



European University Institute

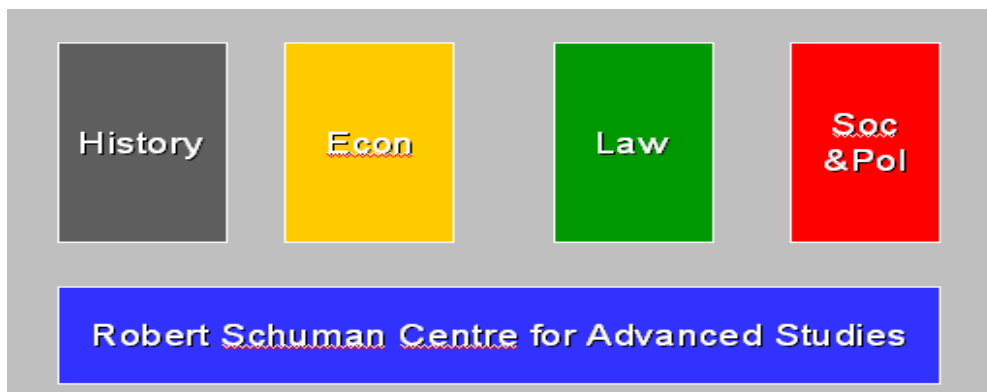
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"Concentrating the minds" is the title of a book published recently on a comparative study between the various organizational models for doctoral education in Europe. The title was particularly well chosen because it points to one of the major characteristics of a good doctoral education: to bring together a sufficient number (also called "critical mass") of young postgraduate students working in the same area on their doctorate in a research environment with a sufficient intensity of research which allows them to learn the trade.

Until recently this phenomenon was exclusively reserved for people studying in the United States. Large elite graduate schools in the USA were the backbone for the training of scientists in the second half of the 20th century. This particular characteristic is what best describes the European University Institute in Florence. Indeed, the programme composed of four disciplines (history, law, economics and social and political science) brings together roughly 560 graduate students from all around the world, but mostly the European member states, working during 3-4 years to obtain a PhD which in most cases leads (70%) to an academic career.

The European University Institute was created 25 years ago by the member states. It was an idea that was raised in the first agreements and discussions about the unification of Europe, and as such it was mentioned in the Euratom treaty. In 1976 on the hills of Fiesole a small group of European academics and graduate students started the doctoral programme near Florence. Over the years the four departments fleshed out to the current size as mentioned above. The new element that was brought in during the early 1990s was the Robert Schuman Centre. Over the decade it developed into a Robert Schuman Centre for Advanced Studies and is oriented towards policy research with a European agenda based on academics from the various departments who excel both in policy and in basic research. They propose new ideas and new ways of thinking as regards European unification and have one of the largest post-doc programmes in Europe.

