



EURODOC 2005 QUESTIONNAIRE - PORTUGAL

ANSWERS

PART ONE

General questions and Discussion

1. There aren't any significant changes neither in the situation of PhD candidates or in the situation of junior researchers. Nevertheless, a new grant's law has been approved (lei 40/2004), which timidly improves the previous one.

However, this new law awaits regulation creating a situation of temporary legal vacuum, in particular for grantees that accumulate teaching activities with sponsored research.

2. There are two crucial improvements which ABIC would like to see in the situation of junior researchers (PhDs, Post-docs, other):

- 1 – Real employment opportunities – meaning jobs, not grants;
- 2 – An improvement on grant-holders' social security benefits.

3. The hottest topic under discussion in Portugal is the same as last year's: under financed R&D. For young researchers this means dramatically poor career perspectives. For PhD candidates this also means poor research conditions, and a significant increase on tuition fees.

Innovation has been a keyword for political campaigning in recent elections; private investment in R&D a key issue.

The Bologna Process has also been under discussion but generally at the graduate level.

4. Institutional meetings: Minister of Higher Education, Innovation and Science; President of the Portuguese Science Foundation (FCT); political parties.

Meetings with grant-holders at various research units (faculties, public laboratories, research centers) in multiple regions of Portugal.

Organized a national conference on scientific employment "Emprego Científico em Portugal: Que Futuro?" (<http://www.bolseiros.org/EmpCient.htm>). The conference had a large participation of junior researchers, but also of policy-makers, public and private sector researchers, and union leaders. The conference was broadcasted live via the Internet, which allowed the participation of Portuguese researchers from all over the world during the discussion periods via e-mail.

We launched a new web page (<http://www.bolseiros.org/>) and a web forum (<http://forum.bolseiros.org/>).

5. Pro-union.

Our official positions are established in general assemblies.

6. We are about to launch a survey on the social and economical conditions of Portuguese grant-holders.

7.

Bologna Process and Lisbon Strategy

8. Not yet discussed.

9. Not yet discussed.

10. Scientific employment was established last year as a priority by the ministry of Higher Education, Innovation and Science: the goal of 5000 new researchers till 2006 was set – this number is identical to the number of FCT's new grants till next year.

Labour Conditions

11. As a student, PhD candidates can benefit from student discounts. But many times there isn't any student card, which makes it difficult to claim studentship when needed.

For those who work in a university/faculty the student status allows PhD candidates to be represented at the university/faculty committees, which is not possible for post-docs or other junior researchers who aren't enrolled in any post-graduate programme (because they aren't employees). For the same reason, PhD candidates that work in other research institutions (identical situation for other grant-holders) generally have the same duties as the tenured or contracted workers and not the same rights (for example, they aren't represented at the committees of that research unity).

12. The status of PhDs (students versus employees) is not a theme of discussion in our organization. The official position is that doctoral candidates represent the major scientific labour force in Portugal therefore the grant-holders' statute should include other scientific workers' rights but they could still be grant-holders.

Junior researchers not enrolled in any post-graduate programme (post-docs, young trainees) should have a contract.

Supervision and Training

13. In Portugal there isn't at the moment any concern to implement any kind of supervision charter.

PhD supervision and training haven't yet been under discussion in our organization.

14. The award of a PhD in Portugal is normally dependent upon the student submitting a written thesis and undergoing an oral examination in the presence of a jury: the rector or his/her representative, a member of the Department, the supervisor(s), two arguers (who put questions to the candidate) who may be external to the home institution.

Theses are official and public publications.

15. For those who are sponsored by FCT, research is a full time job.
The only doctoral degree is PhD.

16. There is no evaluation system for PhD supervision.

International mobility

17. Erasmus programme at undergraduate level (probably the most popular); Leonardo da Vinci for newly graduated (<http://www.socleo.pt>).

There are institutional agreements between the Portuguese universities and research institutions of some European countries (Acções integradas Luso-Alemãs, luso-Britânicas, Luso-Espanholas, Luso Francesas <http://www.crup.pt/>).

There are also grants for CERN, ESO and ESA (<http://www.adi.pt/3410.htm>).

FCT awards grants for doctoral programmes abroad, either for the full completion or for shorter periods of time during the PhD programme (mixed grants).

Gulbenkian Foundation has a PhD programme in Biomedicine which promotes mobility.

