

*"Gran duol mi prese al cor quando lo 'ntesi,
però che gente di molto valore conobbi
che 'n quel limbo eran sospesi"
(Dante Alighieri, Divina Commedia,
Inferno Canto IV)*



Associazione Dottorandi e
Dottori di Ricerca
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A picture of doctoral studies in Italy

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Definition of the doctorate

"The *laurea* degree entitles its holder to use the title of *Dottore/Dottoressa* (shortened to *Dott./Dott.ssa*), which corresponds to a second level university qualification, not to be confused with the British Ph.D., the French Doctorat, or the German Ph.D., all third level degrees the titles for which are shortened to Dr. In the Italian system, the *Dottorato di Ricerca* is what actually corresponds to most European and non-European doctorates. It is a third level university degree conferring the title of *Dottore di Ricerca*, for which no official abbreviation has yet been determined. It could be Dr."

Educational System in Italy

From kindergartens to university

The Italian educational system is controlled by the national government. The ministry of education maintains schools at every level and closely regulates private schools. The ministry prepares school curricula and holds competitive examinations for the appointment of teachers in all government schools. However, although most universities and other institutions of higher learning are maintained by the state, they all have autonomy in their organisation and curricula. Nevertheless, to ensure high standards, state examinations are required for the practice of most professions.

For children below the age of six there are kindergartens and nursery schools, known as *asili infantili* and *scuole materne*. They are privately run or maintained by individual communities and are not compulsory. However, the ministry of public instruction provides considerable financial assistance to these schools.

Education is free and compulsory for all children from 6 to 14 years of age. The primary school is a five-year school for children from the ages of 6 to 11. When a child complete his or her primary education at 11 he or she must enter a three-year of lower middle school (*scuola media inferiore*). Upon completion of middle school, generally at the age of 14, the student who wishes to continue schooling has two courses open: academic schools and technical institutes, both five-year schools. The academic schools are specialised for classics (*ginnasio, liceo classico*), science (*liceo scientifico*), teaching (*istituto magistrale*), and fine arts and architecture (*liceo artistico*). Completion of an academic school program qualifies the student for university admission. The technical institutes offer programs in agriculture, commerce, surveying, naval science, and industry. Their programs qualify the student for admission to the appropriate university faculties for the fields of study in which he or she has prepared.

Universities. There are more than 40 state universities in Italy. The five largest were the universities of Rome, Naples, Milan, Bologna, and Padua. There were also polytechnic institutes at Milan and Turin and a number of private universities, of which the largest was the Catholic University of the Sacred Heart at Milan. In addition, many Italian cities had conservatories of music and academies of art. Of the state universities, 20 were established before 1600. The University of Bologna, founded in the 11th century, was one of the most distinguished schools of the Middle Ages. Other very old Italian universities and their dates of founding are Parma, 962; Modena, 1175; Perugia, 1200; Padua, 1222; Naples, 1224; Siena, 1240; Macerata, 1290; Rome, 1303; Florence, 1321; Camerino, 1336; Pisa, 1343; Pavia, 1361; and Ferrara, 1391.

About 1.65 million students were enrolled in Italian institutions of higher education in the 1999/2000 academic year, including more than one million in the state universities. In the late 1930's enrollment was only 75,000. It was 1.2 million in the early 1990's. An important part of the increase in university enrollment results from the greater number of women students. In the late 1930's women made up only 20% of the total registration; by the late 1970's they constituted more than 40%. Now, there are more women than men. Despite these gains, Italy continues to trail the leading European states in terms of expenditure per student and the average educational attainment.

Courses in most university faculties last four years, but the faculties of chemistry, engineering, and architecture require five years, and medicine requires six. Since 1963, in lieu of scholarships and fellowships, university students who have above-average grades and can show need receive moderate stipends for each academic year.

In the early 1990's there were more than 25,000 foreign students attending Italian universities. Several universities offer special programs in Italian language, literature, art, and civilisation for foreign students. Most surprisingly, in a country respected for its academic traditions, Italian universities turn out too few students. A study found that only 6% of Italians have a university degree, compared with 16% in



Germany, 35% in the UK and 33% in the US. Drop-out rates are another problem, with 30% overall dropping out, compared with 19% in the UK.

