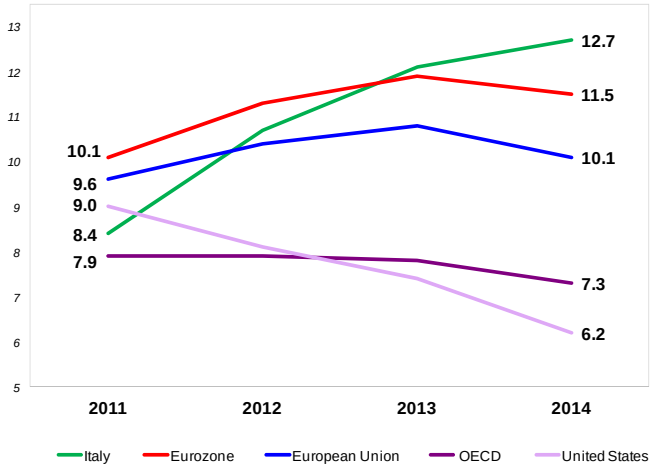
The year 2014 leaves a **bitter aftermath**. Some weak signs of economic recovery in Italy (although apparently contradicted by the unemployment data released in March) hint at a possibly brighter future, but they cannot wipe away the memory of a very difficult year for the many youths who paid most of the price of the long-lasting recessive phase. Indeed, unemployment among Italian young people aged 15-19 reached 31.6% in 2014, as against an overall average of 12.7%.

The trend reversal of the past few months was fuelled, among other factors, by a quality leap in the monetary policy of the European Central Bank, which laid the ground for financial stabilisation and economic recovery both in Italy and in Europe.

Internationally, in 2014, **remarkable differences in macroeconomic trends between countries and regions** were continued to be observed; these inevitably affected the labour market as well. Such differences were mostly attributable to divergent economic policy leanings, as *better* results were seen in the countries where a more *interventionist* approach was adopted.

In the period 2011-2013, unemployment continued to grow in Europe and the Eurozone (*Fig. 1*), whereas, as was observed in the previous Reports, the OECD and above all the USA average data kept declining. In 2014 The European trend was reversed, but not Italy's, as the country's unemployment overall rate rocketed from slightly above 8% in 2011 to 12.7% in 2014 (OECD, 2014b).

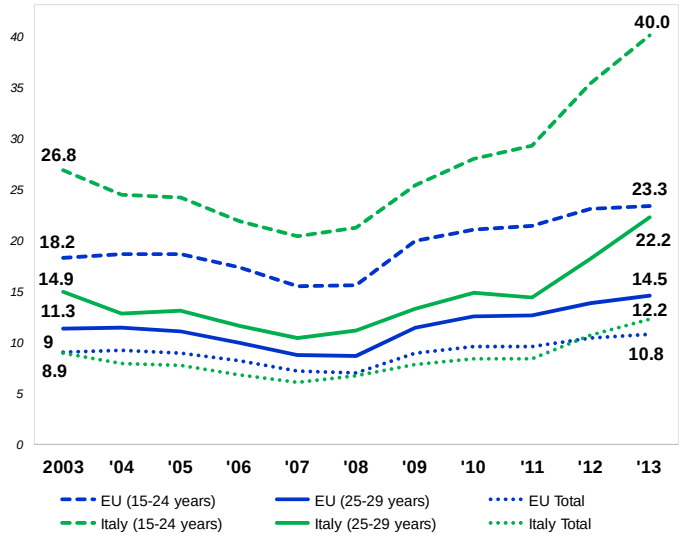
Fig. 1 Unemployment rate in some OECD countries (percentage values)



Source: ALMALAUREA elaboration on OECD data.

The data on the **unemployment rate by age group** (*Fig. 2*) confirmed that entry into the labour market is more difficult for Italian youths (graduates included) than it is in other countries. These difficulties have been exacerbated by the crisis but were already there before it broke out.

Fig. 2 Unemployment rate in Italy and in the EU by age group (percentage values)



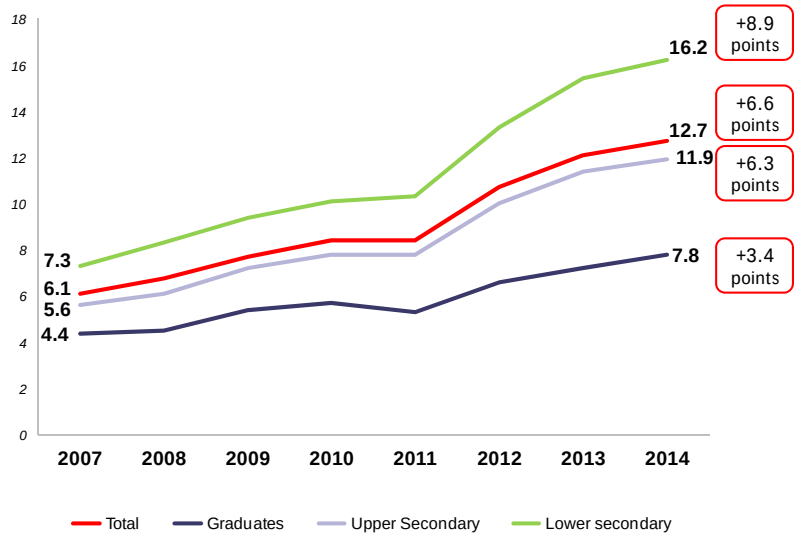
Source: ALMALAUREA elaboration on Eurostat data.

Yet, graduates' employment conditions are better than those enjoyed by secondary school-leaving certificate holders throughout their working life (*Fig. 3*), and even more so during crisis periods, as figures 4 and 5 clearly show. This advantage involved recent graduates too[1]: during the crisis (2007-2014), unemployment figures were seen to rise by 3.4 percentage points among graduates, and by 6.3 points among secondary school-leaving certificate holders. Workers with only compulsory education (incidentally, those who were most affected by the economic

[1]As was pointed out last year, the media (and not only them) usually make comparisons between recent graduates' and recent secondary school-leaving certificate holders' outcomes at same age. This is obviously misleading, as conditions should be compared *at same length of stay in the labour market*, as figure 4 suggests. However, due to the average age at completion of university studies, which is above 25 years overall, such a comparison too would be slightly biased in favour of secondary school-leavers and youths with compulsory education.

downturn) were left out of this analysis. When only recent graduates (i.e. those aged 25-34) and recent school-leavers (aged 18-29) were taken into account, an increase in unemployment of 8.2 and 16.9 percentage points respectively was seen over the same period. Therefore, in 2007-2014 the gap between the unemployment rate of young people with tertiary and secondary education soared from 3.6 to 12.3 percentage points in favour of the former (*Fig. 4*). The graduate wage premium, i.e. the remuneration gap between graduates and secondary school-leaving certificate holders, was seen to increase too during the recession period. According to a comparison between school-leavers' earnings (monitored by the ALMADIPLOMA project) and second-level graduates' ones, the wage differential **one year on from completion of their studies** was found to rise from 20.8% in 2011 to 21.9% in 2014 in favour of youths with tertiary education[2].

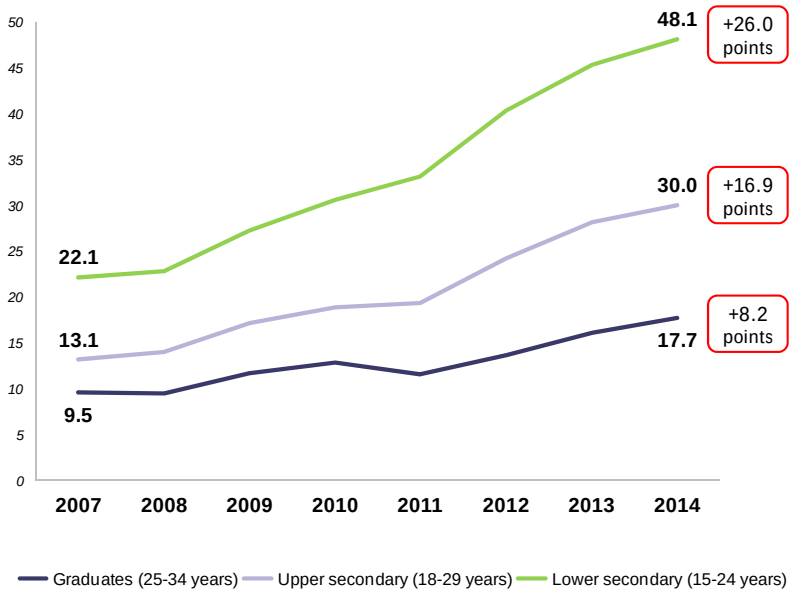
Fig. 3 Unemployment rate in Italy by educational attainment (percentage values)



Source: ALMALAUREA elaboration on Istat data.

[2]This estimate should be taken with caution due to the limited coverage of the ALMADIPLOMA survey. On the same topic, see also Adamopoulou E. and Tanzi G. M.'s work (Adamopoulou & Tanzi, 2014).

