
Reunião DC e Coordenações de Área

Carlos H Brito Cruz

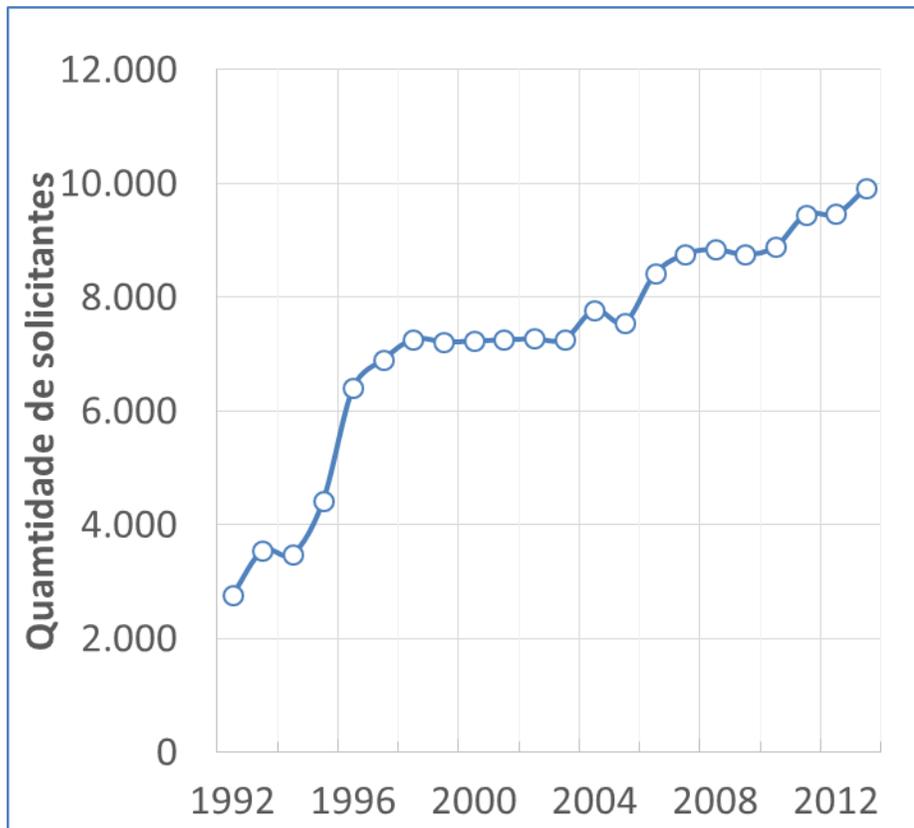
Diretor Científico, FAPESP

23 de abril de 2014

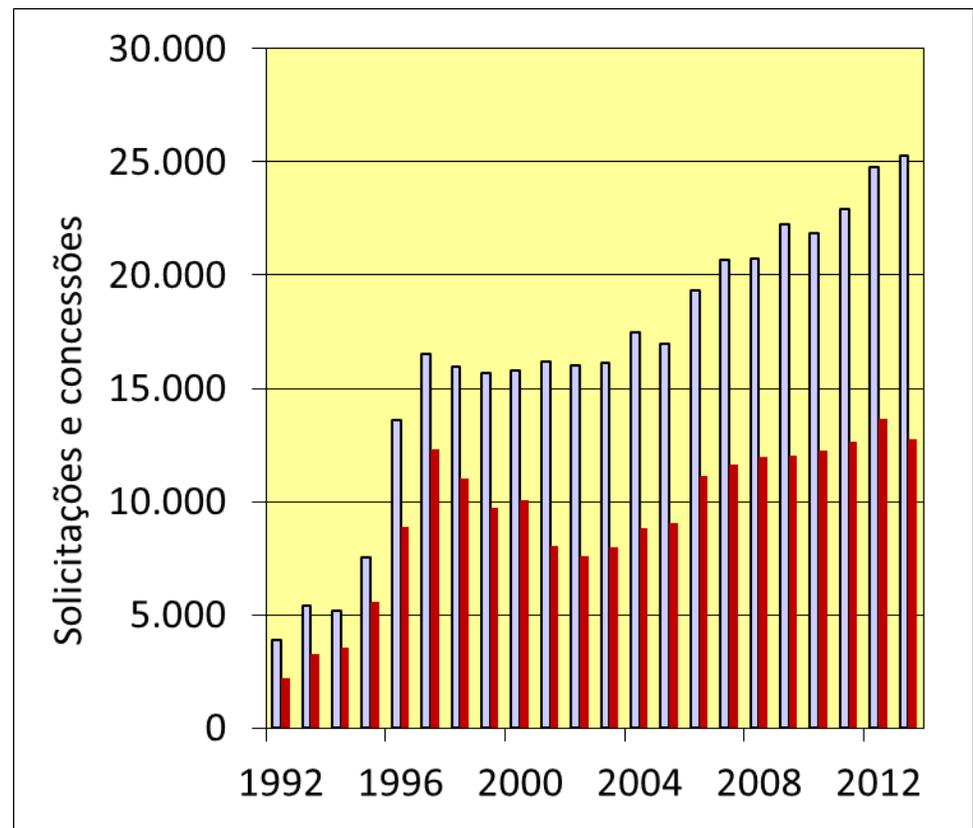
- A FAPESP em 2013
- Evolução nas Grandes Áreas do Conhecimento
- Continuamos em busca de mais impacto: científico, social, economico
- Análise e seleção de propostas
 - Reconsiderações
 - Detalhamento dos pareceres
 - Temáticos, JP, APR>300k, PD, DR
 - Necessidade de justificativa acadêmica nas recomendações CA e outros pontos operacionais

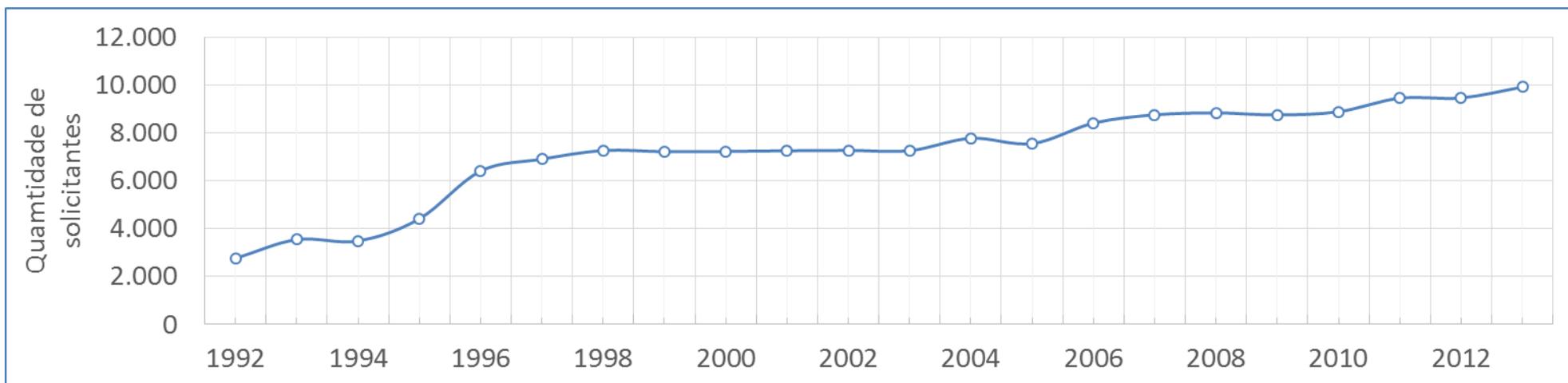
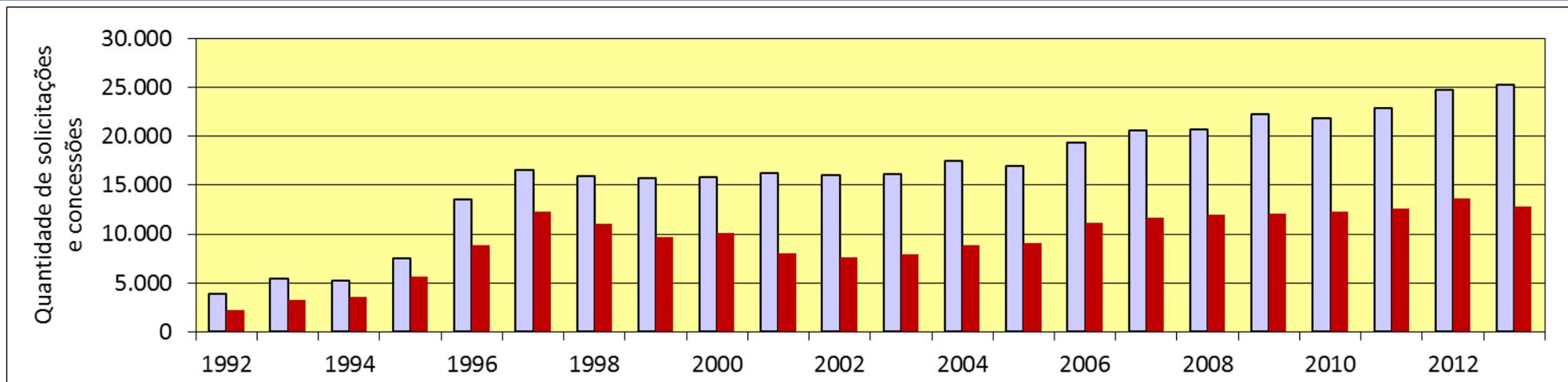
FAPESP: 9,4 mil solicitantes; 25 mil decisões em 2013

Número de solicitantes

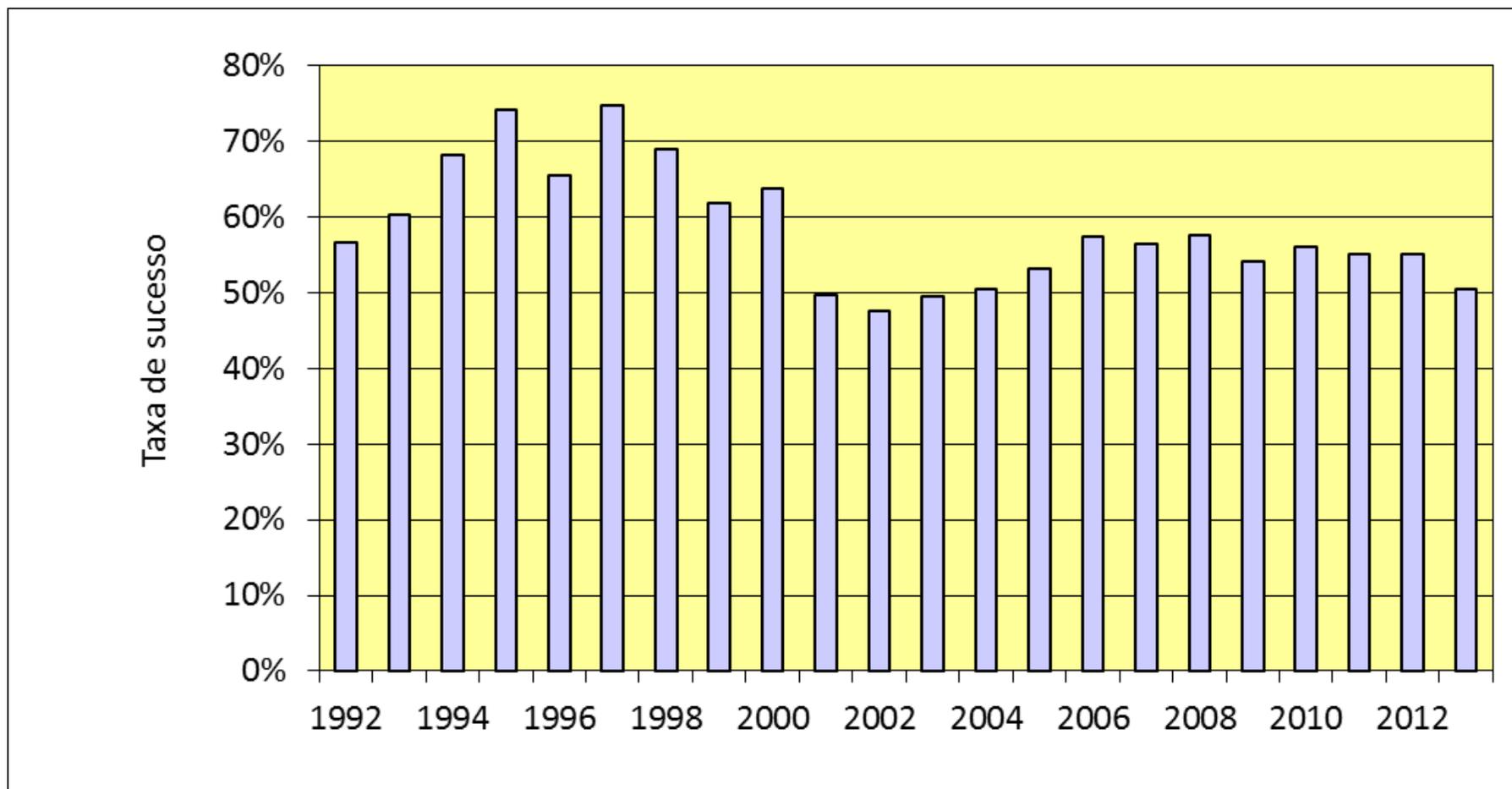


Solicitações e Concessões

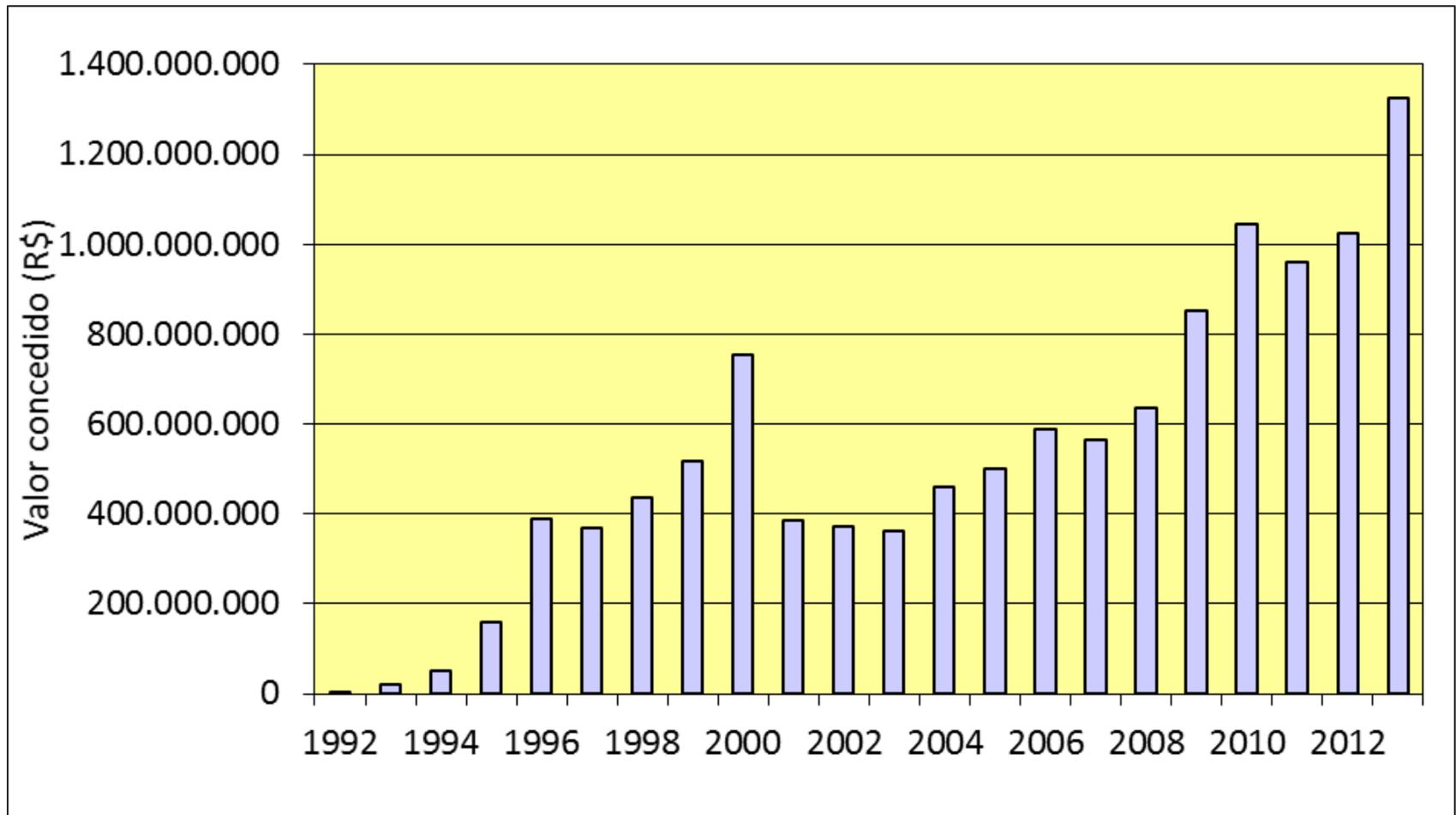




FAPESP: taxa de sucesso global – 51%



Valor das concessões anuais 1992-2013



Taxa de Sucesso

Research Councils UK

BIDDING WARS: AWARDS BREAKDOWN BY RESEARCH COUNCIL

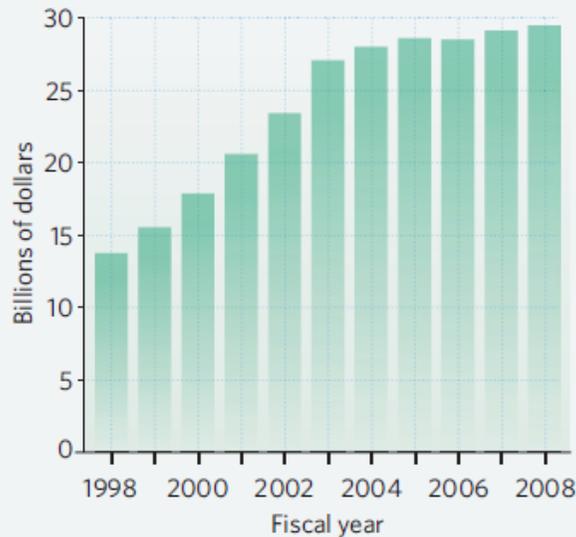
| Research council | Applications | Awards | Success rate (%) | |
|------------------|--------------|---------|------------------|---------|
| | 2009-10 | 2009-10 | 2009-10 | 2008-09 |
| AHRC | 1,513 | 238 | 16 | 18 |
| ESRC | 1,332 | 221 | 17 | 19 |
| MRC | 1,475 | 279 | 19 | 21 |
| BBSRC | 1,865 | 415 | 22 | 21 |
| NERC | 1,887 | 457 | 24 | 24 |
| EPSRC | 3,379 | 1,026 | 30 | 26 |
| STFC | 212 | 112 | 53 | - |

NIH: 21% success rate in 2008; 18% in 2011

NATURE|Vol 457|5 February 2009

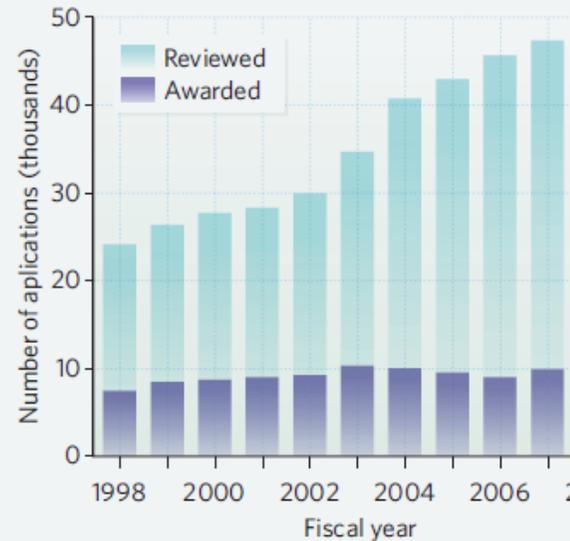
NEWS FEATURE

NIH BUDGET

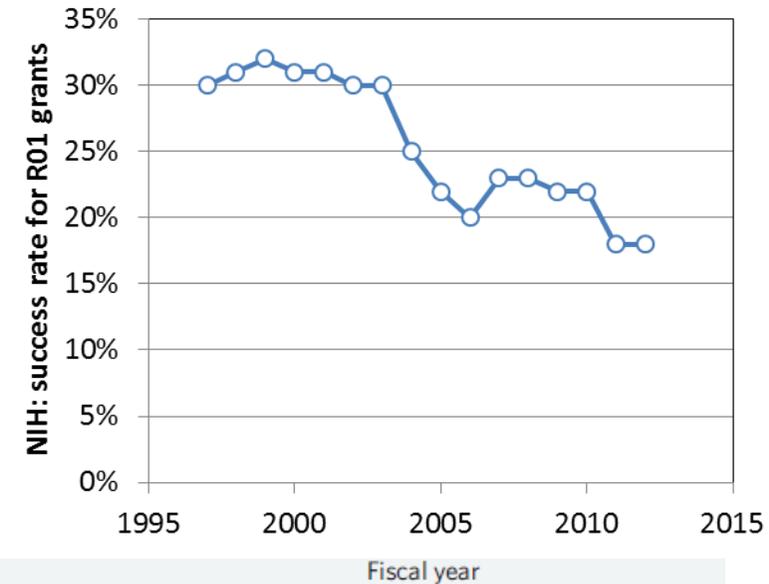


NIH GRANT APPLICATIONS

For research project grants, including R01s.



APPLICATION SUCCESS RATE



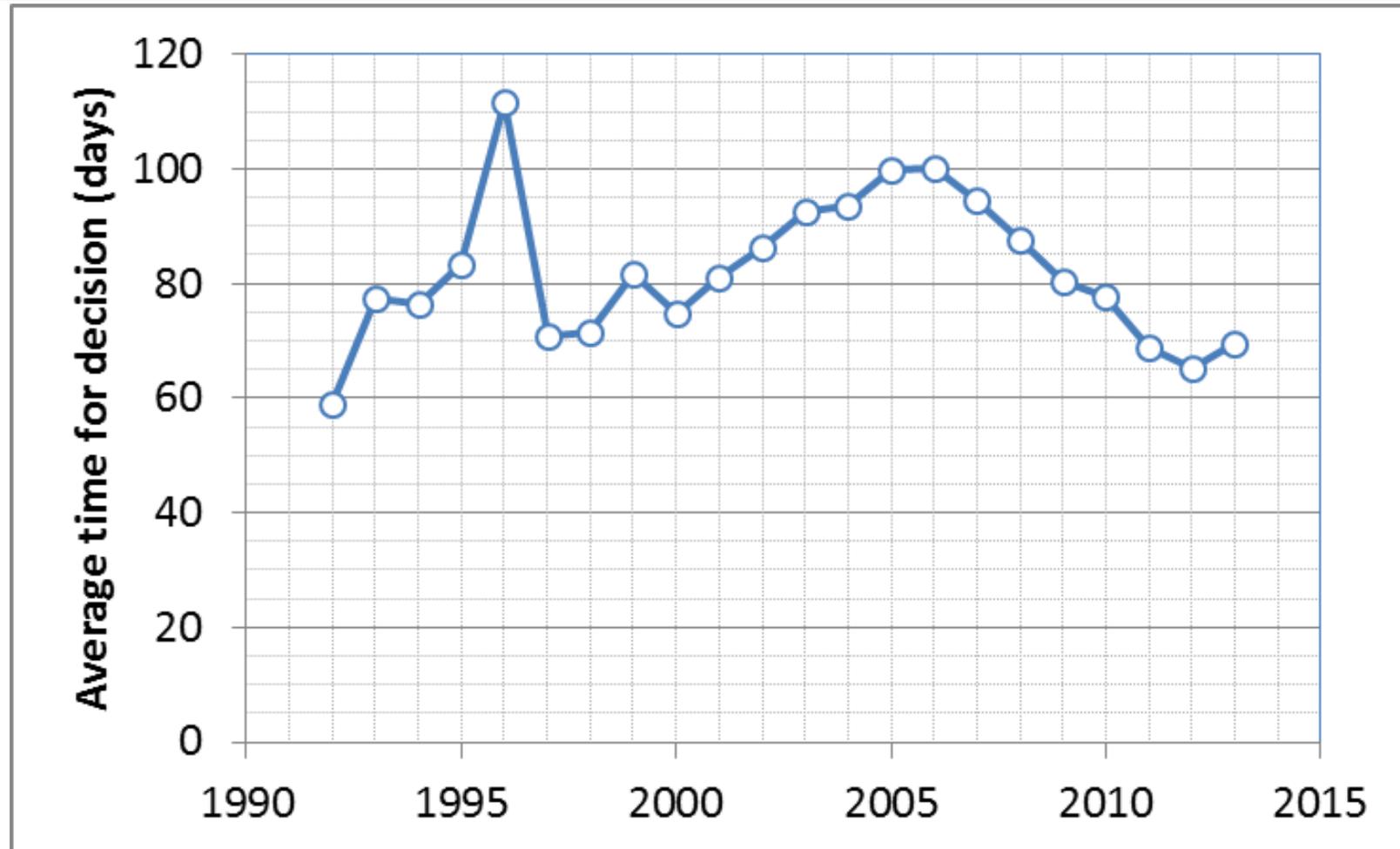
NSF: 24% success rate in 2011

Table 1 - NSF Proposal, Award, and Proposal Success Rate Trends

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Proposals | 41,722 | 42,352 | 44,577 | 44,428 | 45,181 | 55,542 | 51,562 | 48,613 |
| Awards | 9,757 | 10,425 | 11,463 | 11,149 | 14,595 | 12,996 | 11,192 | 11,524 |
| Success Rate | 23% | 25% | 26% | 25% | 32% | 23% | 22% | 24% |

Source: NSF Enterprise Information System 10/01/12.