Luso-American Foundation awards scholarships for doctoral programmes in the USA (Fulbright grants).

Marie Curie fellowships, which have a very low applying rate.

There are also joint programmes dedicated to undergraduated or graduated students from the Portuguese speaking countries in Africa, and Timor.

18. It's increasing, but still very low. Erasmus is now quite well known, but other programmes still need much more spreading, particularly those at a very early stage (for example Marie Curie opportunities, joint programmes with European laboratories).

19. See question 17.

At PhD level, the percentage of grants awarded by FCT for research abroad is very high (over 52%, full abroad plus mixed grants) [1].

20. In 1998, FCT started awarding PhD and post-doctoral grants in Portugal to foreigners without requiring one year of official residence in the country (as it was the case until then). The number of foreigners taking their PhD or post-doc in Portugal increased after this measure [1], [4].

21. There is the possibility of getting a "joint degree programme" when the doctoral researcher is jointly supervised by two supervisors from universities on two different countries (one in Portugal and one abroad) and there is a mutual agreement between the two institutions, but we don't have data on the number of programmes or people involved.

Professional Future

22. Not yet discussed.

23. Not yet discussed.

24. Not yet discussed.

Gender Equality

25. At PhD level gender balance is achieved (even in the exact sciences). “Recent research in Portugal shows that the percentage of women among those working in scientific research is 43,5%, (OCT, National Scientific and Technological Survey). These figures, along with the growth of women in scientific research, place Portugal in a particular position within the EU (...). However, those figures must not hide the existence of gender differences with respect to men and women's representation in the different sciences, as well as with respect to their positions in the scientific career.” (<http://www.oces.mcies.pt/docs/relatorios/50648/files/womennationalreportportugal.pdf>)

“This survey showed the existence of “invisible” barriers to women's access to science and technology fields, to the top of the professional career and to positions, which are related with power and scientific influence. Although the barriers to women's advancement in the career appear overall in the scientific community, they are particularly accentuated in the exact and natural sciences. The longest history of these scientific fields in Portugal and the greater competition may explain the gender differences. However the most recent data shows a significant progress in the situation mentioned before. The total percentage of women in the top of the professional career is now 17%, whilst in 1995 it was only 6%. Therefore, it can be said that in less than one decade this number has been nearly multiplied by three.” For example, of the 15 universities represented by the Portuguese Rector's Conference (<http://www.crup.pt>) only 2 rectors are women.

Initiatives to reduce gender imbalance are, from our point of view, very timid (see for example reference [x]). FCT grants include maternity, paternity and also adoption leaves.

Last year, the high rates of feminisation (around 60%) in medicine courses was pointed out as a problem and the Health minister suggested the implementation of positive discrimination for applying male students.

26. Based on http://europa.eu.int/comm/research/science-society/women/wssi/downindi_en.html, we see that the % of women among academic staff in 2001 in Portugal was 39.7% (EU-25 34.3%) and in the Business Enterprise Sector (BES) was 27.7% (EU-25 16.5%) for the same year.

PART TWO FIGURES

1. In Portugal only universities have PhD awarding powers. On next table the number of awarded PhDs per university on 2003 (the most recent available data) is presented:

University	PhDs
INSTITUTO SUPERIOR DE CIÊNCIAS DO TRABALHO E DA EMPRESA - ISCTE	27
UNIVERSIDADE ABERTA - UAB	9
UNIVERSIDADE AUTÓNOMA DE LISBOA LUÍS DE CAMÕES - UAL	0
UNIVERSIDADE CATÓLICA PORTUGUESA - UCP	8
UNIVERSIDADE DA BEIRA INTERIOR - UBI	19
UNIVERSIDADE DA MADEIRA - UMA	5
UNIVERSIDADE DE AVEIRO - UAV	44
UNIVERSIDADE DE COIMBRA - UC	93
UNIVERSIDADE DE ÉVORA - UE	27
UNIVERSIDADE DE LISBOA - UL	106
UNIVERSIDADE DE TRÁS-OS-MONTES E ALTO DOURO - UTAD	23
UNIVERSIDADE DO ALGARVE - UALG	13
UNIVERSIDADE DO MINHO - UM	86
UNIVERSIDADE DO PORTO - UP	129
UNIVERSIDADE DOS AÇORES - UAÇ	8
UNIVERSIDADE LUSÍADA	0
UNIVERSIDADE MODERNA - UMODERNA	0
UNIVERSIDADE NOVA DE LISBOA - UNL	89
UNIVERSIDADE PORTUCALENSE INFANTE D. HENRIQUE	7
UNIVERSIDADE TÉCNICA DE LISBOA - UTL	143
TOTAL = 20 Universities	836

Source: [2]

Almost all of the listed universities are public, although private universities can also award PhDs.