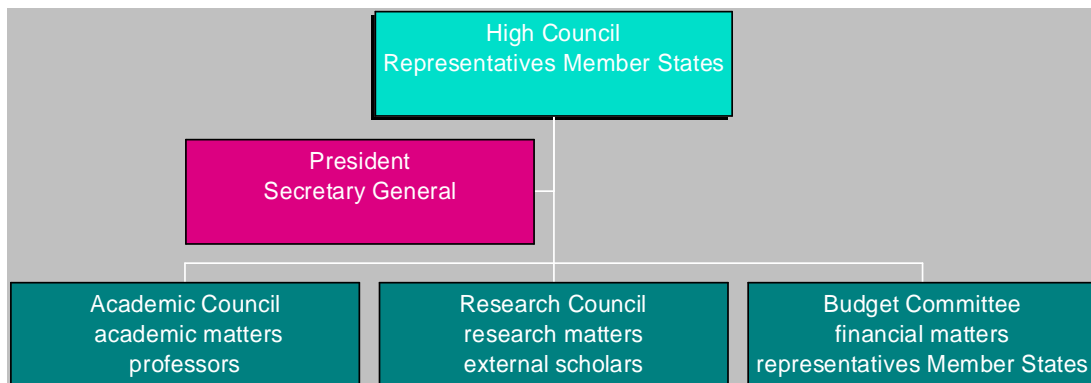


Critical mass

The European University Institute (EUI) is now getting close to about 1000 members, composed of 560 graduate students, 55 professors distributed over the various departments and Centre, 65 post-doctoral Fellows, a large number of visiting professors and fellows, a number of research assistants and fellows, and a support staff of approximately 150 people. Spread over four buildings on the hills between Fiesole and Florence, they make it one of the largest centres of research in the social sciences and humanities in the world. The Robert Schuman Centre for Advanced Studies embarked on a post-doctoral programme which is of increasing importance and interest, the number of applicants increased by 50% in the last year. For many this is an intermediate position for young European scholars who prepared their PhD in the past in the United States of America and returned to Europe to seek a position at a national or another European university, and who want to spend one or two years in Florence to carry out advanced postdoctoral research in their field. Furthermore a large number of American scholars participate in the activities as Fellows.

Something about the character of the European University Institute

Legally speaking, the European University Institute is an intergovernmental organization created by the member states. It is not, as many people think, a branche/subsidiary of Brussels: we are an independent international organization with its own budget, paid by the 15 Member States. We also receive an earmarked contribution from the European Union. Our organization (see attached charts) is based on the High Council which is composed by representatives from the Member States. Usually they come from the Foreign Ministry or the Ministry for Education. They choose the President of the Institute, who is appointed for a term of 5 + 3 years and who usually is a mixture of an academic, politician, and who plays a major role in directing the Institute. Former Presidents were Max Kohnstamm, Werner Maihofer, Emile Noël and Patrick Masterson, the current President is Yves Mény. He is assisted by a Secretary General who traditionally comes from the Italian Foreign Ministry. Three major bodies advise the High Council. One is the Academic Council, composed of all the academic staff and student representatives to advise on the academic matters of the Institute. The second body is the Research Council, composed of renowned scholars from around Europe who advise the European University Institute on its research orientation and who assess the quality of the work done within the Institute. They also deliberate the allocation of the internal research budget. A third body consists of financial technicians from the Member States which advises the High Council on budgetary and financial procedures for the Institute.



Doctoral Education

In this section I would like to elaborate on the structure of the normal process of a doctoral candidate from the moment of application until his thesis defence.

Selection

Candidates apply to the European University Institute by 31 January of every year. They can do this either in written form with application forms distributed by the Institute or through the

Internet. The application is primarily based on information regarding their academic background, degrees and universities attended, as well as two reference letters from professors of their choice who assess the candidate's capacity for doing doctoral work. These applications are received by the Institute and processed during the first two weeks in February. They are then passed to the various departments who then establish a first shortlist, which should be double the number of candidates who would be admitted to the next academic year.

There are quota for grants for the member states, depending on the size of a country: as you can imagine, large countries such as Germany, Italy or the UK will have approximately 50 doctoral students at the Institute, while a smaller country like the Netherlands might have about 20.

These national selection committees, set up mainly from professors of each country so they are knowledgeable about the higher education and the grading practice used by each national system, which as you know are still diverse [in nature], and in the presence of one of the national grant awarding authorities. Indeed, during the first two years at the Institute the students receive their grant from the national authorities, whilst during their third year they receive the grant directly from the EUI. The fourth year is still under discussion: some countries already give a fourth-year grant. The Institute provides a small number of 'completion grants' and it is the Institute's objective to generalize a fourth-year grant in the coming years.

Shortlisted candidates are invited to come to Florence for an interview. During this interview they will be confronted by a jury from each department that will discuss with them their research proposal and test their language skills needed in order to work at the Institute. We usually require a good knowledge of English which is the common language used in seminars. Researchers are free to write their thesis in the language that suits them best, as long as we can find the jury to assess the quality of the candidate's work. Nevertheless, most theses by non-English speakers are written in English.

Structural Programme

The programme starts at the end of August. Candidates are invited to register during the last week in August at the EUI which is when a number of informative and social activities are organized that are designed to acquaint new researchers with the functioning of the Institute. We will help to find housing, and the Institute owns a limited number of flats which are allocated by a student committee to those candidates who are most in need; a housing service is available to assist in finding housing around Florence: in general it's not cheap, but we do not have major problems in finding a room or a shared flat.