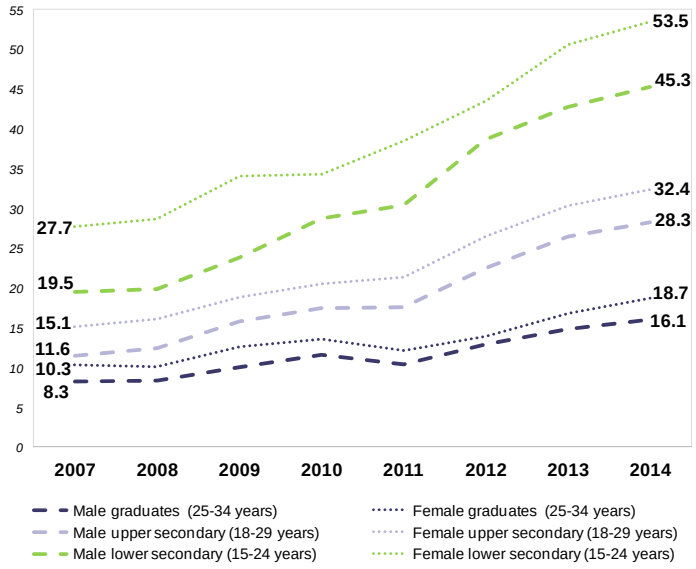
Fig. 4 *Unemployment rate in Italy in the transition years to the labour market by educational attainment and age bracket (percentage values)*



Source: ALMALAUREA elaboration on Istat data.

The trend of unemployment by gender, age and educational attainment confirmed that having a higher schooling level is a plus; in addition, it showed that the recession's impact on recent graduates was only partially related to gender (*Fig. 5*). Among this cohort, the gap in favour of men only grew by 0.6 percentage points between 2007 and 2014, and reached 2.6 points at the end of the period under study. Among recent school-leavers, the gender gap was found to be sharper at 4.1 points in favour of men in 2014, and it also rose by 0.6 points in the timeframe under consideration.

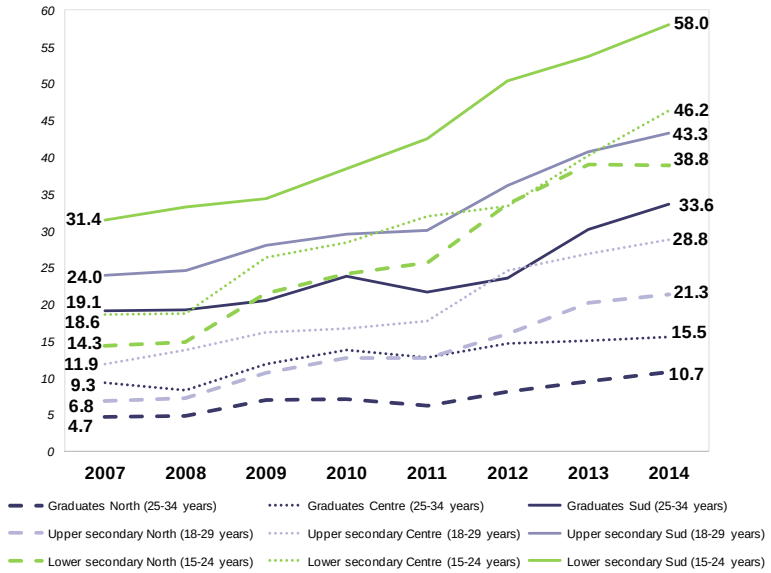
Fig. 5 Unemployment rate in Italy in the transition years to the labour market by educational attainment, age bracket and gender (percentage values)



Source: ALMALAUREA elaboration on Istat data.

The trend of unemployment by geographical area too confirmed that having a higher schooling level yields an advantage. Its analysis showed that the recession produced remarkably different outcomes based on recent graduates' geographical area of residence (*Fig. 6*). Indeed, the north-south gap (in favour of the former) was seen to grow by 8.5 percentage points between 2007 and 2014, reaching 22.9 points.

Fig. 6 Unemployment rate in Italy in the transition years to the labour market by educational attainment, age bracket and geographical area (percentage values)



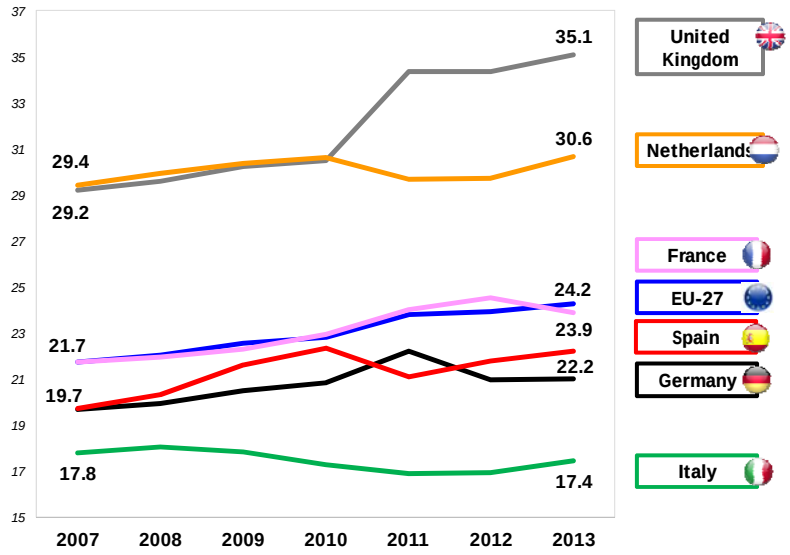
Source: ALMALAUREA elaboration on Istat data.

Between 2007 and 2014, **long-term unemployment** (i.e. over 12 months) was found to increase **from 2.8% to 7.7%**, with a 0.9 percentage points leap only over the past year. On a separate note, the number of **economically inactive people**, especially the so-called NEETs (youths aged 15-29 who are not in education, employment or training) has reached a considerable scale. This phenomenon is partly caused by the **discouragement effect** of lengthy unemployment, and it deserves further consideration since it reflects the huge difficulties and mistrust experienced by young people when approaching a labour market that offers them few access opportunities. The share of **economically inactive people aged 15-34 years** was seen to remain virtually unchanged compared to one year before (48.3% vs. 48.1%), with differences based on geographical area and gender. As for NEETs specifically (ISTAT, 2014a), their share was observed to remain substantially stable compared to the previous year (26.2% vs. 26%), and Italy

kept its undesirable top position in this European ranking (the EU-27 average was 15.8% last year).

After a declining phase in 2008-2012 (a countertrend, then, compared to the European Union overall situation), Italy's **population in highly qualified professions**[3] was seen to rise from 16.9% in 2012 to 17.4% in 2013, although a 7 percentage points difference still remains vis-à-vis the European average (*Fig. 7*).

Fig. 7 People in employment in highly qualified occupations[*] (percentage values)



[*]See note 3.
Source: ALMALAUREA elaboration on Eurostat data.

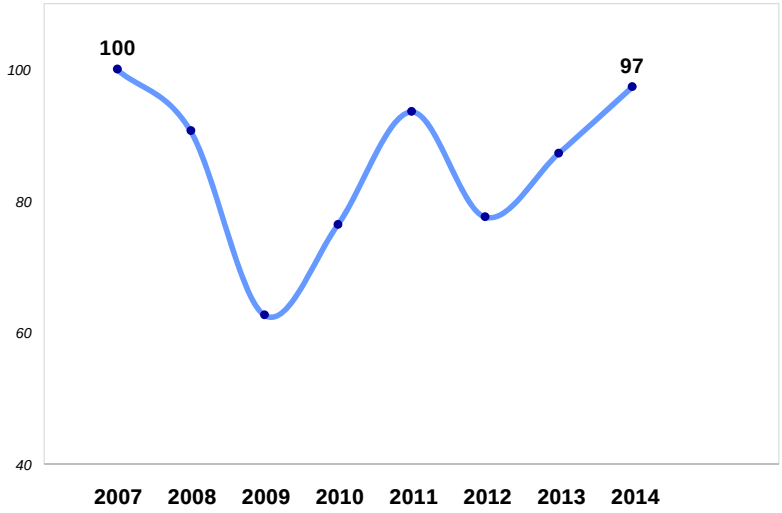
Nonetheless, this is a positive sign reinforcing the idea that structural changes are under way and that the economic engine is about to restart. The employment rate in highly qualified

[3]According to the international standard classification of occupations, highly qualified professions include: 1. Managers; 2. Professionals. In Italy, this classification is as follows: 1. Legislators, senior officials and managers; 2. Intellectual, scientific and highly specialised professions. See www.istat.it/it/archivio/18132.

professions is typically positively related to business investment, innovation and internationalisation. Therefore, if sustainable growth is to be achieved, companies will have to make a quality leap in their investment activities as compared to what has been done over the past ten years.

Even in this trend-reversal period, the graduate labour market basically followed the same pattern observed in the variation of the number of CV's supplied by the ALMALAUREA[4] *databank (Fig. 8*).

