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Delayed entry and the utilization of higher education in Italian youth labour markets: evolution and involution

by

Paola Potestio*

Abstract
The article analyses the relation in Italy between education and labour status of highly educated people aged 20-29 over the years 1993-2009. A special labour market entry problem for young Italian graduates – it is argued – stands out in this long period. The article investigates and stresses a series of *facts* underlying the labour performance of young Italian graduates: the failure (at least so far) of the reform of the higher education system at the end of 1990s to accelerate the entry of young graduates into the labour market with the introduction of three-year degrees aimed at shortening university courses for a vast majority of students; the special difficulty in matching the demand for and supply of labour for graduates aged 20-24; the poor labour performances of first-level graduates aged 25-29 compared with that of second-level graduates and long programme diploma holders; the progress in the educational attainment of women and the consequent evolution in female labour status; and the enormous regional differences underlying the national data. Policy interventions to mitigate, if not eliminate, the special entry problem of first-level graduates – simplifying the organization of the two degree levels and removing restrictions on access to a range of professions, especially in the public sector – are required.

1. Introduction. The special features of the Italian case

To what extent have the traditional problems of the Italian higher education system – few degrees being awarded, a high dropout rate, a relatively advanced age of graduation – impacted the characteristics and weaknesses of Italian youth labour markets? This question and the effectiveness of the reform of the structure of university programmes of the end of 1990s in stimulating employability and faster access to the labour market for Italian graduates remain a rather open field for economic analysis. Whatever the merits of the reform – and it is incidentally worth noting that the transition of individual universities towards a stable structure of the new courses designed by

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the reform is not yet complete[1] – in the last few years the characteristics of youth labour markets have left Italy in an increasingly isolated position among the main European countries. The relationships between education and the labour status of young people are crucial in this position. A complex interaction between the demand and supply sides of youth labour markets in Italy has given rise to widespread phenomena of delayed entry, involving young people with the highest levels of education in particular.

A broad picture of the evolution over the time and the characteristics in Italy of the relationships between education and the labour status of two segments of youth population - young people aged 20-24 and 25-29 – can help to clarify the specific features of the entry problems connected with the segment of highly educated young people and offer some policy indications. This is the main task of the paper.

To introduce our theme, it is worth briefly pointing out the special features of the Italian youth labour markets within the European landscape. For this comparison we have elected to refer to the year 2008, when the employment effects of the financial crisis of 2007 had not yet emerged in Italy. Referring to the ISCED classification, Italy's performance in youth labour markets shows the best results in the lowest levels of educational attainment, namely the levels until lower secondary education (ISCED levels 0-2). By contrast, the worst results are found among young people who have received a university qualification (ISCED 5-6). In the total EU-27 area the rates of employment of young people aged 20-24 with ISCED 0-2 educational attainments and with ISCED 5-6 university qualifications are, respectively, 54.9% and 63.4%. In Italy these rates are, respectively, 50.4% and 28.5%. The differences in the 25-29 age group, although smaller, remain substantial: in the EU-27 area the employment rates of the two segments are, respectively, 62.0% and 84.1%. In Italy they are 60.6% and 61.4%.

The differences in activity rates are similarly large. As regards unemployment, we observe the same phenomenon, and the performances of young people with low levels of education are, comparatively, even better. In the EU-27 area, the unemployment rates of people aged 20-24 with ISCED 0-2 and ISCED 5-6 educational attainment are, respectively, 20.7% and 11.7%. In Italy they are, respectively, 18.8% and 23.8%. In the 25-29 age group these rates are 15.7% and 6.1% in the EU-27 area, whereas in Italy they are 13.0% and 12.9%.

Limiting the comparison to a small number of more similar European countries, the particular features of Italian youth labour markets stand out likewise. Figures 1 and 2 show the rates of employment of young people aged 20-24 and 25-29, respectively, by highest level of education attained in five European countries. Italy exhibits a very special characteristic in which the activity and employment rates of young people decrease drastically and unemployment increases with increasing levels of education. Thus, the differences become even larger with increasing levels of education. The employment rate of Italian graduates is about 40 percentage points lower than that in Germany and the United Kingdom and almost 30 points lower than in Spain and France! In the 25-29 age group, the employment rate of people with any level of educational attainment naturally increases and unemployment decreases. Italy has the largest increase in the employment rate of graduates, but the rate remains more than 20 percentage points lower than the levels in the other countries. Again, unemployment in this age group is highest among Italian graduates. The rate - 12.9% - contrasts in particular with the level in the United Kingdom (2.4%) and Germany (4.2%), and in any case is about twice the level for the EU27 as a whole.

These differences vanish or diminish sharply within older age groups, with employment among graduates being substantially in line with the levels in the countries considered in Figures 1-2. As to

[1] After the approval of the reform at the end of 1990s and a subsequent simplification of the original text in 2004, a number of Ministerial Decrees have placed several constraints on the Faculties to limit the very large number of degree courses created with the implementation of the reform. The most recent Ministerial Decree of this sort was issued in September 2010. Thus, it is reasonable to suppose that universities are still working on adjustments to achieve a stable structure of degree courses.

unemployment, consider only that the unemployment rate of graduates in the 40-64 age group in 2008 was lowest in Italy at 1.3%, whereas the rates in United Kingdom and Germany were 2.2% and 3.3% respectively.

In conclusion, this picture points to a special labour market entry problem for young graduates in Italy. We will try to focus this problem through the following questions:

1. Has the reform of the higher education system at the end of the 1990s had an influence on this data?
2. Are there any significant differences in the market performance of the two levels of degree created with the reform at the end of the 1990s?
3. What gender and regional differences underlie the aggregate national data?
4. How does the performance of diploma holders differ from that of each of the two levels of degree holders?
5. What policy indications emerge from the replies to the previous questions?

In order to give replies to these questions we will try to highlight key *facts* underlying the labour market performance of Italian young graduates. Section 2 examines the evolution in education levels over a fairly long period of time, from 1993 to 2009. The connection between the reform of the higher education system and the progress in university-level educational attainment in the 2000s, especially among women, will be stressed. The particular Italian attitude to studying and working considering them to be alternatives and its relevance in delaying the entry of first-level graduates enrolled in second level university courses in the labour markets is examined in Section 3. Section 4 analyzes the evolution in the labour status of young people in the 20-24 and 25-29 age groups and the impact of the 3+2 reform. Regional and gender differences are then considered in Section 5. In Section 6 a measure of the average level of education further clarifies national, gender and regional progress and differences. Conclusions and policy indications are provided in Section 7.

2. The evolution of the levels of education in Italy. The work-study alternative

2.1 *The national evolution*. The composition of the youth population by the highest level of education attained has changed significantly in the last decade. This is mainly due to the deep transformation of Italy's higher education system in the 1990s. The reform of university programmes - the so-called 3+2 reform - was approved at the end of that decade, and all universities were required to adopt the new structure as from the 2001-2002 academic year. In 2004, a simplification of the original reform was approved, leaving the new structure unchanged however. The new programmes are composed of two cycles: a three-year first-level degree, called the *Laurea Triennale*, and a two-year second-level degree, called the *Laurea Magistrale*. Achieving a first-level degree is required for enrolment in the second-level. In some areas, the reform envisages single-cycle programmes, lasting five years, as well as a six-year programme for medicine. Since the approval of the reform, the number of students who have finished tertiary education has increased sharply: from 19 per cent in 2000 to 33 per cent in 2008. The percentage of the population aged 25 to 34 with tertiary education has also increased significantly, from 12 % in 2001 to 20% in 2008. Although appreciable, this progress still leaves Italy far below the OECD average for graduates among people aged 25-34, which was 35% in 2008. Two excellent surveys of the initial results of the Italian implementation of the Bologna process (Cammelli-Antonelli *et al.,* (2010), Gasperoni (2010)) are worth referring to here for a broad picture of the new graduates and their characteristics. These surveys examine the improvements of the last decade in great detail. Among the many points tackled in these surveys (in particular the increase in the number of degrees being awarded), a very important aspect for the theme of this paper (emphasized in Cammelli-Antonelli *et al.* (2010)) is the reduction in the average age of graduation with the post-reform degrees. The AlmaLaurea Inter-university Consortium database (which covers 76% of total Italian graduates) shows that the average age of graduation of the 2009 graduate cohort was 27.1 years. As emphasized in Cammelli_Antonelli *et al.* (2010), taking into account the rise in the age of the first enrolment that has characterized the implementation of the reform, the figure declines. Eliminating

the delayed enrolment effect, Cammelli *et al.* (2010) show that the average age of graduation of first- and second-level graduates decreases to 23.9 and 25 years, respectively, a significant improvement compared with the average age of graduation of the 2001 pre-reform graduate cohort in the AlmaLaurea database, which was 28.
This said, let us broaden our vision to the progress in education of the *total* Italian youth population aged 20-24 and 25-29 over a rather long period, namely the years 1993-2009. The source of the data is the *Italian Labour Force Survey* conducted by the Italian National Institute of Statistics. Tab. 1a follows this progress showing the composition of the *total* youth population aged 20-24 and 25-29 by the highest level of education attained in the 1993-2009 period. Tab. 1b then shows the weights of the new (first-level and second-level) degrees, created with the reform of the end of the 1990s, in the two segments of the youth population in the years 2004-2009. The percentages of second-level degrees also include the pre-reform degrees, indicated by the initials VO, attained in each year of this period.
In Tab. 1a, education is classified into four levels:

- No formal education (NFE) - Primary education (*Nessun titolo-Licenza Elementare*)
- Lower secondary education (*Licenza Media*)
- Upper secondary education (*Diplomi*)
- Tertiary Education (*Lauree*: pre-reform degrees, post-reform degrees, and others).

Several aspects deserve attention. First, the weights of the low levels of educational attainment (NFE, Primary and Lower Secondary Education), which obviously follow a decreasing path over the period, are lower in the 20-24 age group (male and female) than in the 25-29 age group, and the differences decrease over the years. This decreasing path and the lower weights of low levels of education in the younger cohorts signal a significant improvement in educational attainments in this long period. No fewer than 57% of males aged 25-29 did not go beyond the lower secondary qualifications in 1993. This percentage decreases to 30.1% in 2009 (note however that this level is still very high compared with those in Germany, France or the United Kingdom). Second, until the end of 1990s developments are mainly characterized by the rising weights of secondary school diplomas. The weights of university degrees in the 20-24 age group increase in the last decade, in particular in the years 2004-2009. Analogously a more substantial increase in degrees is achieved in the 25-29 age group in the years 2004-2009. Whatever the overall assessment of the reform, it is undoubtedly a fact that these increases follow the implementation of the 3+2 reform. Third, the progress in the highest level of education is considerably higher within the female segment. While male and female graduates were weighted equally in the early 1990s, the proportion of females among graduates in both the age groups rises considerably over the years. The gender ratio between female and male graduates, which was exactly 1 in 1993, reaches 1.8 and 1.6, respectively, in the two age groups in 2009.[2] These gender differences represent a recent, widespread phenomenon, whose evolution and implications are very important to follow.
The first results of the implementation of 3+2 reform are shown in Tab. 1b. A caveat is necessary: the transition of many students, who had difficulty in reaching graduation in the old system, to the new 3+2 programmes has contributed to increasing, in the initial implementation of the reform, the number of the degrees, especially in the 20-24 age group. Analogously, the initial increase and then the reduction in second-level degrees in 2008-2009 in the 20-24 age group is presumably the consequence of many transitions from the old to the new degree programmes.
Having recognized this factor, two aspects of the initial implementation of the reform stand out. First, gender differences increase sharply in the 2004-2009 period. To underscore the more significant figure, in 2009, among people aged 25-29, the weight of second-level degrees is 6.5

[2] To grasp the relevance of the increases in the gender ratio it is useful to reference the data from a large set of countries in 1990 collected in Barro-Wha Lee (2001).

percentage points greater in the female segment. A second, very interesting aspect to note is the following: in the 25-29 age group, second-levels degrees exhibit weights in both gender segments that are very close to the weights of the old programme degrees in the final years of the old system. Now, given the actual length of degree courses – to which we return in a moment - the 25-29 age group is the best reference for measuring the increase in university qualifications. Accordingly, for this age group, we can clearly see that the increases in the number of degrees is mainly connected with the first-level degrees. The three-year courses are the new feature and account for the net increase created by the new structure, whereas second-level degrees are substantially in line with the last weights of degrees from the old university programmes, namely weights of around 10% and 15% in, respectively, the male and female segments.

Let us now return to the average age of graduation, by considering the national data from the Ministry of Education (MIUR). A comparison between graduates in the years 2001 and 2009 produces somewhat divergent results. The pre-reform average age of graduation was 27.6 years in 2001 in the MIUR database. In 2009, first-level graduates studying under the original 1999 version of the reform were 25.6 years old on average, whereas first-level graduates studying under the 2004 simplification of the reform were 24 years old on average.[3] Apparently, the simplification of the reform has contributed to further reducing the average age of graduation of the first-level graduates. But, surprisingly, in 2009 second-level graduates studying under the original 1999 version of the reform were 26.6 years old on average, whereas second-level graduates studying under the 2004 simplification of the reform were 27 years old on average. Considering the very high percentage of first-level graduates moving on to second-level programmes, this result is not particularly comforting.

Overall, the traditional Italian problem of university courses whose actual duration is considerably longer than their theoretical duration does not appear to have been overcome with the 3+2 reform. Despite the progress, "the still poor performance in granting the reduction in the age of graduation" is also stressed in Cammelli-Antonelli *et al.* (2010).

2.2 *The regional evolution.* The strong regional disparities in Italy have prompted us to give separate consideration to the evolution of education in the four major areas of the country, namely the north-west, the north-east, the centre and the south. Table 2 shows the data for the period 2004-2009 (more disaggregated data have been available since 2004). Thus education is now classified in six levels: secondary school diplomas are disaggregated into courses lasting 2-3 years and courses lasting 4-5 years, while university degrees are disaggregated into first-level degrees and second-level degrees/pre-reform degrees (indicated by VO). The greater disaggregation of data makes it possible to clarify the effects of the reform of the higher education system more effectively. Table 2 shows clearly that the weakest area is the South, but the differences are not so great and the processes are very similar.

It is interesting first to note the regional differences between the three main levels of educational attainment: low levels of education (up until lower secondary courses), diplomas and degrees. The major regional differences emerge in connection with the first two categories: the south is characterized by a larger proportion of low levels of education and a smaller proportion of diplomas compared with the three other areas, especially in the male segment.

As regards the university qualifications of young people aged 20-24, a considerable progress can be observed in the period under consideration for first-level degrees in all the areas of the country. The increases are larger in the female segment everywhere. Conversely, no progress can be is observed in second-level degrees. In both gender segments, these degrees exhibit constant or decreasing weights. The swift completion of passages from old to new degree courses might have had an impact on this. Despite the progress, the south remains the area with the smallest proportions of university qualifications, but the distance with respect to the other areas declind in the period.

[3] Note that these data from the MIUR are not corrected by the delayed enrolment effect emphasized in Cammelli-Antonelli *et al.* (2010).

In the 25-29 age group, the relative magnitudes of second-level degrees in the male segment remain constant or decreasing in the period. By contrast, some progress is observed among young women aged 25-29, especially in the north-west and the south. Again in this age group, appreciable progress is observed in first-level degrees, especially in the female segment. The south shows the largest increases in first-level degrees in both gender segments, which again reduces the gap with respect to the other areas of the country.
In conclusion, from a quantitative standpoint, in all areas of the country the impact of the reform is substantially connected with the introduction of the first-level degrees. The most significant overall progress is achieved within the female components. Overall, the weakest area remains the south, but from the point of view of university-level educational attainment the country does not appear to be so heterogeneous, and in any case the differences among areas have narrowed over the years.

