

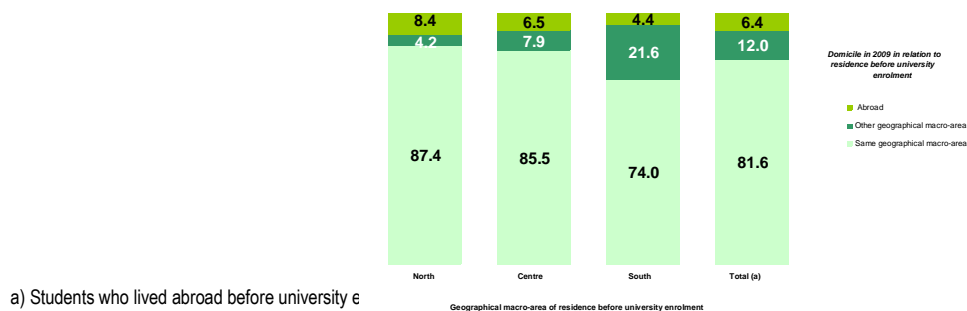
DOMESTIC AND INTERNATIONAL MOBILITY OF PHD GRADUATES 2009 survey on professional placement of PhD graduates

In Italy, over the last decade, there has been a constant growth in the provision of PhD courses, which has led to an equally constant increase in the numbers of young people who have completed their studies in this segment, the highest level in the Italian education system. Indeed, from the approximately 4,000 people who obtained a PhD degree in 2000, the number had risen to over 12,000 in 2008. In this context, an analysis of the geographical mobility of PhD graduates constitutes an important information base for studying migrations of highly qualified individuals. The so-called *brain drain* and international mobility of *high-skilled* workers constitute issues of significant interest in an increasingly competitive and dynamic knowledge society.

The survey conducted by ISTAT between the end of 2009 and the beginning of 2010 of PhD graduates who obtained their degrees in 2004 and 2006 makes it possible to read various moments in these individuals' educational and professional careers. The target universe consists of 18,568 PhD graduates (8,443 from 2004 and 10,125 from 2006), within which it is interesting to compare place of residence before university enrolment and domicile (place of usual dwelling) at the time of interview, that is, approximately five years after obtaining the PhD for the 2004 cohort and approximately three years for the 2006 cohort.

74% of PhD graduates who lived in the southern regions before university enrolment still had their place of usual dwelling in the same geographical macro-area at the time of interview: this figure rises to 85% among graduates who lived in the Centre and in the North (Figure 1). Graduates from the South moved mainly to the Centre and the North (10.8% in both cases); for PhD graduates from the central regions, in contrast, a tendency to move to North Italy (6.7% of residents before university enrolment), comparable to the percentage moving to other Countries (6.5%), was observed. Graduates from the northern regions demonstrate mobility above all overseas (8.4%), accounting for a significant proportion of the "international migrations" of the group analysed.

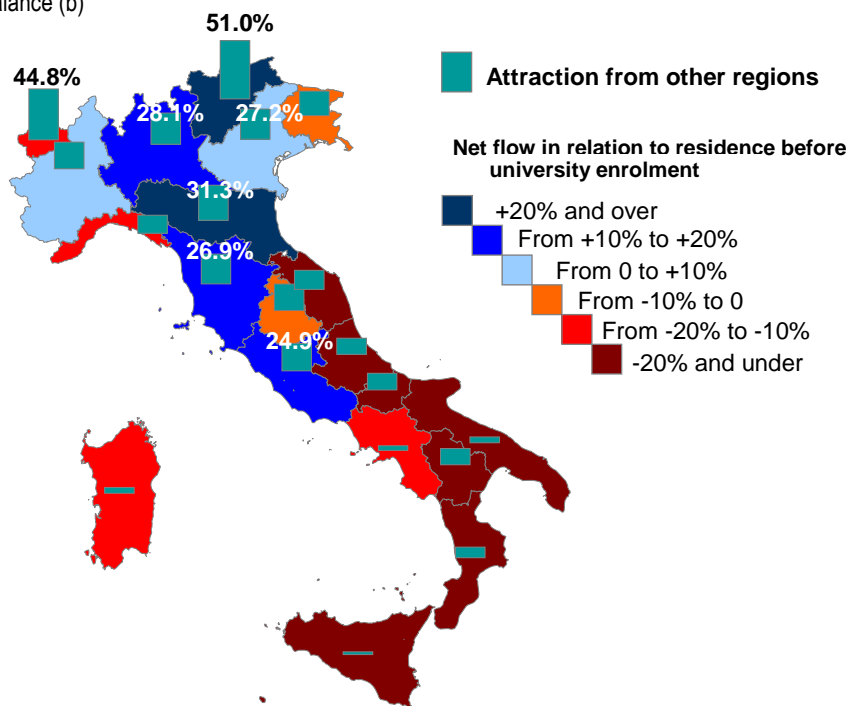
FIGURE 1. PHD GRADUATES WHO OBTAINED THEIR DEGREE IN ITALY IN 2004 AND IN 2006 BY GEOGRAPHICAL MACRO-AREA OF RESIDENCE BEFORE UNIVERSITY ENROLMENT AND MACRO-AREA OF DOMICILE (PLACE OF USUAL DWELLING) IN 2009



