

The Situation of Doctoral Candidates within Europe

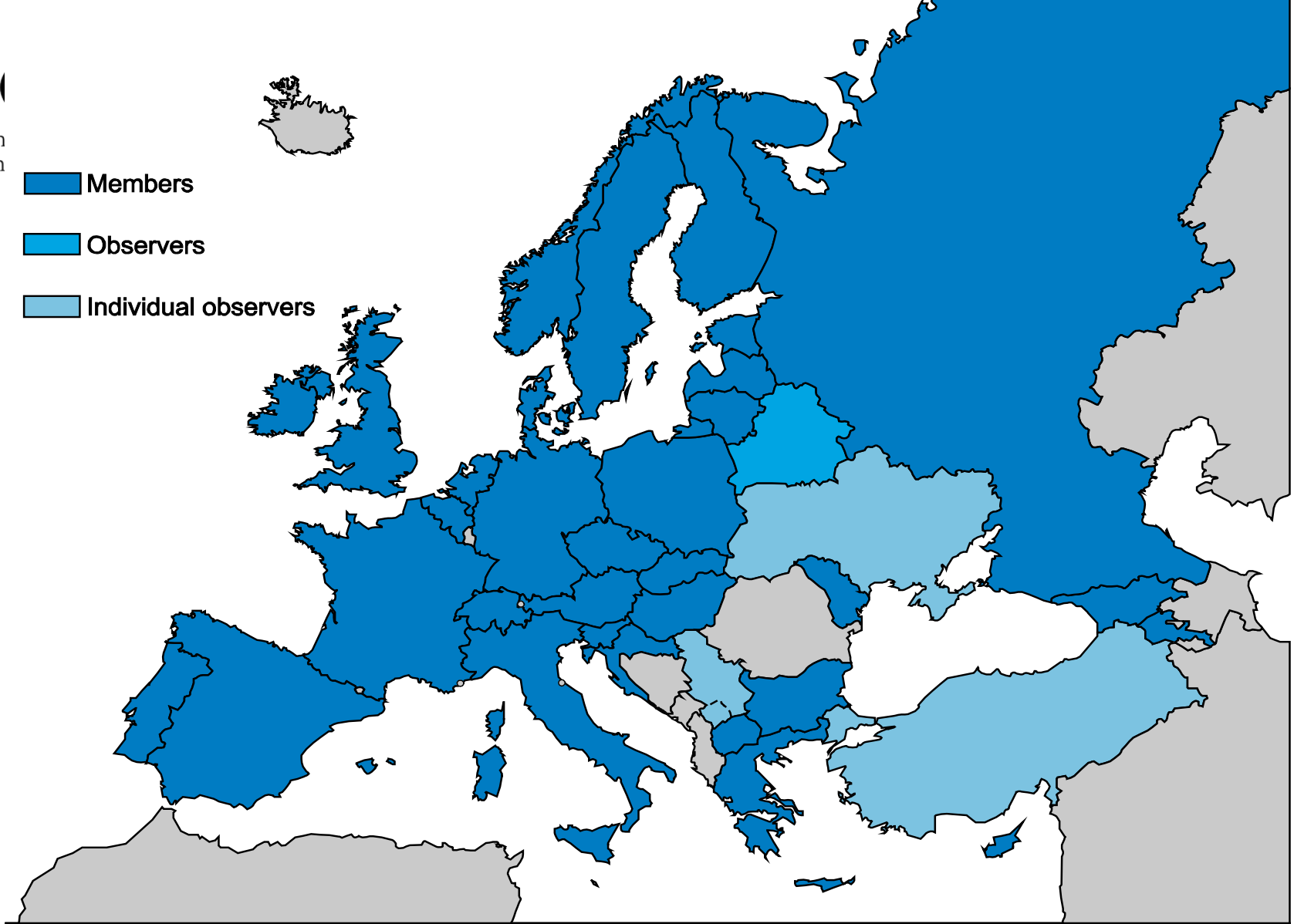
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Eurodoc

New Bulgarian University

Danube Rectors' Conference, Novi Sad, 4-6 February 2010

- Members
- Observers
- Individual observers



Federation of national organisations: 32 Members

Who we are?

- Eurodoc represents doctoral candidates and junior researchers in the form of a federation of national organizations.
- 32 member organizations
- Six working groups
 - Career development
 - Mobility
 - Gender Equality
 - Surveys
 - Two internal workgroups (Communication and Finance)

Who we are?

- Accepted as a working partner in the Bologna process, able to represent the voice of and highlight the issues of doctoral candidates.
- Partner of EC, EUA, Euroscience and ESOF.
- Various organisations consult Eurodoc on issues concerning doctoral education or cooperate with Eurodoc regarding distribution of information on a doctoral level.

The Survey - Basic Information

Eurodoc Survey on the Situation of Doctoral Candidates in Europe

- Is the first European-wide survey of doctoral researchers on this scale
- Succeeded in activating the participation of 8900 doctoral candidates from more than 30 countries

The Survey - Basic Information

Eurodoc Survey on the Situation of Doctoral Candidates in Europe

- Is an online survey (programmed with software „QTAFI“ by INCHER)
- Conducted in cooperation with the International Center for Higher Education Research (INCHER), University of Kassel

The Survey - Basic Information

Attempted to address key questions that remain unanswered:

- What is the real situation, concerning current employment conditions, social benefits and working conditions, for doctoral candidates in Europe?
- Where are the real differences between European countries, cultures and models of doctoral education and what can we learn from them?

The Survey Structure

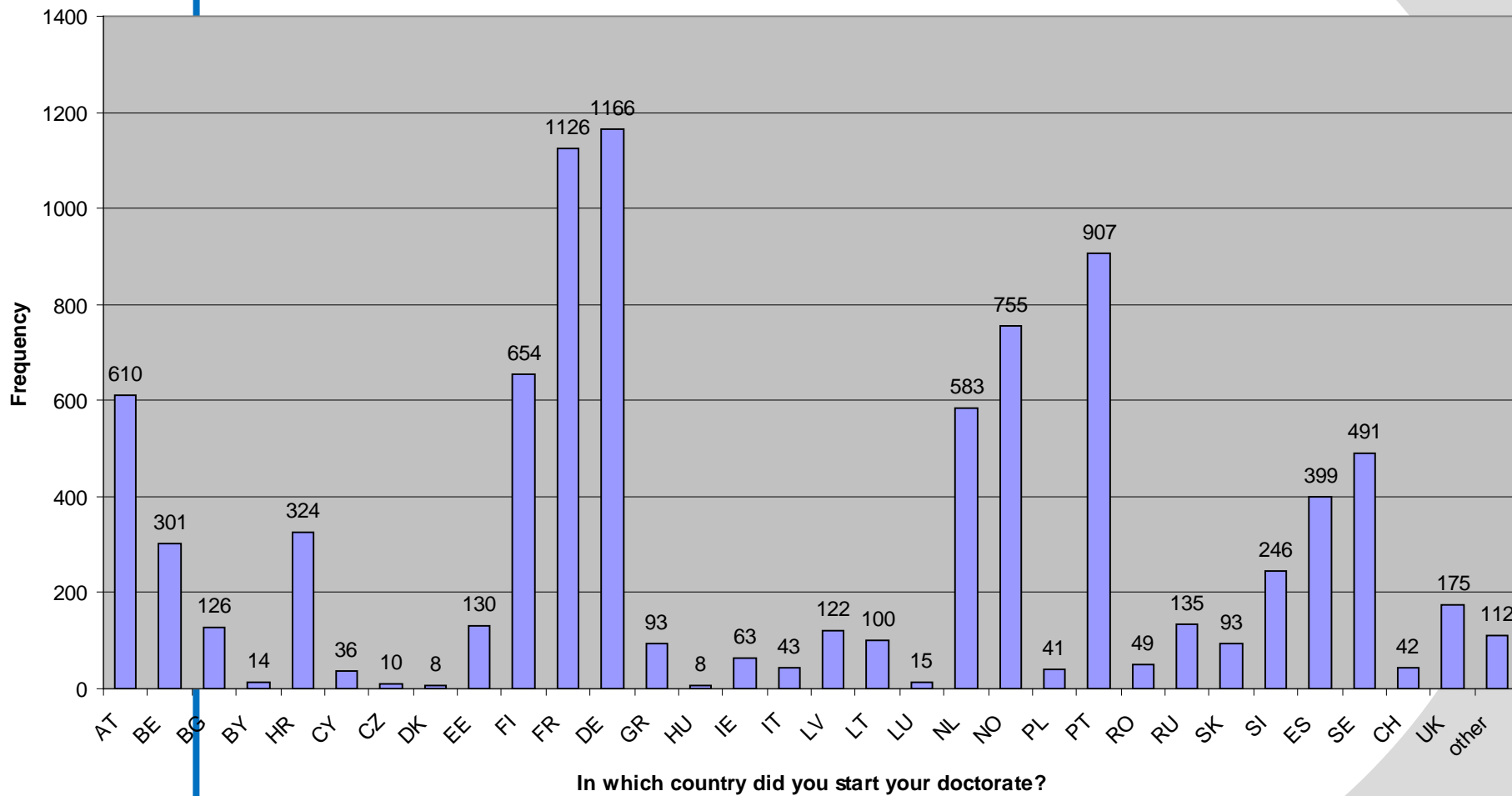
Questionnaire touching upon the following topics:

- **Qualification**
- **Career path** (*status, contract conditions, different sectors of the employment market, motive for the dissertation*)
- **Finance** (*amount. limitation*)
- **Training and Supervision** (*training of faculties, training courses, regularity and quality of supervision*)
- **Working conditions** (*workload, maternity/paternity*)
- **Results of scientific work** (*publications, conferences, etc.*)
- **Mobility** (*past/planned mobility, kind of mobility (teaching, research, exchange programme, etc.), financing*)
- **Socio-demographic indicators** (*gender, children, social background, etc.*)