2. In 2003 there were 6339 PhD candidates registered, 49% were women [2].¹

¹ Many registered Doctoral candidates are teachers at a university or politchenique who are enforced to obtain a PhD degree. For these we don't have statistics. It's our belief that these candidates usually take much longer to get their diplomas (up to ten years). This also contributes to the high average age of PhD candidates in Portugal (although the average graduated age in Portugal is in general higher than in EU).

For the remainder of the questionnaire, when we "speak" of PhD candidates we are referring to those supported by FCT (except for tables and charters shown on questions 1,2,3 and 4 which represent total national statistics).

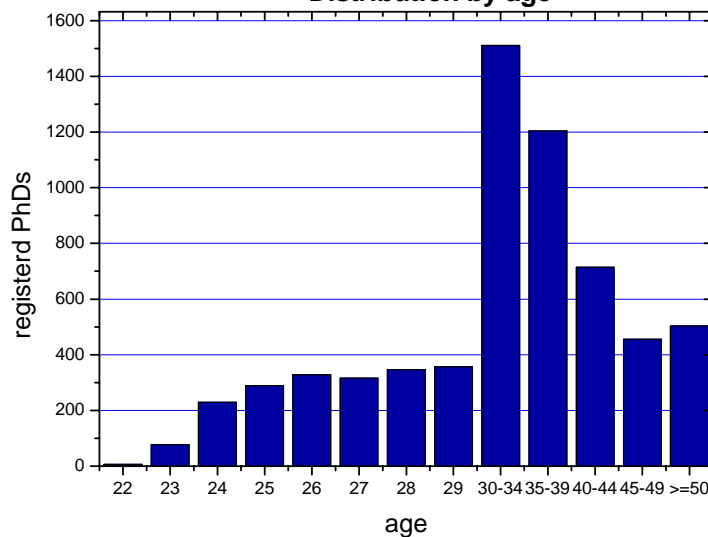
Number of new registered PhD theses per year:

Year	Registered PhD theses
1998	998
1999	1079
2000	1347
2001	1340
2002	1389

Source: [2]

3.

**Number of enrolled PhDs in 2003
Distribution by age**



Source: [2]

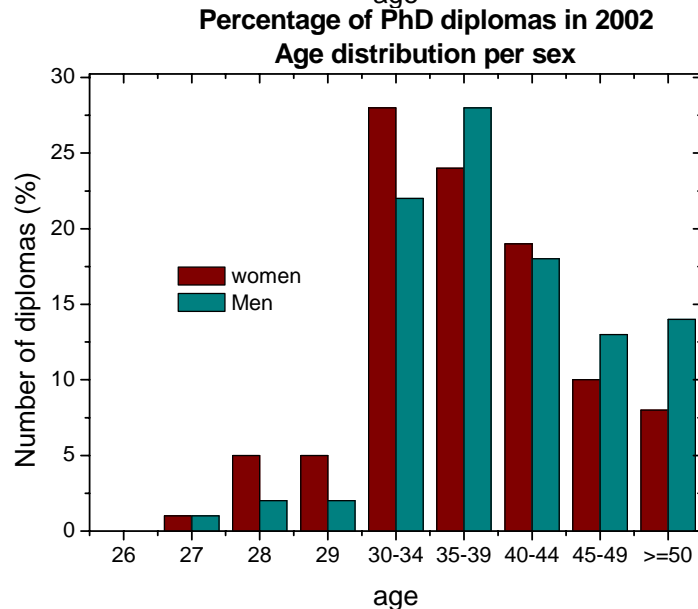
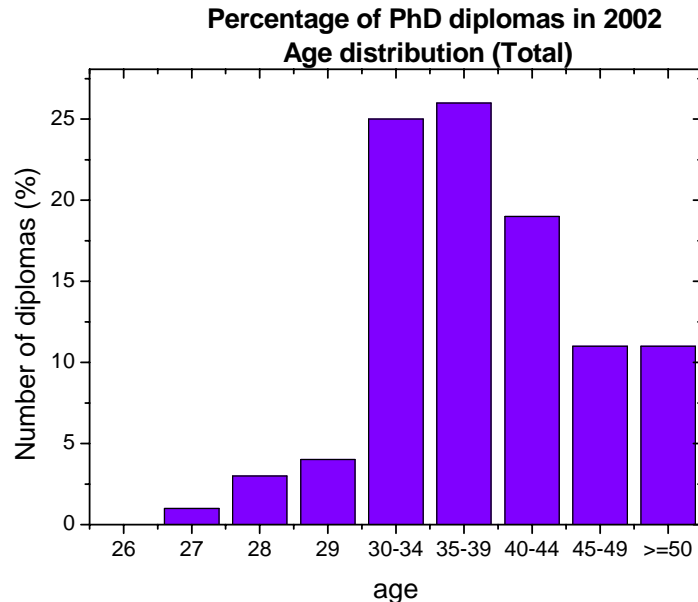
Portuguese ESR who expect to pursue a PhD degree can do it in two different ways depending on their graduate marks: (a) take a PhD programme, which consists of one year of specific courses in their research area (usually the same as for a Masters degree) plus four years for the development of an original work and writing their final dissertation; (b) those with higher marks (16 or over) are from the beginning exclusively engaged in the practical development of their work/thesis, which ought to be completed within four years.