3. The work-study alternative

Before considering how the progress in levels of educational attainment has been accompanied by changes in the features of youth labour markets, let us turn our attention to an aspect that has certainly played some role in the delayed entry of young people in labour markets. In all countries, participation and employment are higher among young people not in education than among young people in education. The labour status of young people in education, however, differs considerably within the developed countries. The OCSE's *Education at a Glance* provides a precious source of data on this theme. The dominant model in the OECD countries is characterized (albeit in different ways and to different extents) by a *significant compatibility* between study and work. Only in a minority of countries do young people in education have very limited or no involvement in work, i.e. only in a minority of countries are working and studying activities that appear substantially alternative. Working while pursuing education is instead a widespread feature of young people in education in the OECD countries.[4] In some countries, particularly Germany and Austria, this feature is supported by the educational system, i.e. through work-study programmes. However, the heterogeneity of educational systems and the extension of work-study programmes only partially explains the differences observed. The differences between the activity and employment rates of young people in education are far greater than the differences connected to the extension of work-study programmes. The levels of activity and employment rates cannot but also reflect deep differences in the social structures of OECD countries. To cite just a few figures, in 2008 12.8% of young people in education aged 20-24 in Italy were employed **(**only 1% of whom were students in work-study programmes). In Denmark the proportion was 60.7%, in Germany 56.7% (37.5% of whom were students in work-study programmes), and in England 50.2% (9.2% of whom were students in work-study programmes). The socio-cultural model in some countries – in particular Italy, Greece, France and Belgium – is characterized by a pattern of study without engaging in work. Within this small group of countries, Italy is further distinguished by the fact that the strong incompatibility between study and work involves all age groups of young people in education, including those aged 25-29. In the latter age group, Italy remains the only country where a very small percentage of people in education are also employed. The acquisition of any work experience, even well outside their field of study, appears largely absent for Italian students of any age. Presumably, the lack of work experience does not facilitate an efficient job search once their studies are completed, and can help explain the delayed entry of Italian young people in the labour market. But the strong work-study incompatibility can also explain the supply side contribution to the poor performances of young graduates in another way, one that is connected to the 3+2 reform. The large enrolments of first-level graduates in second level courses, together with the peculiar Italian tendency to separate working and studying activities have interacted to delay the entry in the labour market of younger graduates. We will return to this issue in a moment.

[4] For a more detailed analysis see Potestio (2006).

3. Levels of education and labour status of young people aged 20-24 and 25-29: the national data

How have the progress in levels of educational attainment and the reform at the end of the 1990s have affected youth labour markets? To assess the impact of the 3+2 reform we must first to consider the evolution of the labour status of young people in the entire period for which homogeneous data are available, that is the years 1993-2009.

One crucial aspect, perhaps the most important aspect for the theme of this paper, is the evolution in the activity and employment rates of degree holders before and after the higher education reform. A positive trend in the activity rates of degree holders aged 20-24 is sharply interrupted in the early 2000s. Since then, much larger decreases in participation are observed in both gender segments, especially among male graduates (Fig 3). Participation collapses in a few years: from a rate of just over 70% among women graduates in 2003 to a rate of 36% in this segment in 2007. The fall is even greater among male graduates. Here participation sinks to just 27.8% in 2007. The behaviour of employment rates is, obviously, similar (Fig 4). An increase of about 10 percentage points until the end of the 1990s is followed by a drastic fall in employment. The fall is steepest among male graduates: the male rate of employment is just 22% in 2006. A small recovery since then produces employment rates of about 25% in both gender segments in 2009.

The behaviour of participation and employment is rather different among graduates aged 25-29 (Fig. 3 and 4). In the long period from 1993 to 2009 activity rates decline somewhat: from similar levels for both gender segments in 1993 (about 79%), with differing patterns in the two segments the rates decline to levels that are again similar in 2009, at around 68%. As to employment, the movements are rather limited. Slightly higher rates for males graduates are observed until 2008. The stronger impact of the crisis on male graduates in 2009 leads to employment rates around 57% in both gender segments in 2009 (the level recorded for female graduates at the start of the period, in 1993).

The reform of the higher education system has had a strong impact on labour markets for young graduates. Undoubtedly, the collapse of participation among graduates aged 20-24 in the early 2000s is mainly associated with the 3+2 reform and the massive enrolment of first-level graduates in second-level courses. Thus, it is impossible not to recognize that the aim of facilitating more rapid entry into the labour market, which was one of the objectives of the reform, has failed to be achieved, at least so far.

Let us now concentrate on the years 2004-2009. The available disaggregation of data for this period enable us to examine the performances of youth labour markets more deeply, to better focalise the impact of the reform and to offer some replies to three questions we have posed in the introduction.

Tab. 3 provides a picture of the activity, employment and unemployment rates of (2-3 and 4-5 years) diploma holders and (first-level and second-level/VO) graduates in the two age groups in the years 2004-2009. The reaction to the crisis in the last two years of the period is a further, important element that differentiates the performances of the segments considered. In this respect, we note first the weakness of short-programme diploma holders in the crisis: the unemployment rates drastically increase in 2008-2009 in both age groups and in both gender segments. Moreover, it is interesting to observe how among female (short programme) diploma holders the activity rate and the unemployment rate move together: continuous increases in unemployment join continuous decreases in participation in both age groups, a phenomenon that, incidentally, should pose interesting questions on the theoretical plane. In any event**,** the comparatively much higher participation of short programme diploma holders – in the 20-24 age group more than 80% in the male segment and between 70-80% in the female segment - has to be connected to the fact that these people are presumably not engaged in more advanced educational activities. The opposite circumstance, i.e. still being engaged in education, undoubtedly contributes to a large extent to the

low participation of long-programme diploma holders in the 20-24 age group – around 50% in the male segment and between 37-44% in the female segment - and to the even lower participation rate of first-level graduates. This noted, a comparison between the two segments of diploma holders reveals the better performance of long programme diploma holders, among whom employment appears more stable, especially in the 20-24 age group, and for whom the impact of the crisis on unemployment is more limited in both age groups.

A comparison between the two levels of university degree produces important results. The performance of first-level degree holders aged 20-24 is very modest: participation and employment continue to fall, especially among women, while unemployment increases and sensitivity to the crisis is very high. In the female segment unemployment increases by almost 10 percentage points in 2009, reaching a rate of 33.4%, and the employment rate is just around 24% in both segments. Second-level graduates aged 20-24 (presumably to a very large extent composed of or derived from pre-reform degrees) show fairly stable employment in the male segment and strong fluctuations among women. In both segments the employment rate of in 2009 is only 33%. Although decreasing, unemployment remains above 20% in the male segment and 35% among women in 2009.

The differences between the two levels of degrees within the 25-29 age group widen drastically. All movements are in the opposite direction. Activity and employment rates, among first-level graduates, fall by about 20 percentage points in the male segment, to only 48% in 2009. By contrast, employment is increasing among male second-level graduates, despite the fall in 2009. A reduction of about 18 points in participation and employment is also observed among female first-level graduates, with an employment rate that is 55.6% in 2009. Again, employment is increasing among women with a second-level degree, with only a minimal decline in 2009. Some connection between the decline in the participation of (male and female) first-level graduates in the 25-29 age group and the general lengthening of the time spent in education appears a plausible hypothesis. As to unemployment, its increase among first-level graduates in 2009 is the largest among all segments considered in this age group. Among second-level graduates, the response of unemployment to the crisis in 2009 is comparatively rather limited. In short, the performance of second-level degree holders is far superior.

A comparison between diploma holders and degree holders also produces important results. Undoubtedly, one major finding is that unemployment among diploma holders is generally lower than unemployment among degree holders. The stability of the activity, employment and unemployment rates of male long programme diploma holders in both age groups contrasts in particular with the decreasing employment and increasing unemployment of first-level graduates in both age groups. In 2009, the employment rate of long programme diploma holders aged 25-29 is 20 percentage points higher than the rate for first-level degree holders aged 25-29! The stability of employment among female long programme diploma holders aged 25-29 also contrasts with the decreasing path of employment of female first-level graduates. From a rate of 74% in 2004, the employment rate of females first-level graduates falls to 56% in 2009, a rate similar to that of female long programme diploma holders in that year.

A final note on unemployment. We have already stressed the particularly high levels of unemployment among first-level graduates. We now add two observations. Unemployment rates are generally higher in the female segments. In some cases (first-level and second-level graduates aged 20-24) the difference is more than ten percentage points with respect to that for the corresponding male segment. Second, all segments of people aged 20-24 have levels of unemployment that are well above those of the 25-29 age group. A very slow matching of the supply of and demand for labour characterises Italian youth labour markets, in particular the markets for people with higher educational qualifications. In conclusion with respect to unemployment levels, females, and young people aged 20-24, first-level graduates are thus the weaker segments of the labour force considered.

On the basis of the national data we have examined, let us now propose some initial answers to the questions we have posed in the introduction. The deep heterogeneity of the country, however, requires some caution in drawing conclusions from national data. We prefer, therefore, to consider here only very general aspects or general processes and to postpone more definite conclusions until after an examination of the specific regional characterizations.

The reform of the higher education system has had a major influence on the labour status of graduates. The new three year university courses have not accelerated the entry of young graduates into the labour market. The national data signal a serious problem of labour market placement and job for first-level graduates: that is serious problems emerge with regard to both the supply of and demand for the labour of younger graduates. We will see in the next section the extent of these problems in the individual regional areas.