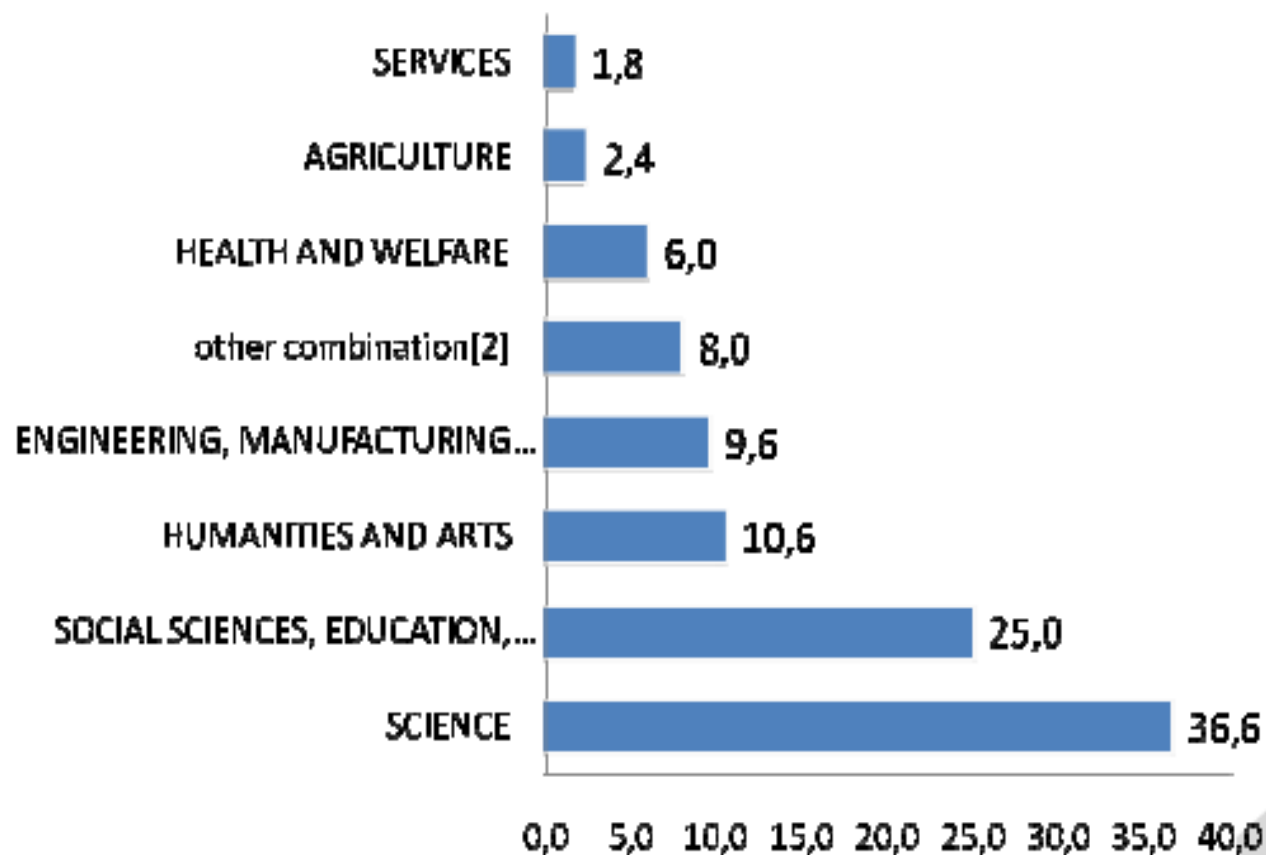
Sample

- More than 8900
- More than 30 countries
- 20 countries - Austria, Belgium, Bulgaria, Croatia, Cyprus, Germany, Estonia, Spain, Finland, France, Ireland, Latvia, Luxembourg, Lithuania, The Netherlands, Norway, Portugal, Sweden, Slovenia, Slovakia
- Countries that were underscoring 0,5% and was therefore excluded from the evaluation - Czech Republic, Denmark, Greece, Hungary, Italy, Poland, Romania, Switzerland and the UK

Survey on the situation of doctoral candidates, sample distribution by "country start of doctorate" (n=8977)



- Field of science



ISCED classification scheme

The Survey Results

Sections:

- Mobility
- Career path and Qualifications
- Supervision and Training
- Funding and Working conditions

Mobility

- Are there patterns of mobility among students and doctoral candidates?
- Do extremely mobile persons exist or are there specific countries that tend to be the more mobile nations than others?

From the survey:

- 43% of all doctoral candidates go abroad during their doctorate
- The length of the mobility experience typically varies from 3 months to over half a year.

Mobility

From the survey:

- Doctoral candidates from western European countries are extremely mobile.
- Countries with highest mobility rates: Austria, Belgium, Finland, France, Germany, Netherlands, Norway, Portugal, Spain and Sweden.
- Close to western European countries in mobility are Bulgaria, Croatia and Slovenia
- Heterogeneity of mobility - exporters and importers!

Different kinds of mobility by country

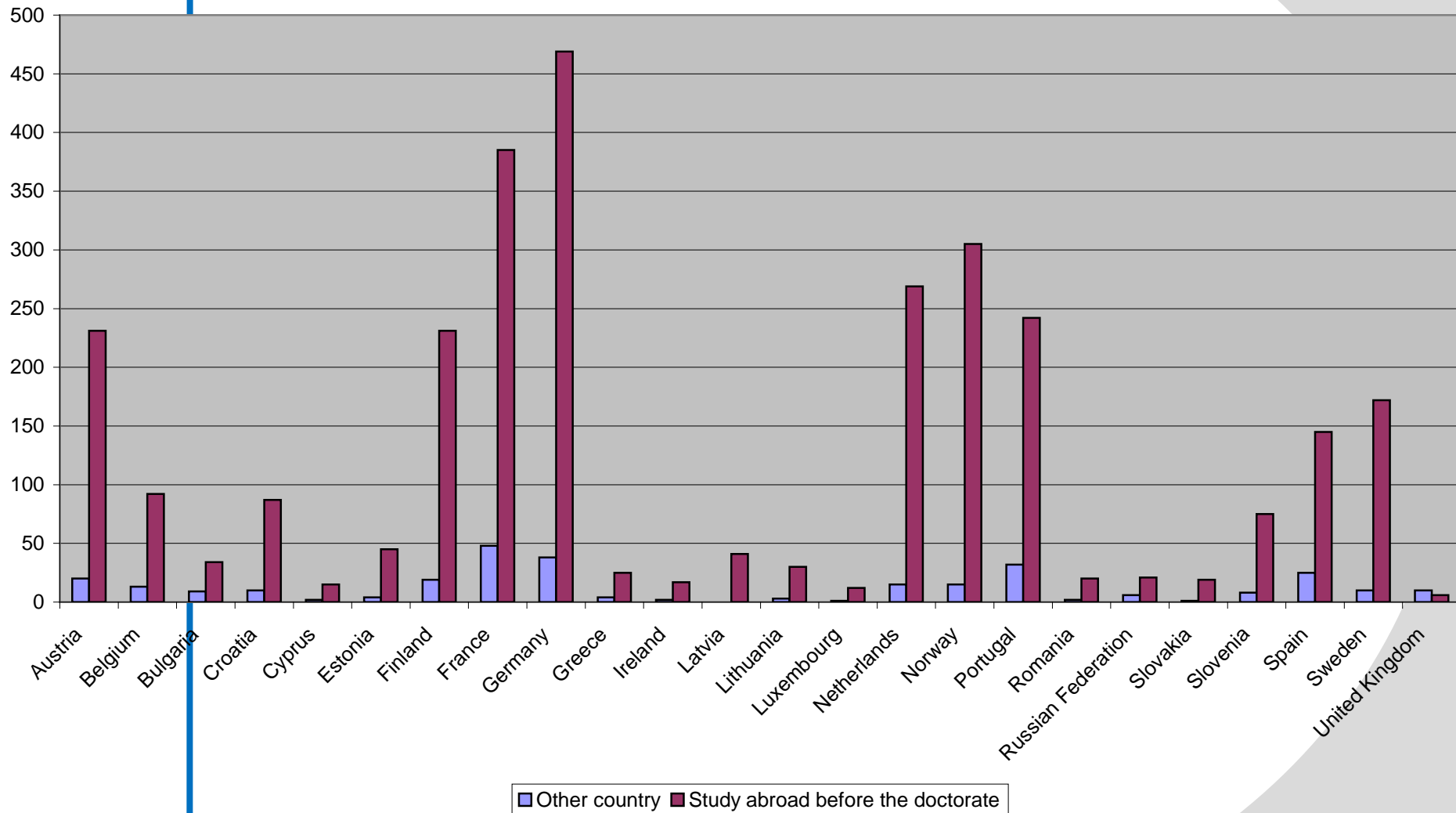
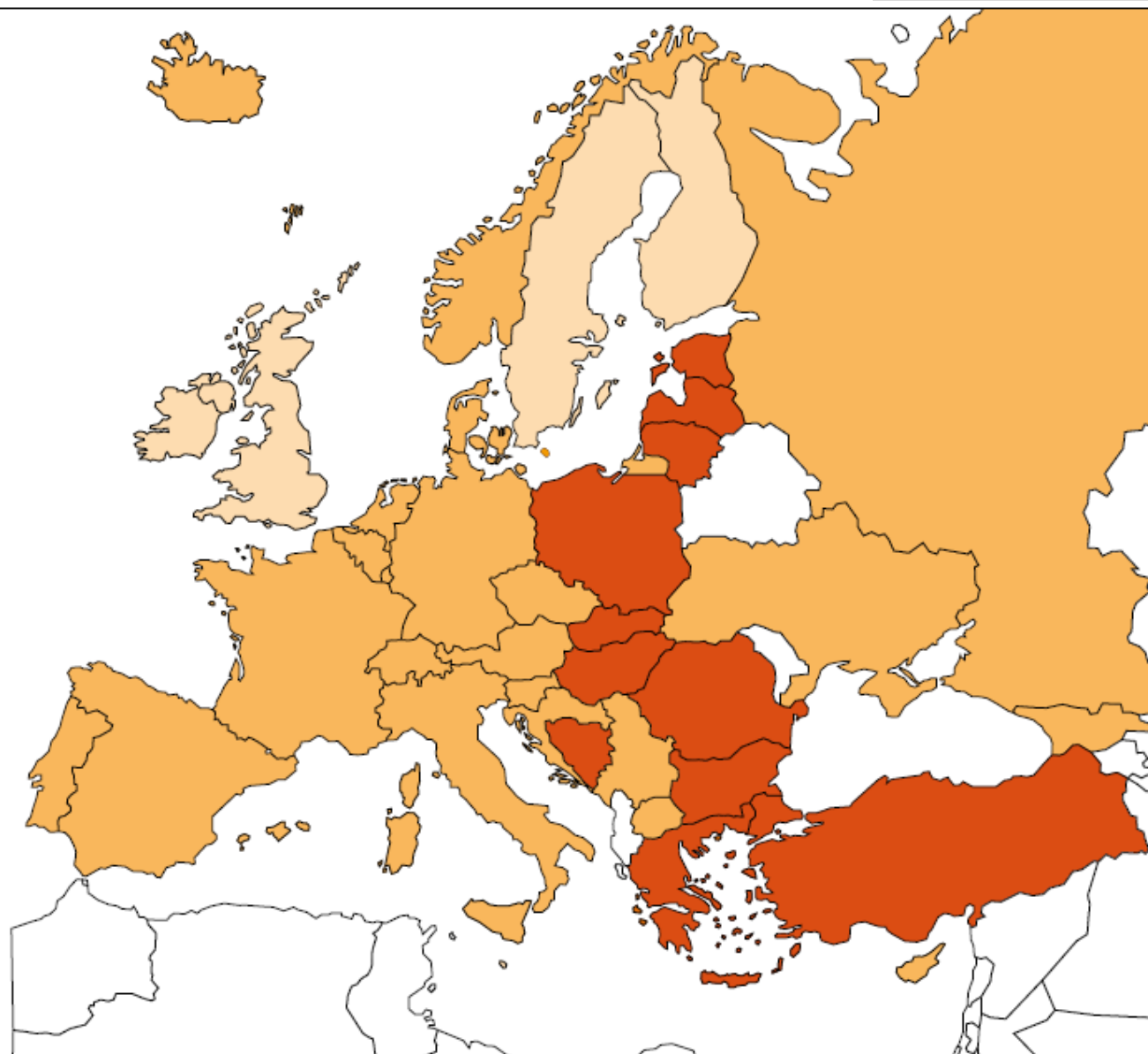