The whole month of September is dedicated to further integration into the European University Institute and its doctoral programme. Candidates attend an intensive course in Italian that allows them to go shopping, househunting and other activities needed to become accustomed to life in Italy. Outside the tourist sector Italians do not speak a lot of foreign languages. September also offers introductory courses to the Institute's infrastructures, such as the library, the IT service; there are initial meetings with the departments in which the professors and researchers in a department introduce themselves. There are also a number of social activities so that new candidates get to know their colleagues in other departments and from other countries as well.

The academic year is based on two semesters, one starting in October and the second one starting in February in which most courses and seminars take place. The first year programme is structured in which we try to teach researchers all the fundamental skills needed for their research. The first year programme might differ per department, the economics department has a structured course with macro- and microeconomics, econometrics and other courses (please see our website, www.iue.it for details). Other departments have courses on quantitative methods, etc. All details are available in the brochure or on the Institute's website.

Researchers are requested to write term papers which will then be assessed by the departments. In the economics department, researchers have to sit a number of exams. At the end of the first year researchers present a June paper which, depending on the

department, has a different content but is mainly geared towards judging researchers' capacity to express themselves in writing in order to draft a doctorate at the end of the programme. Work during the first year, and the result of the June paper decide on passage into the second year of study.

During the second and third year researchers attend seminars and are also allowed to undertake research study trips. Participation in research seminars allows for presentation of their research in progress, and feedback from professors and other researchers is received.

Cultural Diversity

One of the most fascinating issues for researchers is to work on similar issues but from different perspectives, especially in the law department it is interesting to see how people working in various fields, such as social or competition law, will work together with a body of professors from different legal backgrounds such as the French or English or Dutch or German system. As a result, in the law department you will see that this is now to be considered the cradle of European law. Indeed the interest for the Law department is very high and competition is tough. But good training is assured and it is unique in the field. Today you will find very few departments of law around Europe where European law is not being taught by one of the alumni of the European University Institute.

Critical mass and intimacy

Apart from this unique character of the doctoral education at the EUI I want to elaborate on the issue of critical mass. In preparation of the discussion of the Strategic Report, which provides a policy for the EUI for the next decade, we were comparing the optimal size of the Institute in view of further expansion of the 15 member states. Benchmarking the performance of the Institute with the top five American graduate schools, it appeared that all top American graduate schools in the same disciplines as those treated at the European University Institute convergence around 175 researchers, similar to 3 out of 4 of our departments. (see annex 1-3)

This element of size was very much emphasized by our own researchers when we were discussing developments for the next decade. They were very attached to the "intimacy" and suggested not to grow significantly. They were not aware of the figure that we had discovered among the top American graduate schools, but their argument was that they were now sufficiently large in number to communicate and discuss their work with their colleagues, and they were afraid that if we would exceed this figure, they would lose a certain amount of cosiness, contacts or the intimacy that is needed in the personal relations which distinguish a graduate from an undergraduate programme, where you speak in terms of hundreds or even thousands of students. Indeed as a graduate school and social research science institute a thousand people is already a large number.

Networking

To stress another important characteristic is that if you can keep your eyes open during your four years at the EUI, you will practically see passing by anyone of a certain importance in your own discipline. Thesis defences, taking place before an international jury with two external professors from all over the world, conferences, seminars and workshops bring the most prominent academics to Florence. Thanks to our specific intimacy they are accessible and approachable so that they can give you advice on your thesis, they can become special advisers and generally help you. As a result after four years you will have built up a considerable network related to the field of research in your discipline which will be of essential support in developing your research network and building up your future academic career.

Unique international character

Another strong element to which I referred earlier is the international and multicultural aspect of the Institute. True, other universities (London, Paris, Cambridge, Harvard) have strong

international components. Nevertheless they have one dominating culture – Paris is French, Cambridge is English, and Harvard will always be American. At the European University Institute no such dominance exists. The quota system was extremely instrumental in order to safeguard us from dominating nationalities. Yes, smaller countries might have smaller numbers but the larger countries do not have a supremacy, which is one of the most unique characteristics of the Institute.

Interdisciplinarity

A few words about the interdisciplinary aspect. As you can imagine the disciplines taught at the Institute (history, law, economics and social and political science) share a lot of common ground and you will see that a number of people will attend seminars in other departments and will have co-supervisors from other areas than their own. This gives an interesting interdisciplinary approach from the outset, which is such a creative component in the development of each discipline.