Fig. 8 CV's from the ALMALAUREA databank provided to businesses (index numbers; 2007=100)



Regrettably, **the difficult overall** situation observed in 2014 found confirmation, once again, in the various aspects analysed in the latest ALMALAUREA survey on graduates' employment conditions, such as employment and unemployment rates, types of employment contract, remuneration, degree effectiveness, satisfaction level with the job held, etc. While highlighting some feeble signs of a trend reversal that point towards the possibility of a brighter 2015, this survey also confirmed the persistent **labour**

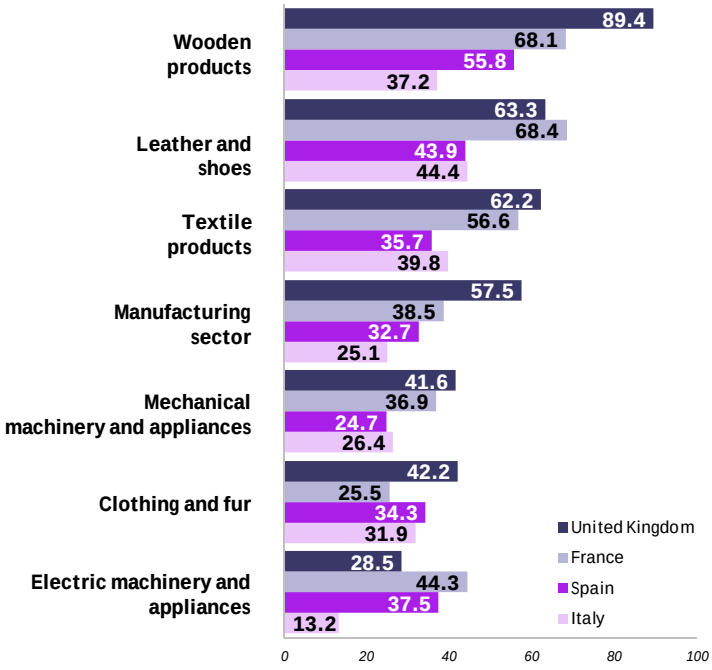
[4] It is worth noting that as many as 50 universities have adopted the portal for the management of job placement services developed by the ALMALAUREA Consortium; this portal is available for free to the Consortium members.

market difficulties faced by those who graduated in the years straddling the crisis. This heavy burden will have an **impact on the employment opportunities of this graduate population** in the economic recovery phase too, as well as in the mid-to-long period. In other words, **this cohort's revenues will be lower than those of the students who graduated and entered into the labour market in periods of economic upturn; their earnings loss was estimated to be as high as 80,000 dollars in the U.S.** (Oreopoulos, von Wachter, & Heisz, 2006), that is, approximately **20% of the income generated over a period of twenty years!** To have a clearer picture of the overall social loss brought about by this situation, more factors should be taken into account, such as social unease and health consequences on the people affected, **as well as the general loss of efficiency suffered by the country's economy** because of poor capitalisation of its human resources.

When analysing the graduates' employment outcomes beyond temporary factors, **it is impossible to overlook the remarkable difficulties faced by recent graduates in the entry phase into the labour market; these difficulties are still associated with inadequate graduate take-up by the Italian economic system**. All the above is reflected by the share of people holding a university degree, which remains at the bottom of the OECD rankings even in the 30-34 age bracket, and further reaffirms the country's traditionally low schooling levels(ANVUR, 2014).

As was pointed out in the past, these structural features of the Italian labour market find an explanation in the **presence of graduates with training profiles and skills that do not match the needs of Italian businesses**, as well as in the limits of a **business sector characterised by the predominance of small family-owned enterprises** (*Fig. 9 and 10*) **with little propensity and ability to capitalize on knowledge**. **The latter aspect is to be found especially in human resources management.**

Fig. 9 Average dimensions of businesses based on number of employees (total manufacture plus some sectors of "Made in Italy"; Germany = 100)



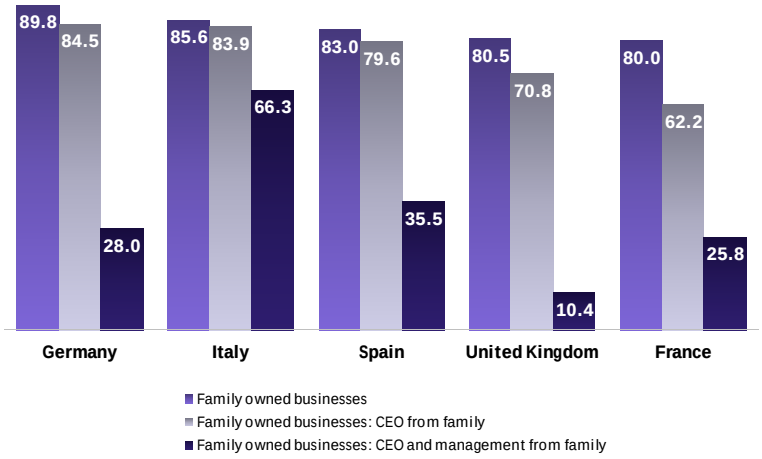
Source: ALMALAUREA elaboration on data found in Bugamelli, Cannari, Lotti and Magri, 2012.

Both these aspects should be corrected with ad-hoc education and industrial policies. **Seemingly, a multiplicity of measures were adopted with conviction (but with questionable results) in recent years with regard to the former, but not much was done for the latter.**

Several studies of the causes for the low growth rates recorded in Italy over the past twenty years seem to confirm that this approach is short-sighted. On this topic, a noteworthy paper emphasizes the pivotal role played by human resource management mechanisms (especially **poor transparency and meritocracy in recruitment processes**) in determining the efficiency and competitiveness of an economic system: "We try to explain why twenty years ago Italy's labor productivity stopped

growing. We find no evidence that this slowdown is due to the introduction of the euro or to excessively protective labor regulation. By contrast, we find that the stop is associated with small firms' inability to rise to the challenge posed by the Chinese competition and to Italy's failure to take full advantage of the ICT revolution. Many institutional features can account for this failure. Yet, a prominent one is the lack of meritocracy in managerial selection and promotion. Familism and cronyism appear to be the ultimate causes of the Italian disease**"** (Pellegrino & Zingales, 2014).

Fig. 10 Family-owned and family-managed businesses (percentage values)



Source: Bugamelli, Cannari, Lotti and Magri, 2012.

It is no coincidence that the ALMALAUREA project (which was recently joined by seven further universities, thus allowing the Consortium to represent over 90% of the university system in terms of number of graduates) was born out of the conviction that better transparency in the labour market and closer match between human capital supply and demand are key factors in the country's growth.

2. LABOUR MARKET TRENDS

2.1. Graduates and the labour market

The 17th ALMALAUREA report on graduates' employment conditions confirmed the overall employment-related difficulties highlighted in recent reports, but it also recorded some feeble signs of an upswing among new graduates only (i.e. graduates one year on from completion of their studies). The survey reaffirmed that employment conditions tend to improve under all aspects with time from degree completion, and that less-recent graduates (i.e. those interviewed at three and five years from degree completion), who started working in the acute phase of the recession, are still experiencing the negative effects of a low labour market's propensity to take up graduates (CNEL, 2014; ISFOL, 2014).

The 2014 survey involved nearly 490,000 post-reform graduates from 65 Universities out of the 72 that are currently members to the Consortium. Response rates were very good, reaching 84% among graduates interviewed one year on from degree completion, 77% three years on, and 71% five years on[5].

This years' Report analyses all the customary aspects of graduate employment outcomes. Full details are available on the Consortium website; the data are broken down by several factors, from university to degree course. This disclosure also complies with the principle of transparency. This paper merely introduces the most significant aspects and brings them in a bigger picture, enabling comparability between purposely harmonized populations. A detailed analysis of employment status by degree course type is given in the next sections.

[5]It is useful to remind that this is a census survey whose advantage vis-à-vis a sample one is that it enables full analysis of data down to the degree course level. In order to obtain representative estimates of all Italian graduates, the results of the ALMALAUREA surveys on graduates' employment conditions underwent a statistical procedure called "re-proportioning".

First contact with the labour market: employment outcomes one year on from graduation

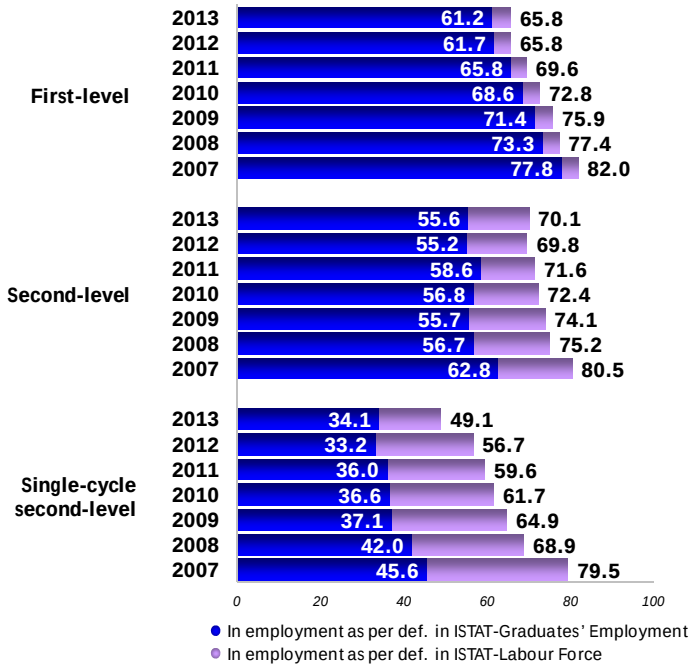
As was highlighted in previous reports, a thorough assessment of the latest labour market trends must take into account the complex range of training offerings available. It should not be forgotten that, in this paper, a comparison is made between graduate populations (first- and second-level degree holders) that differ in their objectives, training, time-to-graduation, and age at graduation.