Second, there are clear differences in the market performance of the two levels of degree created with the 3+2 reform. The differences are especially substantial in the 25-29 age group. The increasingly easier matching of supply of and demand for labour for second-level graduates contrasts with the persistent delays observed in the segment of first-level graduates. All this raises serious policy issues, to which we will return in the final section.

Finally, the better performance of male long programme diploma holders compared with that of first-level graduates again poses the problem of a more useful characterization of this kind or level of degree and the specific policy actions needed to facilitate the entry of these graduates into the labour market.

4. Levels of education and labour status of young people: regional and gender differences

The differences between the regional youth labour markets are much deeper than regional differences in the level of educational attainments. In general the gap between the south and the north is very large, while the centre lies in an intermediate position. However, the processes and relative performances we have stressed at the national level are generally confirmed in each individual area and certain interesting signs of progress in the south also emerge. In examining the regional differences, the special variability of labour status and the nearly universal difficulty in matching labour demand and supply for young people aged 20-24 makes it advisable to focus our attention on the 25-29 age group, i.e. the segment within which some adjustment has already taken place and where structural differences are the clearest. Moreover, here we consider the labour status of diploma and degree holders only.

The regional framework is extremely diversified. To immediately underscore the differences between the areas, consider that at the start of the 2004-2009 period, the employment rates of male first-level graduates were 82% in both the more northern areas and 43% in the south. The difference was about 30 percentage points in the female segment, with an employment rate in 2004 of about 70% among second-level graduates in the north and 39.6% in the south. In the female segment the employment rate of second-level graduates was 71% in the north-west, whereas in the south it was 33%. Enormous differences are also observed in unemployment levels. Rates of 34% and 37% among, respectively, male first- and second-level graduates in the south compared with rates of 2% and 9.6% in the north-west in 2004. In the female segments, rates of 27% and 46% among the two categories of graduates in the south compared with rates of 6% and 9.3% in the north-west, again in 2004.

Having emphasised the initial gaps, in all the areas of the country first-level graduates show a decreasing behaviour in male participation and employment in the 2004-2009 period (Tab 4). The fall in employment and the reaction to the crisis are strongest in north-east, where employment decreases by almost 30 percentage points in this period (and by 15 points in 2009 alone!). A steep decreasing trend in employment is also observed in the female segment in all the areas. In the north this decline is not as sharp as in the male segment, whereas the opposite is observed in the south.

Unemployment is increasing, in both gender segments in the north and among women only in the centre. The particular level of unemployment in the south remains substantially constant in the female segment, while a moderate reduction for male graduates brings their rate in 2009 into line with the female rate (around 26%). Thus, in all the areas of the country, and in particular in the north, the poor performance of first-level degrees stands out.

Opposite movements can be observed for those with second-level degrees. Employment increases and unemployment decreases, although with significant differences between the areas. In the centre, employment and unemployment display an especially negative reaction to the crisis in 2009, whereas the exceptional level of unemployment in the south diminishes somewhat in the period. However, the gaps between the south and the two, fairly homogeneous northern areas remain very large: about 30 points in employment rates and more than 20 points in female unemployment rates. In this highly differentiated regional framework, national data on employment or unemployment levels lose significance to some extent.

As regards the regional comparison between diploma and degrees, the stability in employment levels of long programme diploma holders, in both gender segments, stands out in all the areas. This stability contrasts in particular with the decreasing employment levels and increasing unemployment levels of first-level degree holders. Beyond the stability aspect, long programme diploma holders in almost all segments record the lowest levels of unemployment in each individual area and the best reaction to the crisis (at least until the last year of our series). Overall, long programme diploma holders post the best performance in the period considered. These results still remain rather open to analysis and deserve attention.

Finally, gender differences. Undoubtedly there are important aspects connected with regional differences to note. The relative position of women appears better for first-level degrees: in all areas the female employment rates in 2009 are higher (much higher in the north-east and the centre) than the equivalent male rates. Unemployment, which in 2004 was much lower among male graduates in the north, is lowest among women in 2009 in all areas, except the south where the rates in both gender segments are the same. The better performance of women among first-level graduates marks a gain in the labour status of younger female graduates, but the assessment of this progress is open to deeper analysis.

The gender comparison produces rather different results for second-level degrees. Here, male employment rates are higher (albeit not considerably higher) than female rates. When it comes to unemployment, one very interesting development stands out: in the north-west female unemployment continues to decrease in 2009 and is lower than that in the corresponding male segment. In the other three areas female unemployment is higher, particularly in the south. Women's labour status is considerably weaker in the diploma holders category, mainly but no surprisingly, among short programme diploma holders.

Overall, the position of women is weaker at low levels of educational attainment and stronger at the university level, although mainly among first-level degree holders. In all segments female labour status is the weakest in the south, although the differences appear to have narrowed somewhat during the period.

5. The average level of education of population and labour market aggregates: gender and regional comparisons

Let us now construct a composite measure of the average level of education of the population and labour market aggregates related to the selected population (employed, unemployed and inactive people). The exercise is not intended to give a measure of the human capital of a certain aggregate,[5]

[5] For an interesting survey of the problems of measuring human capital through the average number of years of schooling of the working-age population see Wobmann (2004).

but simply to provide a reference to summarise the progress in education and to compare the average educational attainments between aggregates in the country or among regions.

The measure of the average level of education of an aggregate *A* is defined as the weighted average of the *theoretical* years of schooling corresponding to each level of educational attainment present in the aggregate *A*:

$$\sum_i a_i \frac{A_i}{A} \qquad 1.$$

where a_i are the number of years of schooling for the level of educational attainment *i*, *A* is the aggregate considered and A_i are the people in the aggregate *A* with the level of educational attainment *i* . In the construction of the measure we have considered six levels of educational attainment:

1. No formal education – Primary Education (*Nessun Titolo – Licenza Elementare*)
2. Lower secondary education (*Licenza Media*)
3. Short programme (2-3 years) diploma
4. Long programme (4-5 years) diploma
5. First-level degrees (*Lauree triennali*)
6. Second-level degrees/VO (*Lauree Magistrali, Lauree pre-riforma VO*)

We first have to clarify the limits of the measure of an average level of education and the assumptions we have made in its construction. The major limitation of the metric is that it does not take account of failure to complete individual educational courses, a common phenomenon in Italy, especially at the university level. The number of years of schooling that did not lead to a certificate or qualification do not appear in our measure. A lack of data on this phenomenon means that we cannot take account of *early school leavers*, who have none-the-less benefited from a partial educational career, corresponding to a certain degree of educational attainment.

Moreover, we must also stress further that in our measure the number of years of schooling for each qualification are *theoretical* years. Thus, discrepancies between theoretical and actual years of schooling for each level of educational attainment have no impact on the measure.

A second consideration: one frequent and important critique of using the average number of years of schooling as a proxy for human capital is that the average number of years of schooling ignores differences in educational quality. We have already emphasised that our measure is not in any way intended to serve as a measure of human capital. According to its very definition, it simply provides a composite indication of the educational attainments of a certain aggregate, which would seem a useful indicator in comparing aggregates within a country. As our comparisons are limited to aggregates within a country or even within a single region, differences in educational quality are presumably more limited. This makes the meaningfulness of the results less weak.

Due to the lack of more disaggregated data, the construction of the measure in Eq. 1 requires a number of assumptions. We have assumed that the first level ("No formal education – Primary Education") is only composed of people with primary education (that is, everyone in each individual aggregate has attained at least 5 years of schooling). We have then computed 2.5 schooling years for the attainment of short programme (2-3 year) diplomas. Similarly we have computed 4.5 schooling years for the attainment of long programme (4-5 year) diplomas. As regards university qualifications, we first assumed that all graduates had attained a long programme diploma. Then, for the "second-level – pre-reform degrees", we assumed an average of 5 years of education for this level of attainment. Obviously, these hypotheses are as simple as they are drastic. Accordingly, they are therefore a further element to consider with caution.