Figure 15
**Comparing
students flows**
by largest group of
respondents

Importers 5
Balanced 21
Exporters 11



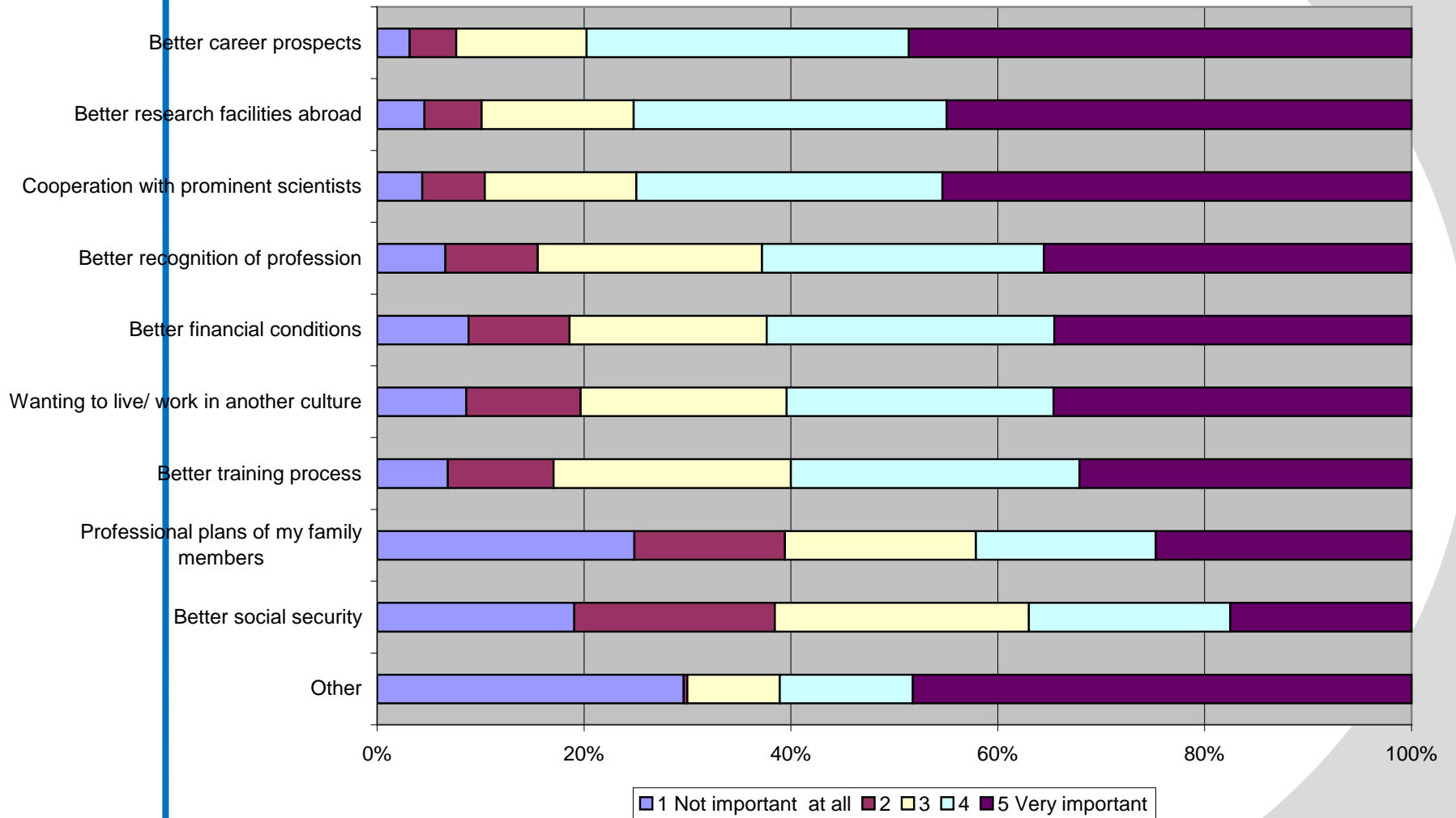
Mobility

- Are there main reasons for mobility and if so, which are these?

From the survey:

- better career opportunities
- laboratories, research units or departments are better equipped
- working with prominent scientists
- better recognition by the profession
- better financial conditions
- etc.

How important are the following motivational reasons for your mobility?



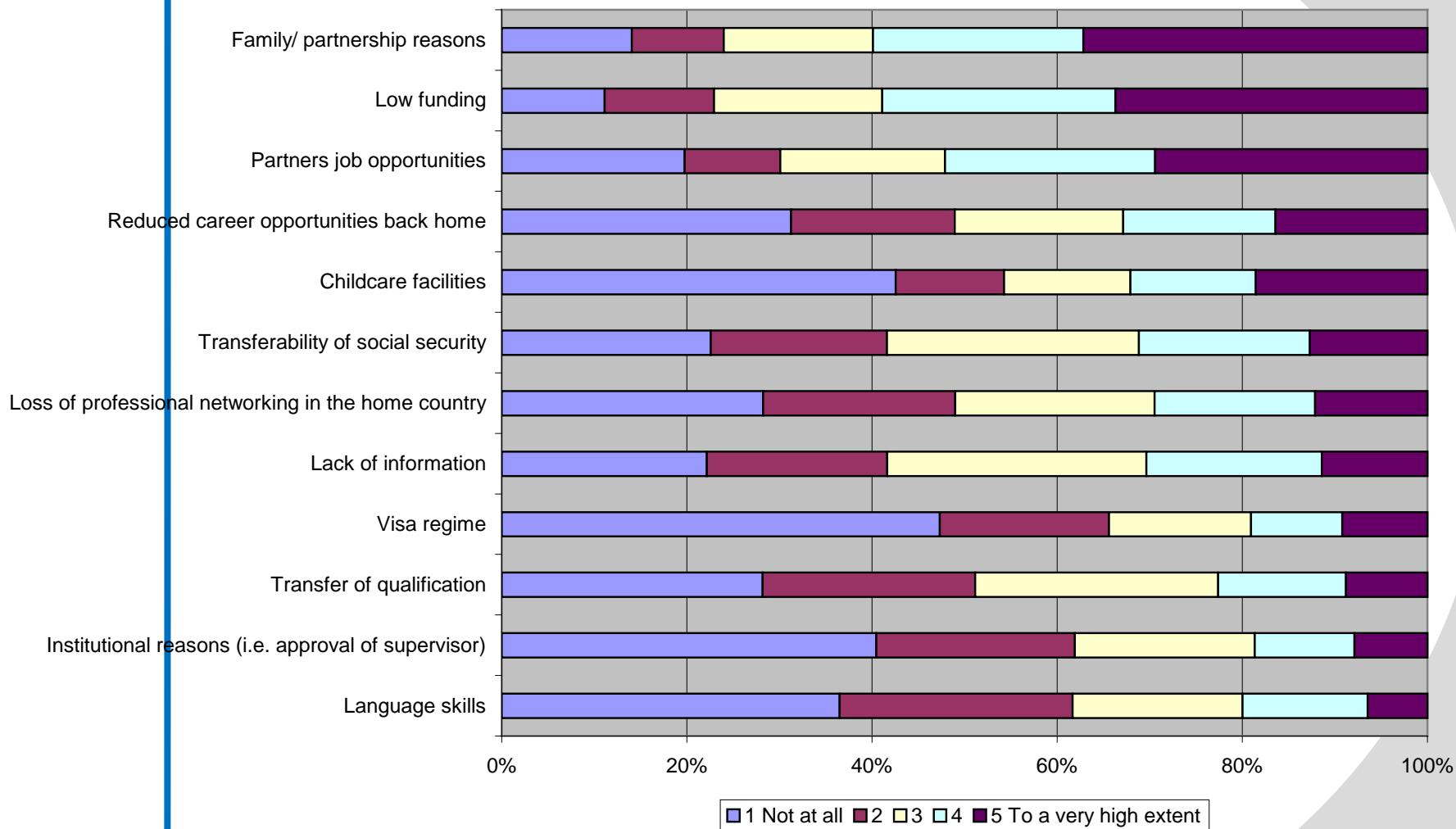
Mobility

- Obstacles in mobility?