For instance, the percentage of graduates continuing their studies after achieving their degree differs within the various populations under study, therefore a direct comparison of employment status would especially penalise first-level graduates, most of whom choose to continue their studies and go on to second-level degrees, thereby postponing their entry into the labour market. This deferred entry by first-level graduates was confirmed by the fact that about 61% of them were found to be either in jobs or in search of employment (labour force) as opposed to 90% of second-level graduates and 70% of single-cycle second-level ones[6].

For the above reasons, all rigorous, in-depth analysis aimed at monitoring the labour market's response only took into consideration those first-level graduates who were not enrolled in another degree course. The employment rate for this subgroup at one year from graduation was seen to be 61%, i.e. more than among their second-level peers, whose employment levels were 56% for post-reform second-level graduates and 34% for their single-cycle counterparts. The above figures were roughly in line with the previous survey for the first two subgroups, and slightly up for the latter (*Fig. 11*).

[6]The findings set out in these pages do not take into account graduates from the degree course in Primary Schooling sciences, due to the small number of graduates in this area and the special features of this grouping.

Fig. 11 Graduates 2013-2007 interviewed one year on from graduation: Employment rate by degree course type. A comparison with the definition adopted by the Italian Statistical Board ISTAT in its Labour Force Survey (percentage values)



Note: The first-level graduates group includes only graduates who did not enrol in another degree course.
Years of graduation 2005 and 2006 not included.

However, this was the result of two types of factors: on the one hand, the share of those who were already working at graduation was larger among first-level graduates (40%) than among second-level (36%) or single-cycle second-level ones (19%). This higher prevalence gives first-level graduates an advantage in employment terms. On the other hand, many second-level graduates (34% of post-reform ones and 58.5% of single-cycle second-level degree holders) were engaged in postgraduate training, whereas first-level graduates did so less frequently (20%). Postgraduate training

generally took the form of traineeships, apprenticeships, internships in companies, doctoral research or unpaid voluntary collaborations for second-level graduates, while single-cycle second-level graduates were usually busy with traineeships, apprenticeships, unpaid voluntary collaborations and postgraduate schools. The employment performance of the populations under consideration (especially second-level graduates) improved considerably when the definition of employment rate found in the Italian Statistical Board (ISTAT)'s Labour Force Survey was adopted, as this definition considers as employed also those who are engaged in remunerated training. More specifically, the employment rate of first-level graduates one year on from completion of studies jumped to 66%, 4 percentage points less than their second-level colleagues (70%) but a good 17 points more than single-cycle second-level graduates (49%; *Fig. 11*).

As will be better explained later, single-cycle second-level degree holders were still at a disadvantage in this comparison because they were frequently found to be engaged in non-remunerated training.

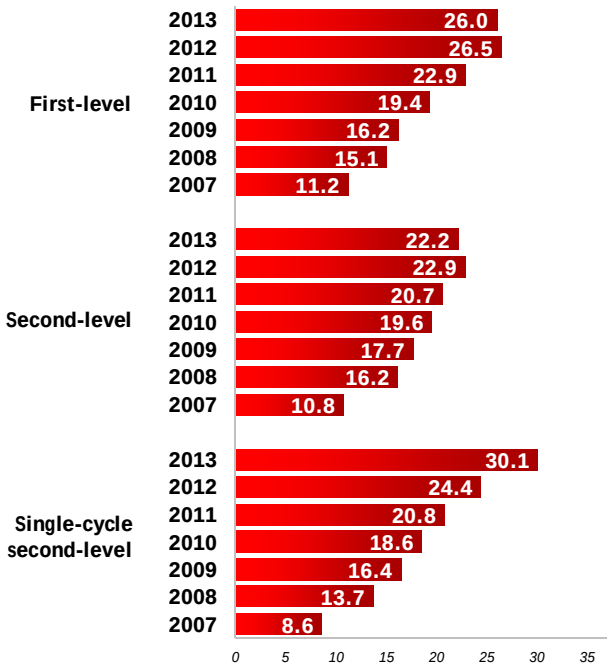
Compared to the previous survey, the above results showed that, after years of continuous decline, the employment level remained basically stable among first-level and post-reform second-level graduates, irrespective of their employment status at the time of graduation. By contrast, the employment rate of single-cycle second-level degree holders fell by 8 percentage points compared to the 2013 survey, and by as many as 30 points over five years before. However, this graduate population is a very peculiar one: in the period under consideration, the number of law school graduates soared from 5% of graduates from the 2007 class to 42.5% in 2013, and this grouping had the lowest employment rate coupled with a high percentage of job seekers (39%). In addition to that, in 2014 an exceptional event affected graduates in medicine and surgery: the competitive examination to access postgraduate specialization schools was postponed (in 2013 it was held in July, whereas in 2014 it was organized in December), and the number of available posts was reduced. Consequently, a higher share of medical school graduates were found to be not in employment and actively looking for a job.

Unemployment rate figures (which, as regards first-level graduates, were only referred to those who did not pursue further studies, as already explained above) were essentially in line with the above considerations (*Fig. 12*). Among first-level degree

holders, unemployment hit 26%, 4 percentage points more than among second-level graduates. Compared to the previous survey, the unemployment rate was observed to have stabilized too, as its share was approximately half a point less than one year earlier among both first-level and second-level graduates. The above does not apply to single-cycle second-level graduates, for the reasons explained in the previous paragraphs; this cohort's unemployment rate grew by 6 percentage points over the past year.

These trends were confirmed, albeit to different extents, in almost all degree subject groupings.

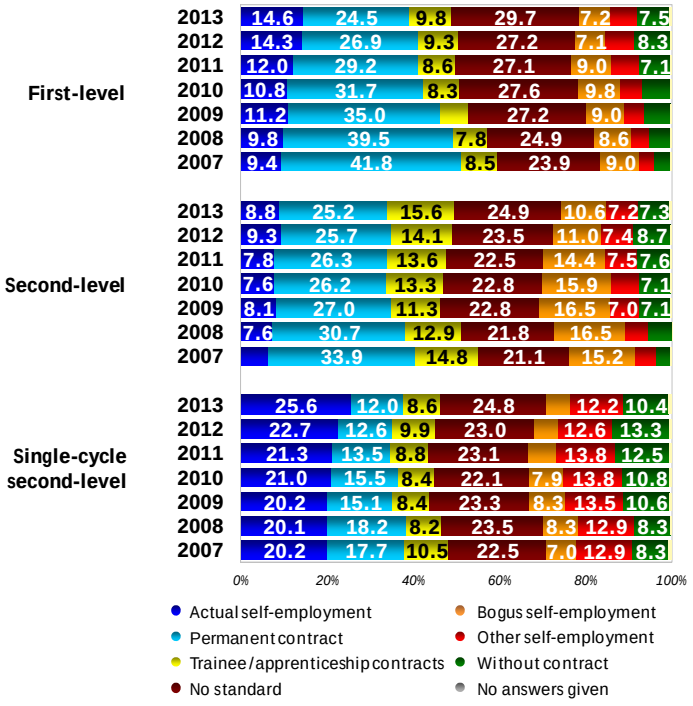
Fig. 12 Graduates 2013-2007 interviewed one year on from graduation: Unemployment rate by degree course type (as per def. in ISTAT – Labour Force; percentage values)



Note: The first-level graduates group includes only graduates who did not enrol in another degree course.
Years of graduation 2005 and 2006 not included.

An analysis of the type of employment found confirmed the increased difficulties faced by post-reform graduates during the past few years. Job security twelve months on from graduation (*Fig. 13*), which was an already rather low indicator, was seen to decline by 2 and 1 percentage points among first-level and second-level graduates respectively compared to the previous survey. Once again, single-cycle second-level degree holders required specific considerations, as their job security share was found to be over 2 percentage points higher than in the previous survey. In the latest graduate population under study, job security levels were 39% among first-level graduates, 34% among second-level ones and 38% among single-cycle second-level degree holders. Compared to the 2008 survey, job security was observed to fall significantly among first-level graduates (-12 percentage points) and second-level ones (-6 points), while it remained unchanged among single-cycle second-level degree holders. The above figures were mainly attributable to the plummeting share of permanent employment contracts, which fell by 17 percentage points among first-level graduates, 9 points among post-reform second-level graduates and 6 points among single-cycle second-level degree holders.