The doctorate

During four years researchers work towards their doctorate. In this process they are taught the research skills, identify a problem and how to phrase a question, how to access sources, find the necessary literature and collect data in order to solve the problem. And last but not least how to report on their research results: orally in research seminars, or by writing research papers. The thesis or doctorate is presented in front of an international jury. The thesis defence is the culmination of the work carried out at the Institute. As you can see these skills are crucial to becoming an academic. Our exit survey carried out some years ago showed that a very high percentage of our alumni in fact work in academia. Nevertheless, these qualifications also include a number of transferable skills that make researchers attractive for the non-academic sector. Quite a number of our alumni therefore end up in large international banks, in international organizations or consulting firms.

Working in this multi-national and pluri-cultural environment prepares researchers to be(come) true Europeans. We see that a large number of alumni end up in a country other than their country of origin. Almost 50% of our economists do not return where they came from but even in areas such as history which is strongly related nationally more than one third are teaching in a country not their own. We produce a very high number of qualified professionals working in international organizations, international banks, etc. For example one of our largest alumni organizations is in Washington because many economists and lawyers work there for the International Monetary Fund or the World Bank. The EUI has become the single largest supplier of the IMF/Worldbank. These institutions come to Florence once a year to recruit our best graduates for their junior programmes. Other private companies also visit us to recruit our best candidates for their own environments.

Completion rates and time-to-degree

One of the major problems in the early 1990s and before was the time to complete. This was also the case at the European University Institute. During the first policy assessment exercise the major complaint from the group that wrote the report was that the time to degree and the completion rate were far too low. At that stage it made a recommendation that it should reach a 70% completion rate within five years of starting the doctorate. Several measures have been taken, especially in structuring the programme – because as those who have experience with doctoral programmes know, the major cause for non-completion is the long-time horizon and the lack of intermediate checks and milestones in order to make progress measurable and comprehensible.

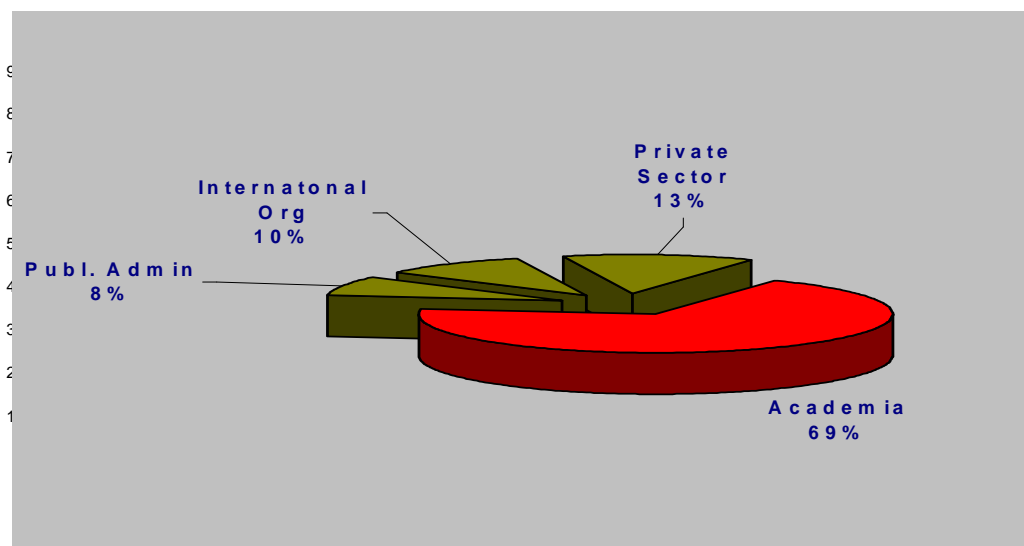
The Institute revised its doctoral programme: more transparent admission criteria were set up, doctoral regulations were drafted in 1992 and revised in 1997, and increased structure was brought into the three years. The first year, as I mentioned earlier, had a taught structured component and in the second and third years seminars in which the progress of the research of the doctoral work were introduced. This led to a dramatic change of the picture: from the end of the 1990s onwards the median time to degree was reduced to 4.1 across the four departments. The completion rate became higher than 75%.

We benchmarked these results against the other European countries and as far as they turned out to compare the results European University Institute out-performs almost all national systems.