But by far the biggest problem is the time it takes students to gain degrees. Last year, the average Italian graduate was 26. Italian students' relative maturity is partly due to the fact they attend school for 13 years, 12 months longer than in most countries, and that men have to spend a year doing national service.

The situation is exacerbated by study times that are among the longest in the world. Italians study for more than seven years, compared with six in Germany, four in the US and 3.5 in the UK. Many believe that Italy's best chance to cut study times might be to adopt the Anglo-American system of a three to four year bachelor's degree. Courses would be more structured and progress more closely monitored. Only in 1996 were Italian faculties allowed to offer BA courses. However, the majority of students still see a BA as inferior and fear they will lose out in the job market.

Doctorate

The introduction in Italy of a formal set of courses for postgraduate students, leading to the official doctoral qualification (*Dottore di Ricerca*) is fairly recent, dating back to the year 1984 as a result of the University reformation bill of 1980. The Italian legislation of that time implied a centralised authority and therefore the authorisation to open a doctoral school, the funding of the fellowship and the granting of the official degree was exclusive competence of the Ministry of Education. In the meantime the competence in the field of University and of Scientific and Technological Research has been granted to a separate Ministry (MURST), and many steps have been taken toward an increasingly larger administrative autonomy of the Universities. In this framework it is likely that the organisation of doctoral schools will change in the near future.

A number of reforms concerning higher education and research have been announced and are being undertaken. A credit system has been proposed where each student will have to acquire a certain number of points per year to advance to the next year and each degree is granted after the acquisition of a minimum number of points. This system will introduce a larger flexibility in the curricula so that students can mix and match different courses following largely their personal choice.

Moreover, the universities are able to award research doctorates without going to the Ministry. The official duration of University courses varies according to the subject, being 4, 5 or 6 academic years. The effective duration of the university education is, on average, at least, two years longer than the official length, due to the possibility of delaying the exams after the end of the courses. After the successful completion of all the exams and having received the final degree (*laurea*), the student can apply for entering a doctorate course.

Each doctorate school awards, at the beginning of each academic year, a fixed number of fellowships and therefore opens a fixed number of new doctorate positions (*dottorando*). These fellowships are awarded after written and oral examinations that take place in the different universities, in the early months of the year. Because of this selection procedure there is an average gap of nine months between the *laurea* and the beginning of the doctorate school.

The doctorate schools are, in principle, open to foreign students, but the entrance examination, often only in Italian, is a great barrier to their participation. Moreover, there is an upper limit to the number of foreign students (50% of the Italian students). The foreign students, as the Italians, have to pass the entrance exam, but have to find fellowships from their national institutions.

The doctoral study lasts three or four academic years depending on the subjects. In general each student must follow courses and seminars without final examination in the first year, while the research work is full time in the following years. Every year the student must produce a report of the progress of his or hers course, which is evaluated by the board of professors in order to be admitted at the following year. Teaching was not allowed until 1998, while now a limited amount of voluntary teaching is allowed. At the end of the doctoral courses the students must write a thesis, either in Italian or in a foreign language, which is judged by the board of professors of the school and by a national committee appointed by the MURST which, after an oral exam, is ultimately responsible of granting the official title of *Dottore di Ricerca*.

The funding of the doctoral schools is mainly dedicated to grant the fellowships to the students. The grant amounts to just above 20 million ITL (circa 10000 euro), free of fiscal duties, per year, with an increase of 50% during the period spent abroad. The teaching is provided by the staff of university departments. The cost of the research implied by the doctoral thesis is supported by the research grants of the supervisors of the thesis. The present law allows to have up to twice as much doctoral positions,



half of them not paid by the MURST. This yields to have doctoral students with a public grant, students with a private grant and students with no grant at all.

The number of new fellowships awarded by MURST for doctoral schools in recent years is as follows

1992	1993	1994	1995	1996	1997	1998
4008	3997	4000	4323	4338	4518	4000

These figures include the fellowships funded by the EU Structural funds, but not those awarded by private or public Italian institutions.