Given all these caveat, let us finally examine the results of the exercise.[6] We applied the exercise to the 25-29 age group and to both gender segments in the period 2004-2009. Table 5 reports the results for the national population and the national labour market aggregates. The table also compares the average levels of education in two regions that exhibit significant differences in the educational attainments of their respective population, i.e. the north-east and the south. The national results display considerable and interesting differences between the gender segments. The gap between the national average levels of education for males and females remains substantially constant in the 2004-2009 period, with women showing steadily higher educational levels. Major gender differences emerge from the comparison between the general population and the labour market aggregates. In the female segment, the average level of education is lower in the population than among employed and unemployed women. The opposite is observed in the male segment. Moreover, in the latter inactive people record the highest educational attainments in the segment, whereas inactive women exhibit the lowest educational attainments among the women. The composition of each individual aggregate is crucial for these results. Among inactive women, the weight of the lowest level of education is comparatively much larger than both that observed in the population and that among inactive males. On the other hand, the educational qualification of women that are in the labour market is comparatively higher than that recorded in the population because, among the women in the labour market, the weight of more advanced levels of education is higher and the weight of the first level of education is lower. The very different presence in the labour market of women and men with the lowest level of education is crucial for these results. A low level of educational attainment appears to be a strong incentive for inactivity among women.
The comparison between the national results and the educational levels in the two regions (north-east and south) shows gender differences that are largely in the same direction in all the areas. Beyond the observation that women have higher educational attainments, due mainly to greater progress in university qualifications, in all the areas the average level of education of inactive women is significantly lower that that of the total female population. In the north-east educational attainments are substantially similar between the general population, the employed and the unemployed. In the south, the higher level of educational qualifications of women that are in the labour market is largely due to the larger weight of degree holders among employed and, especially, unemployed women.
In the male segments, the significantly higher educational attainment among inactive people, particularly in the north-east, stands out. The comparatively larger proportion of first-level graduates among inactive males is the main determinant of this result. Once again, the large weight of first-level graduates among the male unemployed is the main determinant of the high average level of education of unemployed males. In the south, the average level of education of the general male population, the employed and the unemployed are substantially in line with each other. Finally, it is important to note that the considerably lower weight of diploma holders among the unemployed is a factor that contributes to reducing the average level of education of the unemployed in all areas.

6. Policy indications and conclusions

A simple comparison between the labour status of young graduates in European countries highlights a special labour market entry problem for young graduates in Italy. In order to identify some important facts underlying the apparent poor performances of Italian young graduates and to provide some first replies to questions that the European comparison poses, this paper has developed a broad picture, over a fairly long period of time, of the relationships between the

[6] For a comparison of the average level of education in the population and in the labour market aggregate, see also Gatto-Potestio (2008).

education and labour status of young people in Italy. In the more recent years, the availability of more disaggregated data enables us to better clarify the relative performances of the segments of the youth population with different education levels.

From the point of view of educational attainments, the progress made in secondary school diplomas in the 1990s is followed by considerable increases in the number of degrees holders in the 2000s, a result undoubtedly driven by the 3+2 reform, i.e. the reform in the higher education system undertaken at the end of 1990s. We have stressed two aspects in particular: the progress in university qualifications is definitely greater among women in the 2000s, and that the country is not so heterogeneous from the point of view of regional educational attainments, although the south is the weakest region.

However, the progress in the level of educational attainments has not been accompanied by any significant reversal of the weaknesses of Italian youth labour markets. In replying to the two first questions we posed in the introduction, we have to stress that despite its intentions, the 3+2 reform has not accelerated the labour market entry of younger graduates, i.e. graduates in the 20-24 age group. A steep decrease in the participation rate of graduates in this age group in the 2000s is undoubtedly mainly connected with the massive enrolments of first-level graduates in second level university courses (*Laurea magistrale*). As we have noted, the typical Italian approach of separating work and study has unfortunately interacted with this massive enrolment to delay the achievement of work experience and thus the entry into the labour market. The especially slow matching of demand for and supply of labour characterizes first-level graduates. Serious problems of labour market placement and jobs for these graduates arise with regard to both the supply of and demand for labour, in the 25-29 age group mainly in the male segment. The performance of second-level degree holders is far superior in the age group 25-29, mainly in the male segment. The regional comparisons confirm the better performance of second-level degrees holders in each individual area.

The problems of labour market placement and jobs for first-level graduates require policy interventions. Simplifying the organization of the two levels of degree, avoiding dead time in the transition between obtaining a first-level degree and enrolling in second level courses, and facilitating the entry of the first-level graduates into the labour market would appear to be priority policy goals. Removing restrictions on access to a range of professions, especially in the public sector, could led to a recovery in the activity rates of first-level graduates, or at least slow their decline.

The gender comparisons are very significant. Progress in women's level of education stimulates female participation. In the 25-29 age group, female first-level graduates perform better than male first-level graduates, and some very interesting, positive results also emerge in the northern area among female second-level graduates.

Regional differences are enormous. The labour status of graduates in the south is definitely worse than that observed in the north. Regional differences make a decisive contribution in the international comparisons we presented in the first section. In the northern area, the employment and unemployment performance of second-level graduates is broadly in line with that observed in the European countries reported in Figures 1 and 2.

Remaining within the framework of international comparisons, we can conclude by noting: **1.** that the special, comparatively lower level of employment of Italian graduates aged 20-24 is mainly a consequence of the failure of the 3+2 reform to achieve its goal of accelerating university studies for the vast majority of student with a first-level degree; **2.** that the comparatively lower level of employment of Italian graduates aged 25-29 is mainly a consequence of very deep regional differences.

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Appendix

Fig. 1 Employment rates of young people aged 20-24 by highest level of education attained - 2008