Compared to most American universities, as you can see in the figures (attached) on all top five universities median time to degree for PhDs in the humanities and social sciences are close to 10 years, only for economics it reaches seven years. Our researchers therefore make much faster progress and finish their PhD in less time.

The question is what happens to the other 24% who do not finish the thesis. Unfortunately there is not much one can do about this. A number of people, especially in the area of law and economics, is often offered very interesting jobs. In the case of lawyers, a PhD or doctorate is usually not a requirement for further progress in their careers. From the results of our exit survey we know that all researchers, who leave the Institute before finishing the doctorate in order to accept a job have only a 50% chance of finishing, because of the obligations in their professional life. They pursue interesting careers and therefore they can hardly be identified as failures.

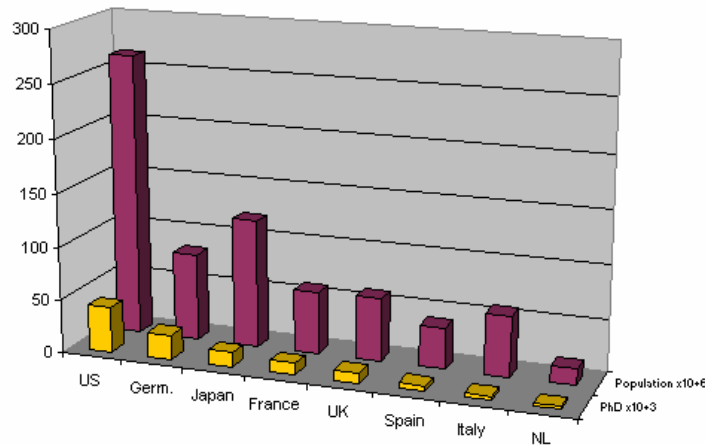
These objectives were not obtained by lowering our standards. We analysed the performance of our PhDs. Our definition of quality is "the performance on the job market". We looked at the employment trends of our PhDs and we found that, for example, as regards the reputation of the PhD on the academic market the European University Institute had made significant progress. Where in general the number of PhD applicants finding posts in academic careers has declined over the 1990s and reached a very low point in the United States in 1996 when it was less than 50% (this was mainly due to a demographic effect and also due to the reduction in number of research positions as a result of the end of the Cold War), the EUI instead of a declining trend has an increasing trend. At the 10th anniversary of the Institute an exit survey was conducted and observed that about 50% of EUI Alumni found a position in the academic world while today, in its most recent exit survey conducted (see above), we reached almost 70%. The inversion of the normal trend can only be interpreted as an increased reputation of the EUI PhD. Furthermore there is the employment of our doctors in the private sector, in international organizations, such as the World Bank and the IMF, as previously mentioned. A comparative study between the economics departments showed that the EUI is the largest supplier to international organizations of any of the top-ranking economic departments.



Doctoral degrees and overall view

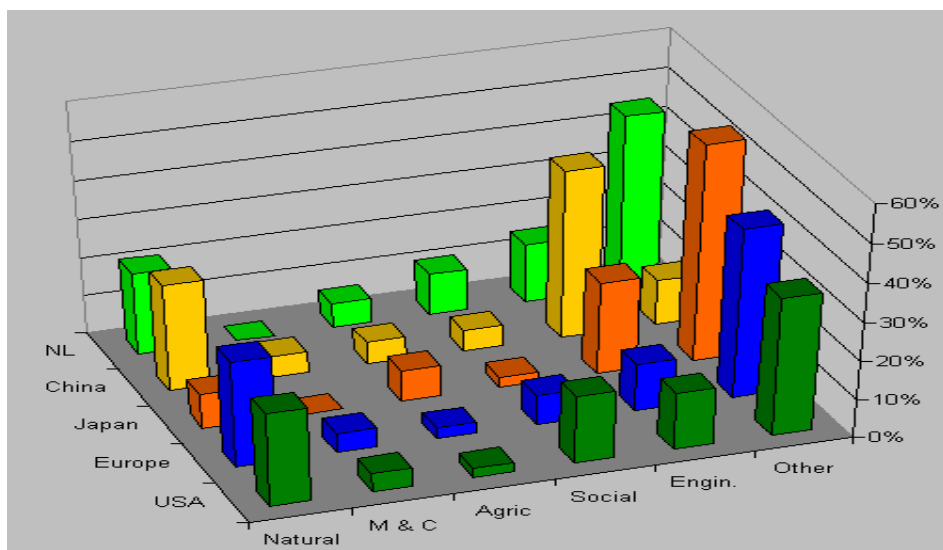
I would like to conclude this paper by giving some indication about the global development on the world market for PhDs. Today, approximately 150 000 PhDs are produced in the world. Half are produced in the European Union, and one third comes from the United States. The rest is mainly concentrated in Asia; we have very few figures for Latin America. The trends in PhD – as we know, there is a huge increase in postgraduate education – this increase is mainly realized in Europe. Countries like the UK and Germany have almost doubled their numbers of PhDs in the last 20 years, France has an increase of more than 80%, against the United States which only had an increase of around 28%. However, it needs to be observed that the United States at that particular point in time already had a very high production, due to the well-organized research universities which are in essence – perhaps with the exception of medical schools and law schools – graduate schools by definition.

