GenderInSITE

Gender in science, innovation, technology and engineering

Funding research: how to include an effective gender equality perspective

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Changing the field: transformative actions

1. Gender equity in science and technology education
2. Providing enabling measures for addressing gender inequalities in scientific and technological careers
3. Making science responsive to the needs of society: the gender dimension
4. Making the science and technology decisionmaking process more "gender aware"

5. Relating better with "local knowledge systems"

6. Addressing ethical issues in science and technology: the gender dimension

7. Improving the collection of gender disaggregated data for policy makers

8. Equal opportunity for entry and advancement into larger-scale science, technology, engineering, mathematics disciplines (STEM) and innovation systems

Fixing women x fixing institutions

If we really want to change things we most go beyond fixing women, i.e., motivating them to pursue scientific careers and to persevere in facing all the obstacles and difficulties. Although this still remains as an important action level, we must go beyond that and fix the institutions and to do this we must influence policies.

Mainstreaming Gender Equality in Research Funding

Two key policy objectives:

i) achieving equality between men and women in access to funding and participation in research decision-making;

ii) the analysis of biological sex and/or gender in research content, taking into consideration the specifics of each academic discipline.

Difficulties:

Acess to data and lack of specific studies

What existing evidence tells us

1.While in many cases the success rates in funding are regularly monitored and published, the gender of the applicants and awardees is not followed up and either the success rates by gender are not calculated or this information is not published.

2. All-male boards, committees and evaluation panels still exist in many countries and this is the case even in countries where the proportion of women in research is high. This may influence orientation and priorities in research as well as the gender equality policies of the funding organisations. This lack of women in gatekeeping positions gives the image of an organisation that is unwelcoming to women.

What existing evidence tells us

3. The evaluation is generally based on criteria of the scientific quality of the researchers and the project, pertinence criteria. Gender considerations are not taken into account

4..However, based on the available data, one cannot conclude that women's success rates are systematically lower than men's. Concerning the application rate, the proportion of women applicants is lower than the proportion of potential applicants in practically all funding systems and most disciplines. The report also highlights that little research exists on application behaviour in general and especially on its gender patterns.

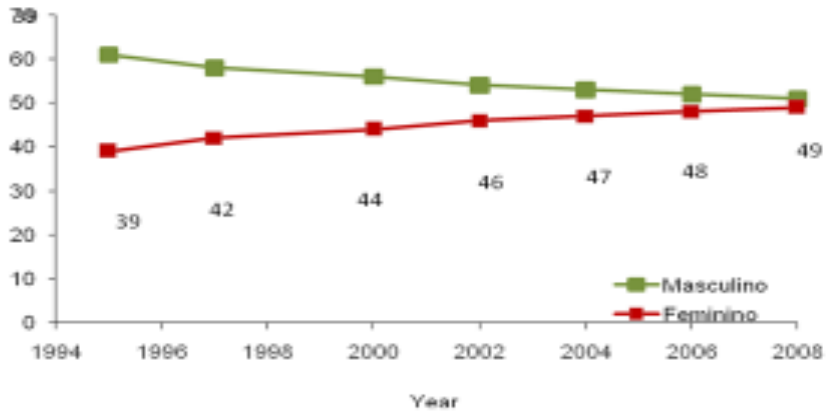
5. Gender imbalances in highly prestigious grants, positions or prizes in many countries.

Research Groups in Brazil

Research Groups in Brazil	2006	2008	2010	2014
Institutions	403	422	452	492
Group	21.024	22.797	27.523	35.424
Researchers (P)	90.320	104.018	128.892	180.262
PhDs (D)	57.586	66.785	81.726	116.427
(D)/(P) %	64	64	63	65