According to a survey carried out by ADI on about 269 fellows who replied to a questionnaire during April and May 1998 (www.dottorato.it/qualita), the age of doctoral students is distributed as in the following table:

	number	%	% corr.	% cum.
25-28	86	32	32	32
29-31	121	45	45	77
over 31	62	23	23	100,0
	269	100		

According to the same survey, in 1998 the doctoral students were 49.1% male and 50.9% female. 98.5% were Italians and only 1.5% were holding a foreign citizenship.

To summarise the Italian educational system and how it is changing the Figure below shows the different educational levels and the average age of students attending.

OLD MODEL

level:	Primary	medium	high	university	doctoral
age	6-11	11-14	14-19	19-26	24-30
length (yrs)	5	3	5	4 - law 5 - mostly 6 - medicine	3

NEW MODEL

level:	Primary	medium	high	university	doctoral
age	6-11	11-14	14-19	19-26	24-30
length (yrs)	5	3	2+3	3+2	3

What would we like to discuss at an European Forum?

- Comparability of degrees in Europe
- Mobility stimulating programmes during Ph.D. training
- Quality Evaluation

Comparability of degrees in Europe

As you all know there's a lot of political debate about streamlining and equalising the academic education within Europe to facilitate exchange, similarity and to intensify collaboration and discussion between the various European universities.

Italy, particularly the *Centro di Informazione sulla Mobilità e le Equivalenze Accademiche* (CIMEA), has come to realise that most of its higher education qualifications are not known abroad. Therefore, it will soon provide written information on its whole system. Anyhow, Italy is of the opinion that the *Diploma Universitario* - DU (first level university degree awarded after three years of undergraduate full-time professionally-oriented studies) should be considered for admission to graduate studies, while the *Diploma di Laurea* should be accepted for admission to doctoral studies.

According to our experience, the Italian doctorate degree is easy to spend abroad, while the recognition of a foreign Ph.D. in Italy is granted by the Minister of University and Scientific Research (MURST) on the



basis of an assessment conducted by a national commission (*Comitato Universitario Nazionale* - CUN) which is very strict on its rules. The degree for admission into the Italian doctoral schools must be at least 4/5 years long and very similar to the Italian equivalent. The duration of the Ph.D. programme abroad must have been at least three years.

Even more problematic is the recognition of foreign undergraduate and graduate degrees for the admission to an Italian doctoral school. This is done by the single university's *Senato Accademico*, which grants a full legal recognition, or by the professors board of the doctoral school, which grants a partial recognition, only for the admission to the doctoral school. Only 30% of the foreign degrees, that in other countries allow admission to a Ph.D. programme, are recognised in Italy and this creates an obstacle for the full mobility of doctoral students among European and overseas countries.

Mobility stimulating programmes during Ph.D. training

Contributing to international understanding is one of the basic principles set out in the Constitution of UNESCO, and the promotion of the mobility of teachers, researchers, and students is one of the ways to attain this objective. It is in this spirit that the six regional conventions on the recognition of studies in higher education were adopted by UNESCO, in the late 1970's, as a means to promote mobility, and in the framework of its ultimate goal: to contribute to the elaboration of a universal convention on the recognition of studies.

In the area of academic recognition, in this vital process of the internationalisation of higher education, even the concepts have evolved: shifting from the notion of equivalence, promoted in the 1950's in the Equivalence Conventions of the Council of Europe, to the concept of recognition, introduced by the UNESCO Conventions in the late 1970's. The latter is being replaced in the 1990's by the overriding concept of acceptance.

It is through a constant dialogue, an exchange of information, and an understanding of different educational systems that an adequate acceptance of degrees can be promoted within Europe, but also between the European countries and the United States, in order to meet the realities of increased exchanges of students, teachers, and researchers.

The observations on the European Research Area highlights the lack of mobility for researchers in Europe. As far as Italy is concerned, the main reason is a substantial lacking of financial resources dedicated to the enhancement of mobility. This adds to a general reluctance to leave one's birthplace. As a result, most students tend to spend most of their training period in the same institution, which certainly is not an optimal choice for their professional growth.