FAPESP: prazo médio para despacho, 1992-2013



Prazo para decisão

NSF, EUA

O “Grant Proposal Guide” da National Science Foundation (NSF) estabelece que:
“Proposers should allow up to **six months** for programmatic review and processing (see Chapter III for additional information on the NSF merit review process). In addition, proposers should be aware that the NSF Division of Grants and Agreements generally makes awards to academic institutions within 30 days after the program division makes its recommendation.”

NSF 04-23, Grants Proposal Guide, seção I.H. Consultado em http://www.nsf.gov/pubs/gpg/nsf04_23/nsf04_23.pdf em 22 de Setembro de 2006.

9 a 12 meses para um R01

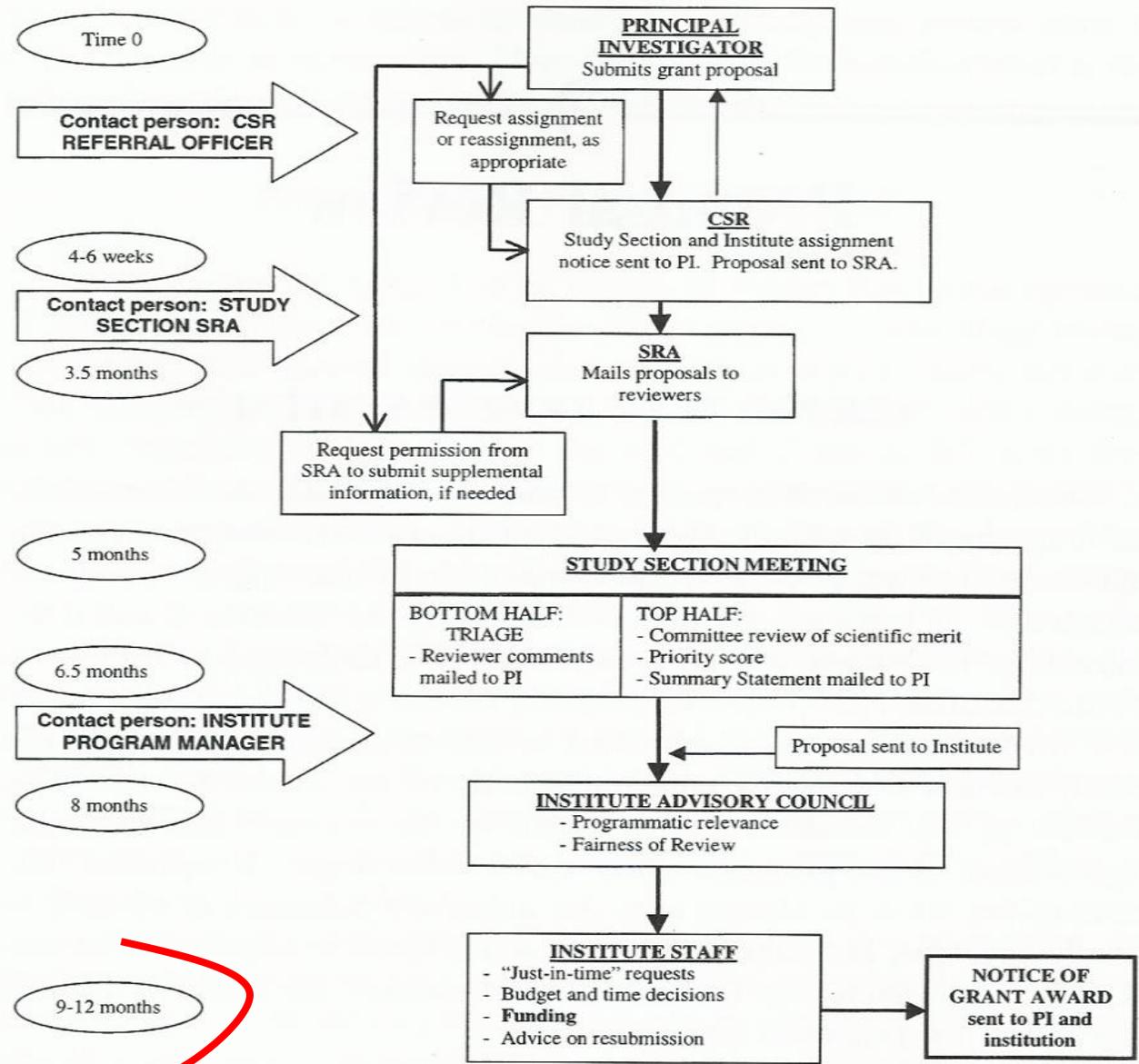
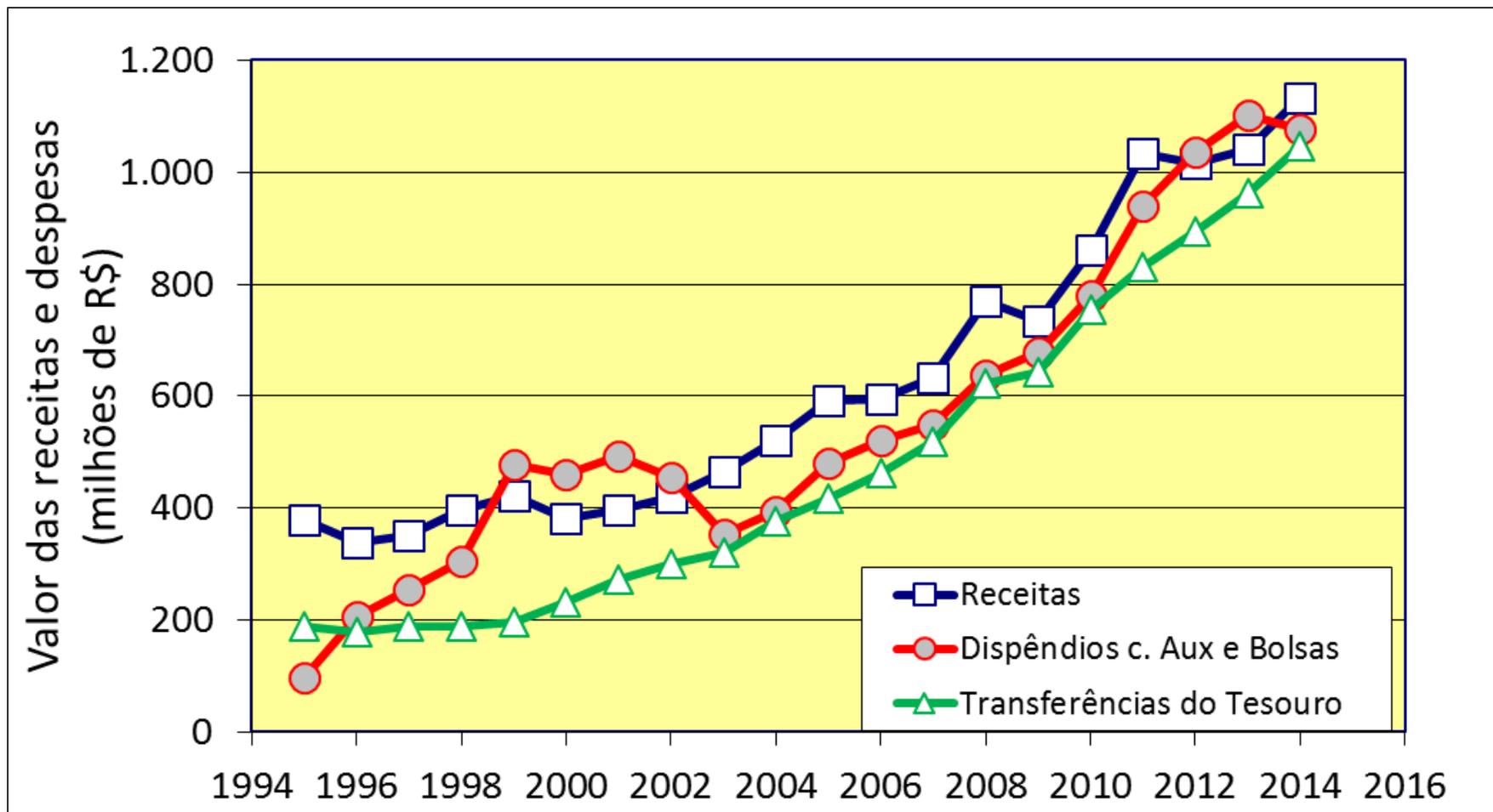


Figure 3.1. Diagram of the proposal review process.

FAPESP: receitas e despesas, 2012

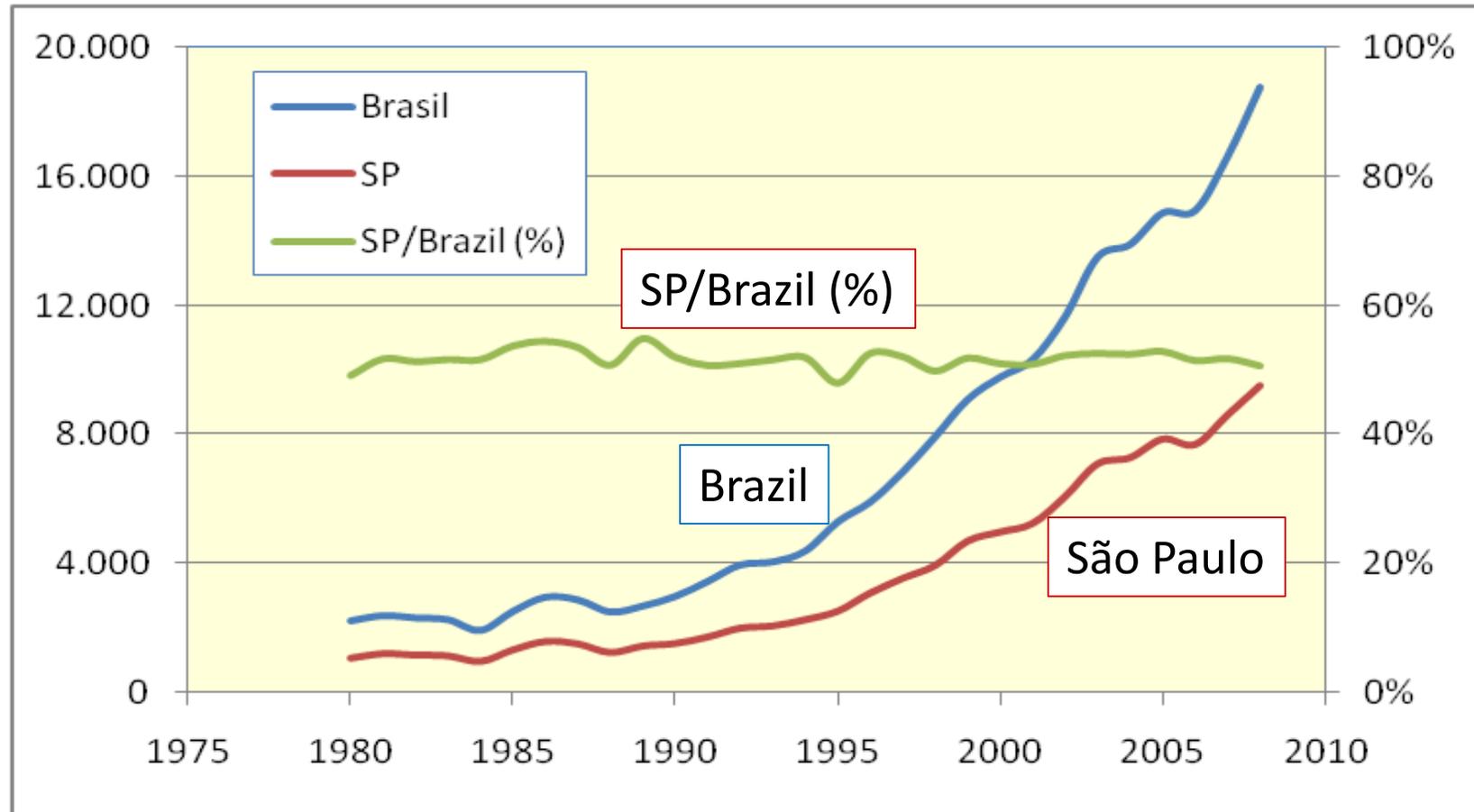
| 2012 | | |
|----------------------------------|---------------------|-------------|
| Receitas | Valor (MR\$) | % |
| Tesouro do Estado (1%) | 893,8 | 87% |
| Outras | 120,7 | 12% |
| Total | 1.014,5 | 100% |
| | | |
| Dispêndios | Valor (MR\$) | % |
| Bolsas | 368,9 | 37% |
| Auxílios | 437,0 | 44% |
| Programas Especiais | 152,4 | 15% |
| Programas Pesquisa para Inovação | 76,9 | 8% |
| Custeio da fundação | 40,8 | 4,1% |
| Despesas de capital | 5,3 | 0,5% |
| Total | 1.081,3 | 100% |

Fapesp: Receitas e Dispêndios em Auxílios e Bolsas, 1995-2014

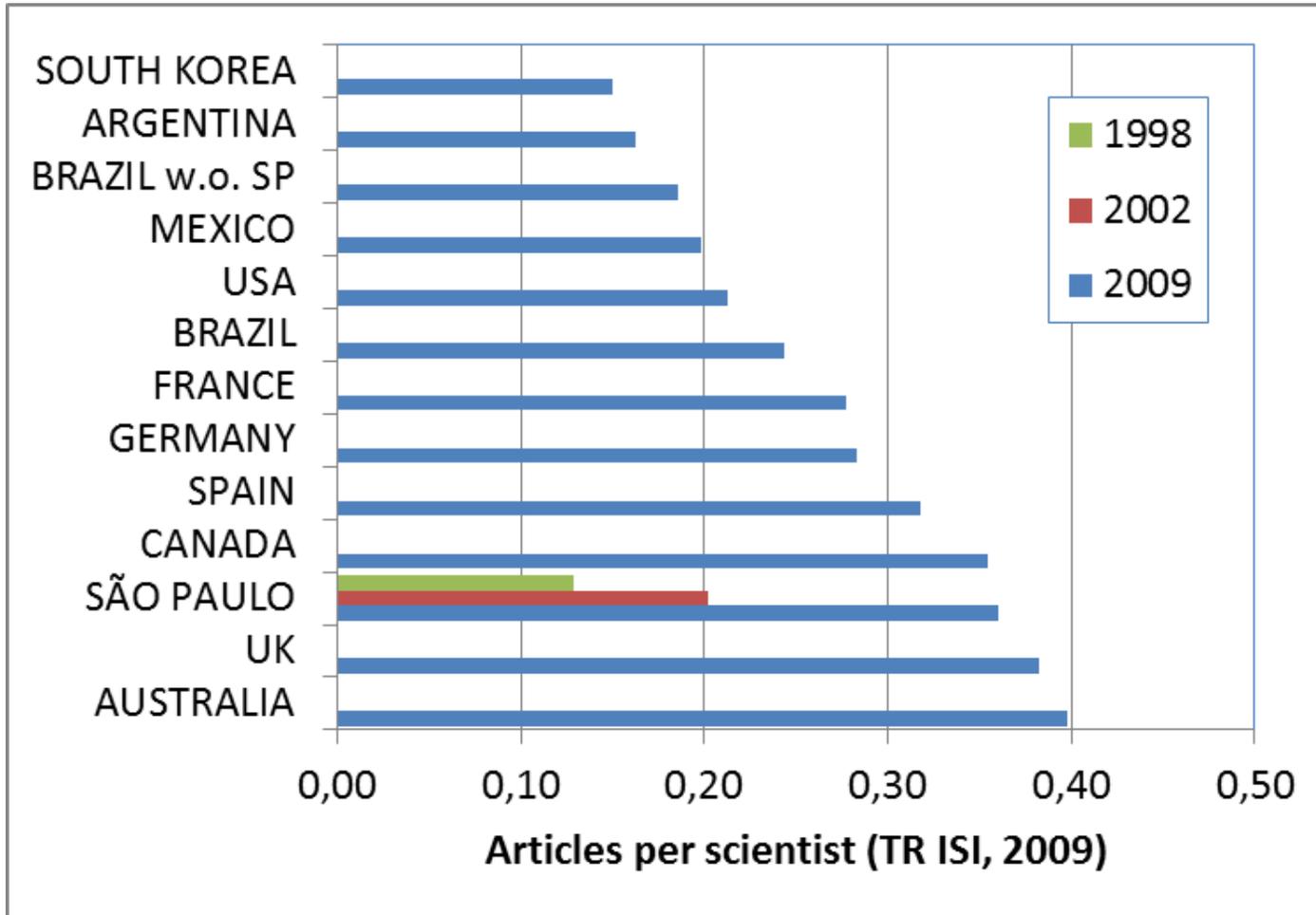


O DESAFIO DE AUMENTAR O IMPACTO DA CIÊNCIA FEITA EM SÃO PAULO

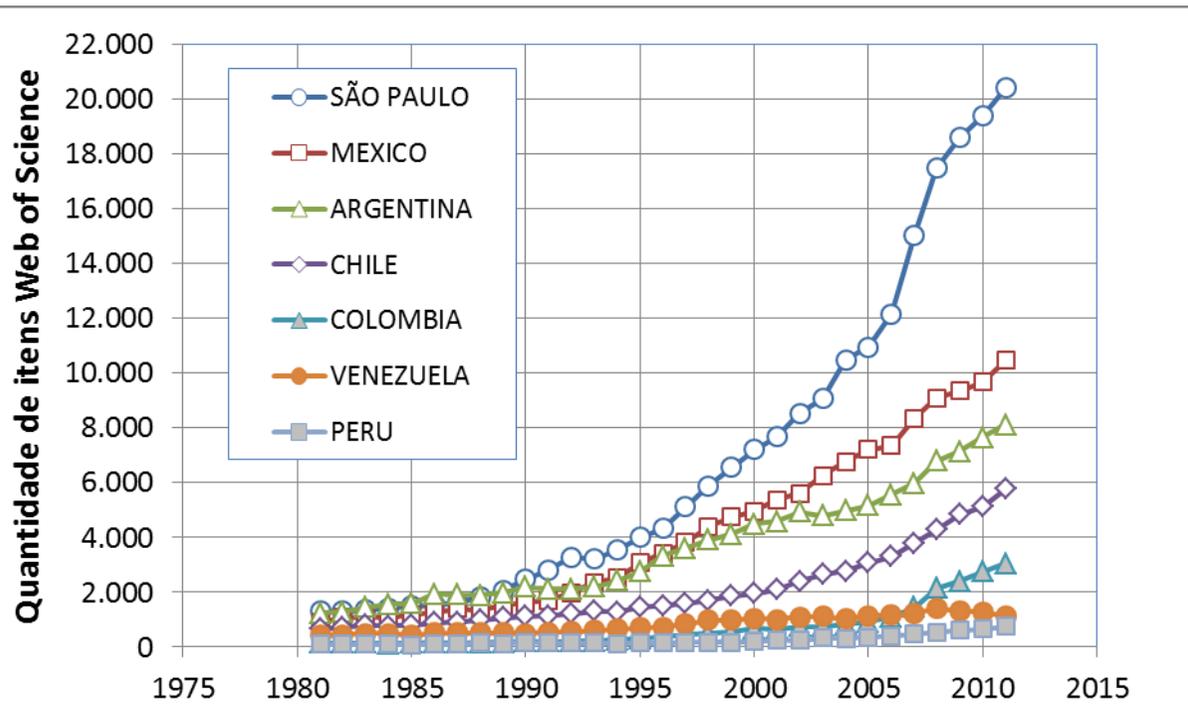
Brasil e São Paulo: produção científica crescente



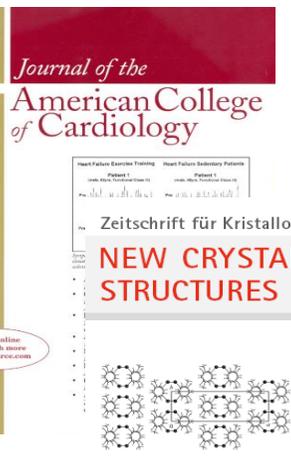
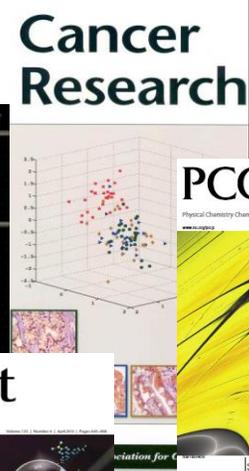
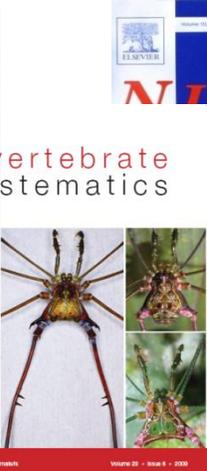
Scientific articles per scientist



São Paulo: maior produção científica da América Latina

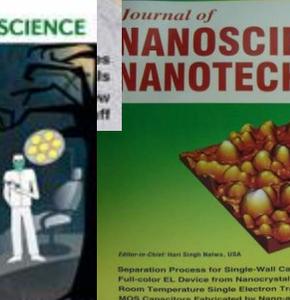
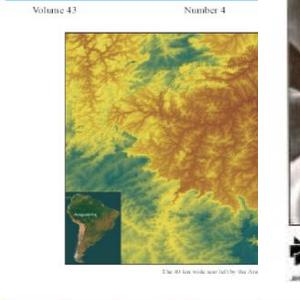
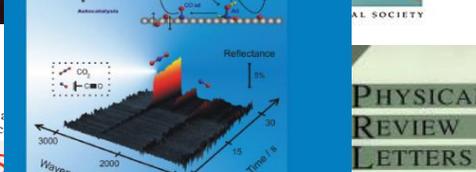
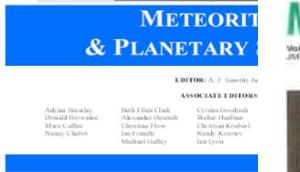
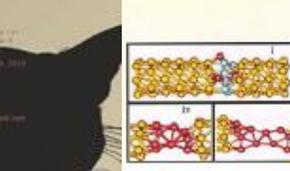
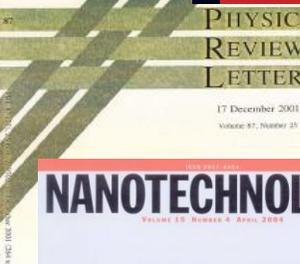
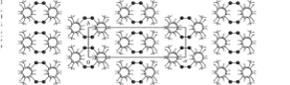