% of women among researchers

CNPq Censo de Grupos de Pesquisa
% de Mulheres Pesquisadoras 1995 - 2008



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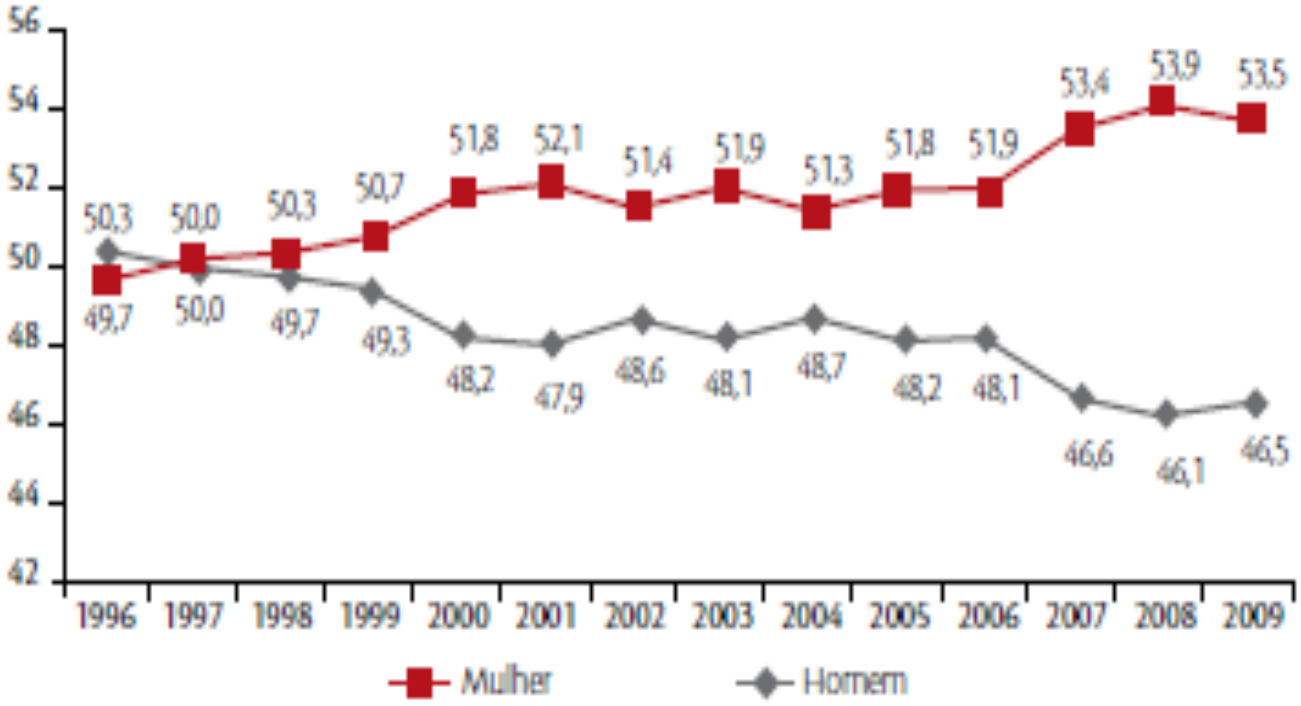
MSc graduates

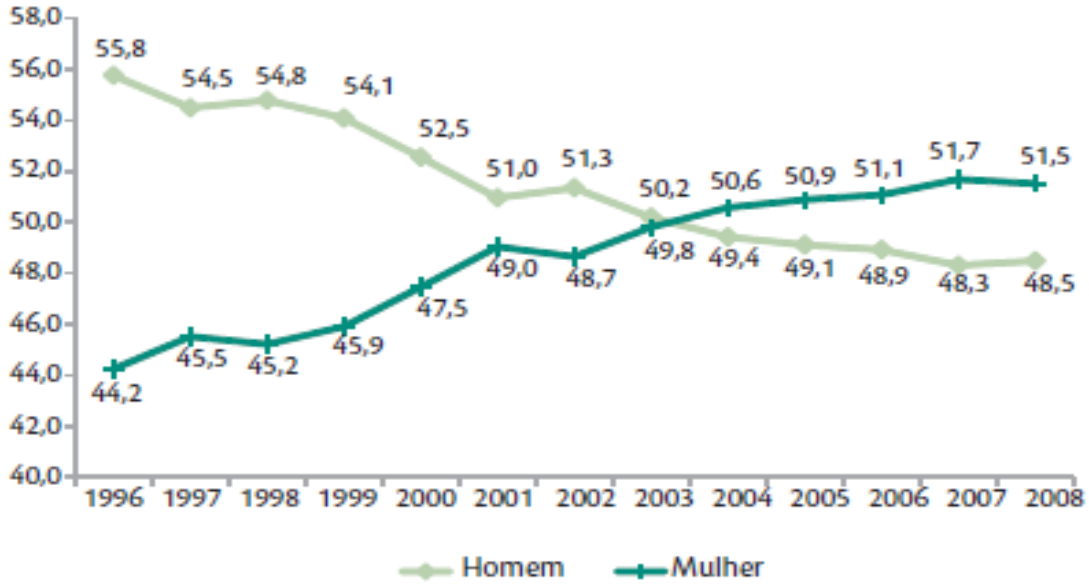
Gráfico 2.2.16 Distribuição percentual dos títulos de mestrado concedidos no Brasil por sexo, 1996-2009