From the survey:

- Family / partnership reasons
- Low funding
- Partner's job opportunities
- Childcare facilities

To what extent are the following barriers significant for your mobility?



Career Path & Qualifications

- Prior work experience?

From the survey:

- 46,4% don't have any work experience
- Differences by fields of studies:
(Sciences, Engineering, Manufacturing and Construction Vs. Health and Welfare, Humanities and Arts)

Percentage of respondents per cluster of field of study who have no work experience

	N	%	N Total
HUMANITIES AND ARTS	336	36,6	917
SCIENCE	1833	57,8	3173
SOCIAL SCIENCES, EDUCATION, BUSINESS AND LAW	811	37,4	2166
ENGINEERING, MANUFACTURING AND CONSTRUCTION	421	50,6	832
AGRICULTURE	87	41,4	210
HEALTH AND WELFARE	177	34,3	516
SERVICES	67	42,4	158
other combination	288	41,4	696
Total	4020	46,4	8668

Career Path & Qualifications

- Career after the Ph.D.?

From the survey:

- Academic Sector = University
- Public non-academic research sector = research institutes mainly funded by public funding (e.g. Fraunhofer, Max Planck, Helmholtz (DE), Risoe (DK), CERN (CH) research institutes)
- Private non-academic research sector (e.g. industrial research, mainly in R&D environments held by private companies)

Sector of preference (N=7914)

	<i>N</i>	<i>Percent</i>	<i>Percent of Cases</i>
Academic research sector (University)	6109	33,9%	77,2%
Public non-academic research sector	3503	19,4%	44,3%
Private non-academic research sector	3461	19,2%	43,7%
Private non-research sector	1736	9,6%	21,9%
Public non-research sector	1507	8,4%	19,0%
Non Governmental Organisation (NGO)	1192	6,6%	15,1%
Other	312	1,7%	3,9%
Military	195	1,1%	2,5%
Total	18015	100,0%	227,6%

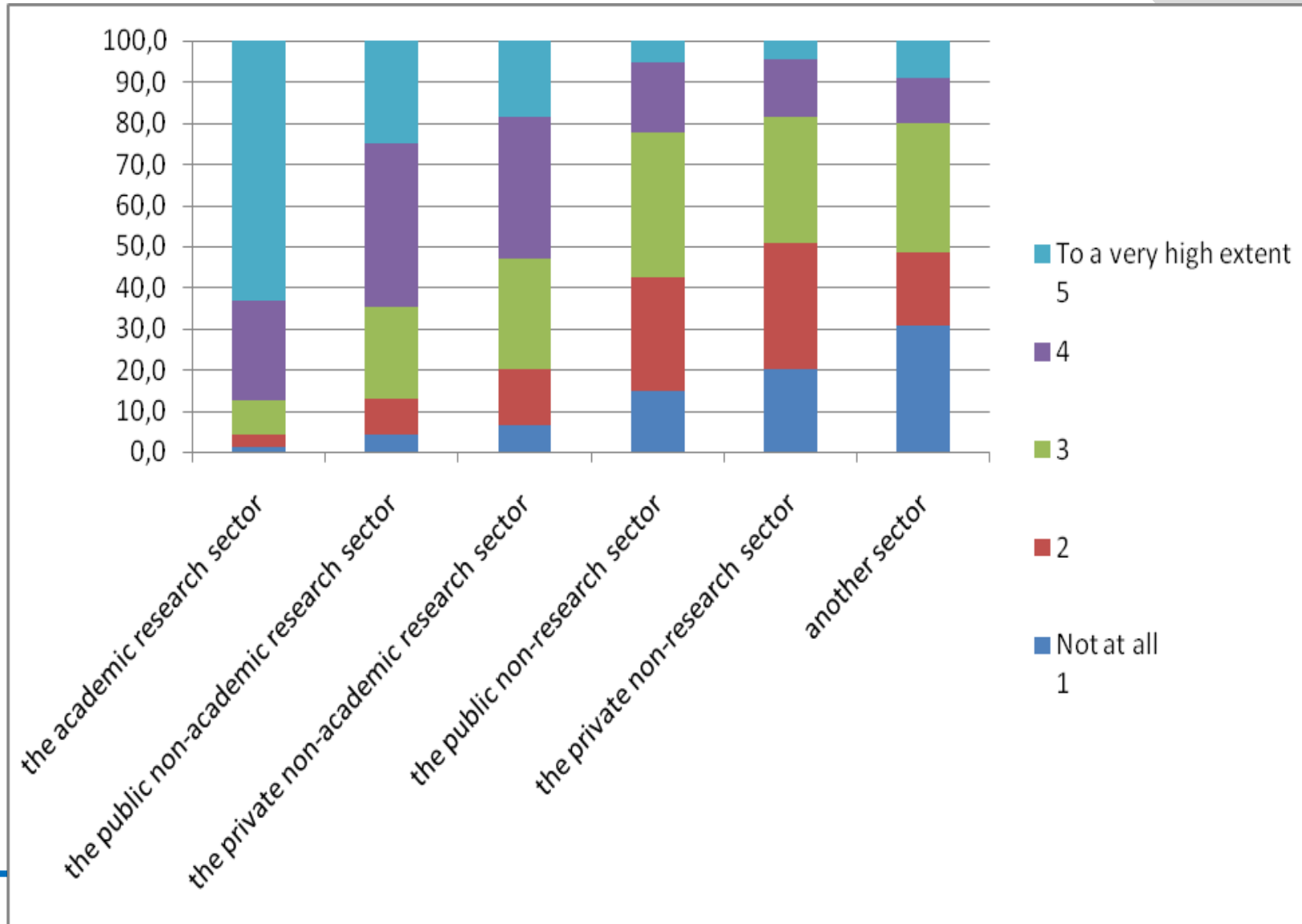
Career Path & Qualifications

- Does a Doctorate raise the career opportunities?

From the survey:

- Doctoral candidates are confident that a doctorate raises their career opportunities
 - inside academia (88% high up until very high)
 - in public and private non-academic research sector (around 60 to 65%)
- But for the non-research sectors for less than 1/4 of DC it will increase their opportunities

Perceived job opportunities in different employment sectors



Career Path & Qualifications

- Do doctoral candidates have a clear idea what they can do with their doctoral degree?
- Sometimes – no idea !

Training and Supervision

- What is the level of competencies of doctoral candidates at the start of their studies and during them?

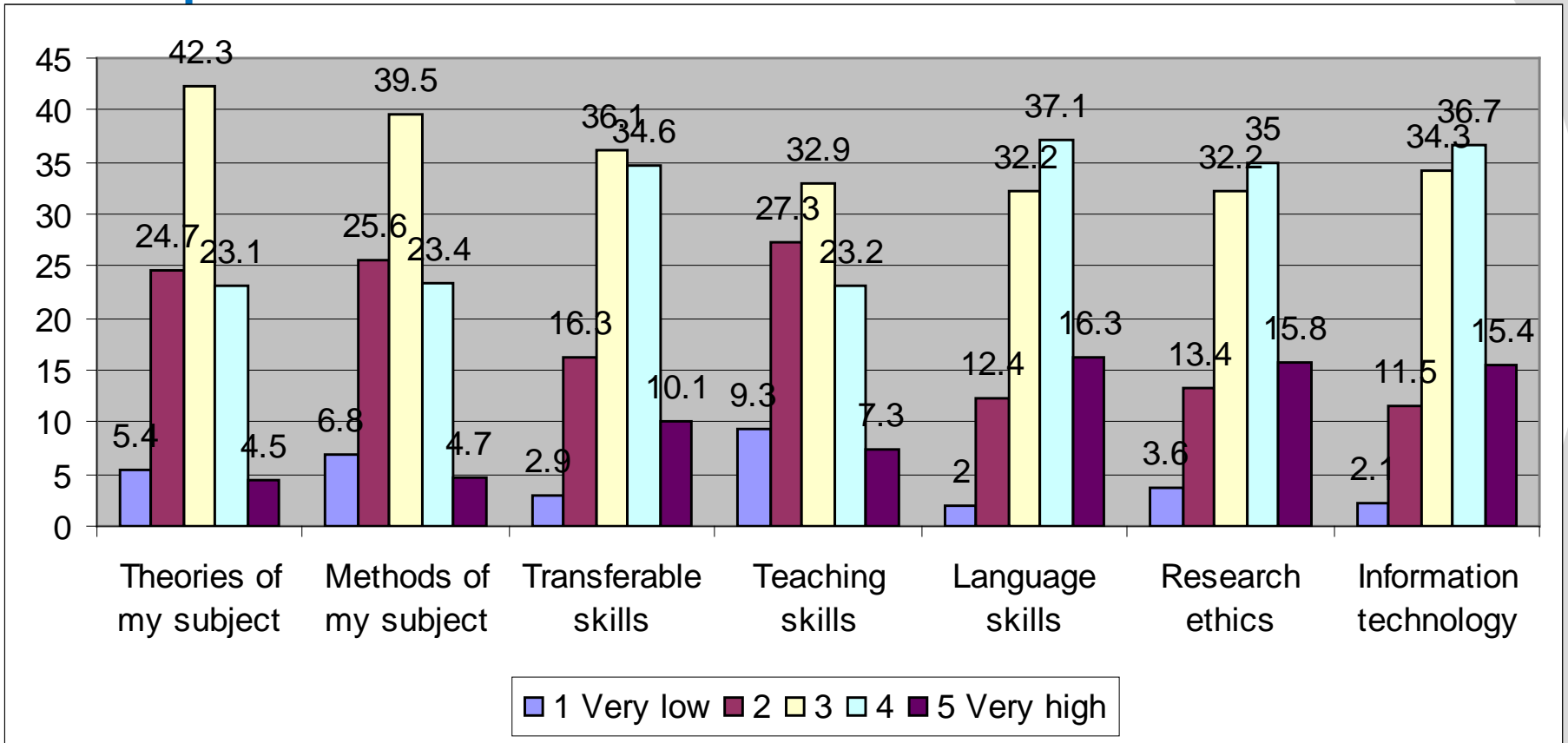
From the survey:

- Rather good starting level of knowledge and skills mastery
- Increase between these two moments is evident

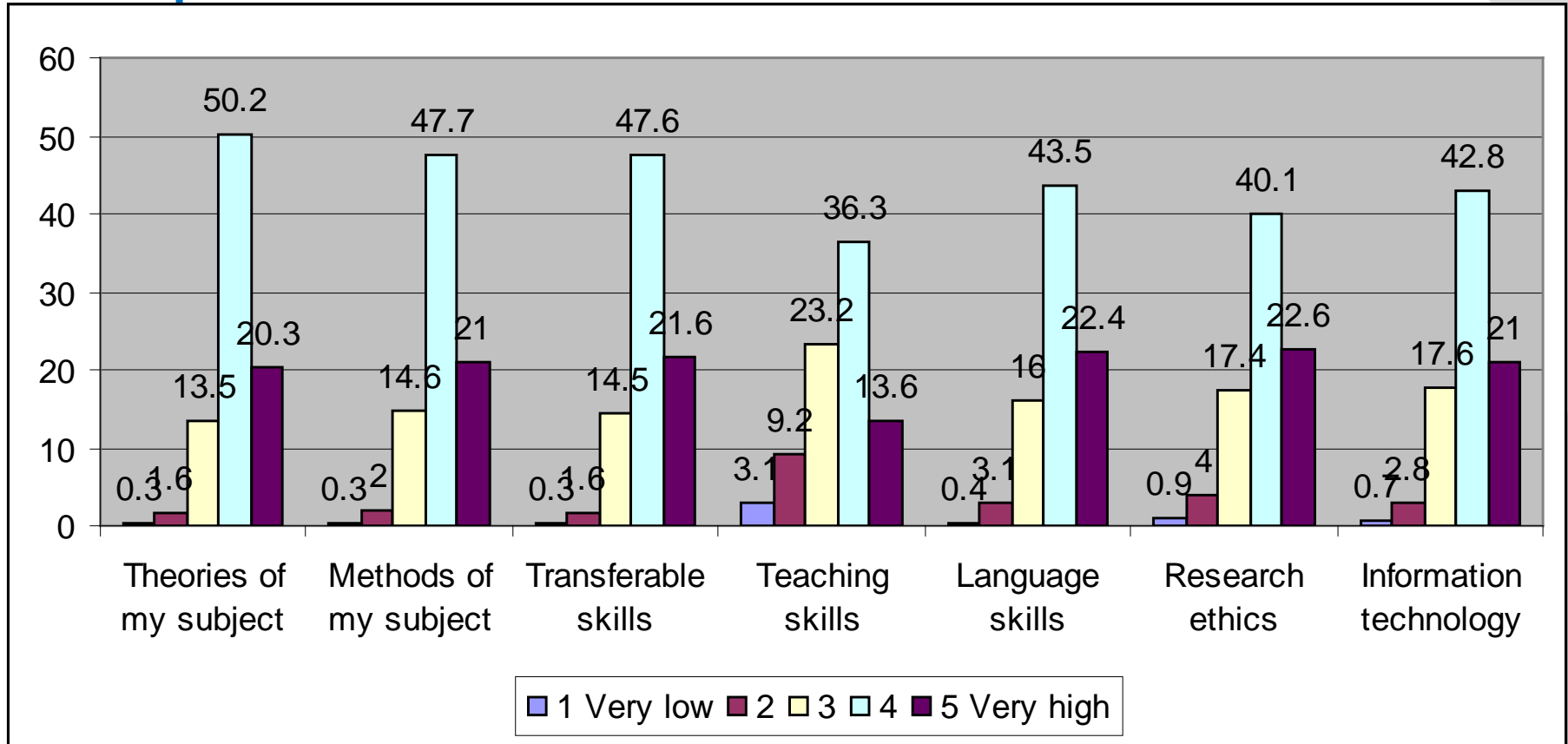
However,

- This is the subjective view of the respondents.
- Besides there is no information of level of mastery of the skills stated.

Initial level of knowledge and competencies



Level of competencies during the course of doctoral studies



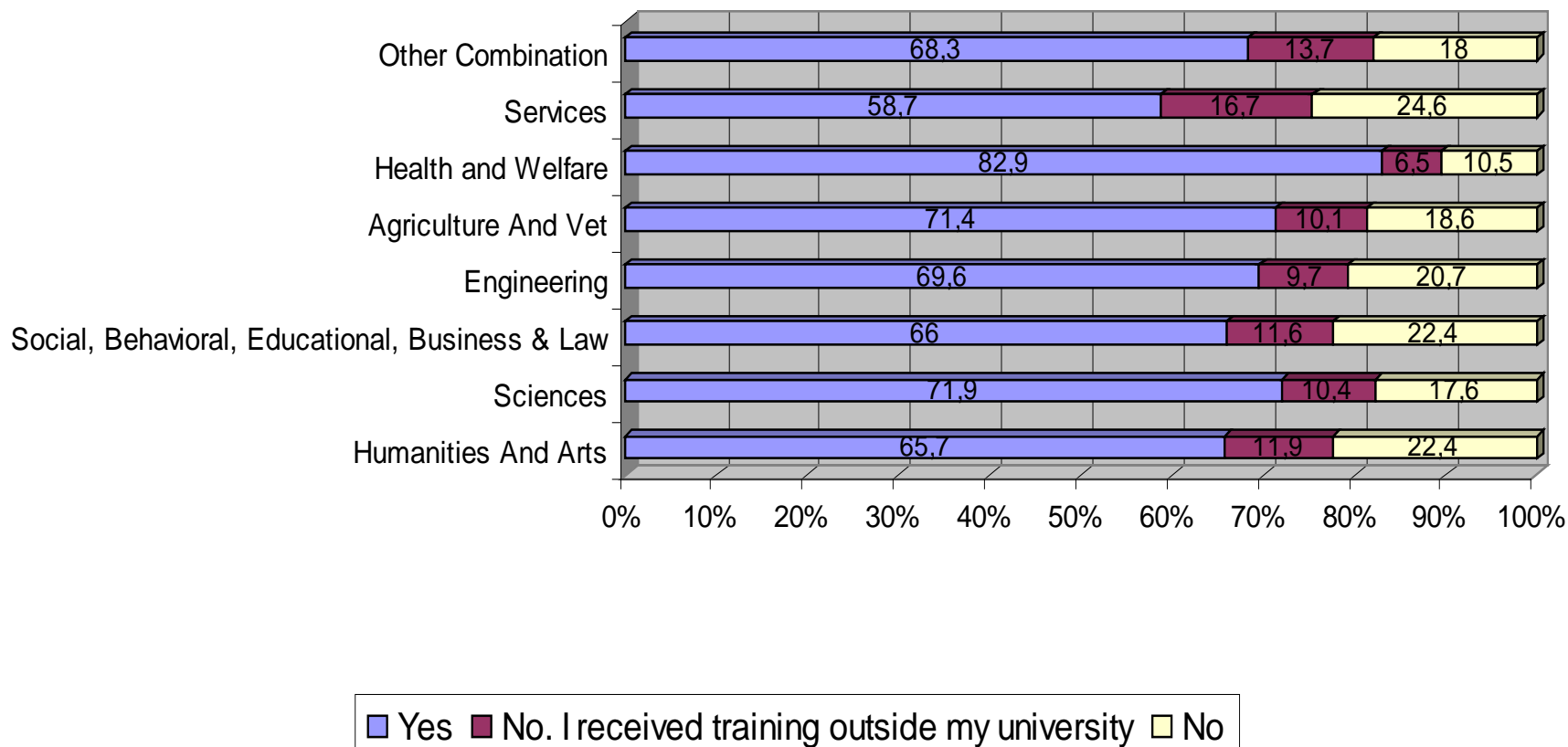
Training and Supervision

- Do universities provide training for the doctoral candidates?

From the survey:

- Most of the Doctoral candidates have received training during their doctoral studies (69,7%).
- Only 19,4 % state the opposite.
- 10,9% declare having received training outside their university.

Training Doctoral candidates received according to their different fields of study



Training and Supervision

- How do universities guarantee that their doctoral candidates are well qualified?