- Aproximadamente 50% dos artigos de autores do Brasil em revistas científicas internacionais
- Mais artigos do que todos os países da América Latina, exceto Brasil



Zeitschrift für Kristallographie
NEW CRYSTAL STRUCTURES

NCS



Asteroids • Comets • Craters • Interplanetary Dust • Interstellar Medium
Lunar Samples • Meteors • Meteorites • Natural Satellites • Planets • Tokics
Origin and History of the Solar System

THE FEARFUL BRAIN
Differential fear, differential pathways

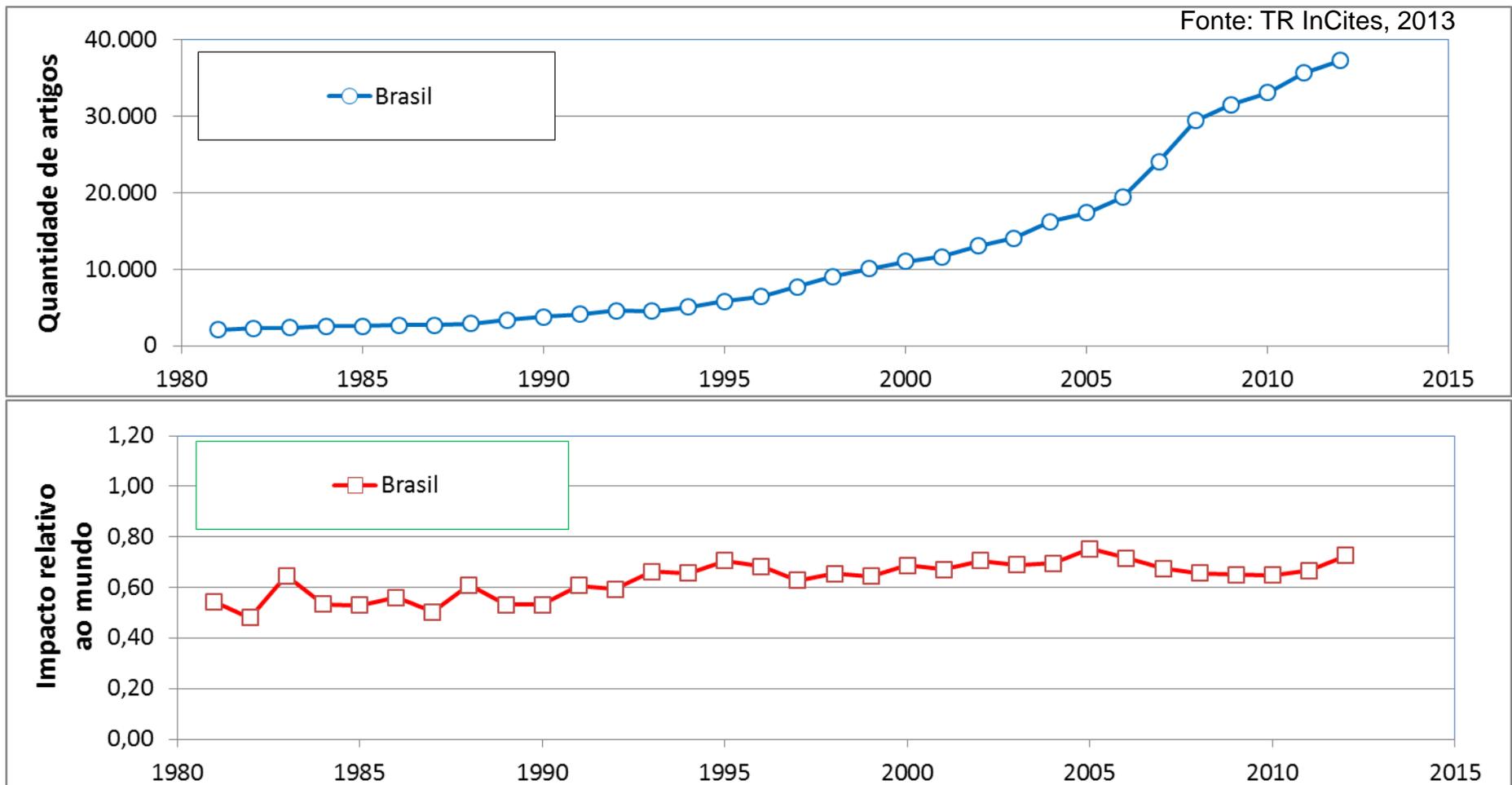
Neural circuit development
Working up with amphetamine

Separation Process for Single-Wall Carbon Full-color EL Device from Nanocapillary Room-Temperature Single Electron Transistors
MOB Capacitors Fabricated by Nano-wire Rod-shaped C₆₀ Polymers

Crystal and molecular structures of three 2-substituted 4-methylbenzoic acid derivatives as studied by X-ray crystallography and by PM6 calculations
John Zaleski, Stephen A. D. Sauer, Alcides March, Silvio W. Wander, Oliva A. B. A. and Kenneth T. Wilson

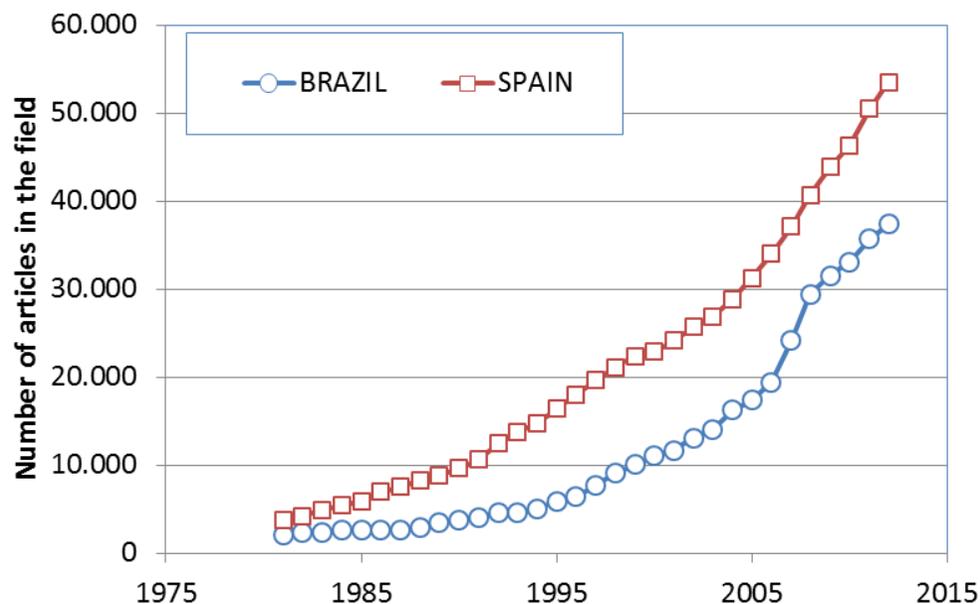
Published by the American Physical Society

Artigos publicados e seu impacto Brasil, 1981-2012

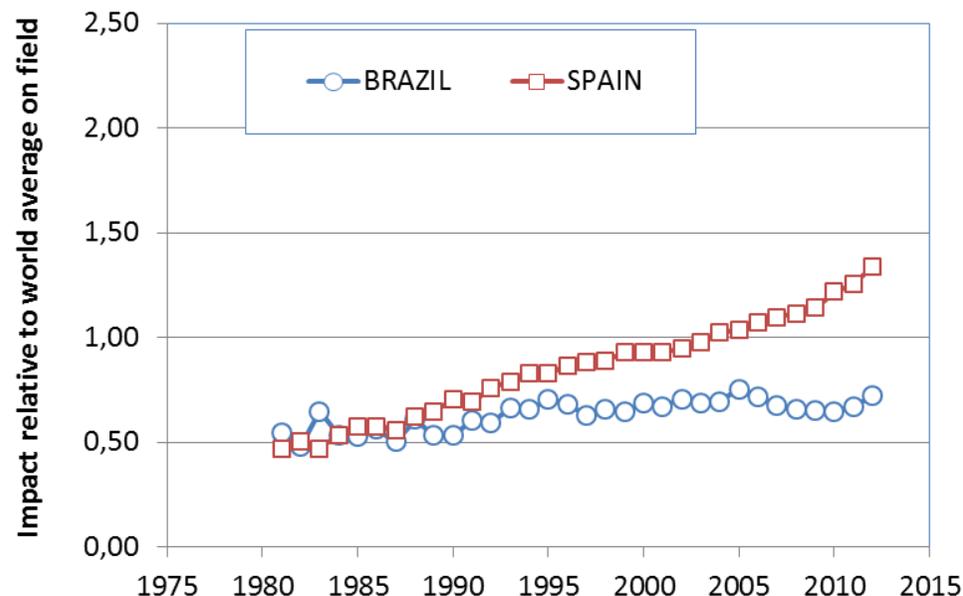


Quantidade de artigos e seu impacto Brasil e Espanha

All Fields: number of articles in the field



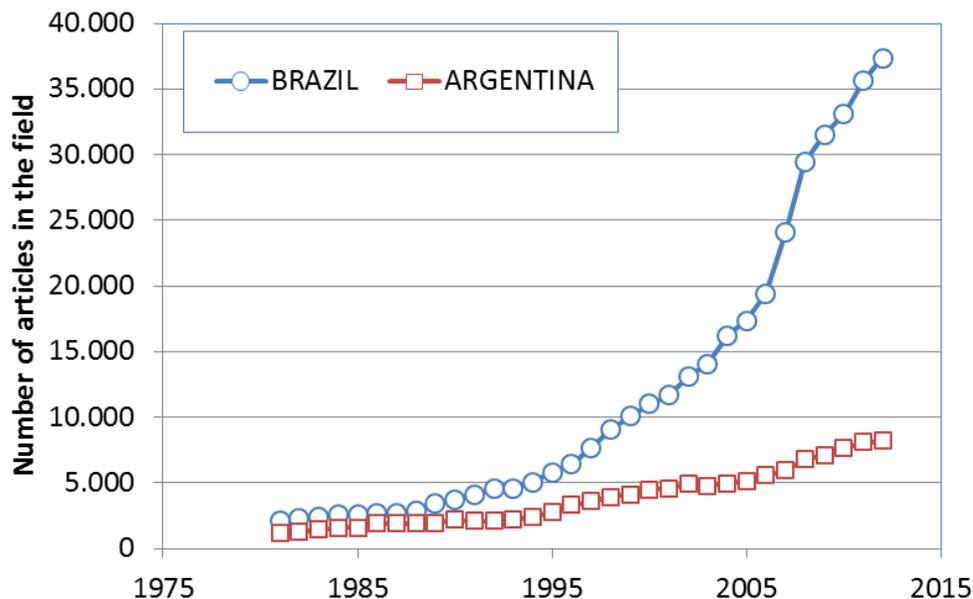
All Fields: impact relative to world average in the field



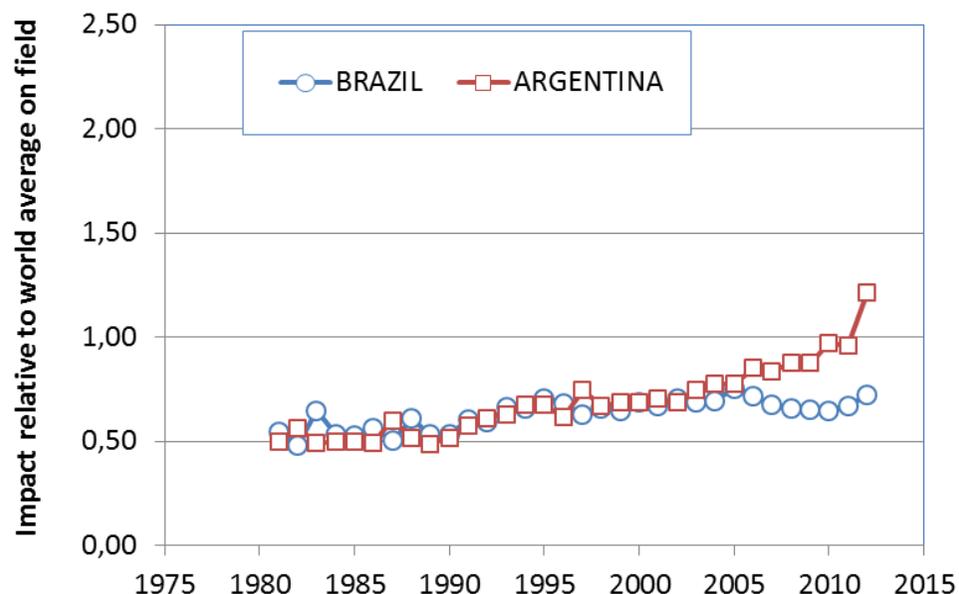
Fonte: InCitesTM, Thomson Reuters (2012)

Quantidade de artigos e seu impacto Brasil e Argentina

All Fields: number of articles in the field



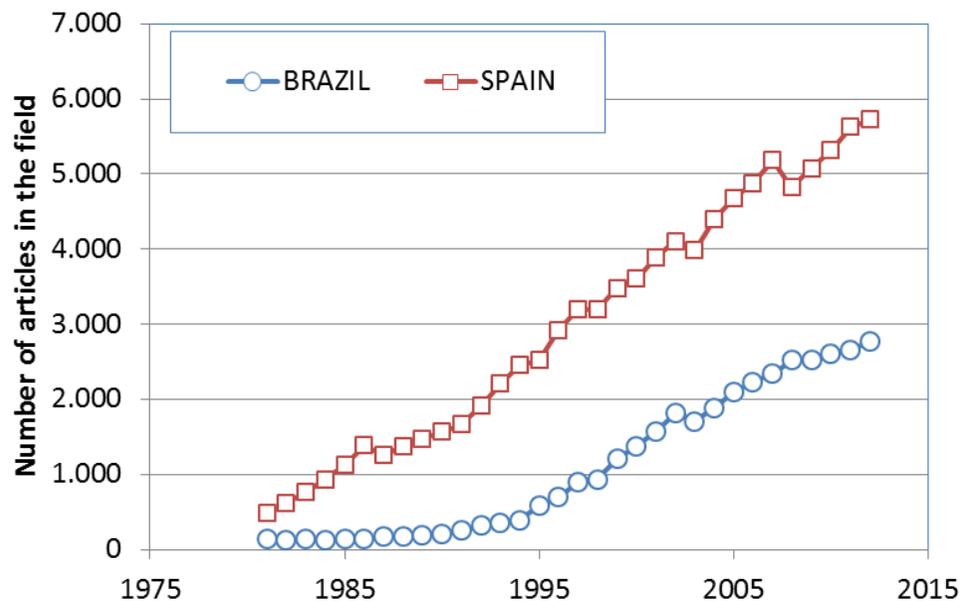
All Fields: impact relative to world average in the field



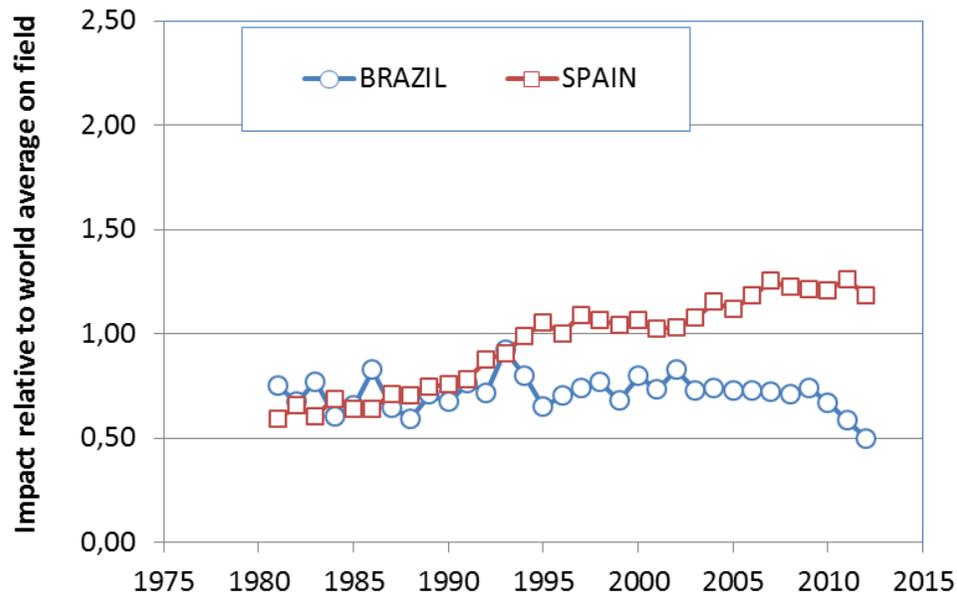
Fonte: InCitesTM, Thomson Reuters (2012)

Química: quantidade de artigos e seu impacto, Brasil e Espanha

Chemistry: number of articles in the field

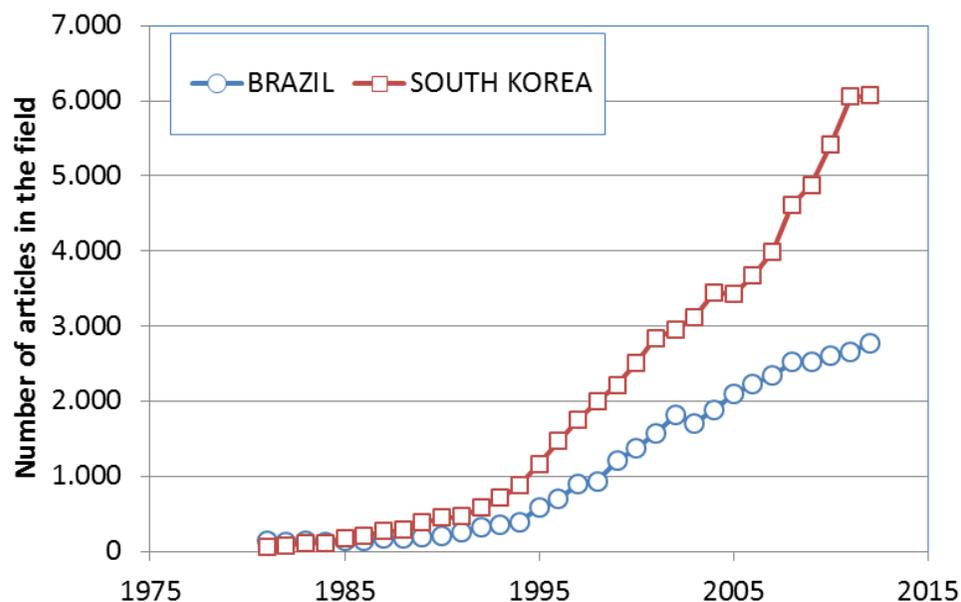


Chemistry: impact relative to world average in the field

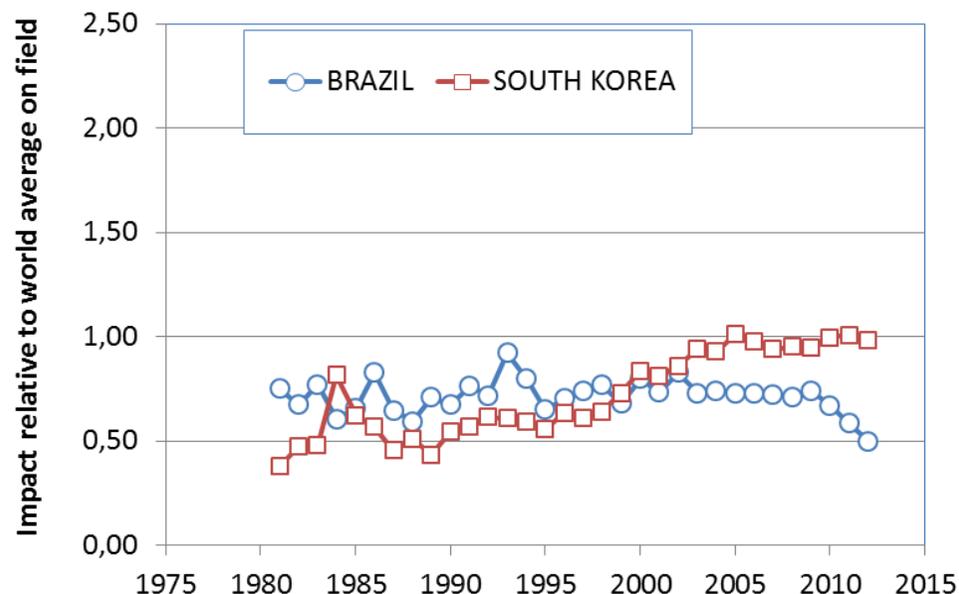


Química: quantidade de artigos e seu impacto, Brasil e Coreia do Sul

Chemistry: number of articles in the field

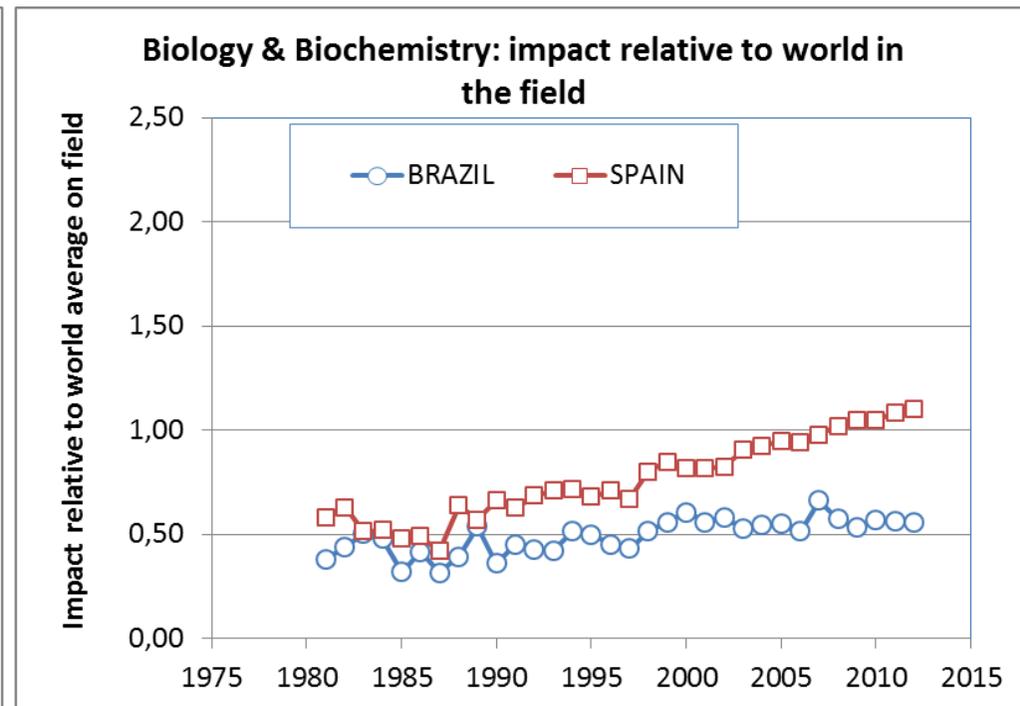
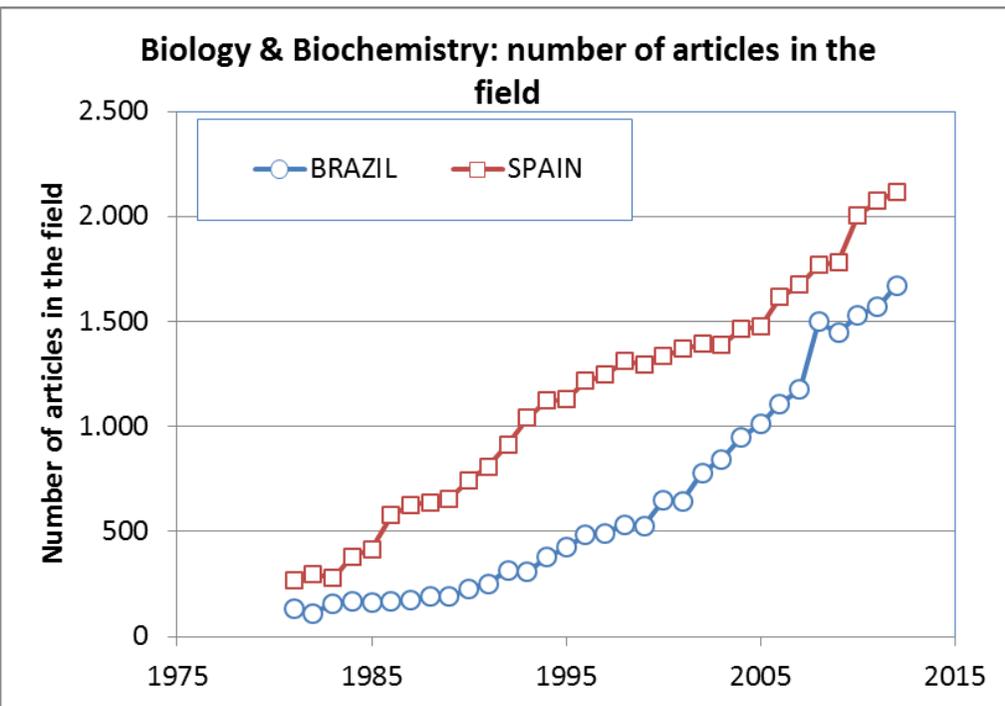


