Italy Does Not Value Its PhDs

The PhD is a relative newcomer to the Italian education scene (see sidebar). Sadly, its popularity among the young--demand for funded PhD places far outstrips supply--has yet to be matched with enthusiasm among the older generation of scientists. This creates a wealth of problems for doctoral students, as well as those that have already completed their doctorates. Many current students have no funding, and newly minted PhDs find themselves competing for posts in a job market which, both in academia and outside, has yet to recognise the value of the qualification.

Universities, however, have been quick to exploit the high demand for PhD training. A law passed in 1998 allows universities to offer up to twice as many PhD positions as they have grants. Moreover, these extra, unfunded PhD students can be charged a fee (see sidebar). The result is that now almost twice as many students start a PhD as before 1999, but a higher percentage than before quit without completing their degree. It is common to hear tales of woe from students who started a PhD without a grant, hoping to find some other funding later. When they fail in this, and can no longer afford the costs, they are forced to abandon their studies. For such students, the most realistic chance of funding comes from another public source, such as support for students from low-income families. But the amount does not cover the cost of living and is linked to parental income, a situation PhD students find uncomfortable because their average age is 27 to 30. With this level of maturity, most feel that they should be independent from their families.

But despite its eagerness to have a multitude of PhDs trained, the

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ADI would like to see recent reforms completed through the adoption of the following changes:

1. Fulfil without further delay the pledge to increase spending for research and education, so that the number of researchers, their salaries, and their equipment meet European standards.

2. Acknowledge that research is work done for the benefit of the host institution, and therefore must be rewarded appropriately. Research is not a romantic hobby to be pursued for pleasure, or even a privilege to pay a tax for, as it is now for half the Italian PhD student population. Temporary positions, especially after a PhD, should not be paid from scholarships but on regular work contracts similar to those of permanent staff.

3. Recognise the importance of PhD studies. Restrict the possibility of spending time after graduation on research grants without enrolling into a PhD program; raise the minimum requirement for becoming a tenured researcher from a laurea to a PhD; transfer work load from the 1st and 2nd level degrees to the 3rd, and promote the latter as much as the two former; reserve the doctor title to PhDs.

4. Conform recruitment procedures to international standards, and start hiring truly the best candidates, even from abroad. The current habit of preferring local candidates is not just a matter of mentality or uncompetitive salary, but is due also to the impracticality of travelling at one's own expense from, say, California to write two tests for a lecturer position before any preselection of the applications is done by the panel on the basis of the candidate's publications, experience, and interests.

The multitude of PhDs trained, the Italian State does not fully recognise the qualification's worth. Those students who battle through to the end of their PhD, fully funded or not, find that they face considerable insecurity should they choose to pursue an academic career. There are still several opportunities to get grants or appointments for doing research at universities and public institutions for those who have only a laurea and who have no intention of pursuing a PhD. Furthermore, few permanent positions in universities and public research centres have become vacant in the last decade, the legacy of mass-hirings in the 1970s and 1980s. In fact, from 1989 to 1999 the average age of university teachers increased by almost 10 years to 52, and it is anticipated that 30% will reach retirement by 2005. In the meantime, postdocs are spending many years in a sort of limbo. Almost without exception, they are paid from meagre grants as, traditionally, full employee status is reserved for those in permanent positions. The disadvantages of grant-holders are obvious: reduced or no pension contributions and other benefits, fewer rights such as sickness and maternity leave, and payment intervals of two or more months. In theory, one can even be asked to return the last year of grant funding if one's performance was deemed unsatisfactory. In general postdocs are given the impression that they are not engaged in serious employment, even though most are in their 30s.