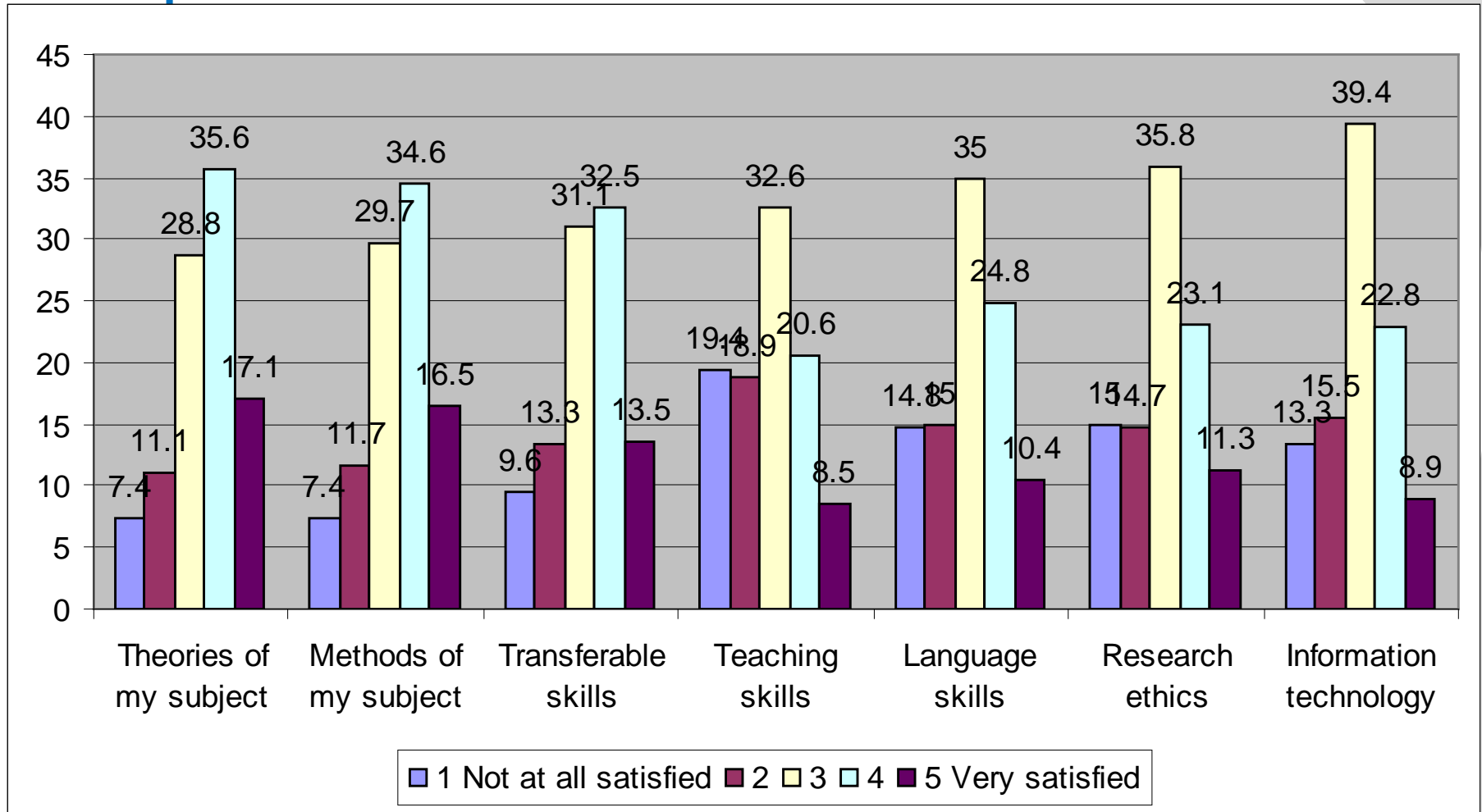
From the survey:

- Training on theories and methods on research subject, and research ethics can be both voluntary and mandatory.
- Training on transferable skills, language skills, teaching skills and information technology are predominantly voluntary.

Training and Supervision

- What about satisfaction from the training?
- Subjective view!

Level of satisfaction respondents state feeling as a result of the training received



Training and Supervision

The supervisor – provision of feedback with regards to doctoral candidate research and scientific work

- Is just feedback enough?
- What type of feedback do they receive?
- Is it useful?

From the data:

- 64,3% of the respondents state that the feedback they receive is either useful or very useful
- But useful in what regard?

Training and Supervision

- How do doctoral candidates rate the way supervisors perform their role?

From the data:

- Supervisors are highly rated for both:
 - as experts in the field and
 - as providers of guidance

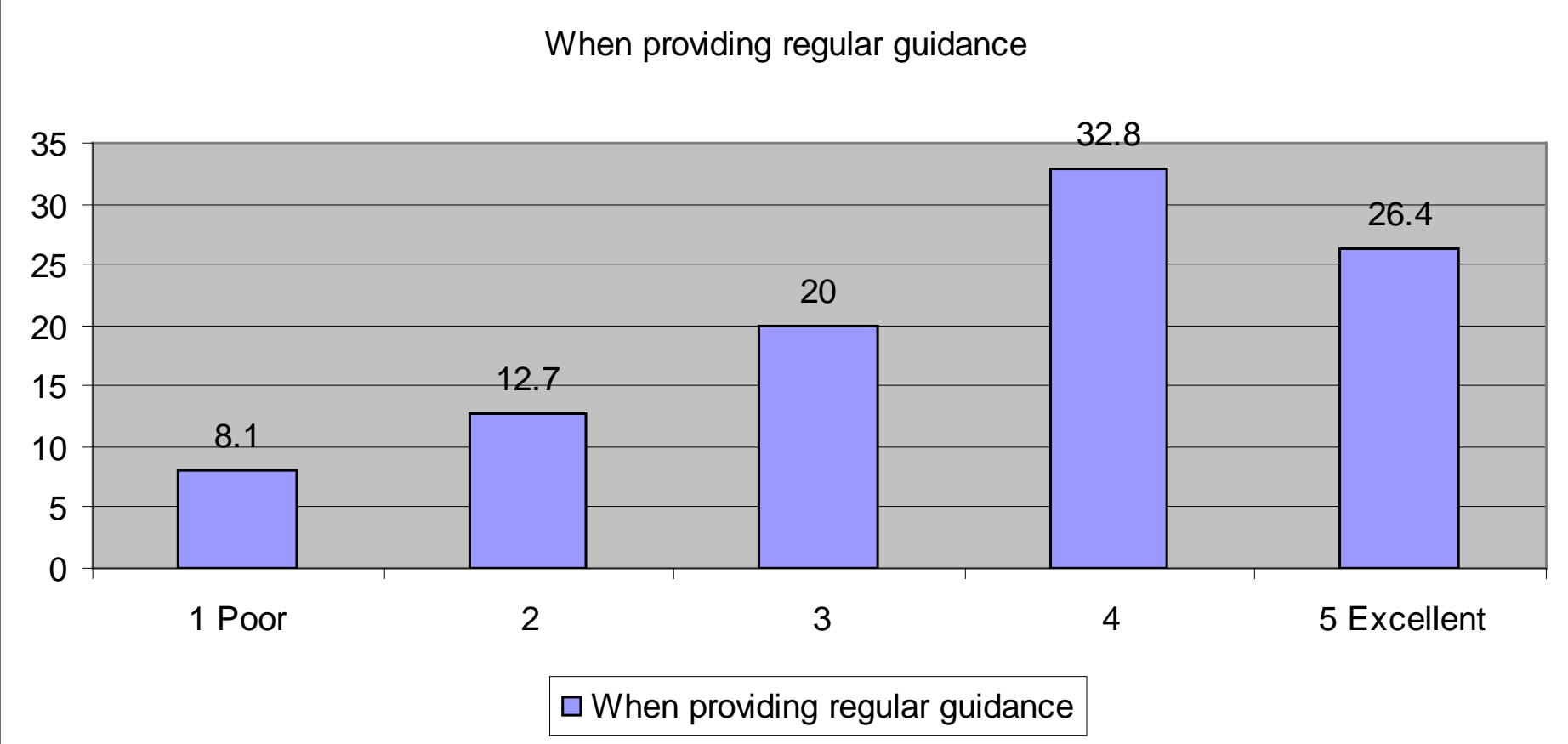
It should, yet again, stress that this is the subjective view of the doctoral candidates.