Chemistry: impact relative to world average in the field



Biologia e Bioquímica

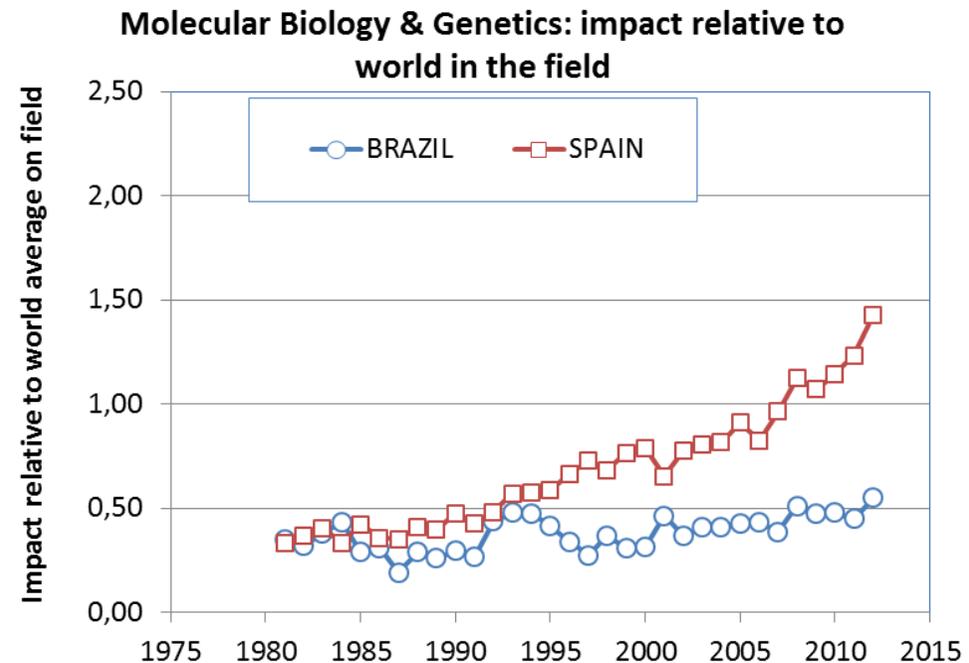
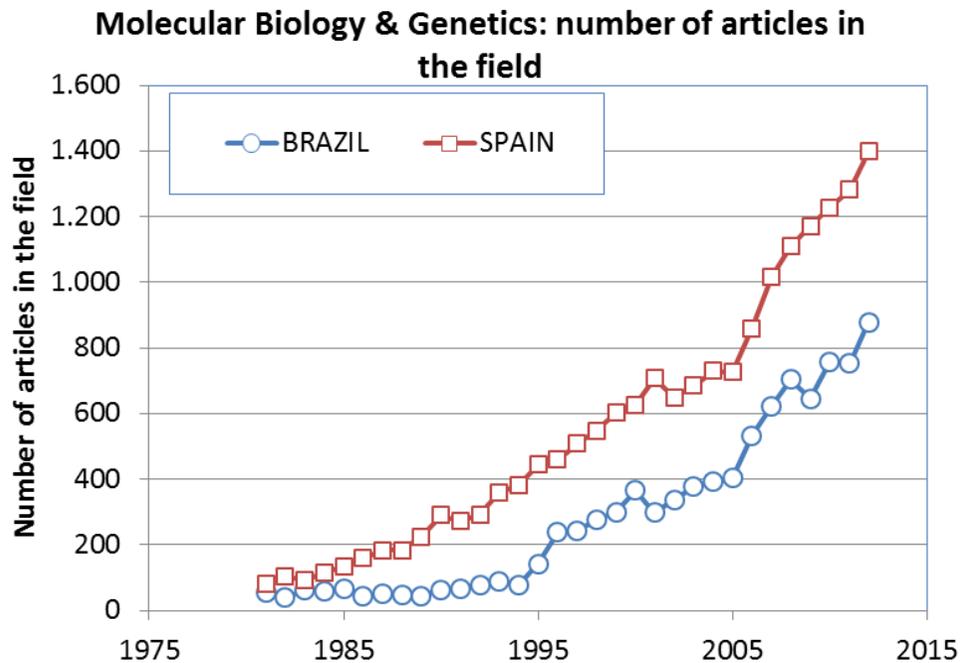
Artigos e seu impacto, Brasil e Espanha



Fonte: InCites™, Thomson Reuters (2012)

Biologia Molecular e Genética

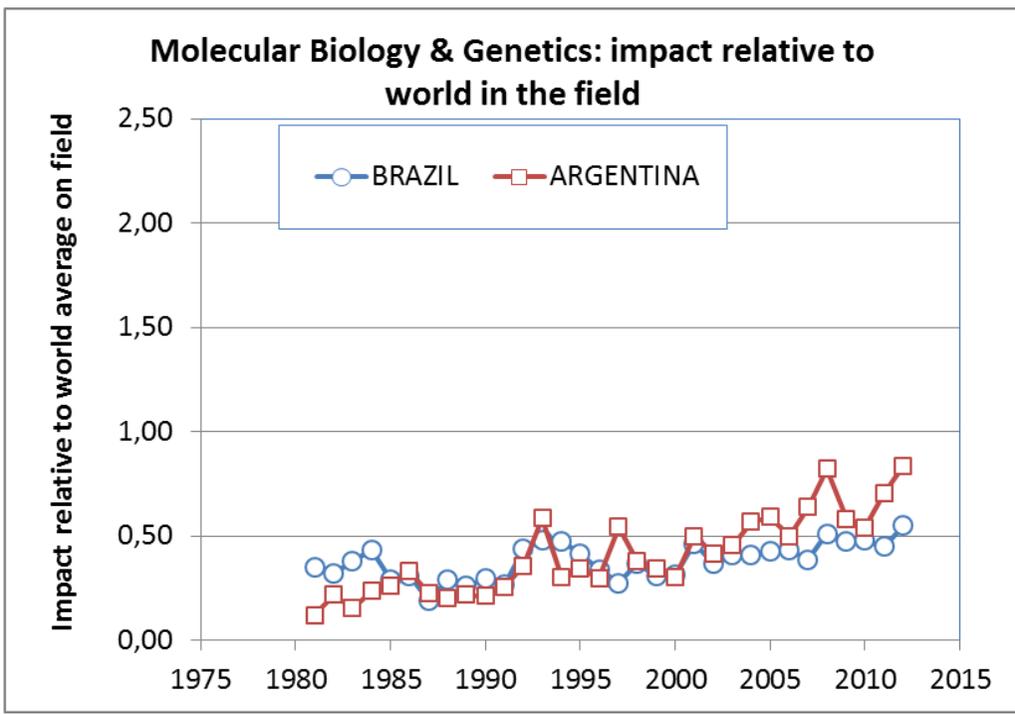
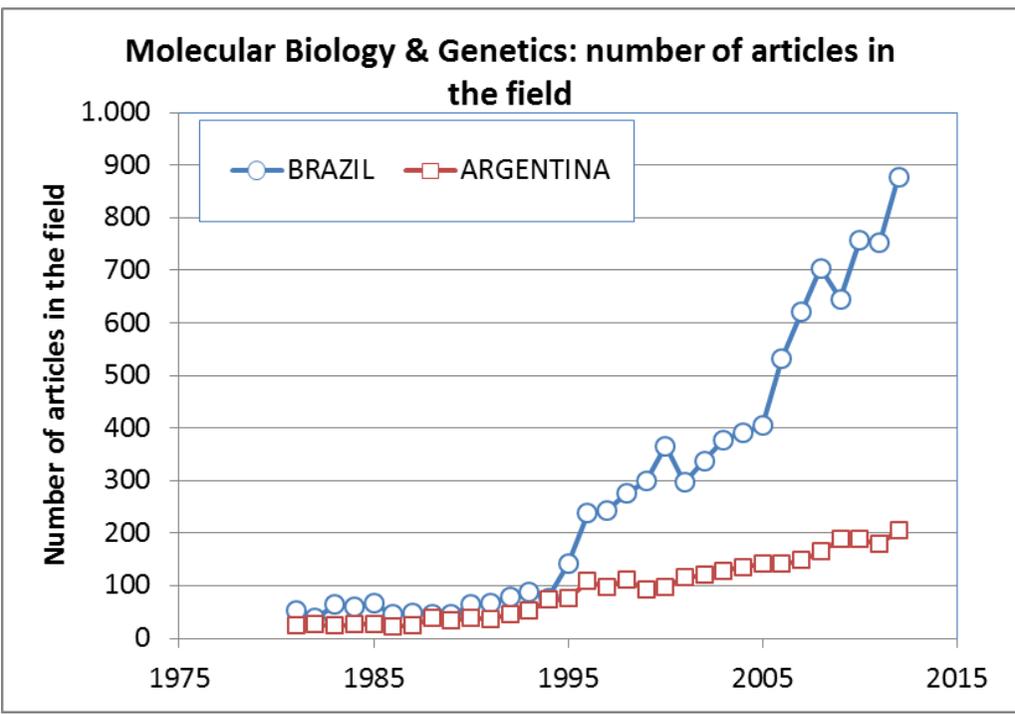
Artigos e seu impacto, Brasil e Espanha



Fonte: InCites™, Thomson Reuters (2012)

Biologia Molecular e Genética

Artigos e seu impacto, Brasil e Argentina

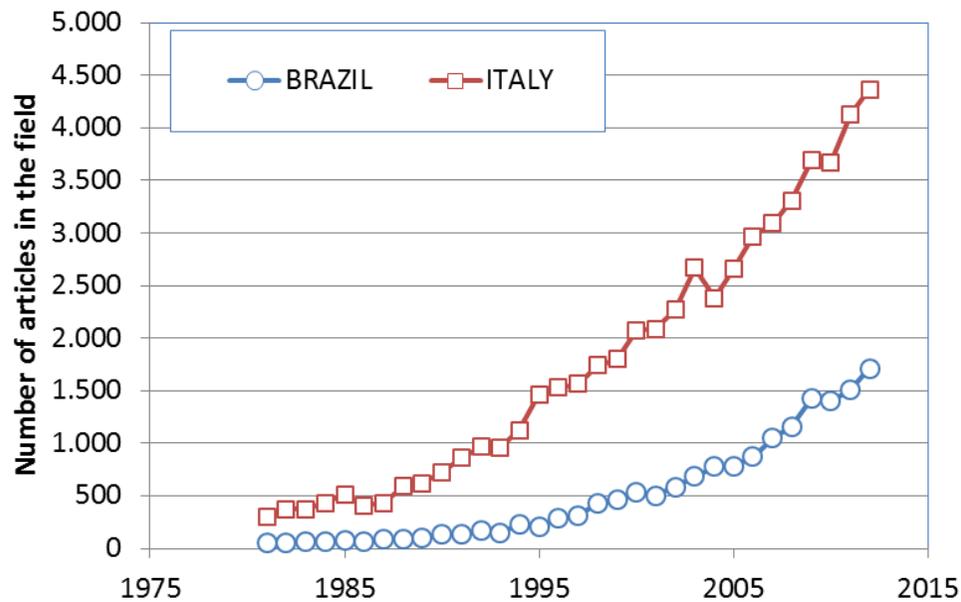


Fonte: InCites™, Thomson Reuters (2012)

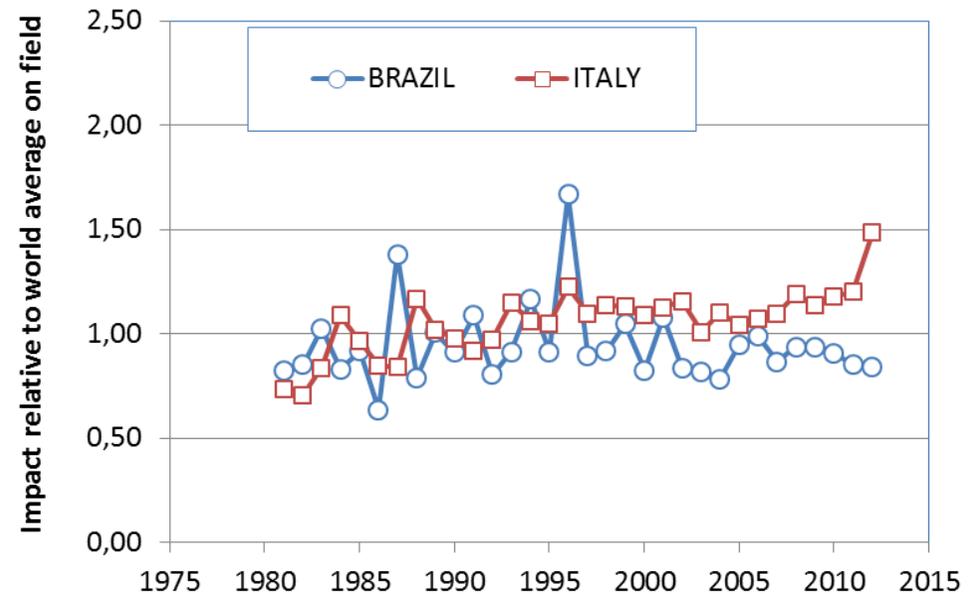
Engenharia

Artigos e seu impacto, Brasil e China

Engineering: number of articles in the field

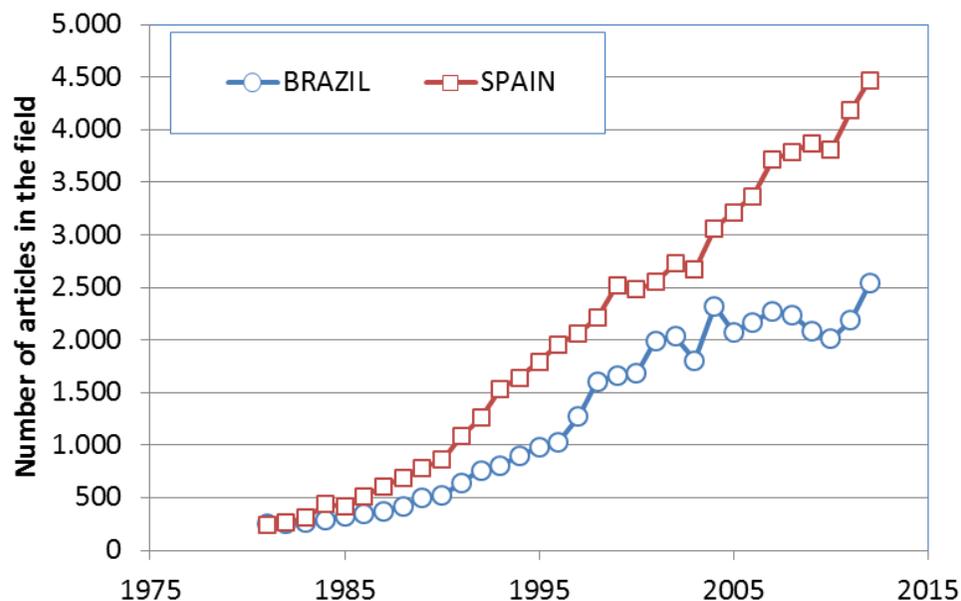


Engineering: impact relative to world average in the field

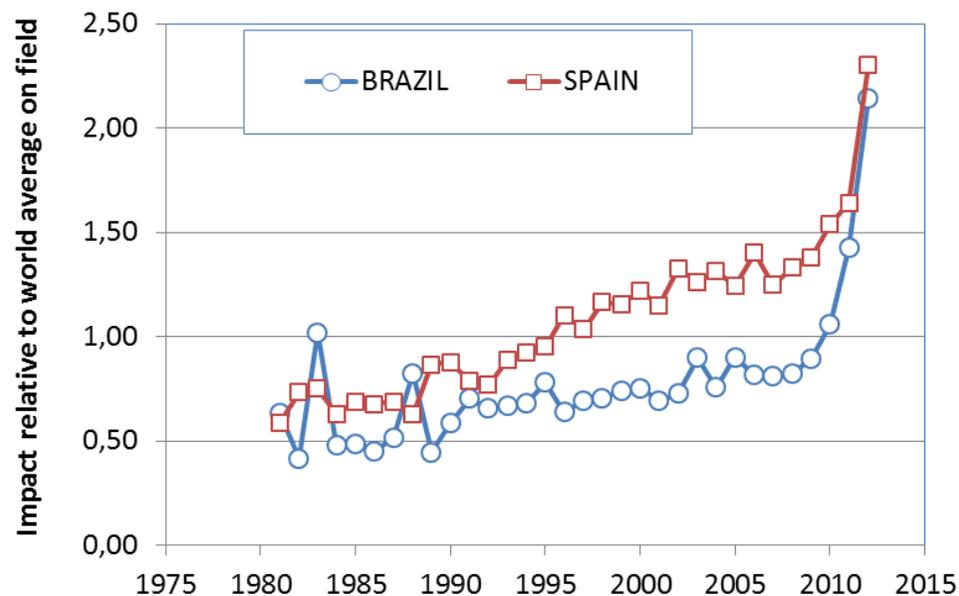


Artigos e seu impacto, Brasil e Espanha

Physics: number of articles in the field

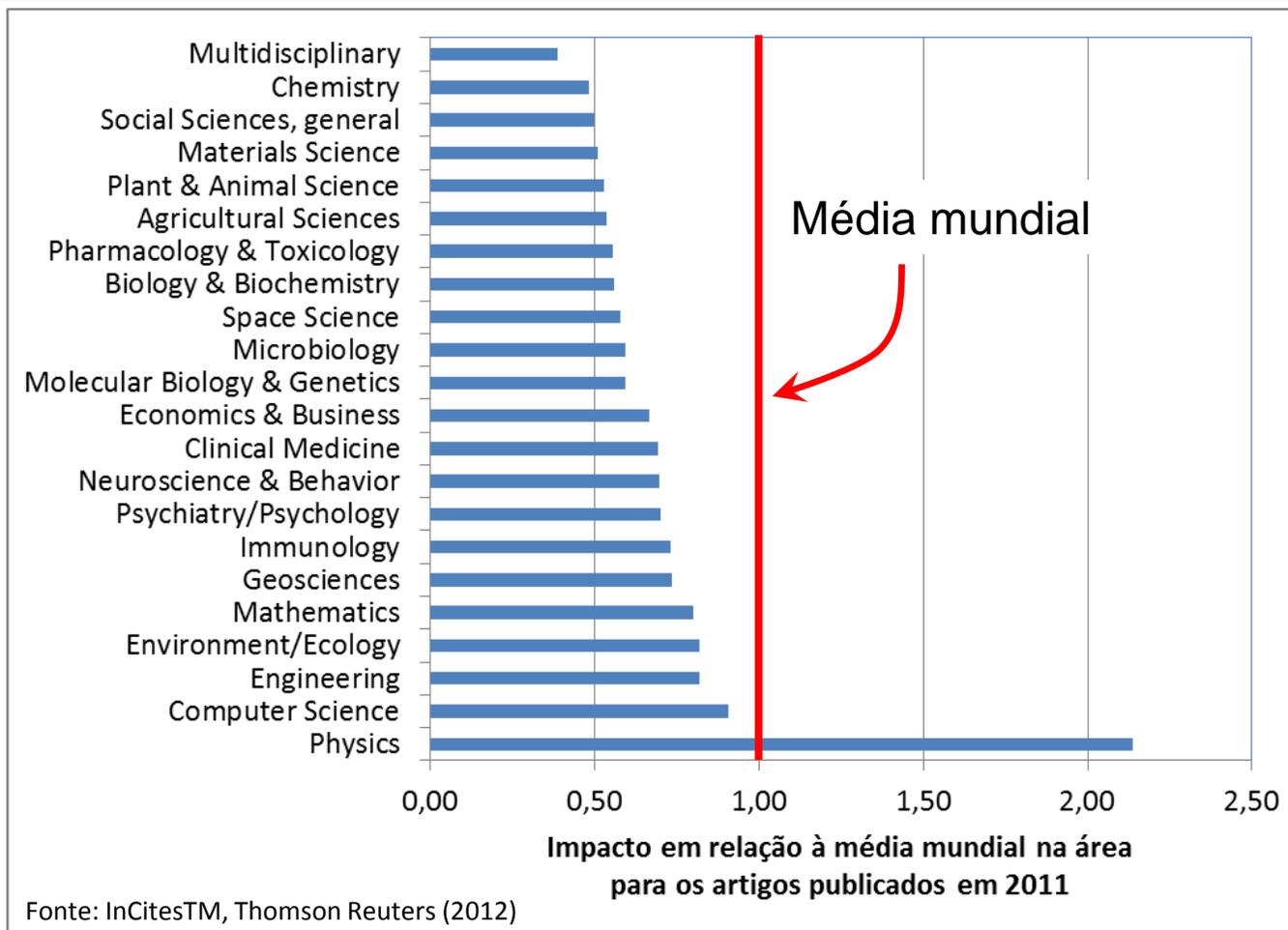


Physics: impact relative to world average in the field

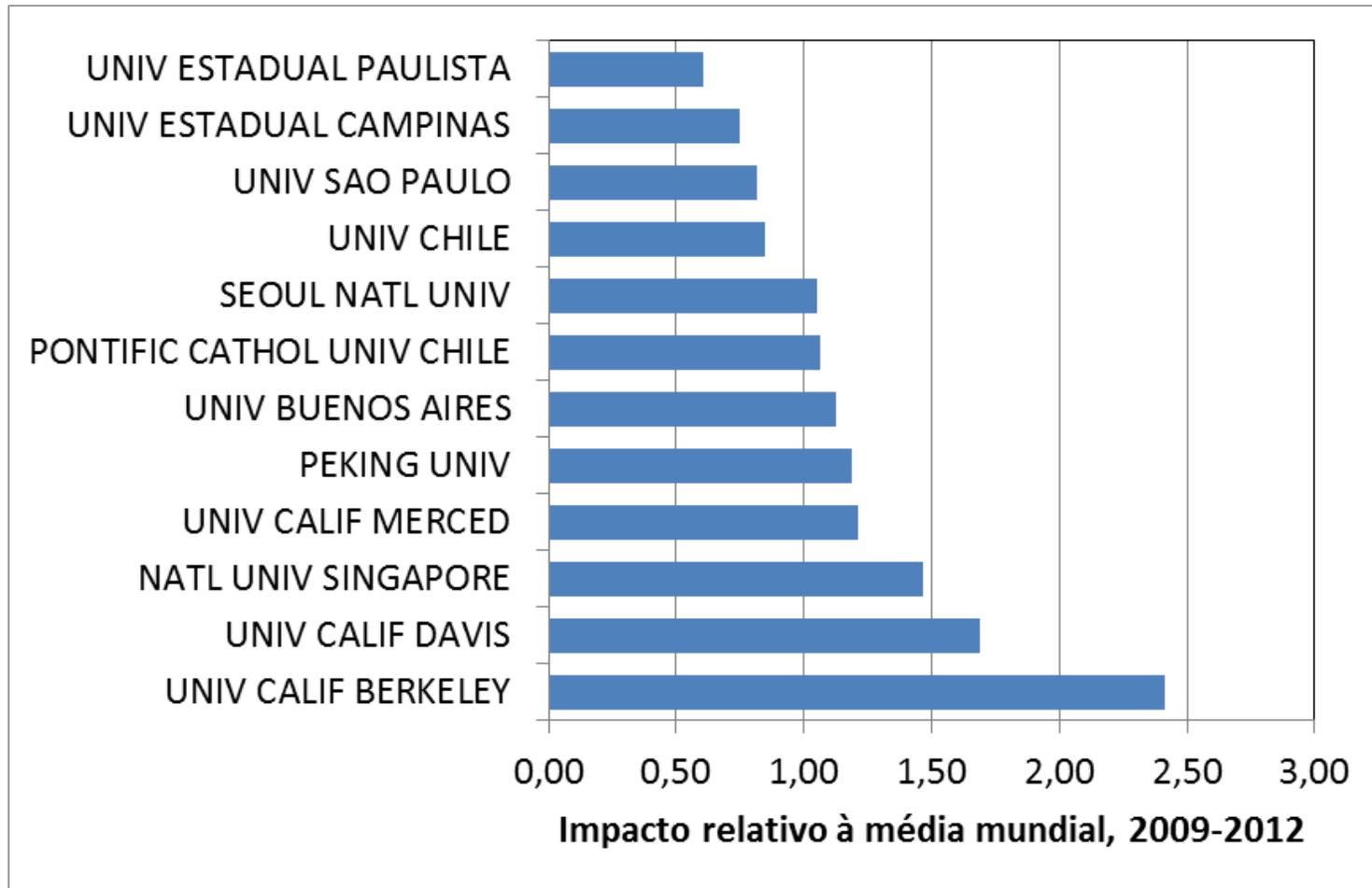


Fonte: InCitesTM, Thomson Reuters (2012)