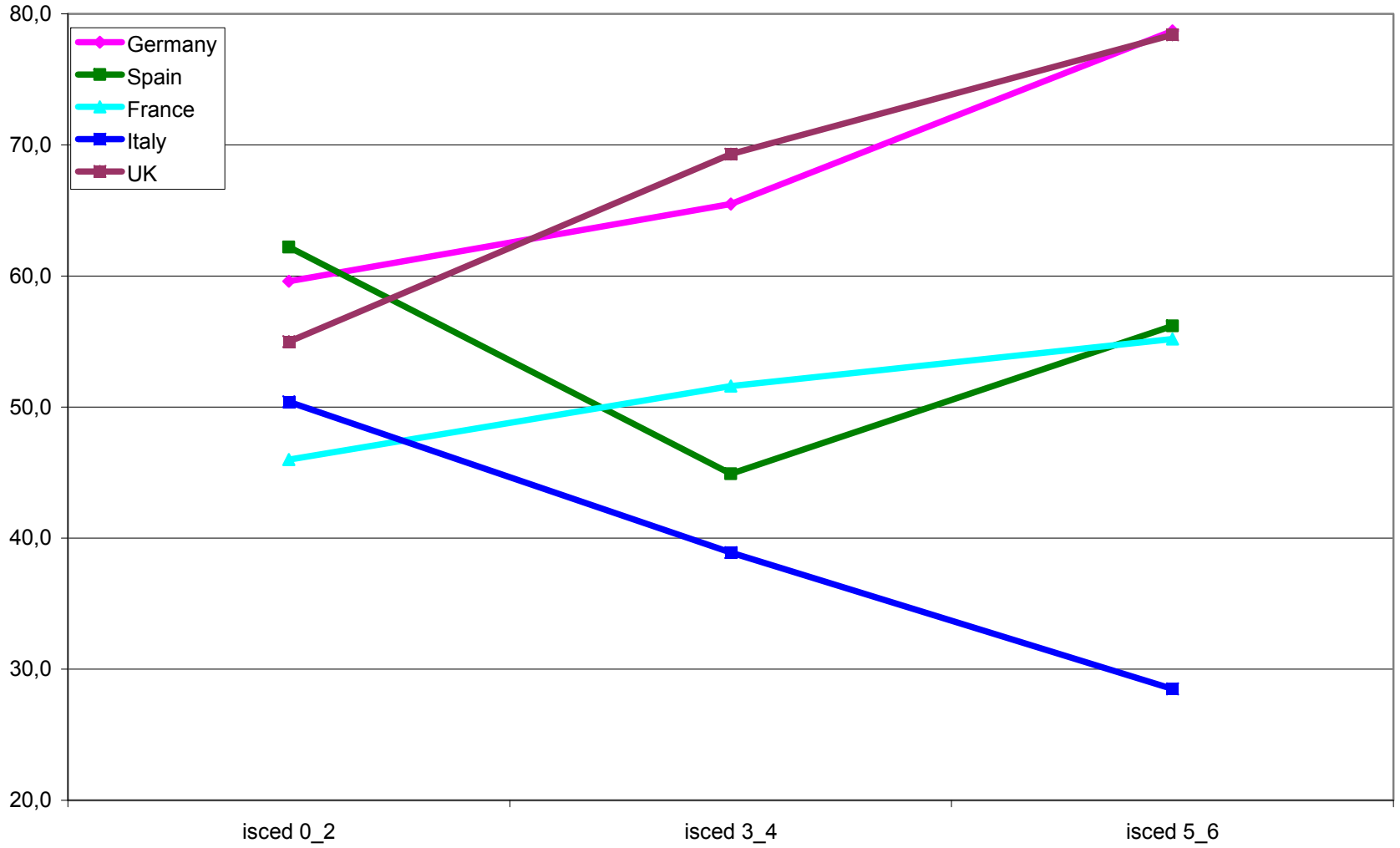
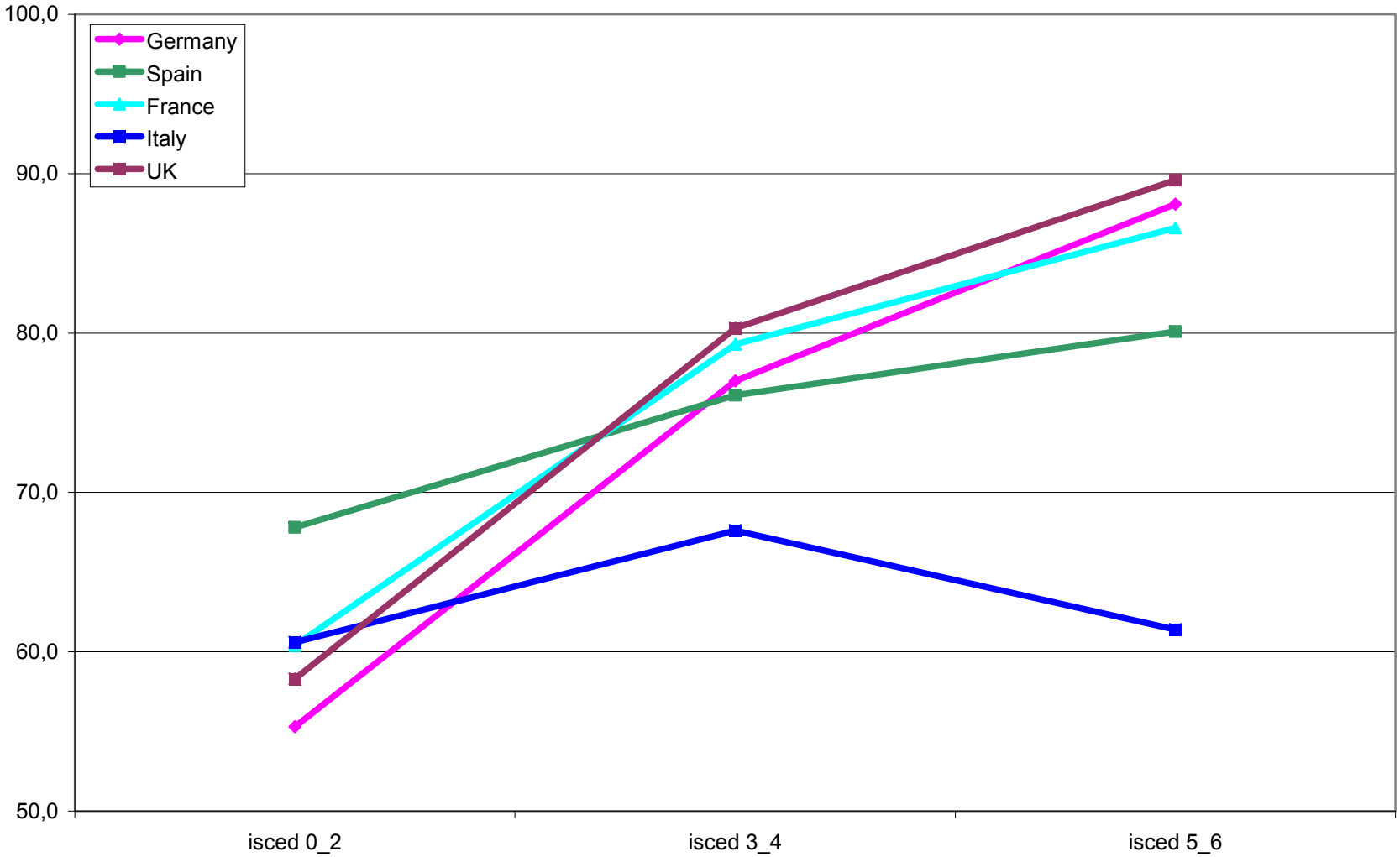


Fig. 2 Employment rates of young people aged 25-29 by highest level of education attained - 2008



Tab 1a. Composition of the youth population by gender, age group and highest level of education attained (percentage shares)

20 - 24 age group

	Males				Females			
	1993	**1999**	**2004**	**2009**	**1993**	**1999**	**2004**	**2009**
NFE/Primary Education	5	3	2.3	1.6	5	4	1.8	1.6
Lower Secundary Education	44	34	30,1	26	37	26	21	19
Diploma	50	62	65,6	67.6	56	68	73,5	70,7
Degree	1	1	1,9	4.8	1	2	3.7	8.6
Total	100	100	100	100	100	100	100	100

25 - 29 age group

	Males				Females			
NFE/Primary Education	7	5	3.7	2.7	8	5	3.2	2.4
Lower Secundary Education	49	39	32.6	27.4	44	34	25.7	21.5
Diploma	38	48	52.4	53.1	41	50	54.7	49.7
Degree	6	8	11.3	16.8	6	10	16.4	26.5
Total	100	100	100	100	100	100	100	100

Tab 1b. First-level and second-level degree holders in youth population by gender and age group (percentage shares)

20 - 24 age group

	Males				Females			
	2004	**2006**	**2008**	**2009**	**2004**	**2006**	**2008**	**2009**
First-Level Degrees	1.1	3.8	4.4	4.2	2.0	6.7	7.5	7.5
Second-Level Degrees/VO	0.8	0.9	0.6	0.6	1.7	1.5	1.1	1.1

25 - 29 age group

	Males				Females			
First-Level Degrees	1.6	3.1	6.3	7.5	2.8	4.7	8.6	10.7
Second-Level Degrees/VO	9.7	10.2	9.9	9.3	13.6	15.8	16.9	15.8

Tab 2. Composition of youth population by areas, gender, age group and highest level of education attained (%)

20-24 years

	North-West				North-East			
	M		F		M		F	
	2004	2009	2004	2009	2004	2009	2004	2009
NFE/Primary Ed.	1,4	1,9	2,4	1,8	0,8	1,2	1,1	0,9
Lower Sec. Ed.	30,3	26,6	18,5	19,2	27,0	23,9	17,9	15,2
Diploma (2-3 years)	9,8	9,6	8,6	6,1	13,0	11,5	8,8	6,1
Diploma (4-5 years)	55,8	56,5	66,0	62,7	56,7	56,9	67,2	66,9
First-Level Degrees	1,7	4,6	2,4	9,0	1,8	5,8	3,3	9,2
Second-Level Degrees/VO	1,0	0,9	2,1	1,2	0,7	0,6	1,6	1,7
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

	Centre				South			
	M		F		M		F	
NFE/Primary Ed.	1,5	0,5	0,7	1,4	3,8	2,1	2,2	1,9
Lower Sec. Ed.	24,7	20,6	16,8	14,9	33,4	28,8	25,2	22,3
Diploma (2-3 years)	5,1	5,8	3,1	3,7	3,2	3,9	2,1	2,6
Diploma (4-5 years)	66,9	67,7	75,5	71,1	58,2	61,7	67,9	66,6
First Level Degrees	1,0	4,7	2,6	8,0	0,7	3,1	1,1	5,8
Second-Level Degrees/VO	0,8	0,8	1,4	1,0	0,7	0,4	1,5	0,9
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

25-29 years

	North-West				North-East			
	M		F		M		F	
	2004	2009	2004	2009	2004	2009	2004	2009
NFE/Primary Ed.	2,7	2,1	2,2	1,8	2,0	1,7	2,0	2,6
Lower Sec. Ed.	33,5	27,6	24,4	22,0	30,1	26,0	16,4	11,1
Diploma (2-3 years)	9,3	9,9	9,2	7,8	10,8	12,6	10,0	9,1
Diploma (4-5 years)	41,7	40,9	46,2	39,9	44,9	41,8	52,1	47,0
First Level Degrees	1,7	7,5	3,7	11,0	2,3	9,1	3,4	12,7
Second-Level Degrees/VO	11,1	11,9	14,3	17,5	9,9	8,7	16,1	17,6
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