Doctoral candidates rating of supervisors with regards to their role as experts in the field

As expert in my field of research



Doctoral candidates rating of supervisors with regards to the provision of regular guidance



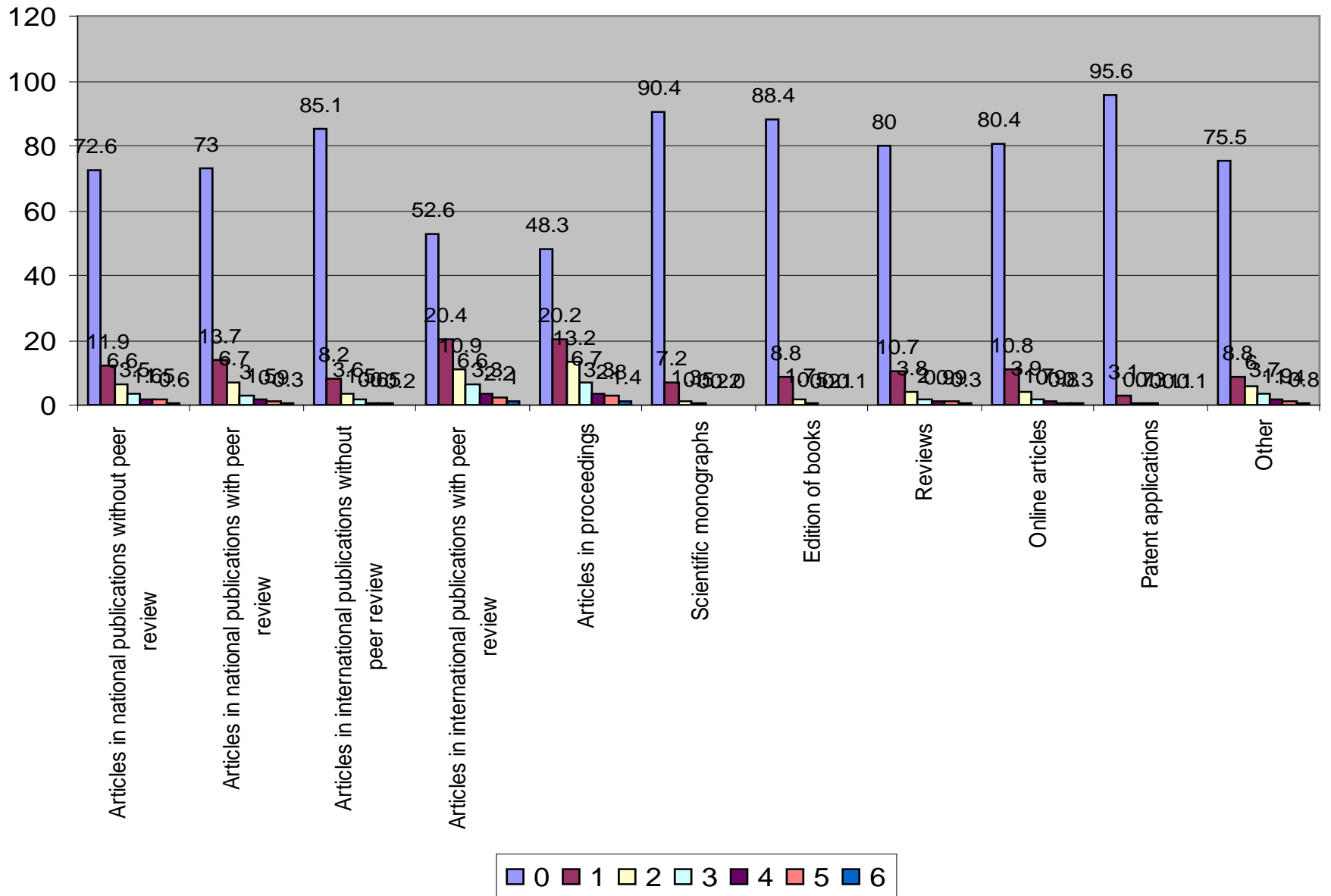
Training and Supervision

- Publishing - a significant component of doctoral candidates' academic work

From the data:

- Most of the doctoral candidates have no publications of the listed kinds
- Most of them have one, sometimes two articles in proceedings or international publications with peer review

Doctoral candidates publications type



Funding & Working Conditions

- Do they receive funding?

From the survey:

- Over 80% do - either as salary or as scholarship
- No difference between male and female respondents
- But differences between those that don't have and have children - the doctoral candidates with children more difficult get funding

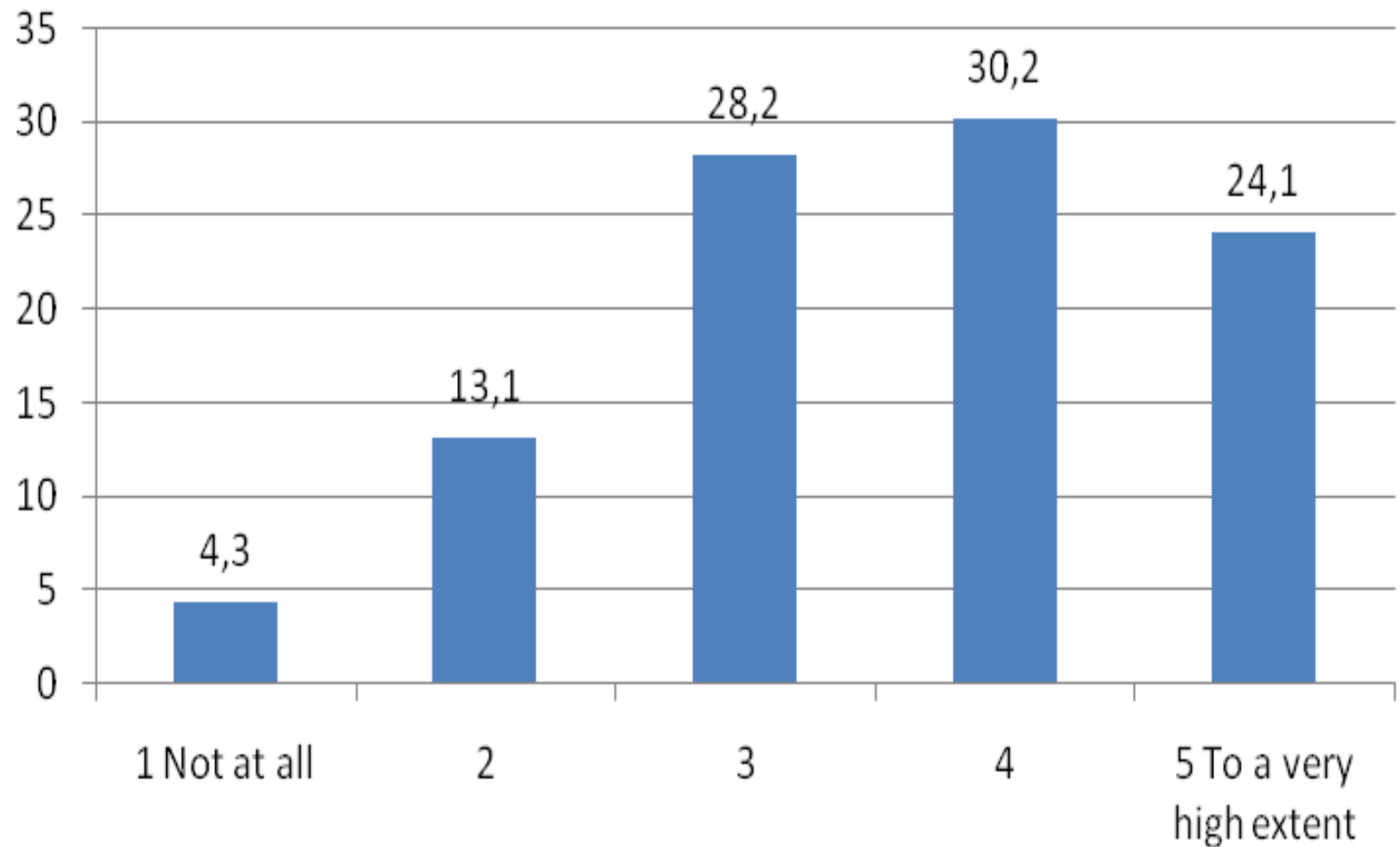
Funding & Working Conditions

- To what extent the doctoral funding meets the living costs?

From the survey:

- Over 50 % of the doctoral candidates state that the funding they receive meets their cost of living to a high or a very high extent

Doctoral funding meets living costs



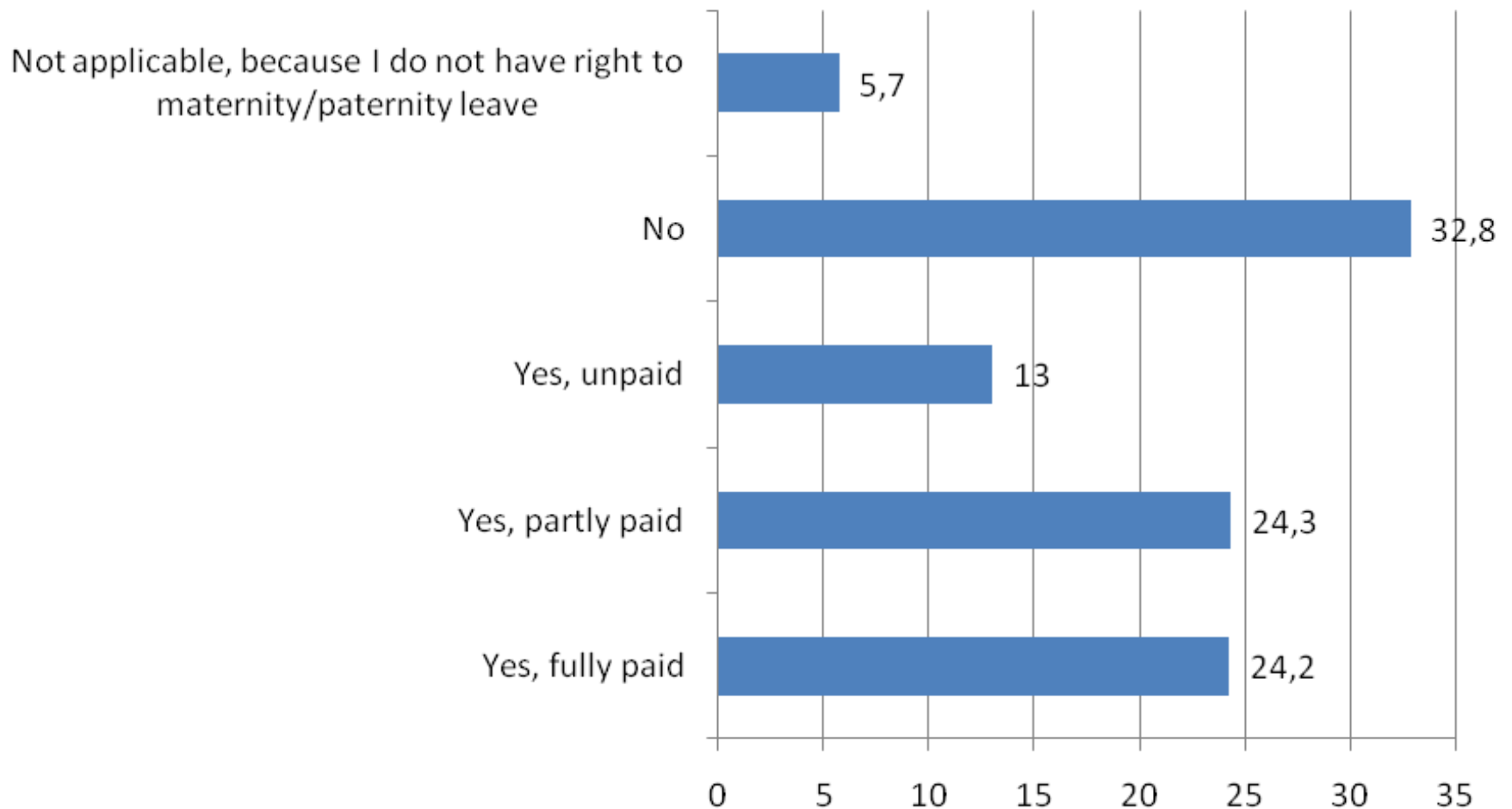
Funding & Working Conditions

- Reconciliation of family and professional life?