Impacto por área em relação à média mundial, artigos de 2012

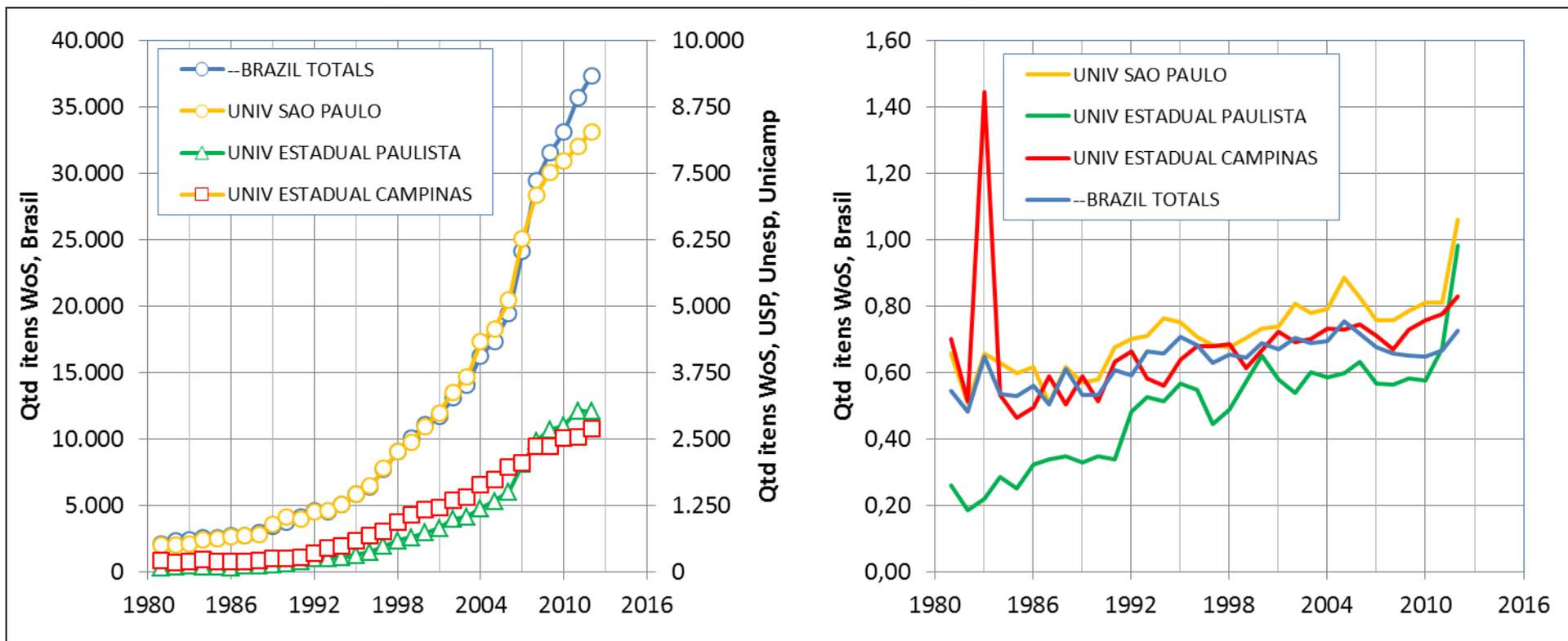


Impacto científico, universidades seleccionadas



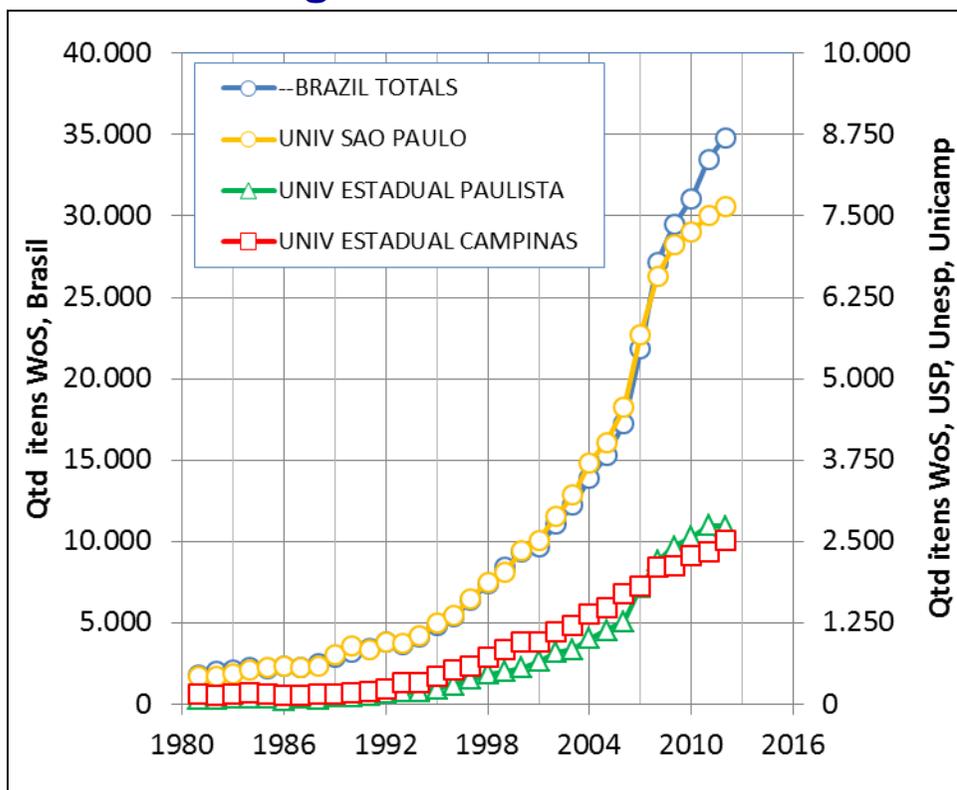
Univ. Estaduais Paulistas: artigos e impacto, 1980-2012

Artigos

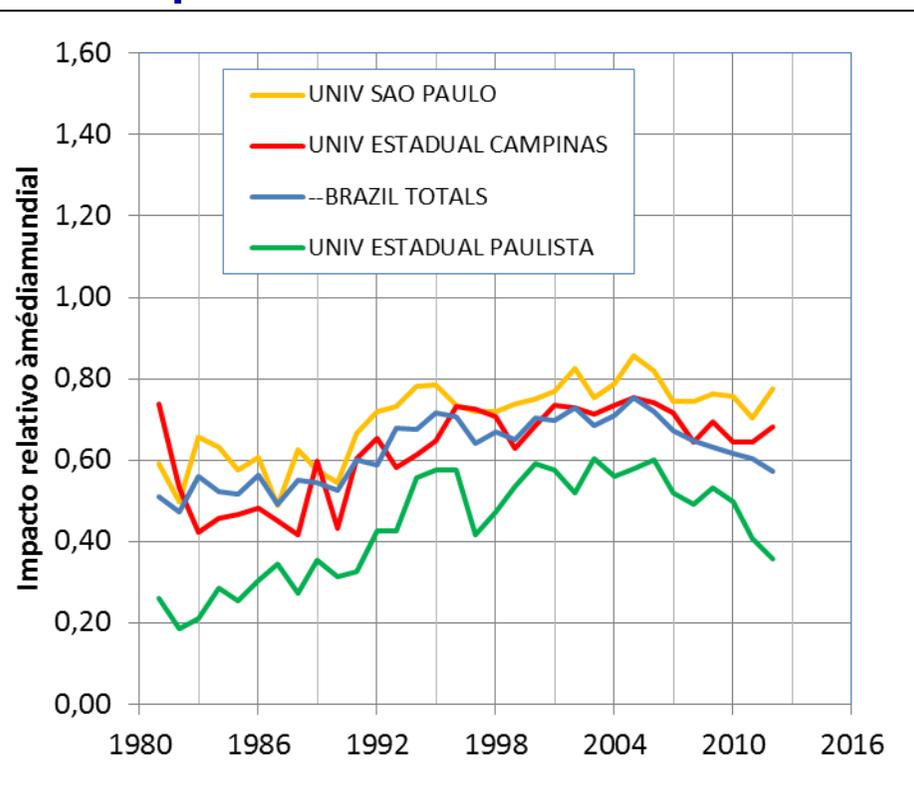


Univ. Estaduais Paulistas: artigos e impacto – excluindo Física, 1980-2012

Artigos – excl. Física



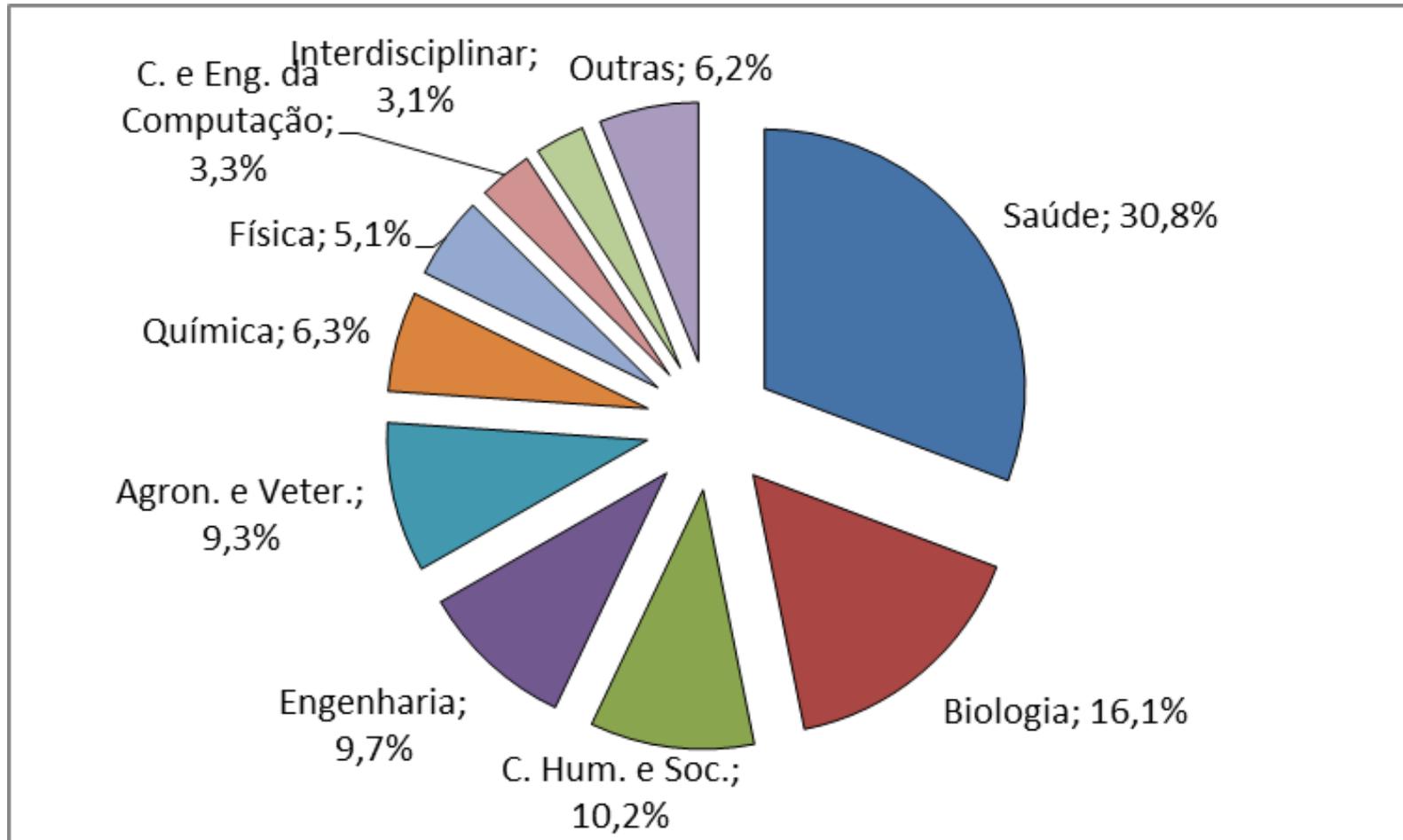
Impacto relativo à média mundial



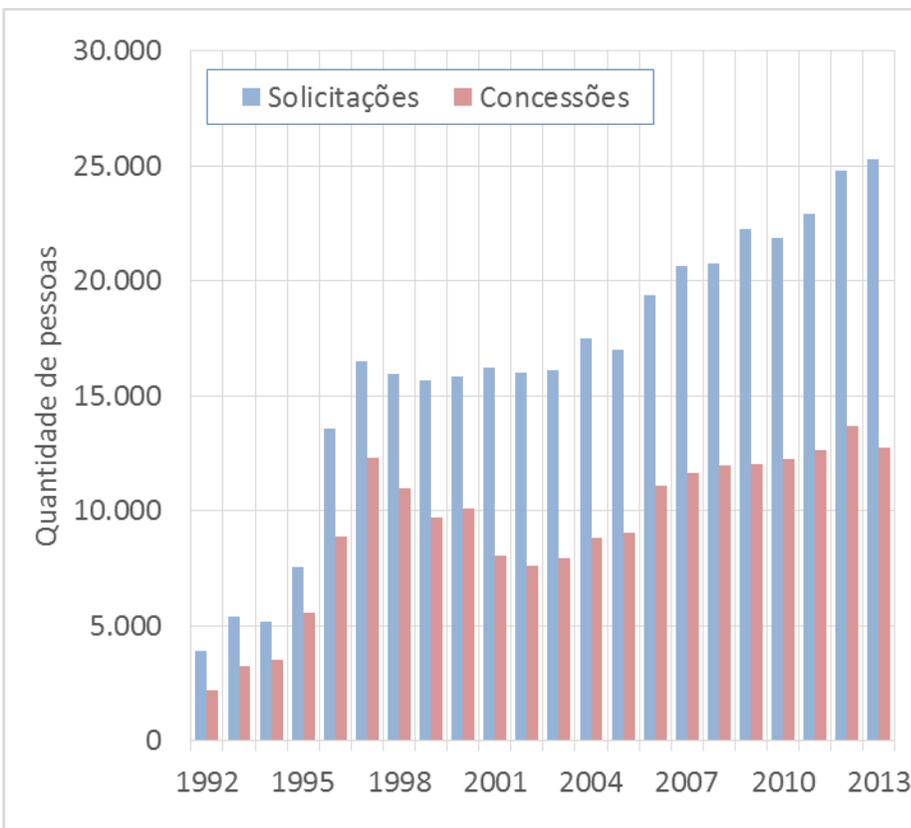
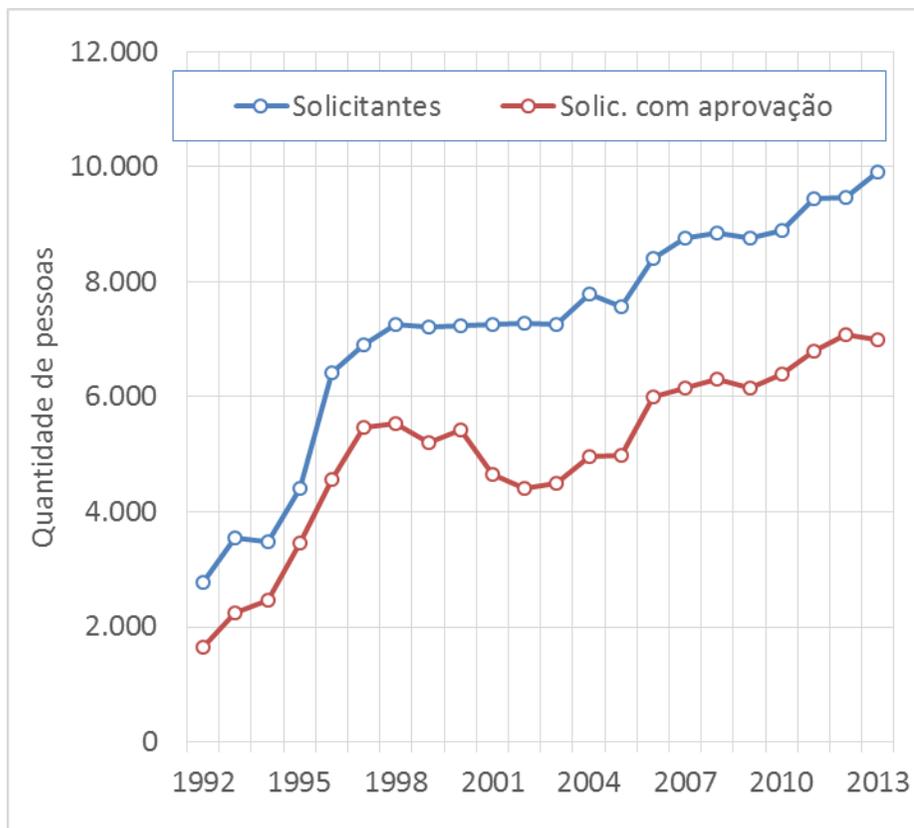
AS GRANDES ÁREAS DO CONHECIMENTO NA FAPESP

FAPESP expenditures, 2013

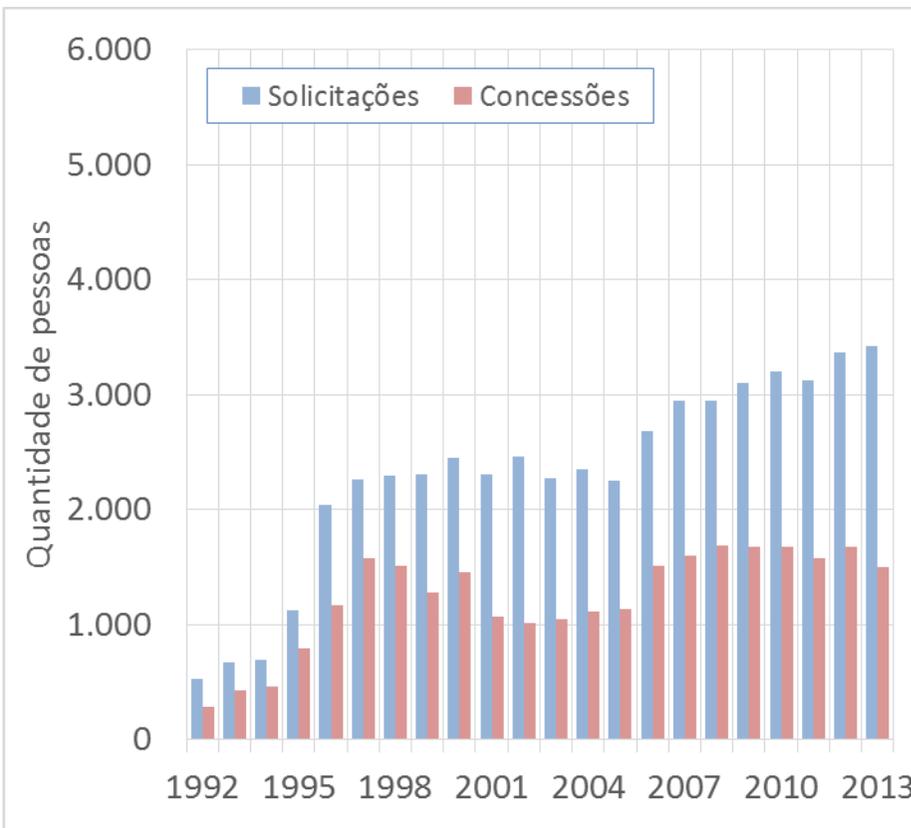
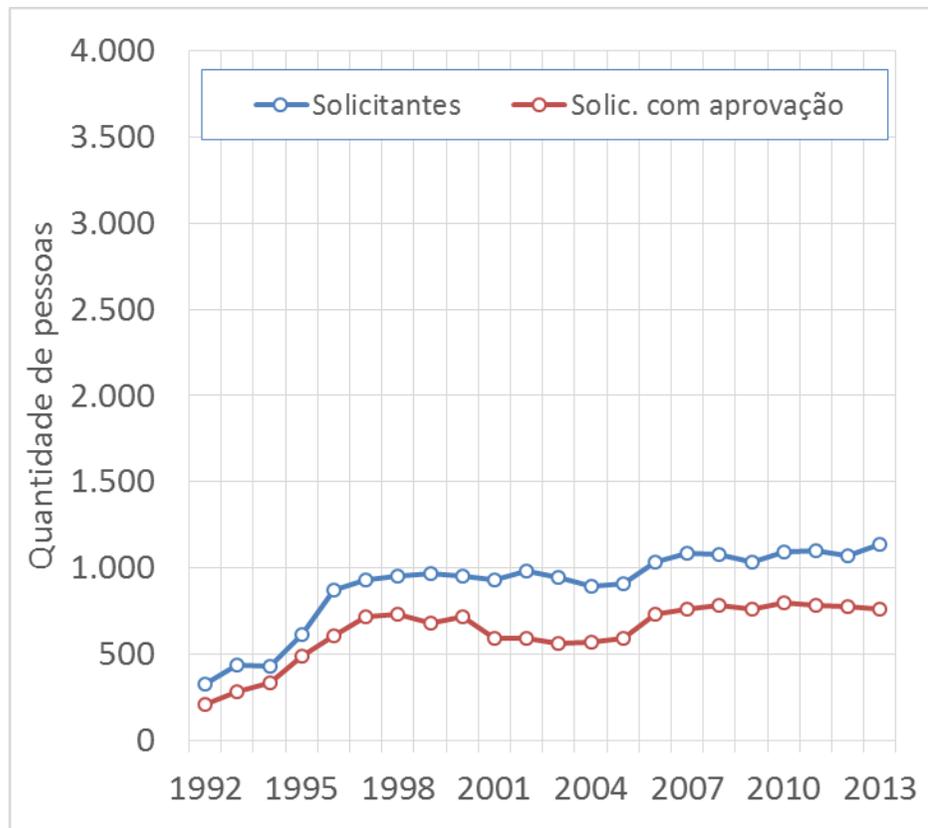
Total: R\$ 1,103 million