	US	Germ.	Japan	France	UK	Spain	Italy	NL
PhD x10+3	42.4	22.9	13.6	11	9.8	5.2	3.6	2.4
Population x10+6	265	82	120	59	59	39	57	15
ratio	0.16	0.28	0.11	0.19	0.17	0.13	0.06	0.16



Do we need more doctoral degrees in the social sciences?

European policy and research was very much driven by the idea of making our industry more competitive. Reference was made to the United States and Japan. Let me first observe that this reference frame has virtually disappeared. No more examples are set by Japan, not



because they were already in a major decline over the last ten years. There are no significant technological areas in which Japan is the leader. This can easily be grasped from the graph (see below) – Japan has a very low number of PhD pro capita. This is a clear indication that PhDs are needed in order to make your industry competitive: they provide to do science, technology and make sure that your products are competitive on the market.

Doctoral Degrees by disciplines							
	Natural	M & C	Agric	Social	Engin.	Other	total
	36,131	6,127	5,491	14,486	22,911	62,262	147,408
	25%	4%	4%	10%	16%	42%	100%
USA	10,355	2,043	1,037	7,490	6,305	15,185	42,415
Europe	17,084	3,162	1,813	4,928	7,781	27,203	61,971
Japan	1,243	na	1,106	358	3,297	7,628	13,632
China	1,678	334	348	325	2,643	714	6,042
NL	516		155	264	373	1097	2,405
							124,060
	Natural	M & C	Agric	Social	Engin.	Other	total
USA	24%	5%	2%	18%	15%	36%	100%
Europe	28%	5%	3%	8%	13%	44%	100%
Japan	9%	na	8%	3%	24%	56%	100%
China	28%	6%	6%	5%	44%	12%	100%
NL	21%	na	6%	11%	16%	46%	100%

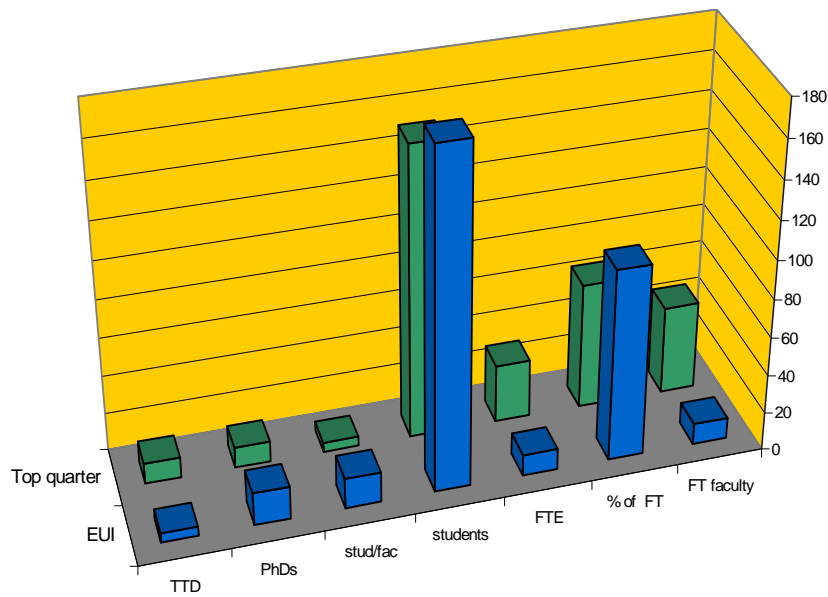
source: NSF, OECD and CGS

On the contrary, when one looks at the United States, the pro capita number of PhDs is very high indeed and at the same time you see that, compared with Europe, the number of social science PhDs in the United States is still significantly higher than in Europe. Therefore, there is still room for improvement, to create a well-balanced intellectual environment that can be competitive on the market and also include an adequate number of social science PhDs.