Fig. 13 Graduates 2013-2007 in employment at one year: Type of employment by degree course type (percentage values)

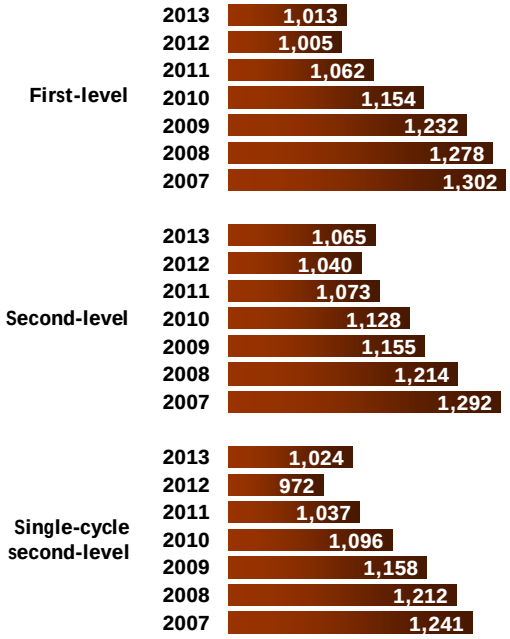


Note: The first-level graduates group includes only graduates who did not enrol in another degree course.
Years of graduation 2005 and 2006 not included.

Over the past year, an encouraging decline in unregulated work was observed: -3 percentage points for single-cycle graduates, -1.5 points for their post-reform second-level peers, and less than one point for first-level degree holders.

Monthly earnings at one year were generally found to be close to 1,000 euros net. More specifically, remuneration was 1,013 euros (nominal value) for first-level graduates, 1,065 for second-level ones, and 1,024 for single-cycle second-level degree holders (*Fig. 14*).

Fig. 14 Graduates 2013-2007 in employment at one year: Net monthly earnings by degree course type (revaluated based on the Italian Statistical Board ISTAT's consumer price indices; average values in euros)



Note: The first-level graduates group includes only graduates who did not enrol in another degree course.
Years of graduation 2005 and 2006 not included.

Compared to the previous survey, nominal earnings were found to grow by 1% among first-level graduates, 3% among second-level ones, and 6% among single-cycle second-level degree holders. The above increases were found to be slightly lower, but still significant, when real earnings (i.e. adjusted for variations in purchasing power) were analysed (OECD, 2014c): +5% among single-cycle second-level degree holders, +2% among second-level ones, and slightly less than +1% among first-level graduates. When the seven-year period 2008-2014 was considered, real salaries were observed to be 22% lower for first-level graduates, 18% lower for

their second-level colleagues, and 17% lower for single-cycle second-level degree holders.

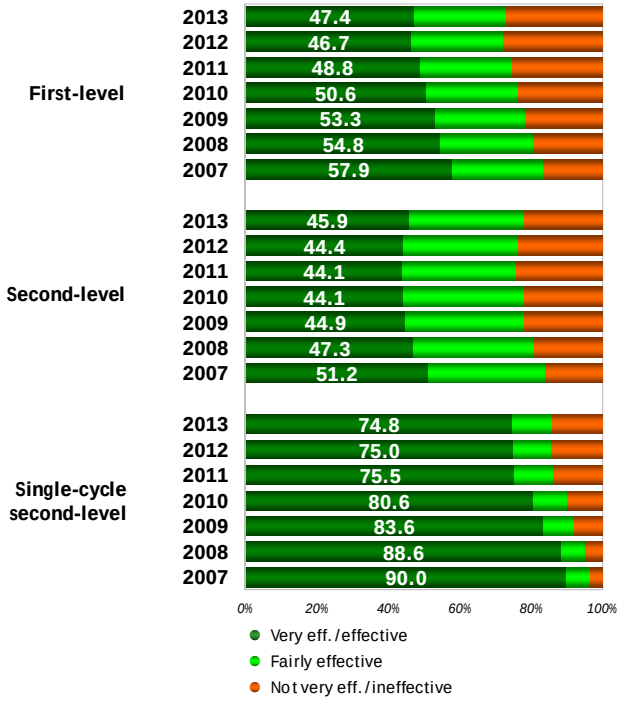
When the analysis was restricted to full-time workers who had started working after graduation, average monthly earnings were seen to be higher at almost 1,200 euros for all cohorts, and the above mentioned increase over the previous survey was confirmed in all groups (both in nominal and in real terms).

Effectiveness of the academic qualification was slightly up compared to the previous survey. Having a degree was considered at least *effective* (that is, either *very effective* or *effective*) by 47% of first-level degree holders (almost 0.7 percentage points more than in the 2013 survey) and by 46% of second-level graduates (+1.5 points compared to last year; *Fig. 15*).

Peak effectiveness levels (75%, roughly unchanged vis-à-vis one year earlier) were reported by single-cycle second-level graduates. This remarkably good finding is understandable given the very special nature of these degree courses.

Nevertheless, when degree effectiveness results were compared to those observed in 2008, a considerable decline was seen across the board which can be quantified in -10.5 percentage points among first-level graduates, -5 points among second-level ones, and -15 points among single-cycle second-level degree holders. When the two aspects making up the effectiveness index (that is, the extent to which the skills acquired at university are used for one's job, and the formal and substantial need for the completed degree in one's employment) were considered separately, the above findings were confirmed.

Fig. 15 Graduates 2013-2007 in employment at one year: Degree effectiveness by degree course type (percentage values)



Note: The first-level graduates group includes only graduates who did not enrol in another degree course.
Years of graduation 2005 and 2006 not included.

Medium-term labour market trends: employment outcomes three and five years on from graduation

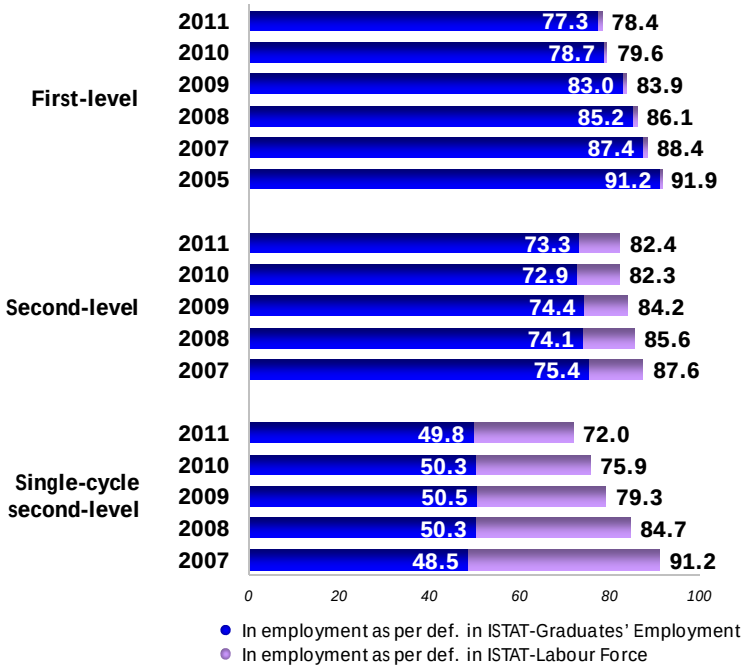
As was pointed out, some encouraging sings were observed among graduates one year on from completion of their studies. These signs seem to point towards an alleviation of the employment-related difficulties highlighted in the previous reports. Yet, the hard times experienced by new graduates in recent years have inevitably been felt by older graduates too, even though it should be underlined that, with time from graduation, employment figures were seen to improve considerably. This can be better

understood by examining employment outcomes of post-reform second-level graduates interviewed at three and five years from degree completion. First-level graduates were also interviewed three and five years on from achievement of their qualification. These additional studies provided an even clearer picture of the multi-faceted situation of Italian graduates. These lines merely introduce the most significant findings concerning first-level graduates who did not enrol in another degree course. Their employment outcomes in the first five years from graduation were good not only in terms of employment rate (over 86% at five years from graduation), but also of job security (74% at five years) and earnings (1,341 euros net per month). In comparison to the previous survey, the above indicators were found to be declining (employment rate: -3 percentage points, job security: -5 points) whereas real earnings were seen to decrease by a little more than one percentage point only. When the observation period was extended, though, findings yielded an even bleaker picture. Compared to the 2010 survey, employment levels were seen to decrease by 8 percentage points, job security by 10 points, and earnings were found to shrink by 12% (from 1,520 to 1,341 euros).

Let us now look at second-level graduates. 73% of graduates in this cohort interviewed three years after completion of their studies were found to be in employment. This figure was in line with one year earlier, and 2 points lower than in 2010 (*Fig. 16)*.

Single-cycle second-level graduates required specific considerations, because, as was repeatedly pointed out, they were often pursuing further mandatory training (sometimes remunerated) in order to be entitled to carry on professional freelance activities. At three years from graduation, only half of this population was seen to be in employment (substantially in line with the three previous surveys). However, when the definition of employment adopted by the Italian Statistical Board ISTAT in its Labour Force survey was used (which considers as employed also those who are engaged in remunerated training), the graduate employment rate was seen to improve considerably: 72% among single-cycle second-level degree holders, and as high as 82% among post-reform second-level ones. In this analysis, though, no improvement was observed over one year earlier (-4 percentage points among single-cycle second-level graduates, and virtually no changes among their post-reform peers).