	Centre				South			
	M		F		M		F	
NFE/Primary Ed.	1,8	1,5	1,5	1,6	6,2	4,2	5,2	3,1
Lower Sec. Ed.	28,3	21,7	27,0	21,8	35,3	30,6	29,9	25,4
Diploma (2-3 years)	6,1	6,6	2,7	3,4	2,3	3,4	2,4	2,4
Diploma (4-5 years)	51,5	51,5	52,0	46,2	46,9	48,1	48,7	45,8
First Level Degrees	2,0	8,7	2,8	11,8	1,1	6,3	1,9	9,1
Second-Level Degrees/VO	10,4	10,1	13,9	15,3	8,2	7,5	11,9	14,2
Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0

Fig. 3 Activity rates of degree holders by gender and age group - %

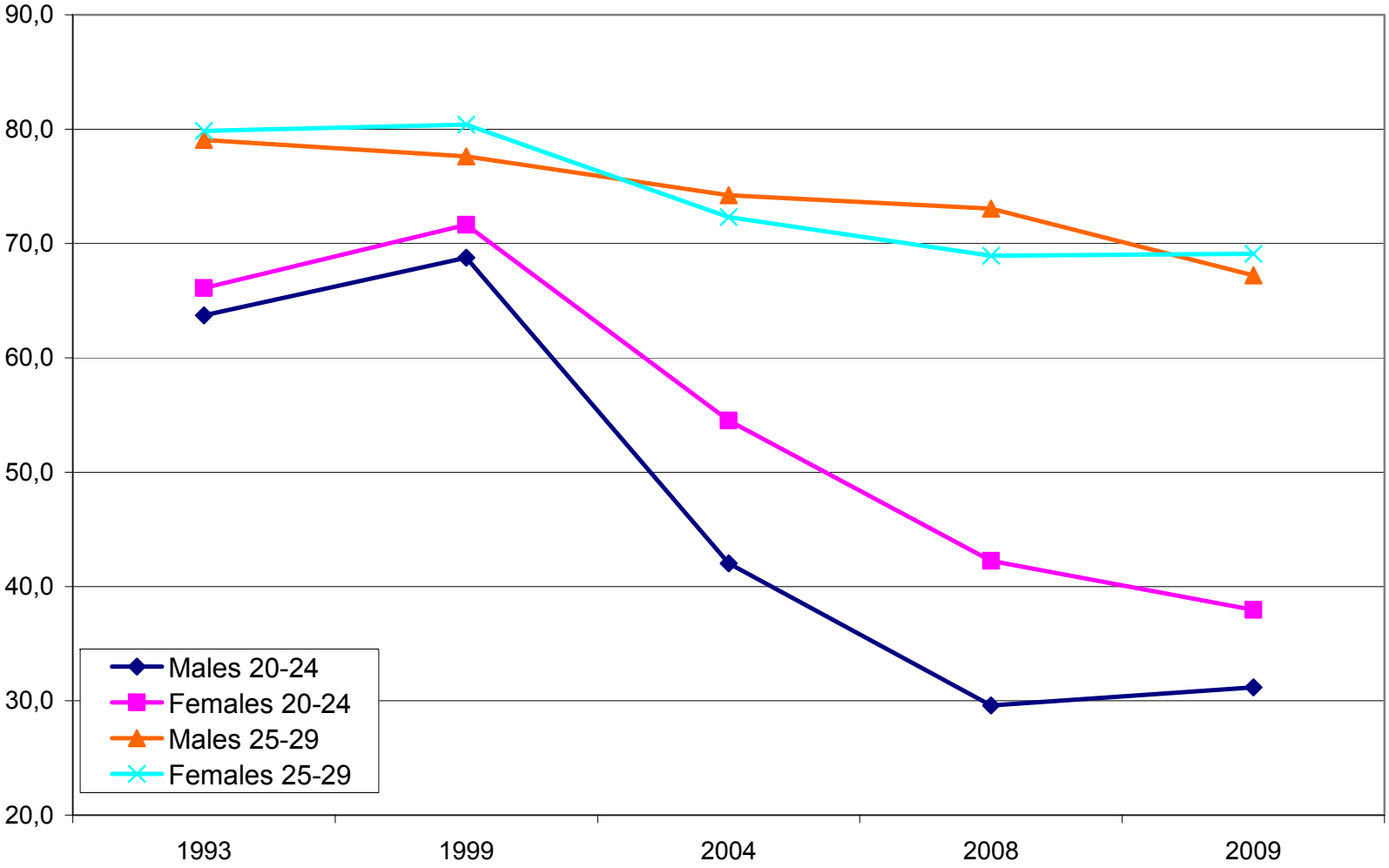
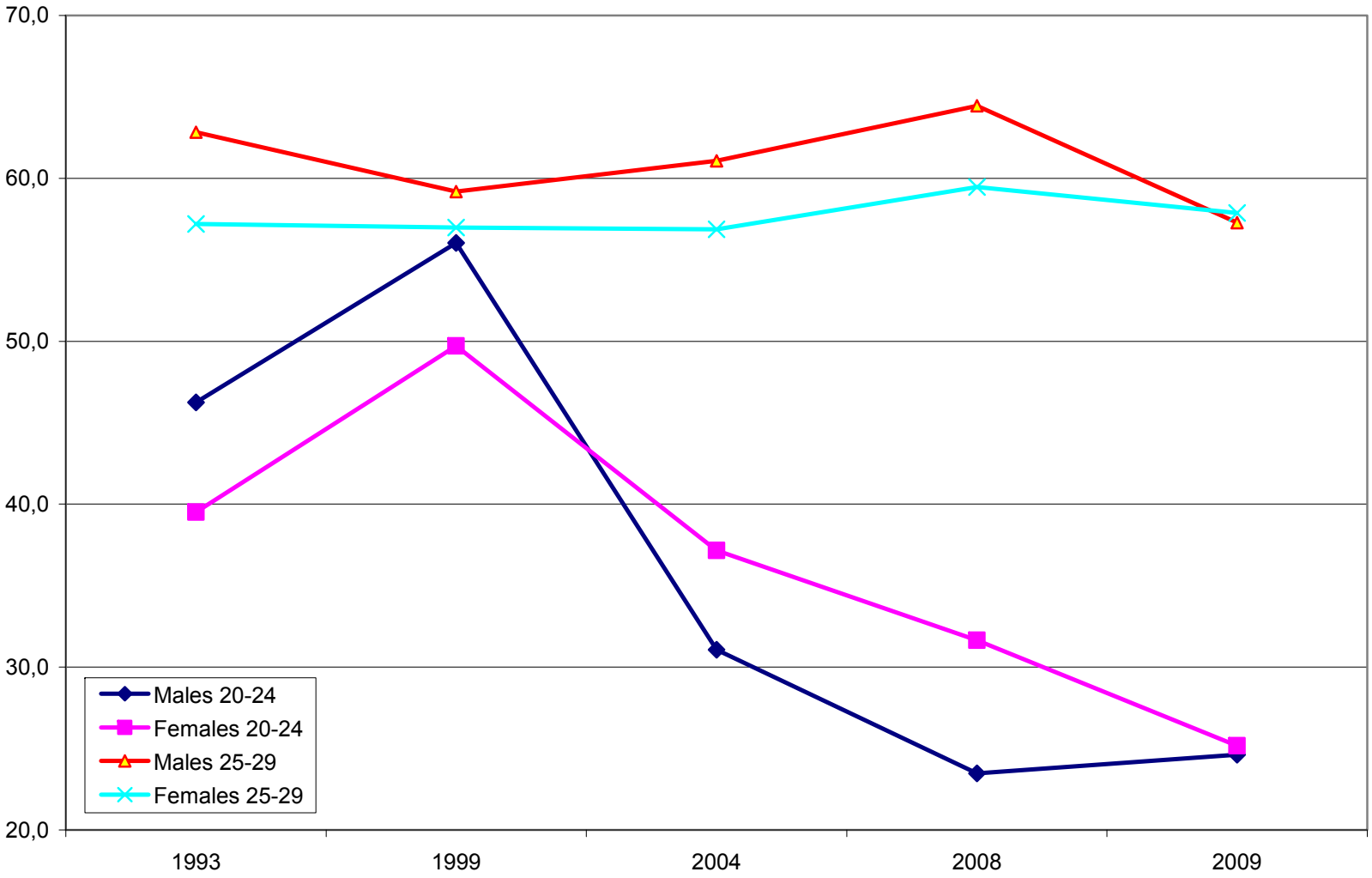