Solicitantes e Solicitações Todas as Áreas, 1992-2013

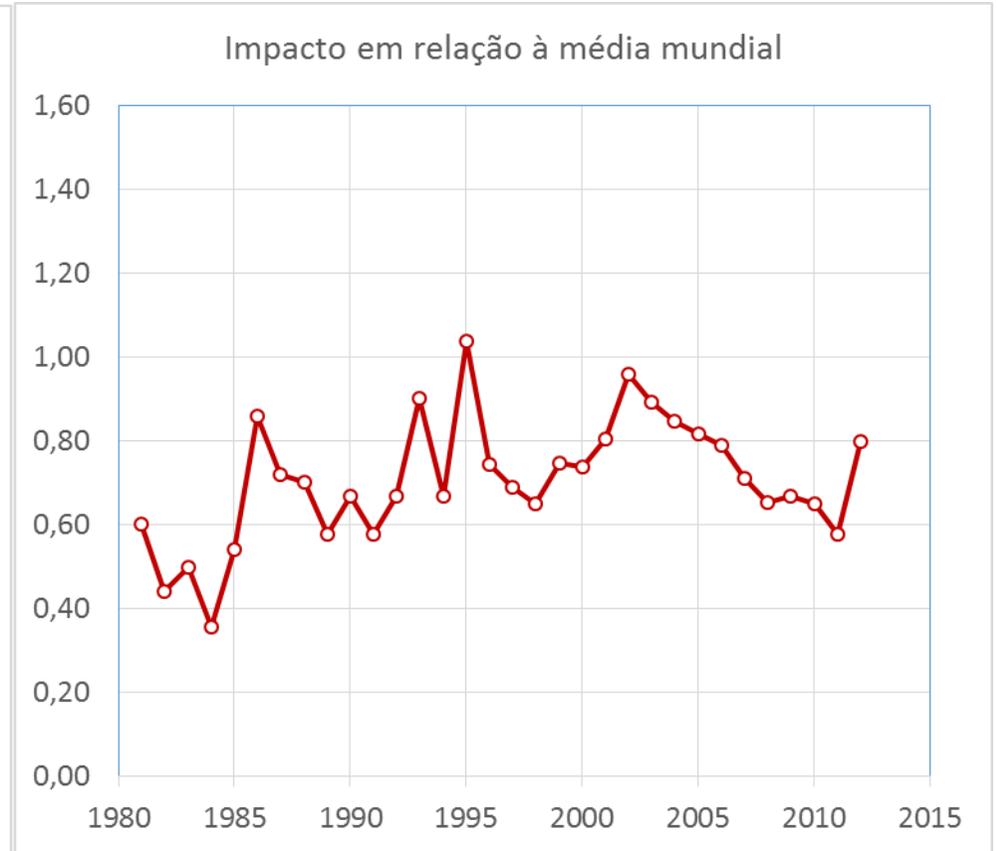
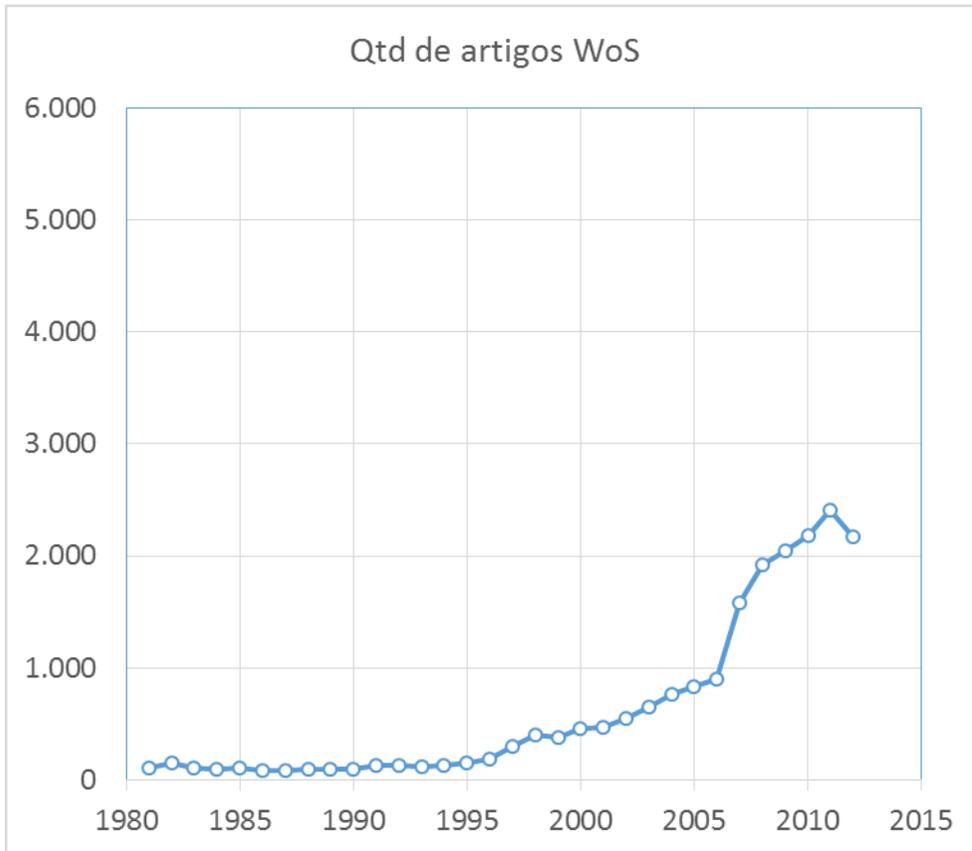


Solicitantes e Solicitações Ciências Agrárias, 1992-2013

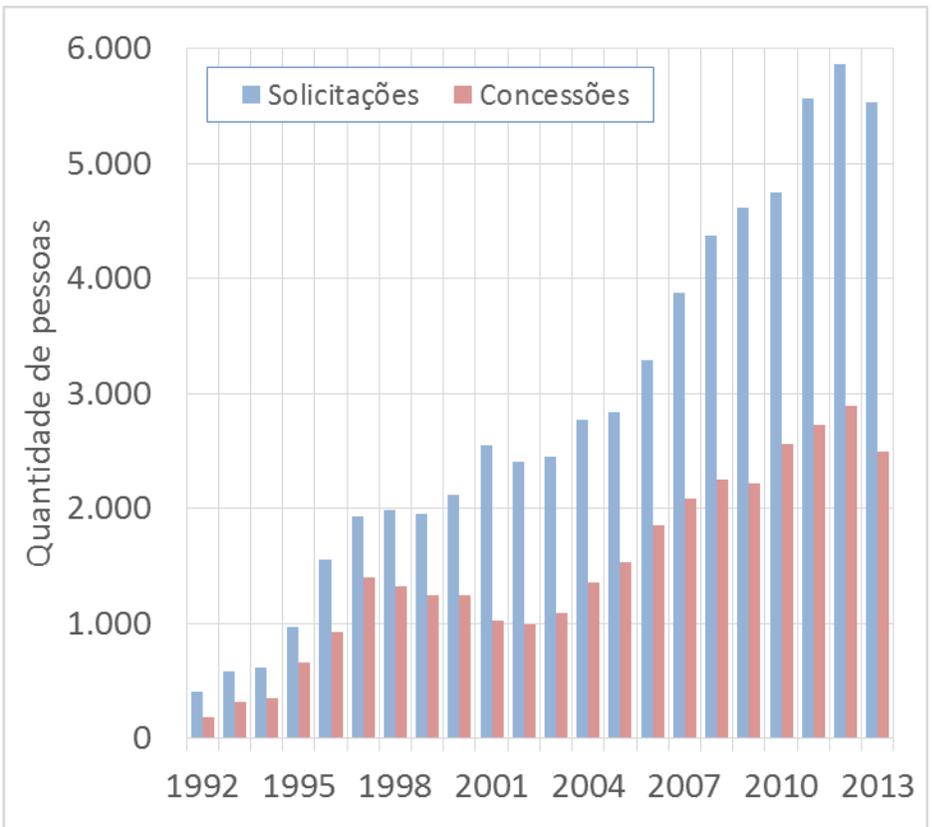
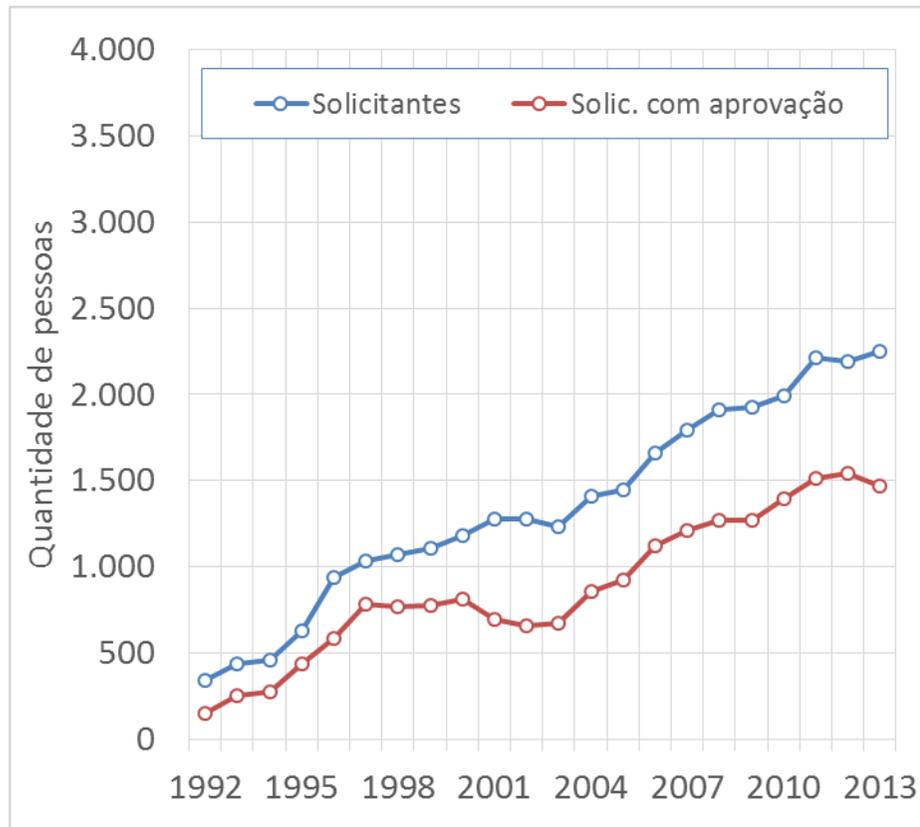


Ciências Agrárias

Artigos e seu Impacto, São Paulo

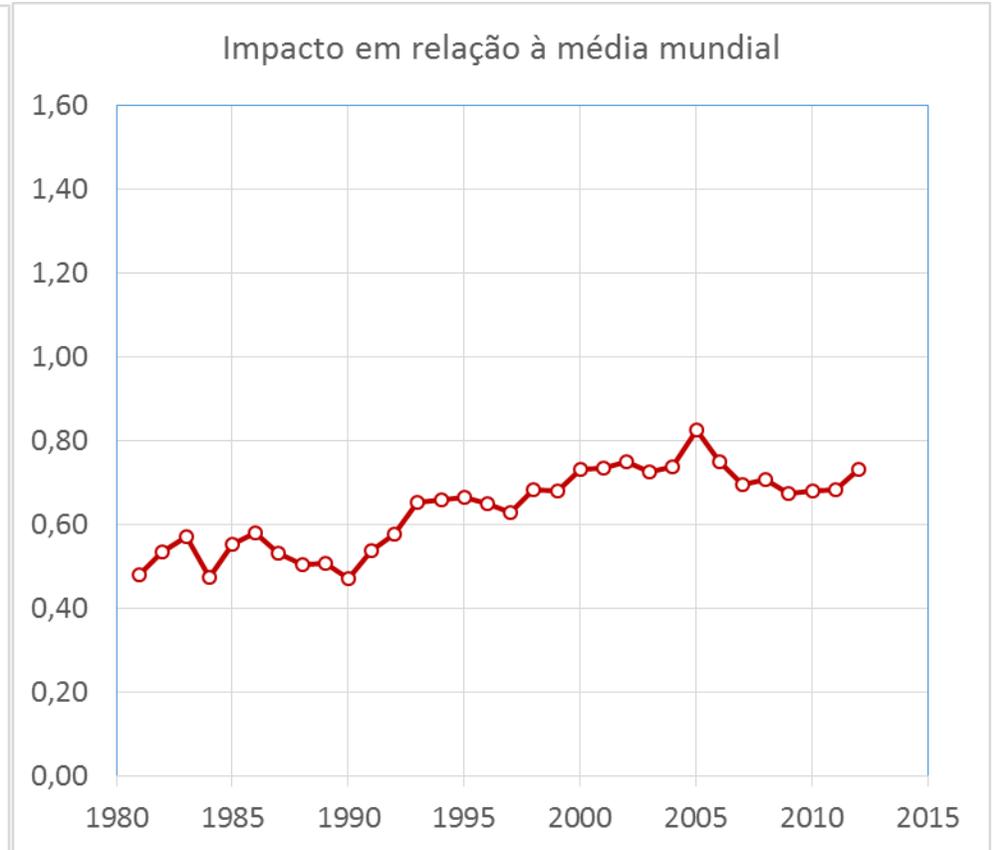
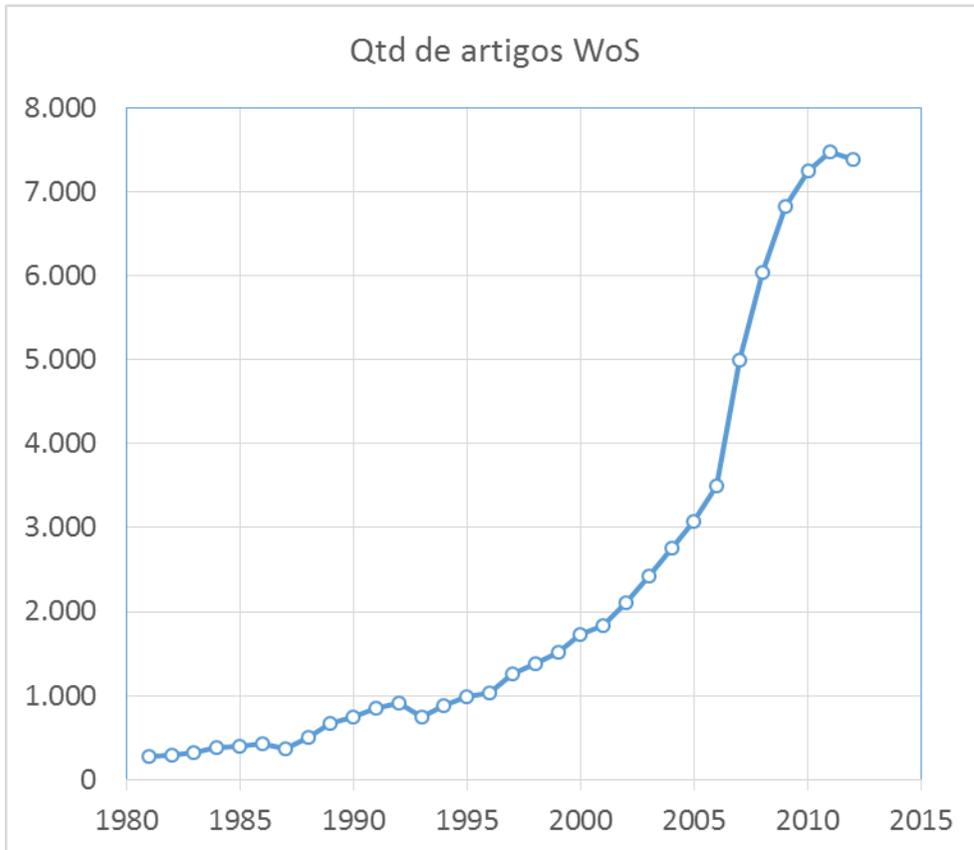


Solicitantes e Solicitações Ciências da Saúde, 1992-2013

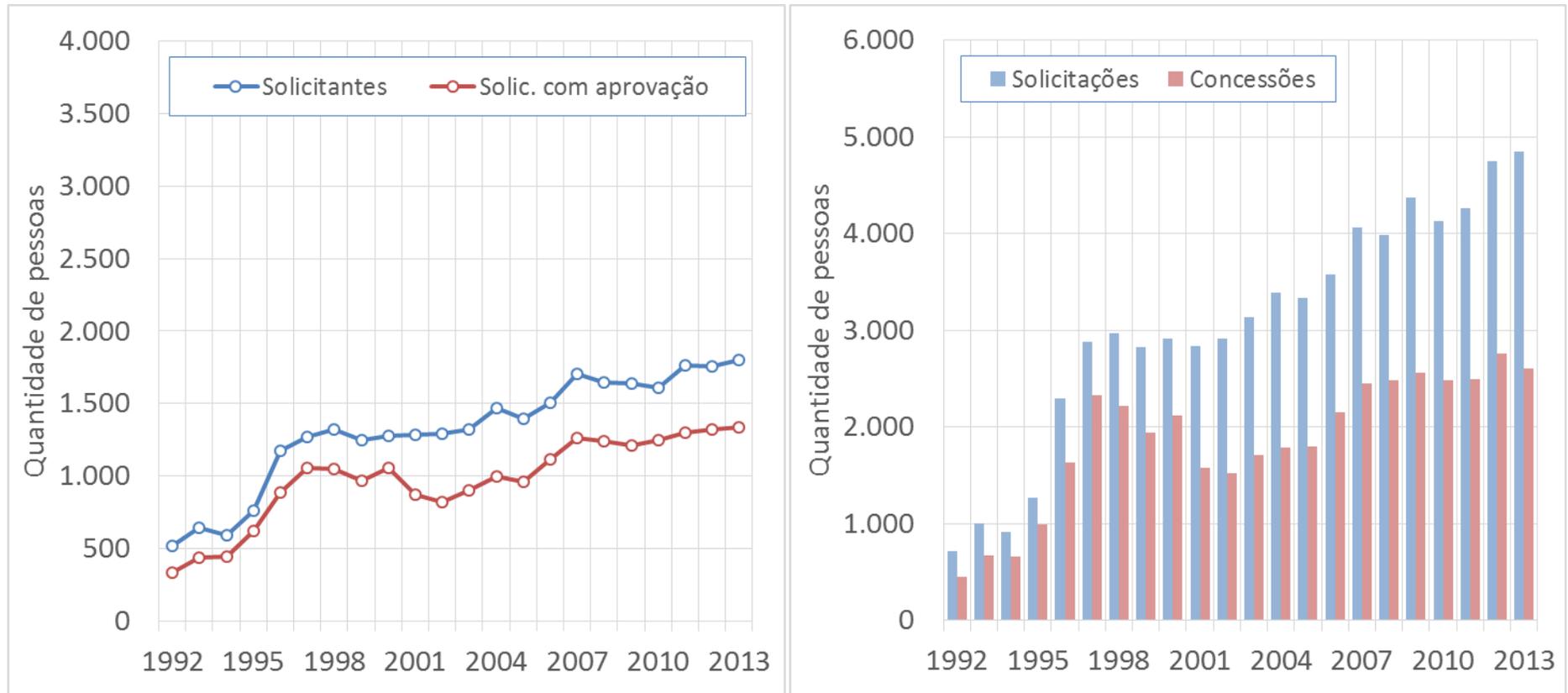


Ciências da Saúde

Artigos e seu Impacto, São Paulo

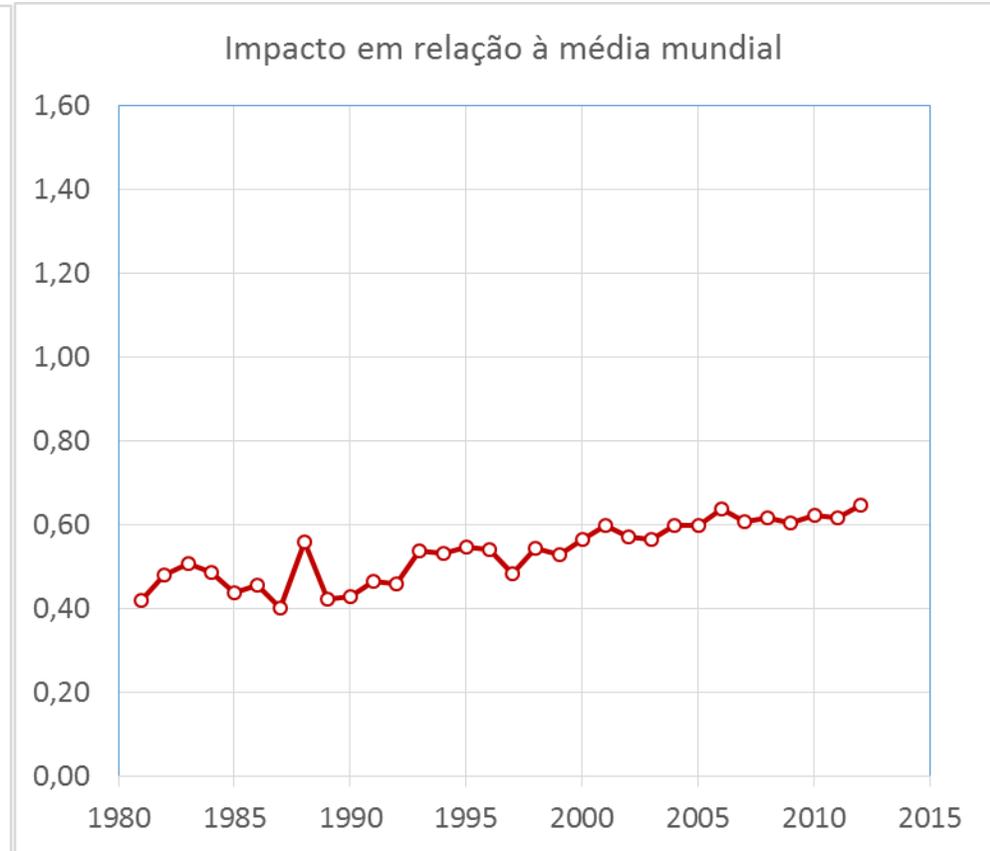
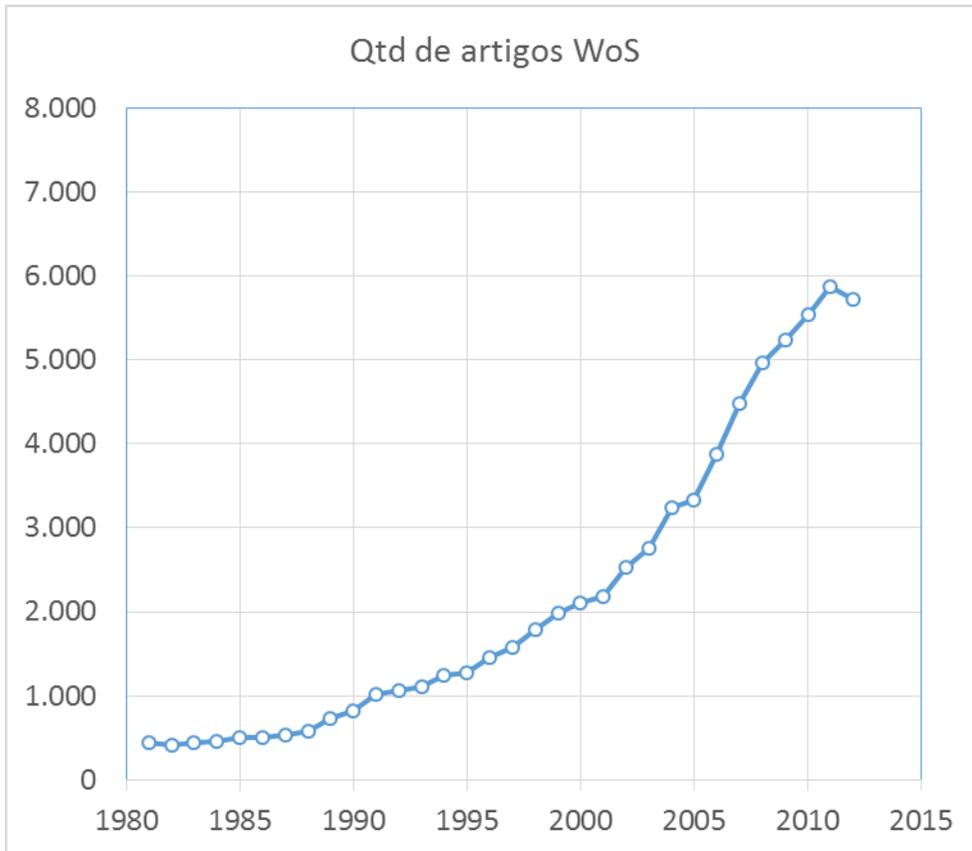