Fonte: Coleta Capes (Capes, MEC). Elaboração do Núcleo de RHCTI do CGEE.

PhD graduates

Gráfico 1.19. Distribuição dos doutores titulados no Brasil por sexo, 1996-2008



Fonte: Coleta Capes (Capes, MEC). (*Apud* gráfico 2.2.14 do capítulo 2.)

The case of Brazil

Categories	2002		2012	
	Numbers	% women	Numbers	% women
CNPq				
Undergraduate (IC)	18 843	54	36 391	56
MSc (GM)	5 602	52	9 865	53
PhD (GD)	5 743	49	9 362	51
Post Doc (PD)	88	39	1 548	57
Senior Researcher (PQ)	**7 765**	**32**	**9 940**	**35**
CAPES				
MSc (GM)	13 054	NA	43 591	NA
PhD (GD)	10 180	NA	27 598	NA
Post Doc (PD)	179	NA	3 663	NA
Total	61 454		141 958	

Senior Research Fellowship Levels	% of Women							
	2001	2002	2003	2004	2005	2006	2007	
1A	22,3	22,1	22,9	23,8	23,2	23,0	23,0	
1B	27	27,8	27,2	27,2	28,6	30,4	31,8	
1C	28,0	27,8	28,6	29,3	30,0	30,6	31,6	
1D	32,3	32,9	34,0	34,6	34,5	35,0	34,2	
2	37,2	37,8	37,7	38,3	37,7	37,2	36,8	
Total	32,1	32,3	32,5	33,4	33,3	33,4	33,7	

Advisory Committees CNPq

CNPq – Membership of advisory committees for the selection of senior research fellowships - % of women by scientific area. December 2009			
Scientific Area	**Total Number of Members**	**Number of Women**	**% of Women**
Humanities and Applied Social Sciences	57	29	50%
Health Sciences	98	23	22%
Engineering, Exact Sciences and Earth Sciences	83	6	5%
Total	238	58	24%

Source: CNPq webpage

Senior Research Fellowships in physics from 2003 to 2007

Evidence shows that “the average number of publications of the female researchers is 72% higher than the same number for the male researchers at the entrance level, indicating that it is harder for young female scientists to enter into the research system”.

National Institutes of S&T

- 112 National Institutes of Science and Technology
- funding for five to ten years to high profile institutes in all disciplinary areas.
- In109 institutes71 identified 120 leaders
- Of which 21 are women (25%)
- 13 institutes show women as vice leaders.

Recommendations

- Taking the gender challenge seriously, backing specific actions, supporting structures to monitor gender equality, and encouraging research on this area, all with strong political will. The denial of or lack of interest in gender equality appeared to be one of the main sources of imbalance in a large number of European countries.
- Increasing applications from women researchers. This implies encouraging and training women to apply and to request more funding. Measures for better work-life balance are essential.

Recommendations

- Improving gender balance among the gatekeepers of research funding, including committee or panel members and reviewers, and organising gender training, for all involved in the funding process. Allowing women more equal access to the inner mechanisms of research funding could also have major impact on improving their application rates.
- Gender monitoring and publishing of funding statistics on a regular basis, differentiated by discipline and research instrument. In-depth monitoring exercises, both quantitative and qualitative, should be carried out and should include an analysis of the pool of potential applicants, the study of team composition in proposals and generally of the gender impact of funding actions.

Recommendations

- Generally improving accountability and transparency in research funding, publishing procedures and criteria, using international evaluators, effectively avoiding conflicts of interest, providing feedback and instituting grievance procedures.

Thank you.

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