**Size and Performance:
EUI versus the top American Grad Schools**

History

	FT faculty	% of FT	FTE	students	stud/fac	PhDs	TTD
Yale	51	71	36	188	5.2	15	9.6
UCLA	58	74	43	206	4.8	22	9.3
Princeton	37	57	21	68	3.2	10	9.2
Harvard	43	70	30	146	4.9	16	9.6
Columbia	55	73	40	334	8.3	19	12
Top quarter	46	66	30	152	5.0	11	10.8
EUI	11	100	11	175	15.9	17	4.9

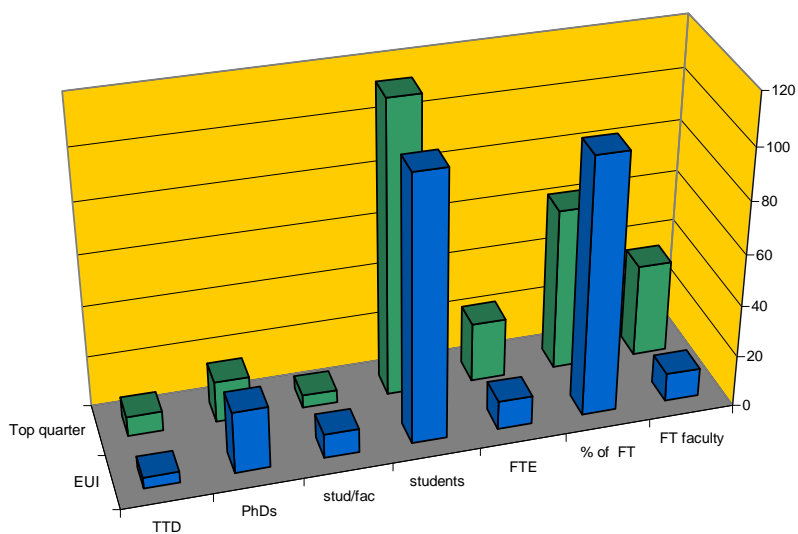


**Size and Performance:
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Economics

	FT faculty	% of FT	FTE	students	stud/fac	PhDs	TTD
Chicago	31	81	25	216	8.6	26	7.8
Harvard	44	66	29	148	5.1	27	6.5
MIT	28	68	19	161	8.5	24	5.8
Stanford	36	67	24	146	6.1	19	7.1
Princeton	41	61	25	91	3.6	5	6.6

	FT faculty	% of FT	FTE	students	stud/fac	PhDs	TTD
Top quarter	36	63	23	114	5	16	7.7
EUI	11	100	11	103	9.4	24	4.2



**European University Institute
Academic Service**

**Size and Performance:
EUI versus the top American Grad Schools**

Political Science

	FT faculty	% of FT	FTE	students	stud/fac	PhDs	TTD
Harvard	48	46	22	172	7.8	22	9.1
UCLA	41	66	27	143	5.3	19	10.3
Yale	29	62	18	69	3.8	14	8.7
Michigan	44	59	26	173	6.7	11	10.3
Stanford	28	68	19	89	4.7	8	9.7

Sociology

	FT faculty	% of FT	FTE	students	stud/fac	PhDs	TTD
Chicago	25	68	17	155	9.1	9	9.7
Madison-Wisconsin	69	71	49	221	4.5	15	10.1
Berkeley	33	79	26	109	4.2	12	10.3
Michigan	36	50	18	163	14.6	11	10.2
UCLA	73	75	55	139	2.5	9	11.8
Political Sc	34	58	20	112	5.7	9	9.6
Sociology	29	60	17	80	4.6	7	10.3

	FT faculty	% of FT	FTE	students	stud/fac	PhDs	TTD
USA	31.5	59	18.5	96	5.15	8	9.95
EUI	11	100	11	175	15.9	23	4.1