Solicitantes e Solicitações Ciências Biológicas, 1992-2013



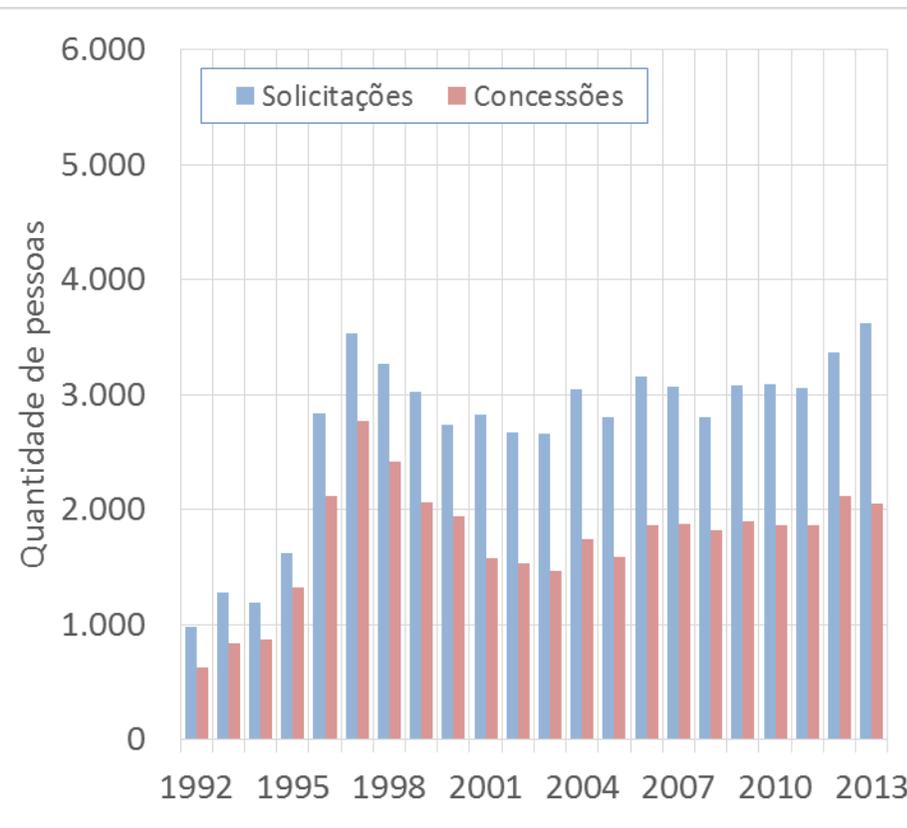
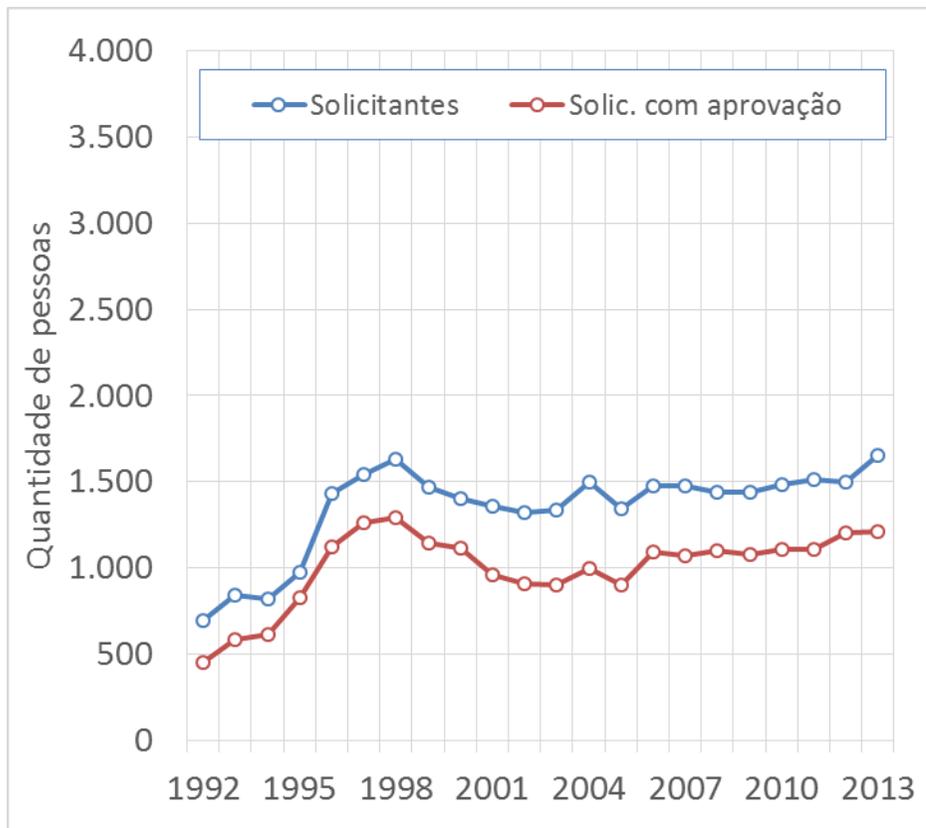
Ciências Biológicas

Artigos e seu Impacto, São Paulo



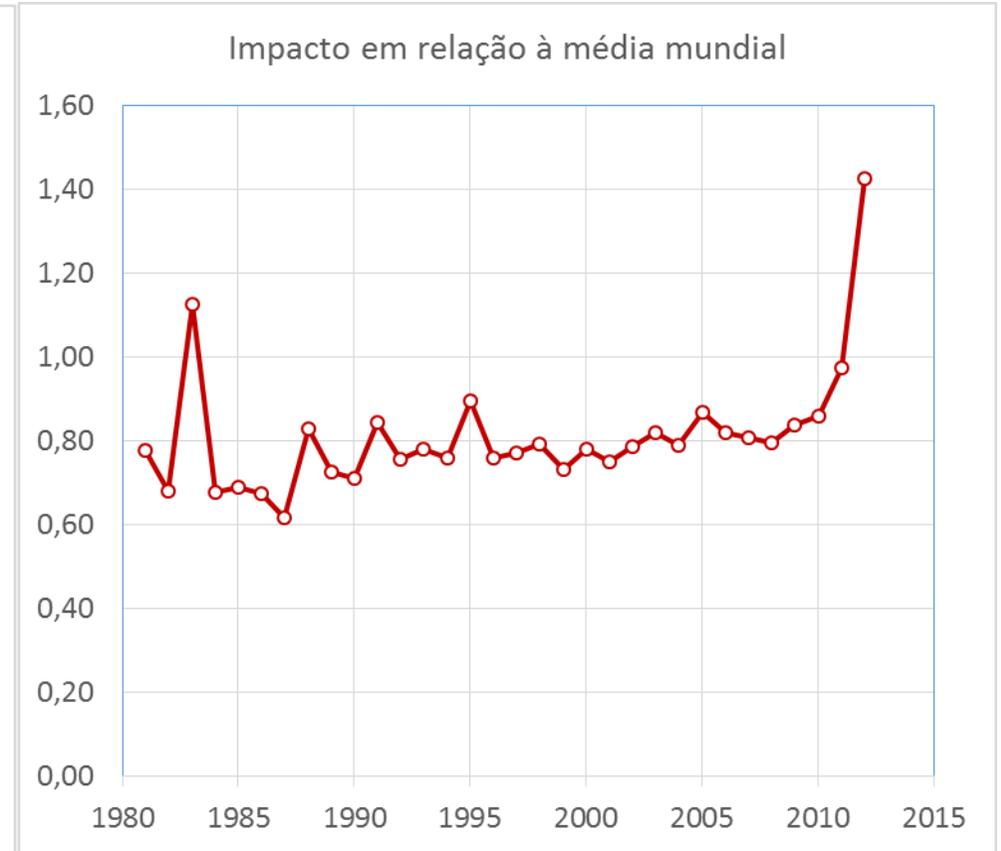
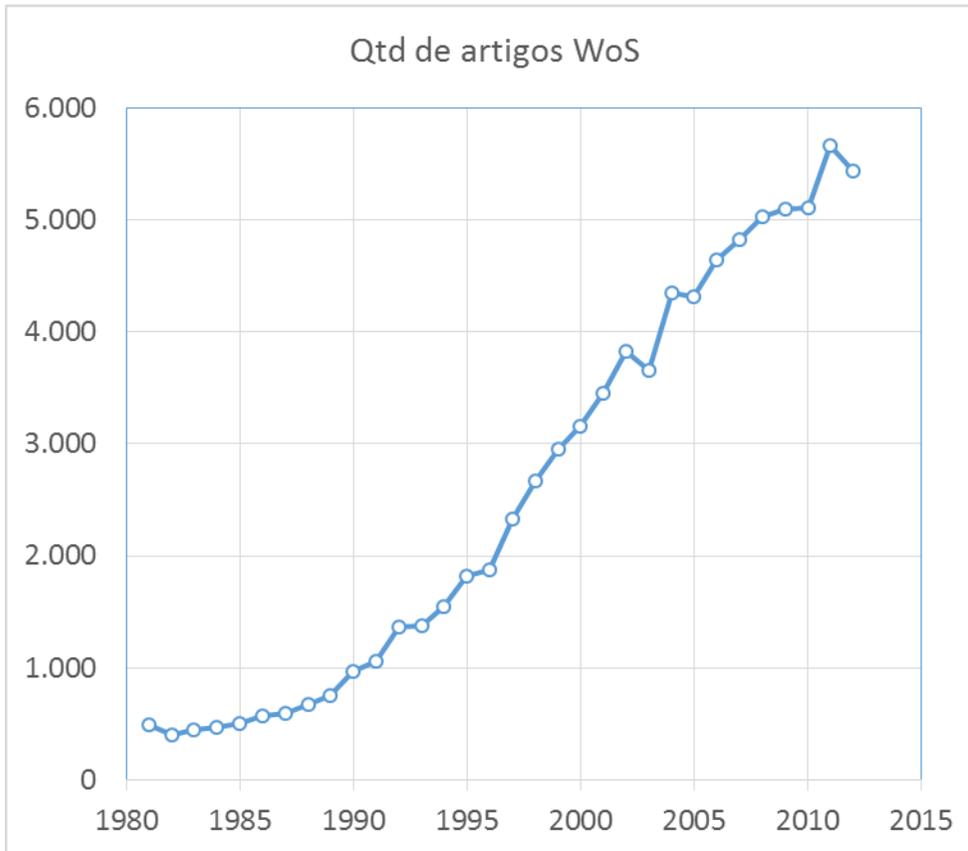
Solicitantes e Solicitações

Ciências Exatas e da Terra, 1992-2013

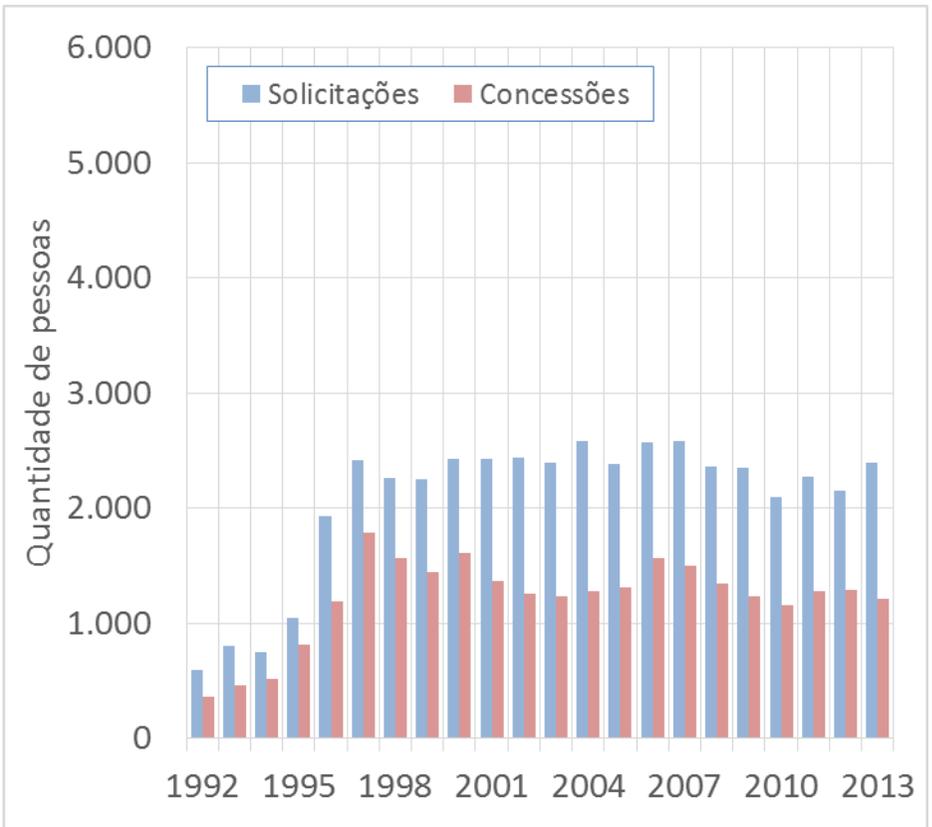
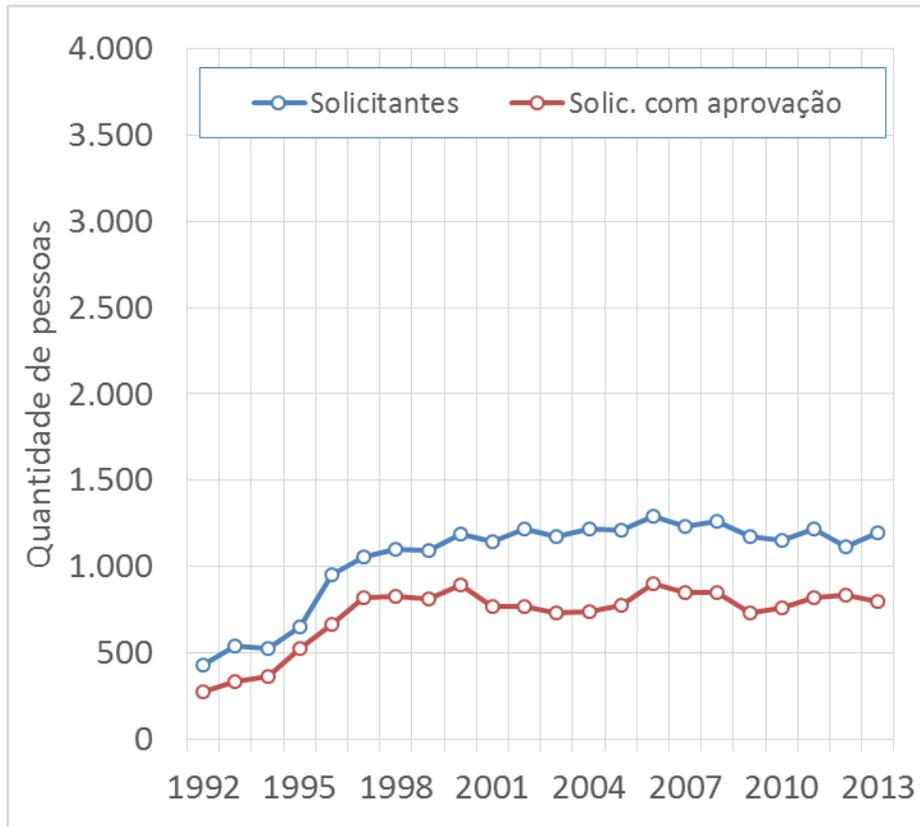


Ciências Exatas e da Terra

Artigos e seu Impacto, São Paulo

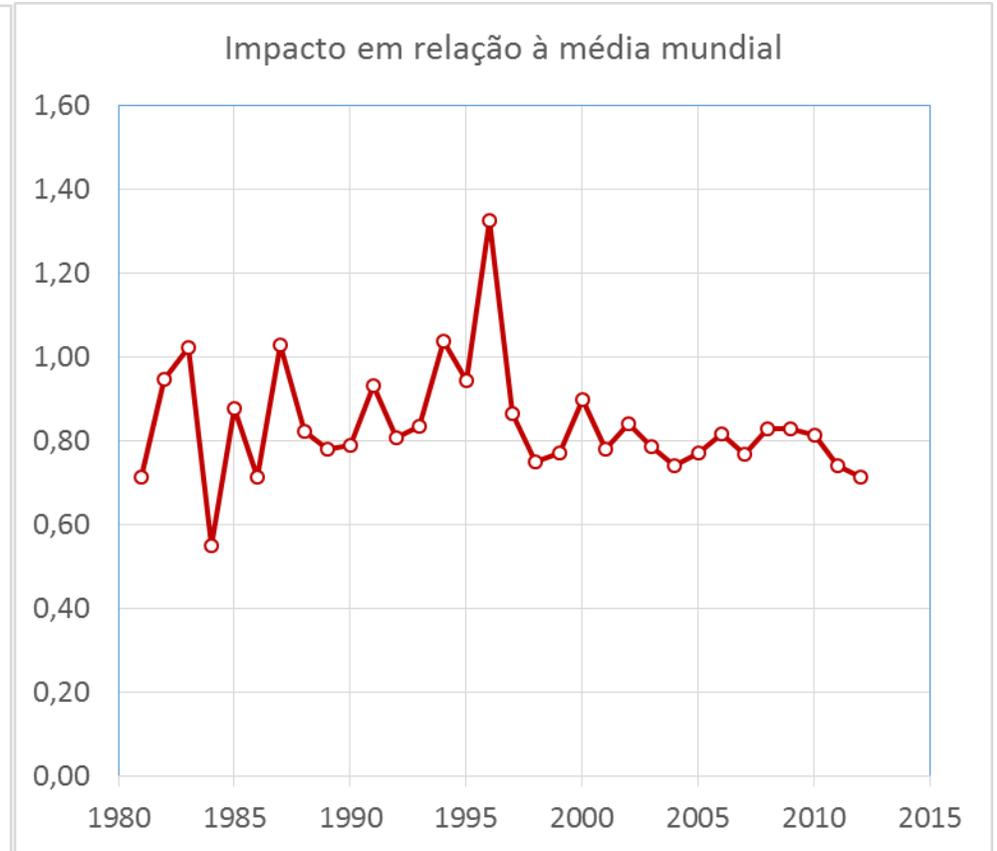
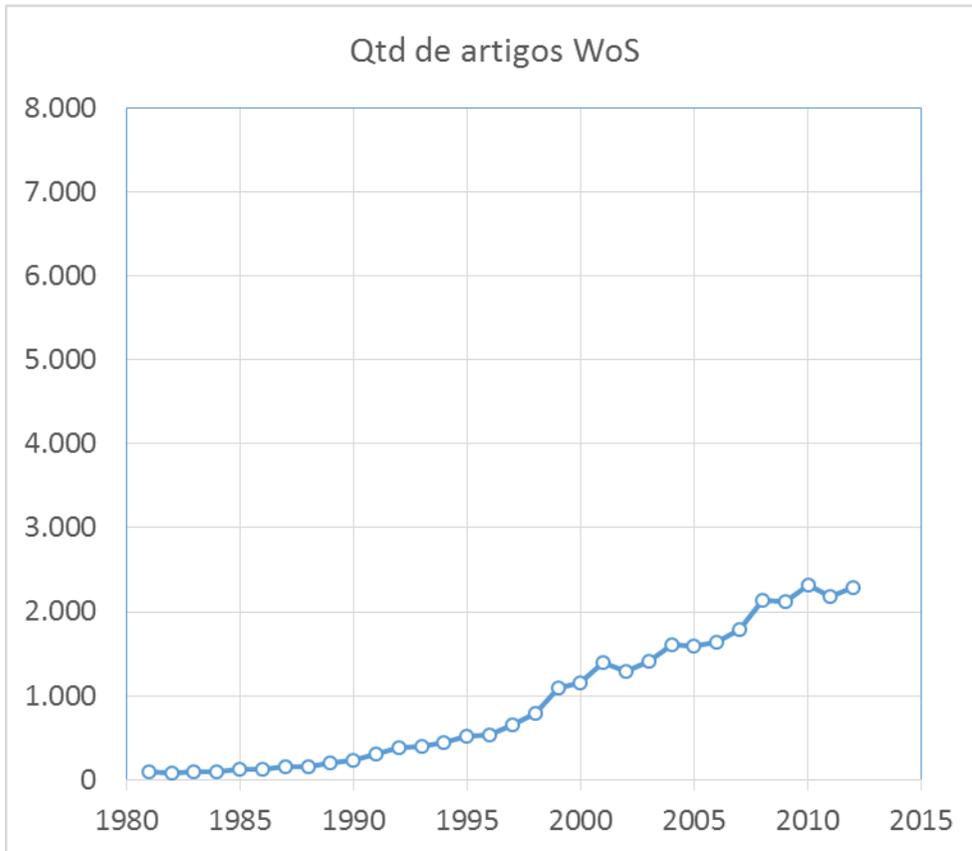


Solicitantes e Solicitações Engenharias, 1992-2013

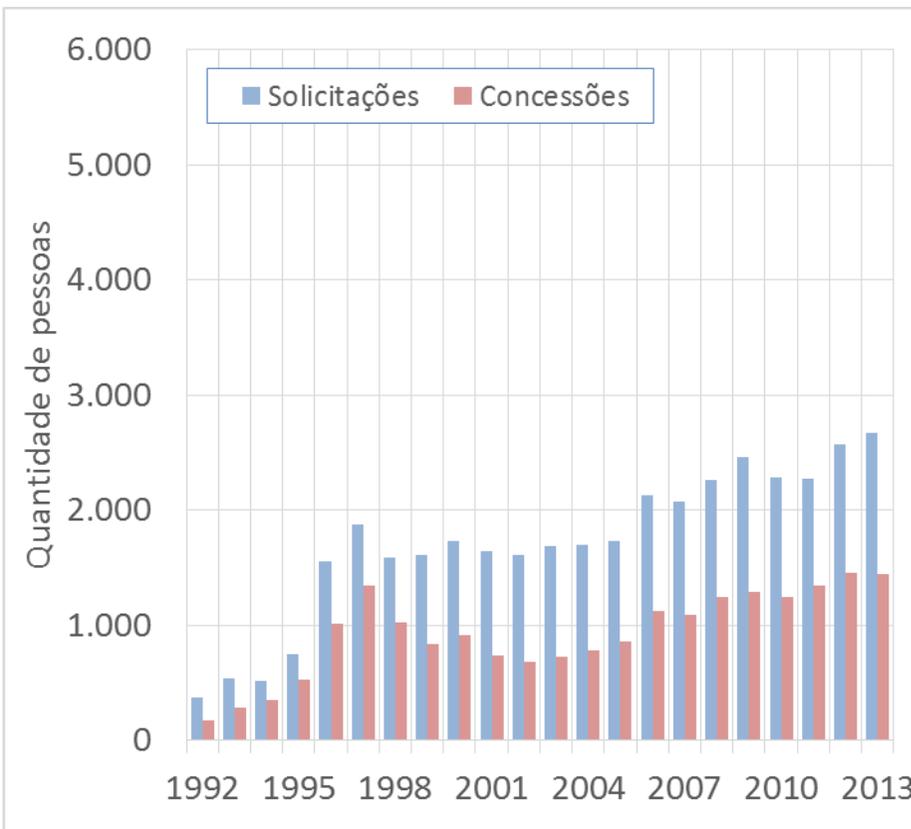
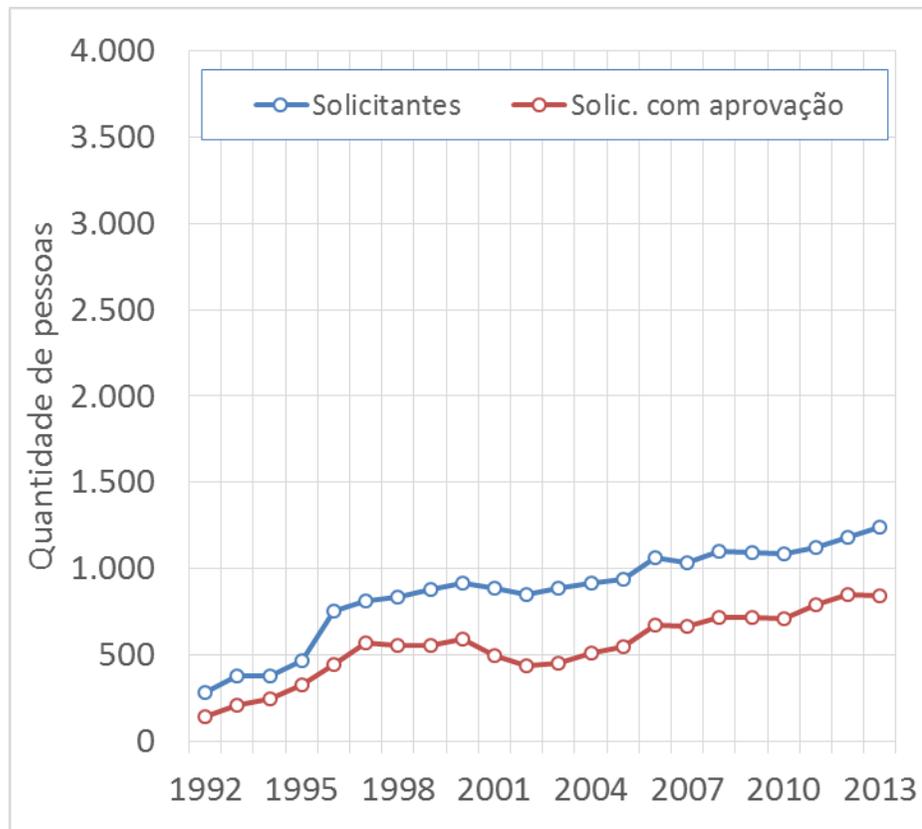