Fig. 16 Graduates 2011-2005 interviewed three years on from graduation: Employment rate by degree course type. A comparison with the definition adopted by the Italian Statistical Board ISTAT in its Labour Force Survey (percentage values)

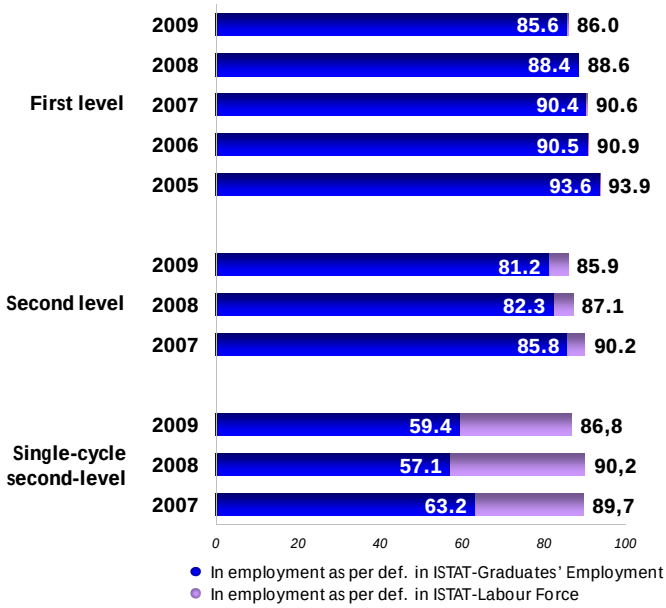


Note: The first-level graduates group includes only graduates who did not enrol in another degree course.
For the year of graduation 2006 data were not collected.

Unemployment was found to involve nearly 13% of post-reform second-level degree holders and 16% of their single-cycle peers. Compared to the previous survey, these figures were almost unchanged for the former, and 3 percentage points higher for the latter. But it should not be forgotten that graduate employment outcomes were seen to generally improve between one and three years on from degree completion. For example, unemployment among graduates from the class of 2011 was seen to fall by over 8 percentage points for second-level graduates, and by 5 points for their single-cycle colleagues.

The third survey carried out on second-level graduates at five years from degree completion helped completing and expanding the findings from the previous ones. Within the first five years from degree completion, as many as 81% of second-level graduates were seen to find an employment, this figure being 1 percentage points less than in the previous year's survey and almost 5 points less than two years earlier. Employment levels were observed to be a little lower among single-cycle second-level degree holders at 59% (+2 percentage points as against the 2013 survey, but -4 points compared to the 2012 one). However, 27% of these graduates were still engaged in remunerated training (*Fig. 17*).

Fig. 17 Graduates 2009-2005 interviewed five years on from graduation: Employment rate by degree course type. A comparison with the definition adopted by the Italian Statistical Board ISTAT in its Labour Force Survey (percentage values)

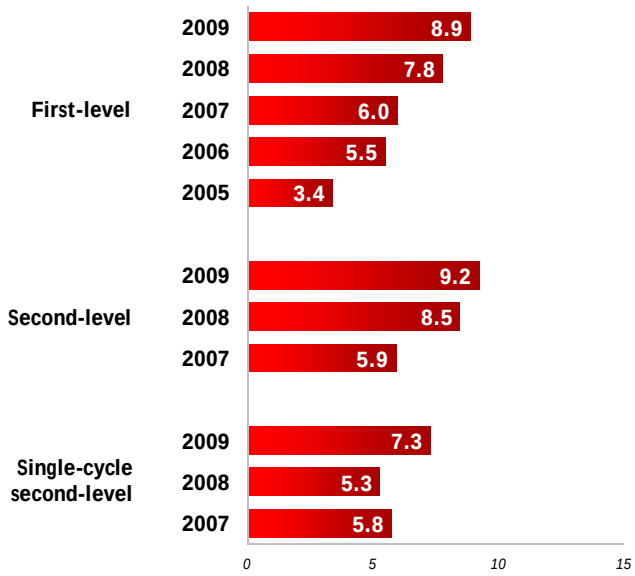


Note: The first-level graduates group includes only graduates who did not enrol in another degree course.

When those were considered as in jobs (that is, when the definition of employment given by the Italian Statistical Board ISTAT in its Labour Force Survey was adopted), the employment gap between post-reform and single-cycle second-level graduates almost disappeared, as the respective employment rates at five years reached 86% and 87%. In parallel, unemployment was observed to be slightly higher among the former (at 9%, in line with the previous year's survey but almost 3 percentage points more than in 2012) than among single-cycle second-level graduates (only 7%, but this figure is nevertheless higher than it was in the two previous surveys).

Once again, the labour market's propensity to take up graduates proved good with time from graduation (*Fig. 18*). Between one and five years from completion of their studies, second-level graduates from the class of 2009 were observed to raise their employment levels by 12 percentage points (from 74% to the already mentioned 86%) and cut their unemployment rate by half (from 18% to 9%). This improvement in employment conditions was even more remarkable among single-cycle second-level degree holders, as their employment rate swelled by 21 percentage points (from 65% to 87%) while their unemployment rate was more than halved (from 16% to 7%).

Fig. 18 Graduates 2009-2005 interviewed five years on from graduation: Unemployment rate by degree course type (as per def. in ISTAT – Labour Force; percentage values)



Note: The first-level graduates group includes only graduates who did not enrol in another degree course.

Employability was generally confirmed to increase with attainment level. Indeed, people with higher education are better able to respond to labour market changes, because they possess more suitable cultural and professional tools. In this respect, the Council of Europe recently adopted a new indicator: the percentage of graduates and secondary school-leaving certificate holders (aged 20-34) in employment among those who completed their studies during the three years prior to being interviewed[7] (ISTAT, 2014a).

[7]This indicator yields the employment rate of the population aged 20-34 that achieved a secondary or tertiary qualification one, two or three years before being interviewed, and that was not pursuing further training at the time of the survey.

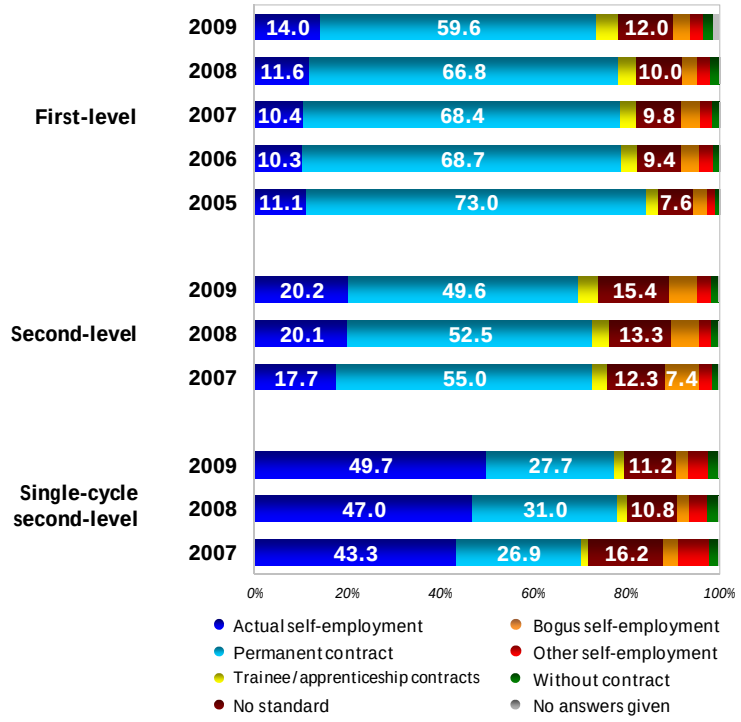
Employment levels among degree holders were found to be over 16 percentage points higher than among people with upper secondary education (57 vs. 41%; Eurostat, 2015). This was also reflected in the higher earnings enjoyed by the more qualified (OECD, 2014a): in the 25-34 age bracket, graduates' income in 2010 was found to be 25% higher than that of upper secondary school-leaving certificate holders. This pay difference was smaller than in France, Germany and the UK (+45, +49%, and +53%, respectively)[8]. This is largely attributable to Italy's slower time-to-entry and capitalization of skills, as well as to the fact that seniority is the main factor affecting remuneration levels in this country. It is worth repeating that graduates enjoy better employment outcomes over their entire working life compared to secondary school-leaving certificate holders.

Other elements are worth considering, though. For instance, job security was observed to involve 55% of second-level graduates three years on from graduation, as against 34% one year on. This finding was seen to shrink slightly (-1 percentage point) compared to last year's survey, but was nonetheless 7 points lower than in the 2010 one. The job security figure was mainly attributable to subordinate permanent employment contracts, as self-employment was seen to be relatively uncommon among second-level degree holders because of the very nature of this population. Among single-cycle second-level graduates too, job security levels were seen to rise between one and three years from degree completion from 35% to 61% (a little more than in last year's survey, but almost in line with the 2010 one). In this case, those with a secure job position were more often in actual self-employment, as single-cycle second-level degree courses tend to be conducive to this type of employment.