For those who decide to strike out from the academic environment, the situation is hardly any better. A PhD does not usually yield a salary advantage, rather there is a disadvantage for entering the job market later. Companies or public authorities that acknowledge a PhD or even look explicitly for it are an exception. This situation has worsened because the high-tech sector of the Italian economy...
This situation has worsened because the high-tech sector of the Italian economy, always small, has shrunk from 7.2% of GNP in 1985 to 6.4% in 1995. Altogether, the percentage of the Italian GNP invested in research fell from 1.3% in 1990 to 1.0% in 2000 (43% coming from the private sector), while the EU average was respectively 2.0% and 1.9%. In a recent article in Nature (1), it was observed that although Italy is one of the world's wealthiest countries, on most measures of scientific research activity it compares not with powerhouses such as the United States, Germany, or Japan but with such minor scientific nations as Portugal. The last National Research Programme (2) talked openly of a structural anomaly of the country in the field of science and technology and aimed to almost double the percentage of GNP invested in research by 2006. This pledge was confirmed by the new government, endorsing an appeal by EU Commissioner Philippe Busquin to raise Europe's average GNP quota for research from 2% to 3% over the next few years. However, in reality, the planned budget for 2002 does not start the funding ramp-up, originally due this year. Rather, it is possible that spending will be further reduced.

So, even though fewer than 4000 PhDs were awarded last year in Italy (just 1/3 of the number in France or the UK and 1/6 of the German total), job opportunities are scarce. The result is that many Italian PhDs leave their country permanently (the title is fully accepted abroad, while the old-style laurea is difficult to classify in the Anglo-Saxon education system). This exodus is not balanced by the immigration of foreign PhDs, a phenomenon highlighted in a recent book (3) that is also a comprehensive source of facts, figures, and bibliography about the Italian PhD. It tells the stories of 20 Italian PhDs, showing the success that they often find in establishing careers abroad and providing evidence that their training matches up to international standards.

A handicap faced by many of these emigrating doctors is their advanced age, around 30. This is the result of the shortcomings of the Italian undergraduate education system: 88% of students take longer than the scheduled 4 or 5 years to achieve a laurea (on average they need 2 or 3 more years), and over 60% of freshmen drop out (1998 figures). The aim of the "3+2" reform (see sidebar) started this year is not only to harmonise Italian academic degrees with those of other countries, but also to ensure that more people graduate in the scheduled time. Despite such laudable aims there has been opposition: "We will produce ignoramuses," complain old-fashioned professors. In the debate, the role of the PhD was overlooked: It should be obvious that a PhD is the right place to teach the advanced knowledge that must be removed from the new undergraduate curricula to make them really feasible in 3+2 years. It seems that more time is still needed to make even some academics aware that university is not just about the laurea.

The Italian PhD was overhauled in 1997-1998, a process to which the Italian Doctoral Students Association (ADI) was able to contribute. ADI originates from action taken by doctoral students from January 1996 onwards because of two widespread complaints. Firstly, the Ministry of Education, University and Research's sluggish central appointment of external examination boards delayed the defence of the thesis by up to 10 months after the submission deadline. Secondly, the PhD grant had been stuck at as little as 13 million lire (€6745) per year since 1989. The ministry has now given almost total control to the universities, so that boards are appointed locally and exams take place within 2 months of completing the thesis. The grant was increased by over 50%, and partial discounts are available. ADI welcomes efforts made by those involved.
pension contributions were introduced. ADI made further successful requests. For example, it is now possible to apply for a PhD position before graduating from the laurea or its foreign equivalent, which reduces the waiting time. PhD students can now elect representatives to a national students' council and to the academic senate of an increasing number of universities, enjoy economic benefits similar to those of undergraduate students, choose to write their thesis in a foreign language, appeal following a failed defence, and hold their title right after a successful defence, because all further bureaucratic requirements like filing copies of the thesis to the national libraries have been transferred to the universities.

This has shown that it is possible for doctoral students to make their voices heard. Unfortunately, good progress made in the 1997-1998 reforms were partially undone, for example, by allowing the universities to take in unfunded PhD students. By leaving old problems and creating new ones, the authorities have ensured that Italian PhDs still have plenty of campaigning left to do.

References

See also a recent story in ScienceNOW, Italian Scientists Cry Foul, which describes the Italian government's plan to scale back science funding in 2002. (*Subscription required*)

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