4.

Number of PhD diplomas per year in Portugal:

Year	PhDs (Total)	PhDs (women)
1999	575	251
2000	693	321
2001	699	327
2002	799	377
2003	836	410

Source: [2]



Source: [2]

5. The allotted time given by most of the universities is 5 years; FCT grants are awarded for a maximum of four years (renewed annually after the submission of a work report). It's our belief that due to both poor working/research conditions (specially in experimental areas) and lack of supervisor evaluation, most candidates take 5 to 6 years from start to finish.

6. We don't have data on this item.

7. There isn't any interim qualification for those who do not complete their doctorates.

8. Yes, at a University.

9. Portuguese or foreigners PhD candidates are considered students in the University where they are registered and have to pay fees. PhD candidates who are supported by FCT have additional financial support to cover for their tuition fees. Recently, some Public Universities (or Faculties), due to serious financial problems, have (or are trying to) increased their tuition fees to amounts uncovered by FCT, the difference being supported by the PhD candidate.

The maximum financial support for tuition fees awarded by FCT is €750 per year; the highest tuition fee in a public University is €3200 (approved in January 2005).

10. The major source of PhD funding (grants) in Portugal is the Portuguese Science Foundation (Fundação para a Ciência e a Tecnologia-FCT).

Percentage of sponsored PhDs (FCT):

Year	Registered PhD theses	FCT grants	Sponsored PhDs (%)
1994-1999	3621	2063	57%
2000-2002	4076	1516	37%

Source [1], [2]

11. PhD candidates sponsored by FCT earn a monthly income of €80 (for those who are working abroad €1,710, independently on the country).

National minimum wage: €374,70

National medium wage: €645

Monthly income of a university assistant: €2000

12. PhD candidates sponsored by FCT have the following rights and duties (Estatuto do Bolseiro de Investigação):

- i) Earn a monthly income of €80 (for those who are working abroad €1,710, independently on the country), 12 months per year;
- ii) Minimum social security plan, which is volunteer;
- iii) Legal right to a month of holidays;
- iv) There is maternity leave and paternity leave;
- v) There is sickness leave;
- vi) Do not have to pay taxes;
- vii) Must exclusively be engaged in research, except for teaching, which is allowed;
- viii) No unemployment benefits;

13. We don't have data on the number of PhDs who teach during their programme (FCT grant-holder). Also, this practice depends on whether the PhD is working in a university or not: those who work outside academia normally don't teach; PhDs who are located in a university can teach depending whether his(her) department is temporary in need of professors.

Nevertheless, teaching is not compulsory and those who teach are paid separately (the payment is in some cases associated to a reduction of the tuition fee).