Extending the observation period to five years after graduation provided better insight into the positive progress of job security levels (*Fig. 19*).

[8]The data concerning Germany and the United Kingdom refer to year 2012.

Fig. 19 Graduates 2009-2005 in employment at five years: Type of employment by degree course type (percentage values)



Note: The first-level graduates group includes only graduates who did not enrol in another degree course.

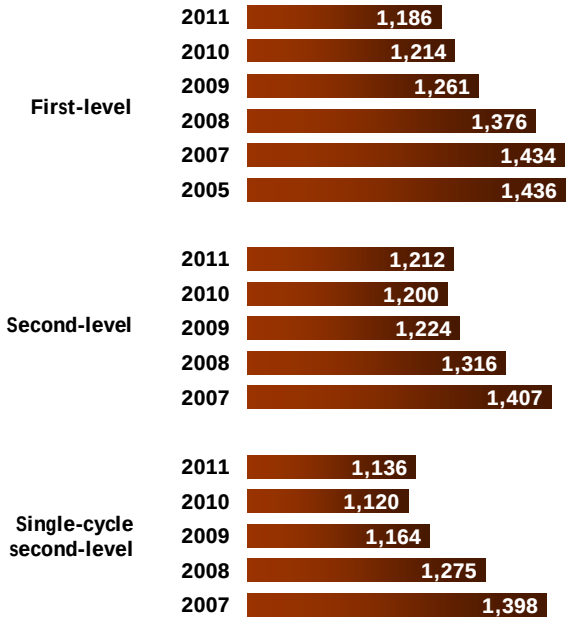
Among second-level graduates from the class of 2009, the proportion of those who were holding a secure employment grew by a remarkable 35 percentage points between one and five years from degree completion, from 35% to 70% of those in jobs. Among their single-cycle counterparts, this increase was +40 points over the same period, from 35% at one year to 77.5% at five years from graduation. The same observations made on graduates three years on from degree completion apply to graduates five years on from termination of their studies too: permanent employment contracts were mostly found among post-reform second-level graduates,

whereas self-employment was mainly a prerogative of single-cycle second-level degree holders.

The downside was remuneration, since wages at three years from graduation were seen to lose purchasing power. Albeit nominally in excess of 1,200 euros, second-level graduates' real earnings fell by approximately 14% over the past five years, in spite of a 1% increase over the last year (*Fig. 20*).

The same holds true for their single-cycle colleagues, whose monthly salaries were seen to be generally lower at slightly above 1,130 euros net three years on from degree completion; this amount was 1% higher than in the previous survey, but 19% less than in 2010.

Fig. 20 Graduates 2011-2005 in employment at three years: Net monthly earnings by degree course type (revaluated based on the Italian Statistical Board ISTAT's consumer price indices; average values in euros)



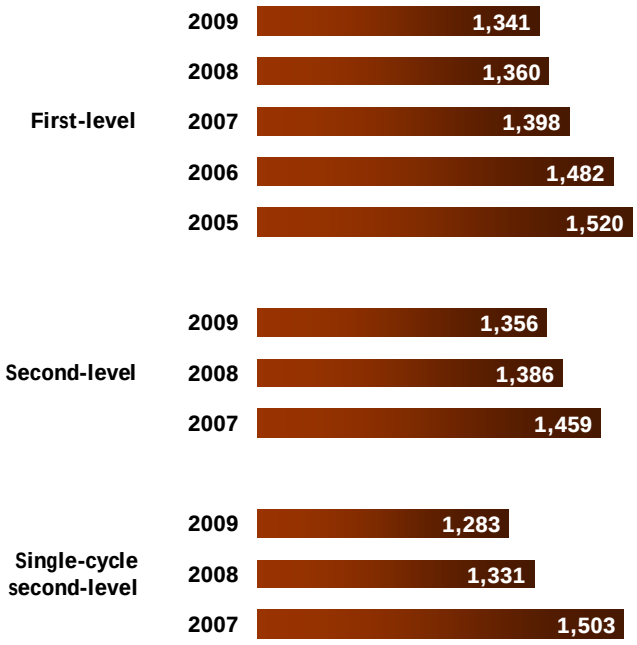
Note: The first-level graduates group includes only graduates who did not enrol in another degree course.
For the year of graduation 2006 data were not collected.

When only full-time workers who took on their current job after completion of their studies were considered, nominal earnings were seen to fall by 8% among post-reform second-level graduates and by 2% among their single-cycle peers versus the previous survey, and by 11% and 16% respectively versus the 2010 one. This decline was of course found to be steeper when real earnings were analysed: -8% and -2% over the 2013 survey; -17% and -21.5% over the 2010 one.

Between one and three years from graduation, remuneration levels were seen to climb by 13% in real terms among post-reform second-level graduates, and by 9.5% among their single-cycle peers.

An analysis of remuneration five years on from degree completion confirmed the above trends (*Fig. 21*). Net monthly wages five years after graduation were found to be nearly 1,350 euros among second-level graduates and a little less than 1,300 euros among their single-cycle colleagues. An analysis of remuneration data over time for these graduate cohorts showed that their wages climbed between one and five years from degree completion by 17% among post-reform second-level graduates and by 11% among their single-cycle counterparts in real terms.

Fig. 21 Graduates 2009-2005 in employment at five years: Net monthly earnings by degree course type (revaluated based on the Italian Statistical Board ISTAT's consumer price indices; average values in euros)



Note: The first-level graduates group includes only graduates who did not enrol in another degree course.

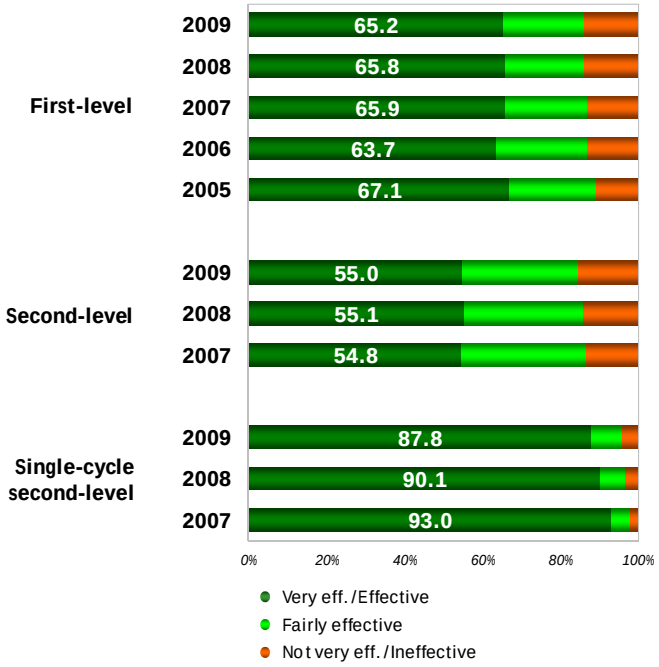
Another crucial factor to be considered when trying to sketch out a picture (albeit concise) of second-level graduates' entry into the labour market is consistency between the studies completed and the work activity carried out. As regards the use graduates make of the skills acquired during their studies, and the formal or substantive need for an academic qualification to be eligible for recruitment, half of second-level graduates reported that their degree was *very effective* or *effective*. This figure was slightly lower than in the previous surveys at three years from graduation; in 2010 it was 52%. Nevertheless, effectiveness levels were seen to

rise by 5 percentage points between one and three years from achievement of the qualification in the population under study. Single-cycle second-level graduates proved once more to be a peculiar cohort, as their reported effectiveness levels hit 82% among those in employment at three years from graduation; this figure was 7 percentage points higher than among the same graduate population at one year from degree completion, but fell by 8 percentage points compared to the 2010 survey at three years.

Five years on from degree completion, effectiveness was seen to ascend even more (*Fig. 22*). 55% of second-level graduates stated that their degree was *very effective* or *effective* for their job (this finding was in line with the two previous surveys, and 10 points higher as against when those graduates were interviewed one year after achieving their qualification), whereas as many as 88% of single-cycle second-level graduates were of the same opinion (-2 points compared to the 2013 survey, -5 points vs. two years ago, and only 4 points more than the result observed in the survey at one year; these were mainly graduates in medicine from the class of 2009).

When the two components of the effectiveness index (i.e. the extent to which the skills learnt at university are used for one's job, and the need for the degree in one's employment) were analysed separately, similar trends were observed. Better consistency levels between the degree course completed and the employment achieved were seen among single-cycle second-level graduates, as the two indicators above show. This is obviously due to the fact that these degree courses normally lead to professional freelance activities, which have stricter formal requirements compared to the ones reported by post-reform second-level graduates. In this regard too, however, time proved to be beneficial for graduates, because an increase in both components of the effectiveness index was observed between one, three and five years on from graduation.