ore than 80% of PhD graduates from the Piedmont, Lombardy, Emilia-Romagna, Tuscany, Lazio and Sardinia regions, at the time of interview still lived in the same region as before university enrolment. In contrast, a lower *retaining capacity* (less than 70%) is exerted by most of the southern regions. The greatest *capacity of attraction* is observed for Trentino-Alto Adige, Emilia-Romagna, Lombardy, Veneto, Tuscany, Lazio and Piedmont: over 24% of PhD graduates living in these regions at the time of interview came from other regional contexts (Figure 1). From the Centre to the South the net migration balance (in relation to residence before University enrolment) was markedly negative for the central-southern Adriatic regions, for Basilicata, Calabria and Sicily (a negative net balance of over 20%).

FIGURE 1. PHD GRADUATES WHO OBTAINED THEIR DEGREE IN ITALY IN 2004 AND IN 2006 BY REGION OF RESIDENCE BEFORE UNIVERSITY ENROLMENT AND REGION OF DOMICILE (PLACE OF USUAL DWELLING) IN 2009 (a)

Index of attractiveness and regional net migration balance (b)



a) The interviews were conducted during the period from December 2009 and February 2010

b) The index of attractiveness is the percentage of PhD graduates whose place of usual dwelling at the time of interview was in a region (region of residence before university enrolment) from other regional contexts.

At the time of interview, PhD graduates from 2004 and 2006 whose place of usual dwelling was in a different geographical macro-region from the one of residence before university enrolment accounted for 12% of the total, while those who lived abroad accounted for 6.4%. Male PhD graduates were more willing to move abroad (7.6% as opposed to 5.1%), while no gender differences were observed in relation to domestic mobility (12% for both sexes).

The PhD graduates with greatest mobility, especially beyond national borders, are those from the North, who have spent periods abroad during their studies or who mainly conduct research in their jobs. A greater inclination to move is also observed among those PhD graduates who obtained their degree before the age of 32 and among those who come from families in which at least one of the two parents possesses a university degree.

The subject area in which PhD graduates obtained their degree differentiates PhD graduates' mobility. PhD graduates in the Physical Sciences migrate with the greatest frequency: 22.7% to other Countries, 14.3% domestically. PhD graduates in Mathematics and Computer Science/Information Technology are also attracted abroad. It should be pointed out that in all subject areas, including those characterised by a greater presence of females, the willingness of male graduates to move abroad is greater.

To sum up, the typical profile of the PhD graduate who is "mobile" towards other Countries takes on the following characteristics: he/she is from the Centre-North, from a family with a high level of education (father or mother with at least a secondary school diploma), obtained his/her PhD at a relatively young age (under 32) and conducts research (at least partly) in his/her current job, which he/she commenced after obtaining his/her PhD degree. These characteristics are shared by around 35% of graduates who moved abroad; 14.7% of graduates with this profile lived in another Country at the time of interview.