According to the ADI survey, only 20% of the Italian doctoral students undertake a training stage abroad during their education. Such rate grows to 26% in the case of students in science and technology, and falls down to 12% in the other cases; it is lower for women (16.4%) than men (23.4%). Moreover, even when mobility does occur it is not for very long: 83% of the periods of study abroad last less than six months.

Furthermore in Italian universities there is an overwhelming bureaucracy: every application has its own rules, times, deadlines, length of the period abroad, age limits, experience required and so on.

Quality Evaluation

Measuring success in R&D for single researchers, groups or even nations is a demanding task. There exists, as far as we know, at least two international peer-reviewed journals completely devoted to this subject ("Scientometrics" and "Research evaluation").

The Italian Ph.D. Association - ADI

The Italian Ph.D. Association (*Associazione Dottorandi e Dottori di Ricerca Italiani* – ADI – www.dottorato.it) gathers Italian doctors and doctoral students. This association was established in January 1998 to provide mutual help and support among Italian doctoral students and doctoral diploma holders, including those studying and working abroad.

The aim of the Association is to promote the doctoral degree into the Italian society, the professional placement of the doctors, the improvement of higher education and other cultural matters. One of the most important accomplishments in the first two years of activity has been to act as a stimulating and inventive counterpart to University/Research/Education related issues for the Italian government institutions.



The association counts approximately 1000 members to date. It is a national non profit association and is spread over a number of local offices. Each local office acts as a little "stand alone" association, with its own budget (half of the membership fees raised locally) and its own internal structure and activities. Each local office has a representative in the national Board of Governors (in Italian: CdA, *Consiglio di Amministrazione*) where all the collective decisions are taken.

The Board of Governors meets three/four times each year, in addition to the annual general members meeting. Moreover, it is continuously active through electronic mail (tens of messages each day). Operationally, the association runs a number of Task Groups (in Italian GOL: *Gruppo Operativo di Lavoro*) each of which has its own web page and mailing list, open to everyone to subscribe to and to send his or her own comments on the subject at hand. There are also two general lists (discussion and news). The web site is a reference point for Italian Ph.D. related topics and has been awarded in 1999 as the best web site among Italian associations by the most important Italian economic newspaper (*Il Sole 24 Ore*). Technical support is provided by expert members through software based on advanced technologies (JAMES: Java Association Manager for Extranet Systems). This software was developed specifically for ADI and has subsequently been marketed by their developers through their own private company. For more information about ADI: www.dottorato.it (in Italian) .

ADI-Estero

ADI-Estero is one of the Task Groups (in Italian GOL: *Gruppo Operativo di Lavoro*) run by the Italian Ph.D. Association (*Associazione Dottorandi e Dottori di Ricerca Italiani - ADI*) which gathers Italian doctors and doctoral students studying and working abroad.

The group was established mainly to take care of the "foreign affairs" of the Association. It has its own web page (www.dottorato.it/gol/estero) and mailing list (adi-estero@dottorato.it), open to everyone to subscribe to and to send his or her own comments on the subject at hand.

As of February 2001, the 82 members of the group were co-ordinated by Lucia Ballerini (Lucia@cb.uu.se) with the help of Enrico Piazza (enrico.piazza@naviaav.no) and Samuele Marcora (pesa04@bangor.ac.uk).

What do we do?

- ❑ ADI: the book. "Cervelli in Fuga - tales of Italian brains abroad" (www.cervelliinfuga.it)
- ❑ The [answers](#) to the [questions](#) in the in the EC white paper "Towards a European Research Area" by the European Commissioner for Research Philippe Busquin.
- ❑ We are proud members of PI-NET – Postgraduate International Network (www.pi-net.org)
- ❑ [Letter](#) to all the Italian researchers abroad
- ❑ Some of the subjects we are working on are:
 - acknowledgement of degrees obtained abroad (including Ph.D.) in Italy
 - strategies to "rescue" the Italian researchers "escaped" abroad
 - discussion on the status of reseach in Italy and Europe.

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