Fig. 22 Graduates 2009-2005 in employment at five years: Degree effectiveness by degree course type (percentage values)



Note: The first-level graduates group includes only graduates who did not enrol in another degree course.

2.2. A highly diversified picture

Remarkable differences were observed in the above mentioned employment outcomes within all degree course types under study. For instance, disparities were seen between men and women, and between graduates living in northern and southern Italy. Perhaps even more significant differences were found in connection with the chosen subject area. These disparities prove how much more complex and nuanced is the situation on the ground than is commonly believed. This is a feature that aggregate data do not evidence.

Like in previous years, in order to get a bird's eye view of the various factors having an influence on graduate employment outcomes, a specific model of multivariate analysis was used[9]. Only post-reform first- and second-level graduates from the 2013 class interviewed one year on from degree completion were considered. The analysis focused on those graduates who did not pursue further studies.

As was illustrated in the previous Report, the above populations were chosen for specific reasons. First of all, these graduate subgroups are keener on entering the labour market straight away. Unlike them, single-cycle second-level graduates need to complete some post-graduate training (postgraduate schools, apprenticeship, traineeship, etc.) before being entitled to pursue freelance activities, whereas first-level graduates who decide to enrol in a second-level degree course feature employment outcomes which are completely different from those of their colleagues who prefer to exploit their degree on the labour market immediately. Indeed, those who choose to pursue further university studies normally consider this as their main activity in terms of both time and resources; therefore, when they find employment, they tend to engage in occasional jobs allowing them to combine work and study.

The second reason for choosing to focus on graduates at one year from graduation is that this time span allows better monitoring of all the elements that might affect employment outcomes. The model was used to analyse the likelihood of being in employment according to the "standard" ALMALAUREA definition, which leaves out those who are engaged in remunerated training. In order to better understand cause-effect relationships, the following graduate populations were excluded from the analysis because of their peculiar training and employment outcomes: graduates who were already in employment at graduation, those living abroad, and graduates from the defence and security grouping.

This year's analysis too was aimed at investigating the impact of first-level and second-level degrees on graduates' modes of entry into the labour market as well as on the outcome of such entry, all other things being equal. It is worth pointing out that this research work is uninformative, because the two populations under study, as

[9] A logistic regression model combined with a scoring technique were used to compare the contribution of each variable in explaining the phenomena under examination.

was seen before, are extremely different in terms of degree course undertaken as well as academic and professional outlooks.

The analysis looked into several factors concerning the social and demographic background of graduates under investigation (such as gender, parents' educational attainment, and geographical area of residence) as well as their pre-university studies (secondary school chosen and final grade achieved). Other factors considered were pertinent to the academic degree achieved (type of degree, subject grouping, geographical area in which the university was located, examination grades, time-to-graduation, work-related mobility) and to the experience and skills developed during one's studies (accredited traineeships/internships, work or study abroad experiences, knowledge of IT tools, knowledge of foreign languages). Then, attention was paid to graduates' aspirations and propensities on the eve of graduation (intention to pursue further studies, willingness to accept travels, expectations on the job they were searching for in terms of job security, remuneration and career prospects, consistency with one's studies, acquisition of professional skills, consistency with one's cultural interests, job autonomy, spare time).

The first result yielded by analysing the data in *Tab. 1*[10](listing only those variables that proved significant) is that the factor most affecting one's likelihood to find employment is the degree course chosen. Other things being equal, graduates from the healthcare professions and engineering groupings were seen to be favoured. On the contrary, and similarly to what was observed in last year's survey, their colleagues from the psychology, law, and geo-biology groupings were at a disadvantage.

First-level degrees were found to have the best employment prospects one year on from graduation, all other aspects being

[10]The table only shows those variables that bear significant effects on one's likelihood to be in employment one year on from graduation. For each of them, a reference option was taken and shown in brackets after the name of the variable. The coefficient *b* of the corresponding variable was calculated as a function of the reference option. If a coefficient is higher than 0, the variable has a positive effect on one's likelihood of being in jobs; if it is lower than 0, its effect is negative. For ease of reference, the column *exp(b)* is provided where values above 1 indicate a positive effect on one's likelihood of being in employment. For example, in the column exp(b) the value of the variable *traineeship during studies* is 1.104. This means that graduates who had completed a traineeship during their university years were found to be 10% more likely to be in employment than those who had not.

equal. Even if this result should be taken with due caution, and the impact of this variable on graduates' employment outcomes was generally modest, this datum is nonetheless surprising and calls into question some commonplace assumptions.

Gender-related and above all geographical differences proved once again to be significant; *ceteris paribus*, men and graduates who were living or had studied in northern Italy were seen to have better outcomes.

Although the social and cultural background was not seen to have a remarkable effect *per se* on employment likelihood, it is nevertheless true that it fosters propensities and expectations concerning training and employment; because of these, graduates may choose to defer their entry into the labour market and wait for better employment opportunities. Indeed, in conditions of equal employment expectations, those graduates coming from culturally privileged families where at least one parent had a university qualification were found to have lower employment rates one year on from completion of their studies.

Individual examination grades (in the analysis of which the relative distribution by university and degree course type was taken into account) and, to a lesser extent, secondary school-leaving grades did play a crucial role in granting better employment prospects. Complying with the set timeframe for graduation was found to have an even greater positive effect on likelihood of being in employment, because graduates enter the labour market at a younger age if they graduate within the allocated time. Consequently, these graduates' expectations and willingness to accept contract provisions are probably more in line with what employers seek. This hypothesis finds confirmation in how companies use the ALMALAUREA databank to search and select their personnel, as employers tend to be more interested in graduate age than their final grade. Unfortunately, this model could not focus on graduate age specifically, because this variable is markedly different in the two populations under examination.

Previous work experience, as well as certain skills developed during one's university studies, were seen to positively influence likelihood to find employment. Other things being equal, factors such as work experience (of any kind), IT skills, traineeships/internships carried out during one's studies, and study experiences abroad were observed to boost the likelihood of being in employment one year on from achieving one's degree. On the contrary, language skills did not prove significant, possibly because

the effect of this variable overlaps with the "study abroad experiences" one.

Tab. 1 First- and second-level graduates from 2013: An assessment of employment outcomes one year on from graduation (binary logistic regression model estimating their likelihood of being in employment)

	b	*Exp(b)*
Traineeship during studies (no = 0)		
Yes	0.099	1.104
Time-to-graduation (4 y. or more above set time = 0)		
within 1 y. above set time	0.387	1.473
2-3 y. above set time	0.177	1.194
Willingness to accept travels (no = 0)		
yes	0.263	1.301
Expectations: Career prospects (no = 0)		
Yes	0.052	1.053
Expectations: Acquisition of professional skills (no = 0)		
Yes	0.086	1.090
Expectations: Consistency with cultural interests (no = 0)		
Yes	-0.140	0.869
Expectations: Independence or autonomy (no = 0)		
Yes	0.071	1.073
Expectations: Spare time (no = 0)		
Yes	-0.065	0.938
Work experience during studies (none = 0)		
Studying worker	0.690	1.993
Working student	0.460	1.584
Study abroad experience (no = 0)		
Erasmus - other EU programme	0.182	1.199
other experience	0.145	1.156
Gender (female = 0)		
Male	0.098	1.103
Having at least one graduate parent (yes = 0)		
no	0.045	1.046
Number of IT tools mastered (max 2 = 0)		
3 or 4 tools mastered	0.064	1.066
5 or more tools mastered	0.145	1.156
Intention to pursue further studies (yes = 0)		
no	0.401	1.493
Geographical area of residence (South = 0)		
North	0.458	1.581
Centre	0.252	1.286
Geographical area of university (South = 0)		
North	0.367	1.444
Centre	0.201	1.223

(to be continued)

(continued) *Tab. 1 First- and second-level graduates from 2013: An assessment of employment outcomes one year on from graduation (binary logistic regression model estimating their likelihood of being in employment)*

	b	*Exp(b)*
Grouping (sciences = 0)		
Agriculture	-0.312	0.732
Architecture	-0.550	0.577
Chemistry-pharmacology	-0.538	0.584
Economics-statistics	-0.431	0.650
Physical education	-0.221	0.802
Geo-biology	-0.914	0.401
Law	-1.034	0.356
Engineering	0.353	1.423
Teaching	-0.189	0.828
Humanities	-0.775	0.461
Languages	-0.333	0.716
Medicine (healthcare prof.)	0.367	1.444
Political and social sciences	-0.625	0.535
Psychology	-1.078	0.340
Comparison between province of residence and university (same province = 0)		
Province of residence different from province where university is located	0.078	1.081
Examination grades (lower than median = 0)		
greater than or equal to median value	0.061	1.063
Upper secondary school-leaving certificate grade (low grade = 0)		
high grade	0.040	1.041
Degree course type (second-level degree = 0)		
First level degree course	0.227	1.254
Constant	-1.945	0.143

Note: Accurate classification rate was 64%.
Unless otherwise indicated, parameters were found to be significant with $p<0.01$.

Finally, willingness to accept work-related mobility, and more specifically business travels (irrespective of their frequency) was found to have positive effects on employment prospects.

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