Fig. 4 Employment rates of degree holders by gender and age group - %



Tab 3. Activity, employment and unemployment rates by gender, age group and highest level of education attained (%)

	Males 20-24				Females 20-24			
	2004	**2006**	**2008**	**2009**	**2004**	**2006**	**2008**	**2009**
Diploma Holders (2-3 years)								
Activity Rate	83.6	88.5	85.7	84.2	83.5	77.4	72.6	70.2
Employment Rate	74.6	78.5	77.9	69.7	70.4	65.0	59.1	53.7
Unemployment Rate	10.8	11.3	9.2	17.2	15.6	16.1	18.7	23.5
Diploma Holders (4-5 years)								
Activity Rate	46.6	50.1	50.4	48.2	43.7	39.8	38.4	36.6
Employment Rate	37.5	41.3	41.4	37.8	33.9	31.4	30.7	28.0
Unemployment Rate	19.5	17.5	17.8	21.6	22.3	21.0	20.0	23.5
First-level Graduates								
Activity Rate	32.7	23.9	27.5	29.4	53.8	41.7	39.8	36.1
Employment Rate	27.5	18.9	22.1	23.4	39.3	32.8	30.2	24.0
Unemployment Rate	15.8	21.0	19.8	20.6	26.9	21.3	24.1	33.4
Second-level Graduates/VO								
Activity Rate	53.1	47.9	44.2	42.6	54.8	50.8	59.5	50.5
Employment Rate	34.4	35.6	33.3	32.8	32.8	30.0	41.7	32.7
Unemployment Rate	35.2	25.6	24.7	23.0	40.2	40.9	29.9	35.2

	Males 25-29				Females 25-29			
	2004	**2006**	**2008**	**2009**	**2004**	**2006**	**2008**	**2009**
Diploma Holders (2-3 years)								
Activity Rate	94.5	94.3	93.7	95.0	82.1	77.0	74.2	73.9
Employment Rate	90.1	89.9	88.4	86.6	67.2	67.2	66.8	64.3
Unemployment Rate	4.7	4.7	5.7	8.9	8.6	9.3	13.8	16.9
Diploma Holders (4-5 years)								
Activity Rate	78.8	78.7	79.1	77.1	67.2	67.2	66.8	64.3
Employment Rate	70.8	71.8	72.6	68.9	58.8	59.7	59.7	55.9
Unemployment Rate	10.1	8.8	8.2	10.6	12.5	11.2	10.6	13.1
First-level Graduates								
Activity Rate	79.3	69.6	62.6	57.7	83.6	75.3	65.8	65.5
Employment Rate	68.3	61.3	54.4	47.7	73.9	64.7	58.4	55.6
Unemployment Rate	13.9	11.9	13.0	17.4	11.5	14.1	11.1	15.1
Second-level Graduates/VO								
Activity Rate	73.7	75.7	79.7	75.0	70.3	70.5	70.6	71.6
Employment Rate	59.8	63.4	70.8	65.1	53.6	57.2	60.0	59.5
Unemployment Rate	18.8	16.3	11.2	13.2	23.7	18.9	15.0	16.9

Tab. 4 Activity, employment and unemployment rates by region, gender, age group and highest level of education attained (%)

	Diploma Holders (2-3 year)			Diploma Holders (4-5 year)			First-Level Graduates			Second-Level Graduates/VO		
Activity Rates - 25-29 age group - Males												
	2004	**2008**	**2009**	**2004**	**2008**	**2009**	**2004**	**2008**	**2009**	**2004**	**2008**	**2009**
N-W	96,5	97,5	98,2	87,1	88,3	88,5	84,1	77,9	77,6	80,2	87,2	84,2
N-E	96,0	96,9	97,0	84,9	86,0	87,0	87,7	73,9	60,2	79,3	86,8	80,9
Centre	91,3	87,7	92,9	79,7	79,7	79,4	79,5	51,0	51,0	76,1	80,0	72,9
South	90,2	84,1	87,5	70,5	70,9	65,8	65,4	49,6	45,5	63,0	68,8	63,8
Activity Rates - 25-29 age group - Females												
N-W	87,4	77,6	81,8	79,5	81,9	80,2	87,7	76,4	74,9	78,5	77,4	79,2
N-E	88,9	80,8	78,4	81,6	80,7	79,4	92,5	76,3	73,7	74,7	69,4	76,3
Centre	82,6	76,2	75,9	70,4	70,0	69,4	81,5	64,7	67,4	69,2	75,7	71,9
South	56,3	53,6	49,5	51,2	50,5	46,4	73,0	50,9	52,2	62,0	62,8	63,0
Employment Rates - 25-29 age group - Males												
N-W	92,3	94,8	89,8	83,6	85,4	82,6	82,4	71,0	65,1	72,5	82,2	77,5
N-E	94,9	94,3	93,2	81,6	83,4	83,9	82,3	68,3	53,3	70,2	81,4	75,5
Centre	88,2	84,1	85,2	71,7	74,2	73,0	63,4	46,6	43,6	64,4	74,1	60,4
South	75,2	66,4	70,5	57,7	60,5	53,5	43,3	35,3	33,5	39,6	52,4	50,1
Employment Rates - 25-29 age group - Females												
N-W	84,5	71,4	69,8	74,9	77,3	74,3	82,6	72,5	67,4	71,2	70,1	74,2
N-E	81,4	73,5	68,0	77,2	77,0	73,7	81,9	71,8	65,8	63,0	65,9	69,4
Centre	73,9	51,4	62,5	63,1	62,0	59,9	78,7	59,5	58,9	55,7	64,6	57,2
South	40,4	39,6	33,4	38,1	40,9	36,0	53,1	37,4	38,4	33,4	46,2	44,2
Unemployment Rates - 25-29 age groups - Males												
N-W	4,3	2,8	8,6	3,9	3,4	6,7	2,1	8,8	16,1	9,6	5,6	8,0
N-E	1,1	2,6	3,9	3,9	3,0	3,6	6,1	7,6	11,4	11,5	6,2	6,7
Centre	3,3	4,0	8,4	10,1	6,9	8,2	20,3	8,8	14,4	15,4	7,4	17,1
South	16,6	21,0	19,5	18,1	14,7	18,7	33,8	28,9	26,5	37,1	23,9	21,5
Unemployment Rates - 25-29 age groups - Females												
N-W	3,3	8,0	14,7	5,7	5,7	7,4	5,9	5,1	10,1	9,3	9,3	6,3
N-E	8,5	9,0	13,3	5,3	4,6	7,2	11,4	5,9	10,8	15,8	5,1	9,1
Centre	10,5	32,5	17,6	10,4	11,3	13,7	3,4	8,2	12,6	19,5	14,7	20,5
South	28,1	26,1	32,5	25,7	18,9	22,5	27,2	26,6	26,4	46,1	26,4	29,8

Tab. 5 The average level of education of population and labour market aggregates (number of years)

	25-29 age group - Males			25-29 age group - Females		
	2004	**2008**	**2009**	**2004**	**2008**	**2009**
Italy						
Population	11,02	11,38	11,51	11,57	12,08	12,18
Employed	10,83	11,26	11,32	11,88	12,46	12,53
Unemployed	10,99	11,18	11,35	11,69	12,15	12,46
Inactive	11,87	11,92	12,16	11,04	11,48	11,61
	Age groups 25-29 - Male			Age groups 25-29 - Female		
	2004	**2008**	**2009**	**2004**	**2008**	**2009**
North East						
Population	11,21	11,50	11,57	12,09	12,57	12,69
Employed	11,01	11,34	11,34	11,93	12,36	12,60
Unemployed	11,82	11,75	11,74	11,69	11,27	12,69
Inactive	12,55	12,67	12,94	11,30	11,88	11,61
	Age groups 25-29 - Male			Age groups 25-29 - Female		
	2004	**2008**	**2009**	**2004**	**2008**	**2009**
South						
Population	10,72	11,06	11,22	11,20	11,68	11,89
Employed	10,43	10,93	11,02	11,65	12,38	12,58
Unemployed	10,70	11,03	11,00	11,78	12,29	12,43
Inactive	11,45	11,35	11,64	10,73	11,08	11,35