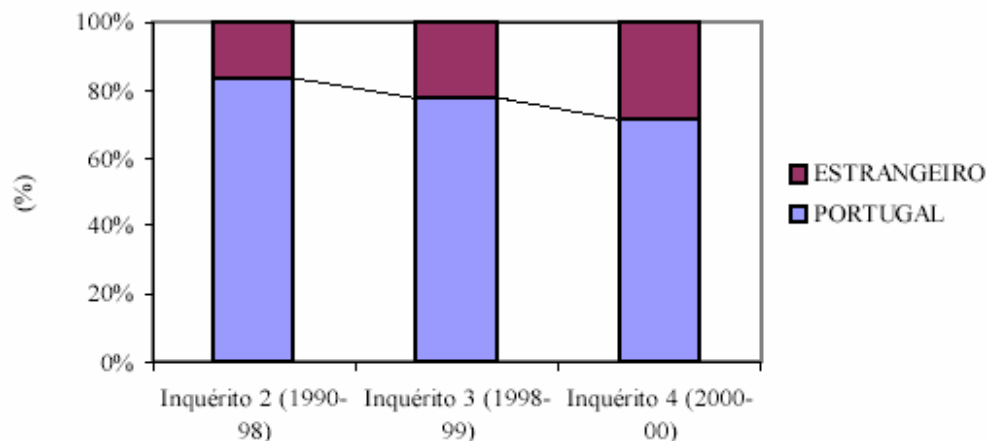
14. Till recently, only four hours per week was allowed for teaching. With the recently approved grant's law there is no limit on hours, place (it's possible to teach on a private institution, for example) or salary (however, as already mentioned in question 1 part1, the new law still needs regulation).

15. We don't have data on this item. To our knowledge the percentage should be very low.

16. At Post-doc level, mobility relative to the institute in which PhD was taken and, particularly, mobility of PhD holders from foreign universities to Portugal is valued in the evaluation of grants' applications. In 2001, only one third of the total post-doctoral grants were awarded to research abroad. The top four foreign countries in that same year were: 1st USA, 2nd France, 3rd UK, 4th Spain, which represents slightly less than 75% of the total [1].

In 2001, over 300 foreigners were taking their post-graduate research in Portugal, (56% of the post-doctoral grants and 11% of the PhD grants). About 40% of these foreigner post-doctoral grant holders are coming from other EU countries, USA or Canada; about 20% come from Eastern European countries, namely Russia, Ukraine and Romania; about 20% come from China, 22% from India and 7% from Brazil. The equivalent percentages referring to foreigner PhD grant holders in Portugal are, respectively, 25%, 27%, 14%, 0% and 21% [4].

17. The results of three questionnaires (1999, 2000 and 2001) to FCT's ex-grant holders since 1990 showed that most of them are working in Portugal, mostly in higher education institutions, particularly private universities and polithecniques [5]².



Source: [5]

18. In recent years there has been a governmental programme for professional employment of doctors and masters in the private sector at low costs to the industry – in the first year 75% of the researcher's wage is supported by the state, in the second year 50% and in the

² This study also showed a slight increase of Portuguese researchers working abroad, which can mean a tendency for brain drain [5].

third year 25%. The outcome of this program has been very unsatisfactory: since 1997 only 148 researchers.

Year	PhD	Master	Total
1997	13	4	17
1998	8	11	19
1999	6	4	10
2000	3	2	5
2001	11	7	18
2002	20	15	35
2003	14	20	34
January 2004	2	8	10
Total	77	71	148

Source: [3]

Last (2004) year a new programme has been implemented: PhD in industrial environment, 20 grants were awarded [1] [3].

19. We don't have data on this item.

Just to give a ruff idea we present the following:

FCT's Post-Doc grant: €1495 (tax free) [1]

Maximum governmental participation on the programme mentioned above: €2.513,94 [4]

20. ABIC has at the moment 300 individual members (since 2003), doctoral candidates, Post-Docs, ESR, from almost all research units in Portugal and several abroad.

Being FCT the major source of financial support of junior researchers in Portugal by large, most of our members are FCT's grant-holders (bolseiros).

References

[1] Fundação para a Ciência e a Tecnologia:

www.fct.mcies.pt

[2] Observatório da Ciência e do Ensino Superior:

www.oces.mcies.pt

[3] Agência de Inovação:

www.adi.pt

[4] Mobisc: *Science Careers in Portugal*; Heloísa Perista (coord.), Alexandra Silva; CESIS, January 2004

[5] Conselho dos Laboratórios: *Associados: Emprego Científico: Alguns Factos*

<http://www.labs-associados.org/empregocientifico.shtml>).