From the survey:

- The right to have children and still be able to pursue a career - 69 % know that they have a right to maternity or paternity leave
- But payment for maternity/paternity leave – just 24,2 are fully paid

Payment for maternity/ paternity leave



Funding & Working Conditions

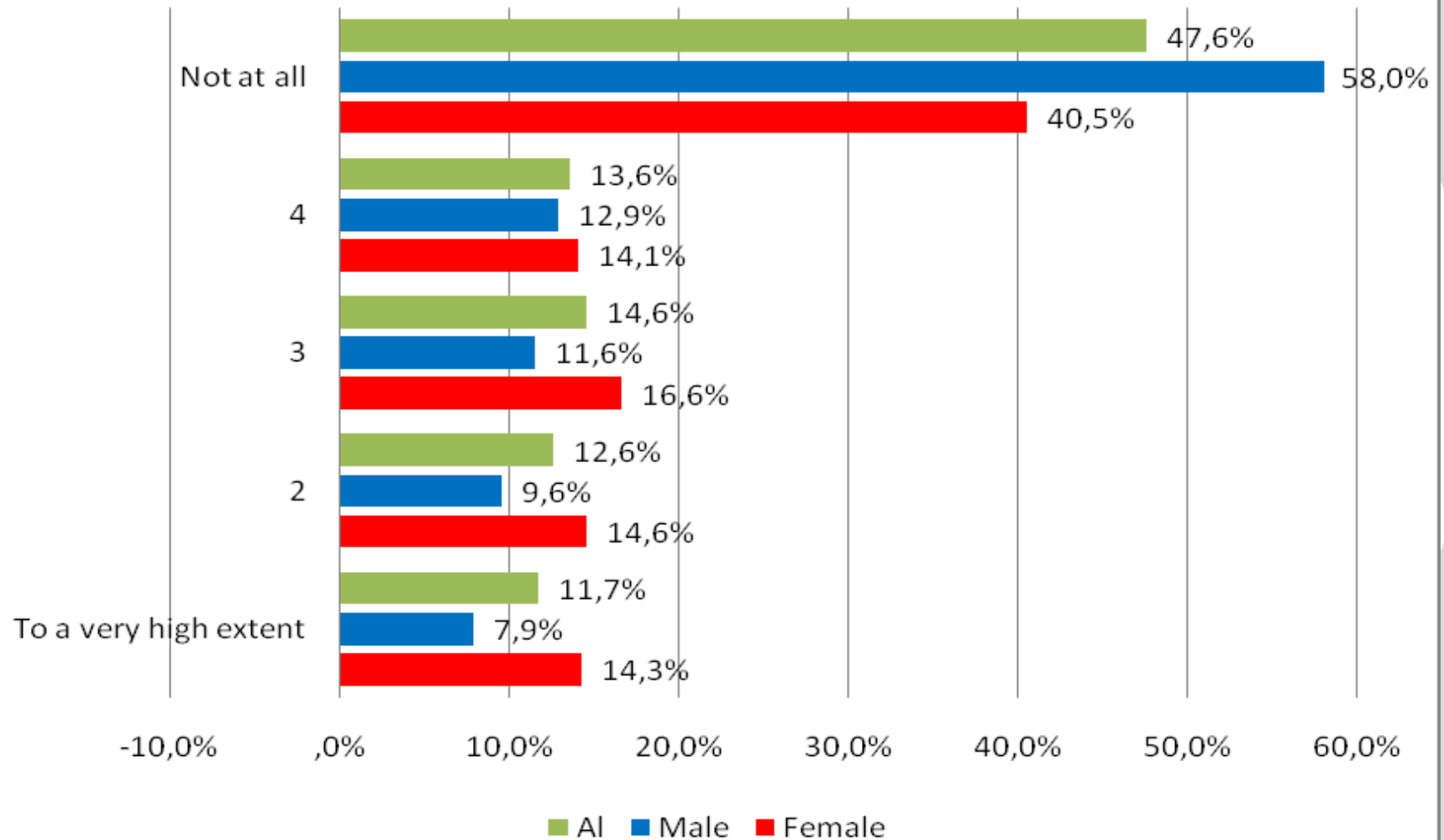
Informal obstacles for early stage researchers to reconcile family and professional life

- Have they felt any pressure to postpone having children?
- Were they been discouraged from taking maternity or paternity leave?

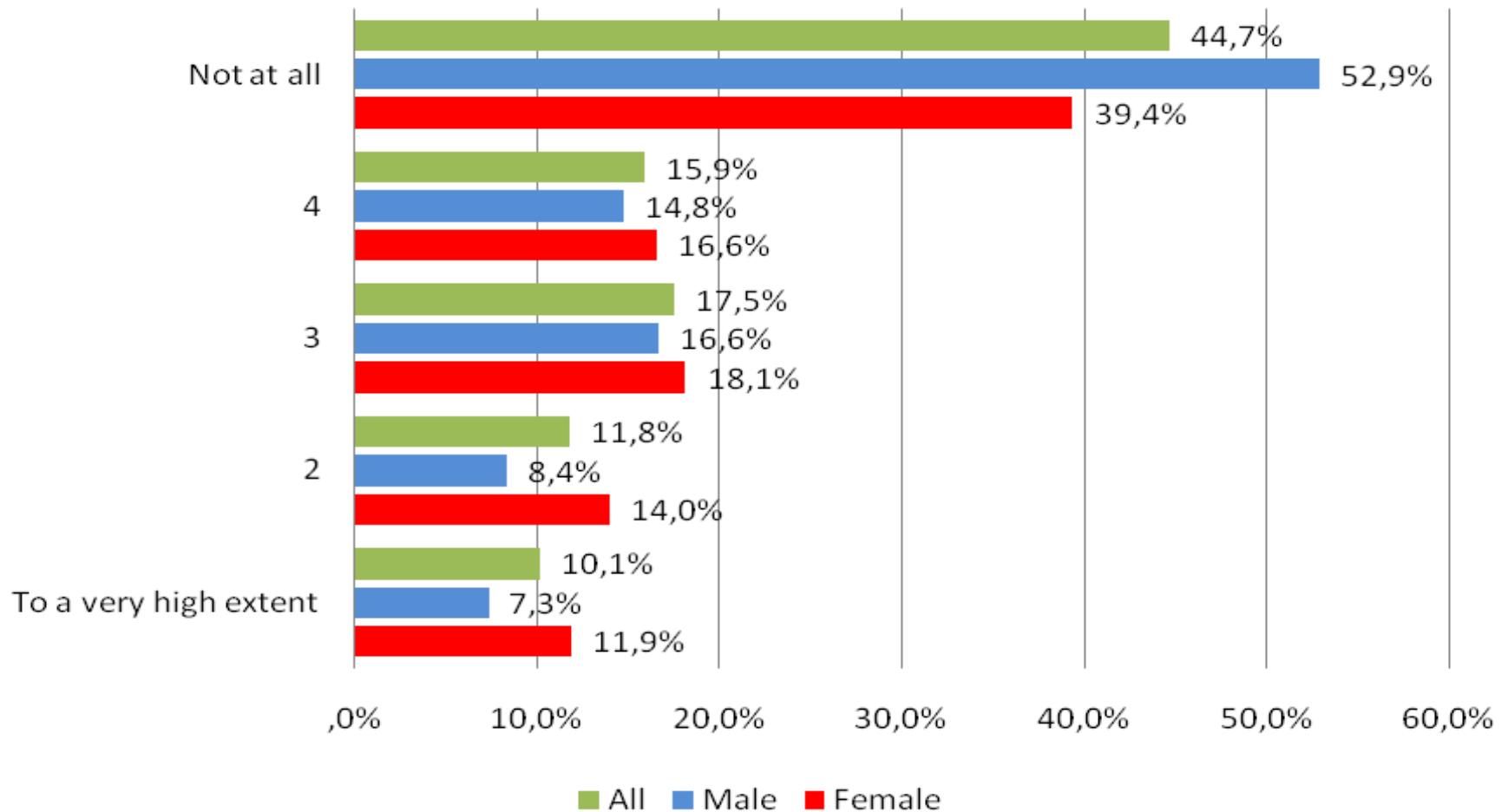
From the survey:

- The reconciliation of family and profession life seems to more challenging for female early stage researchers

Pressure to postpone having children according to gender



Discouraged from taking maternity/paternity leave according to gender



From here on ...

- Further, more detailed analysis
- Country analysis
- Draft publication

Eurodoc Annual Conference and General Assembly, 11-15 March 2010 Vienna, Austria

- Publication of the report (Mid 2010)
- Policy papers

Thank you!

**For more information:
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