Engenharias

Artigos e seu Impacto, São Paulo

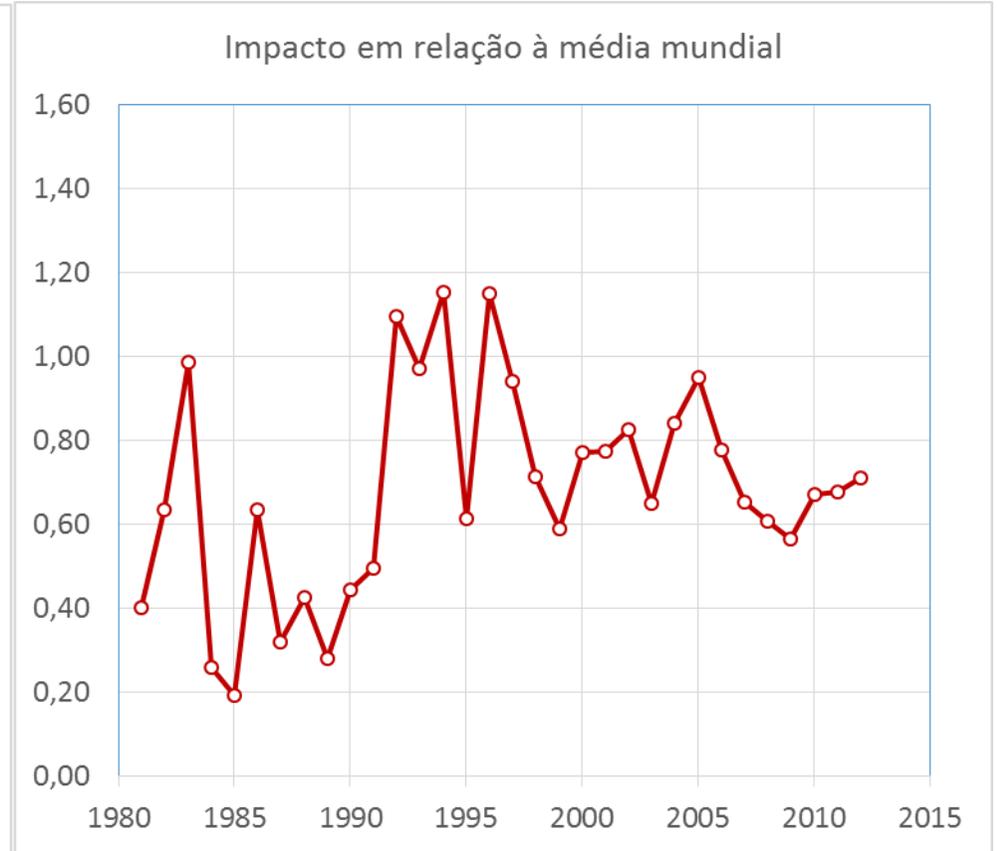


Solicitantes e Solicitações Ciências Humanas, 1992-2013



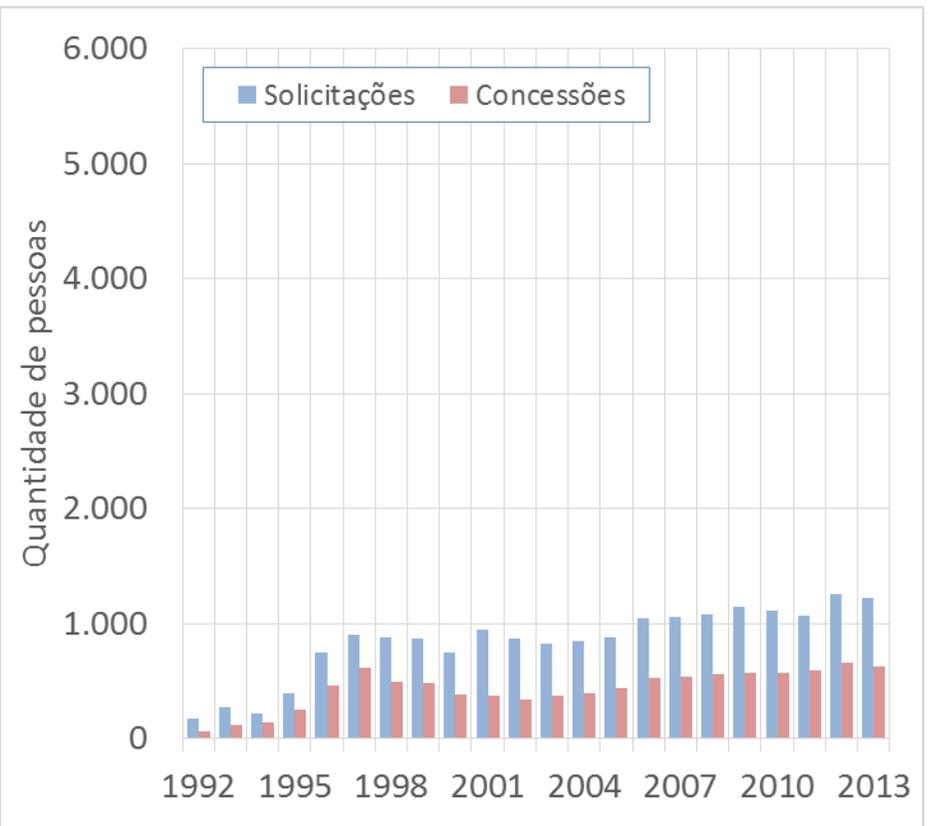
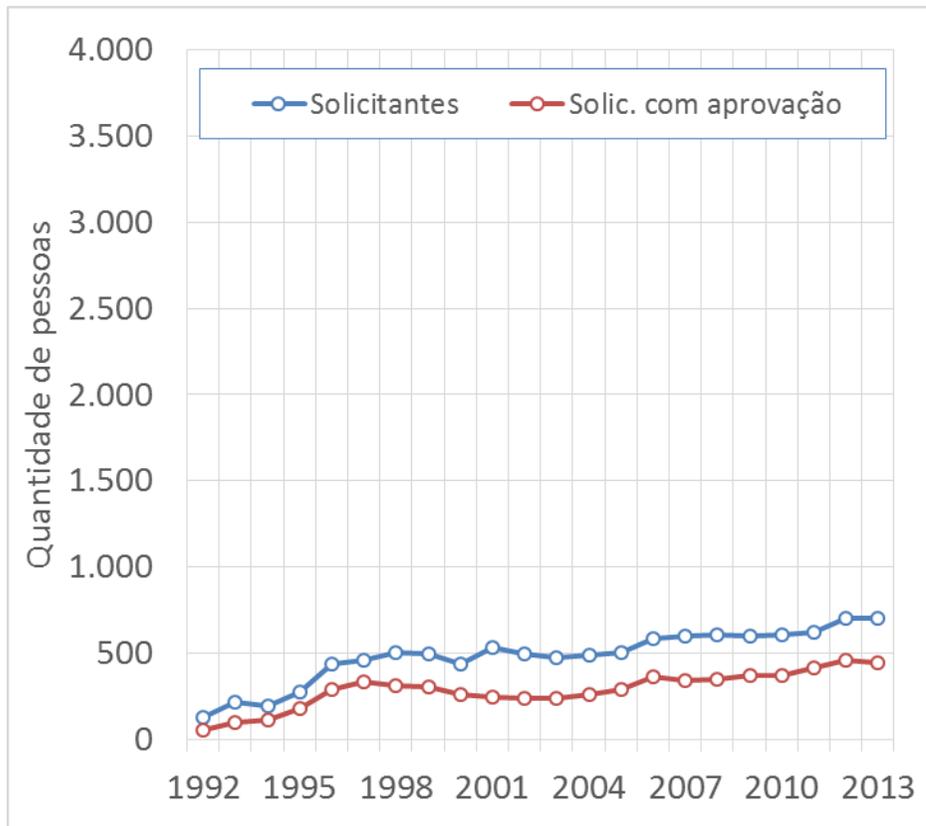
Ciências Humanas

Artigos e seu Impacto, São Paulo



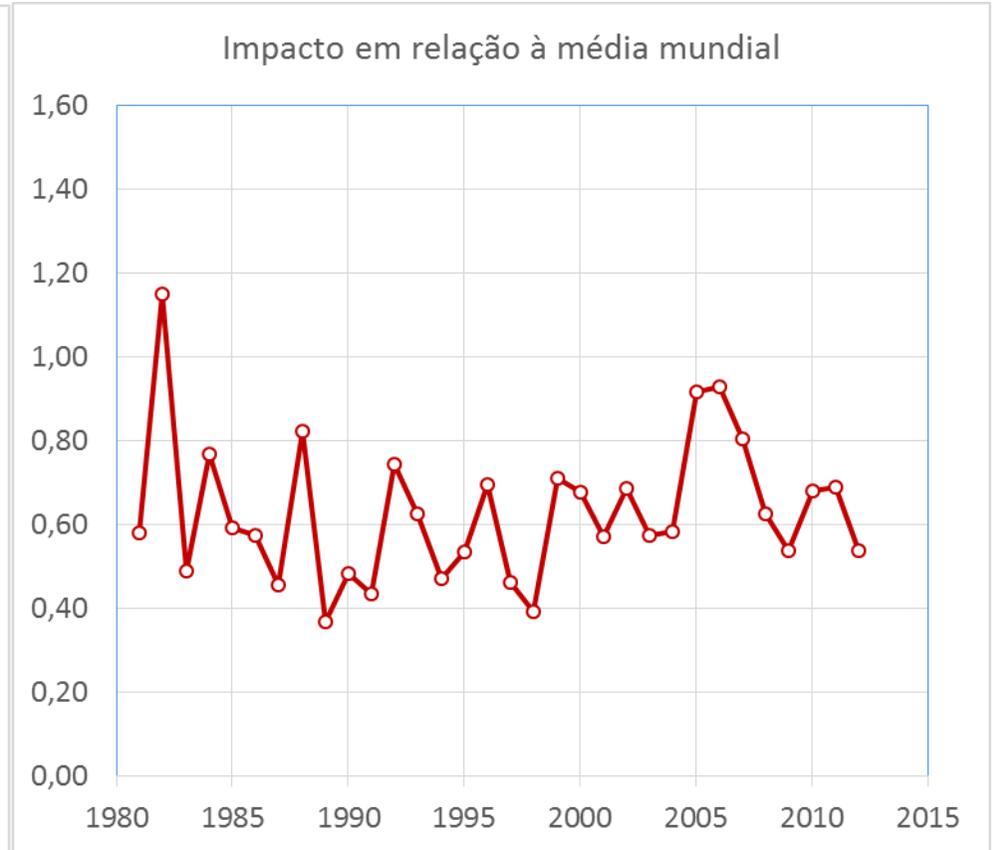
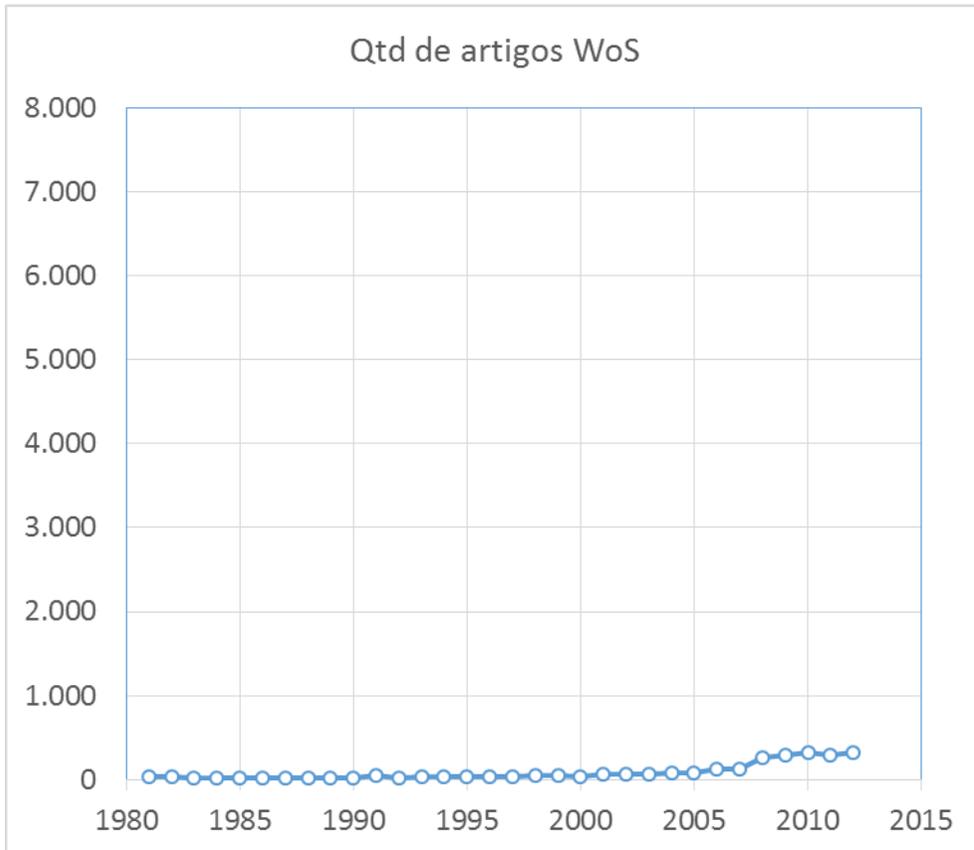
Solicitantes e Solicitações

Ciências Sociais Aplicadas, 1992-2013



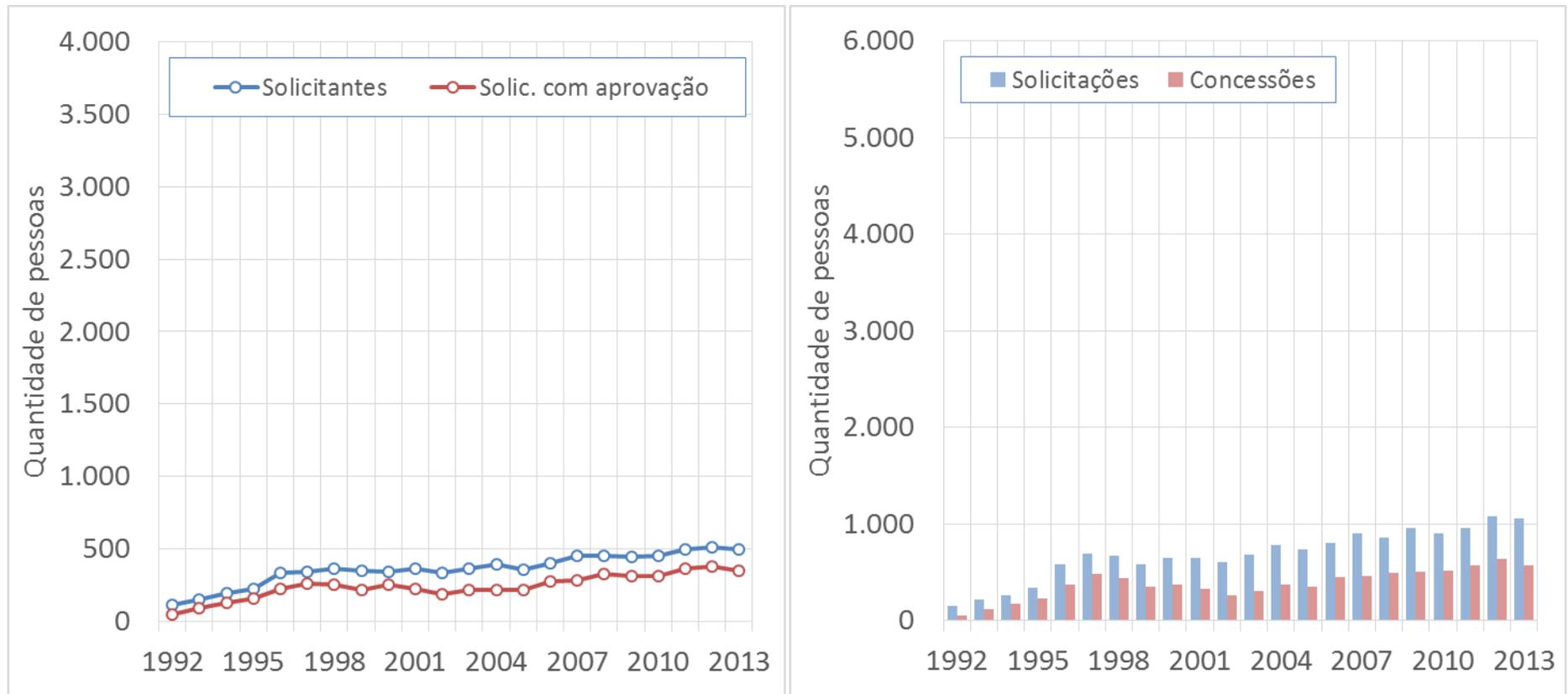
Ciências Sociais Aplicadas

Artigos e seu Impacto, São Paulo



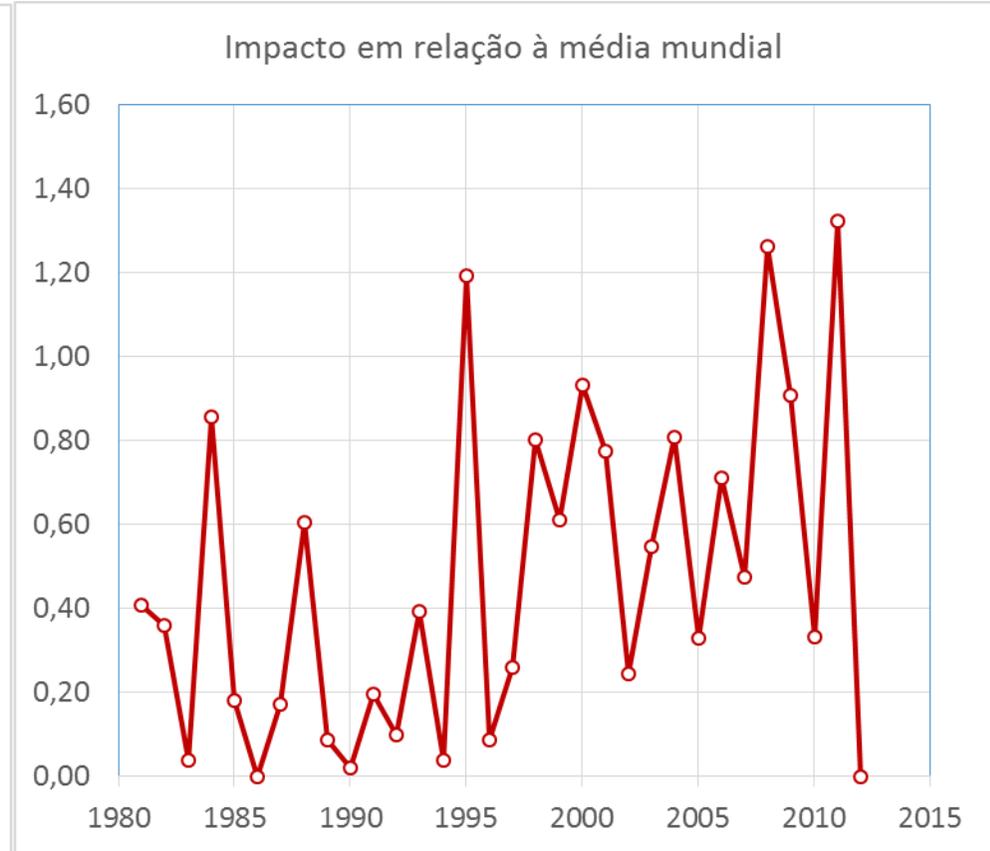
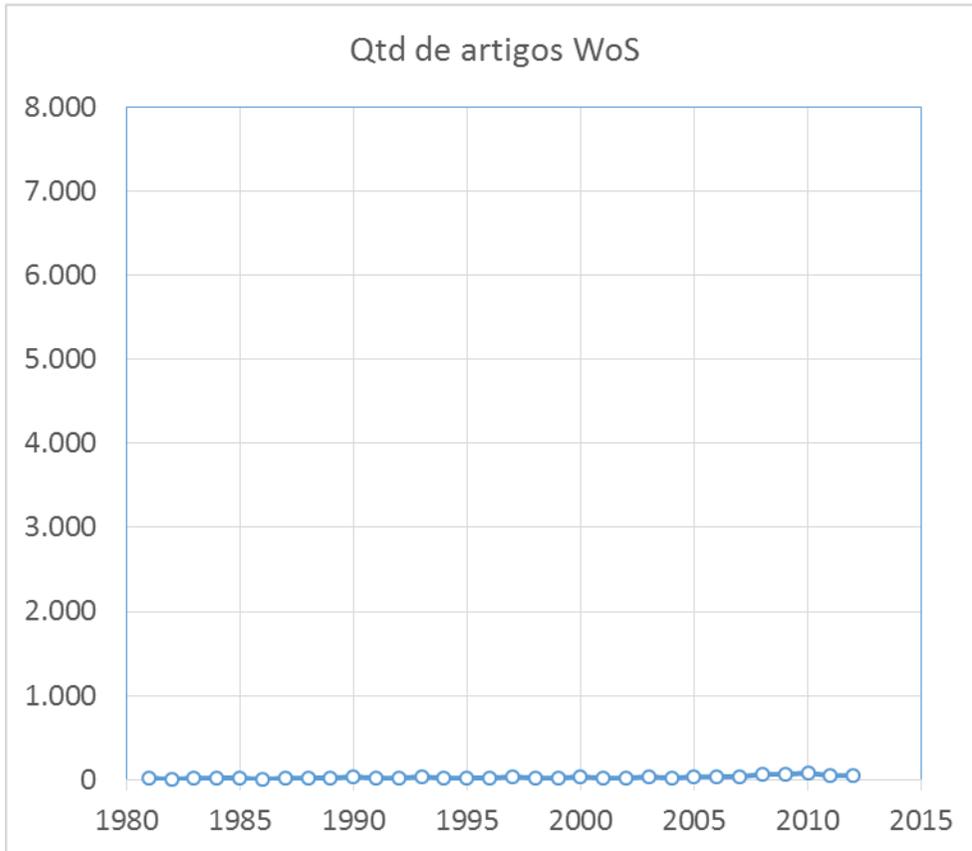
Solicitantes e Solicitações

Letras, Linguística, e Artes, 1992-2013



Lingística, Letras, e Artes

Artigos e seu Impacto, São Paulo



PONTOS OPERACIONAIS

Aumentar o impacto intelectual da ciência feita no Brasil

- Proteger o tempo do pesquisador contra tarefas extra-científicas
 - Apoio institucional – “Grants Management Offices”
- Desenvolver cooperação internacional
- Aumentar a visibilidade e impacto de revistas brasileiras
- Estimular a ciência mais ousada, a qualidade e o mérito
 - Análise do conteúdo científico pela assessoria
 - Valorizar mais as citações de cada artigo em vez do Fator de Impacto da revista onde sai publicado (o conteúdo tem que valer mais do que a capa)
 - Valorizar a pesquisa planejada para ousadia e impacto – Auxílios Regulares, Temáticos, JP, CEPIDs

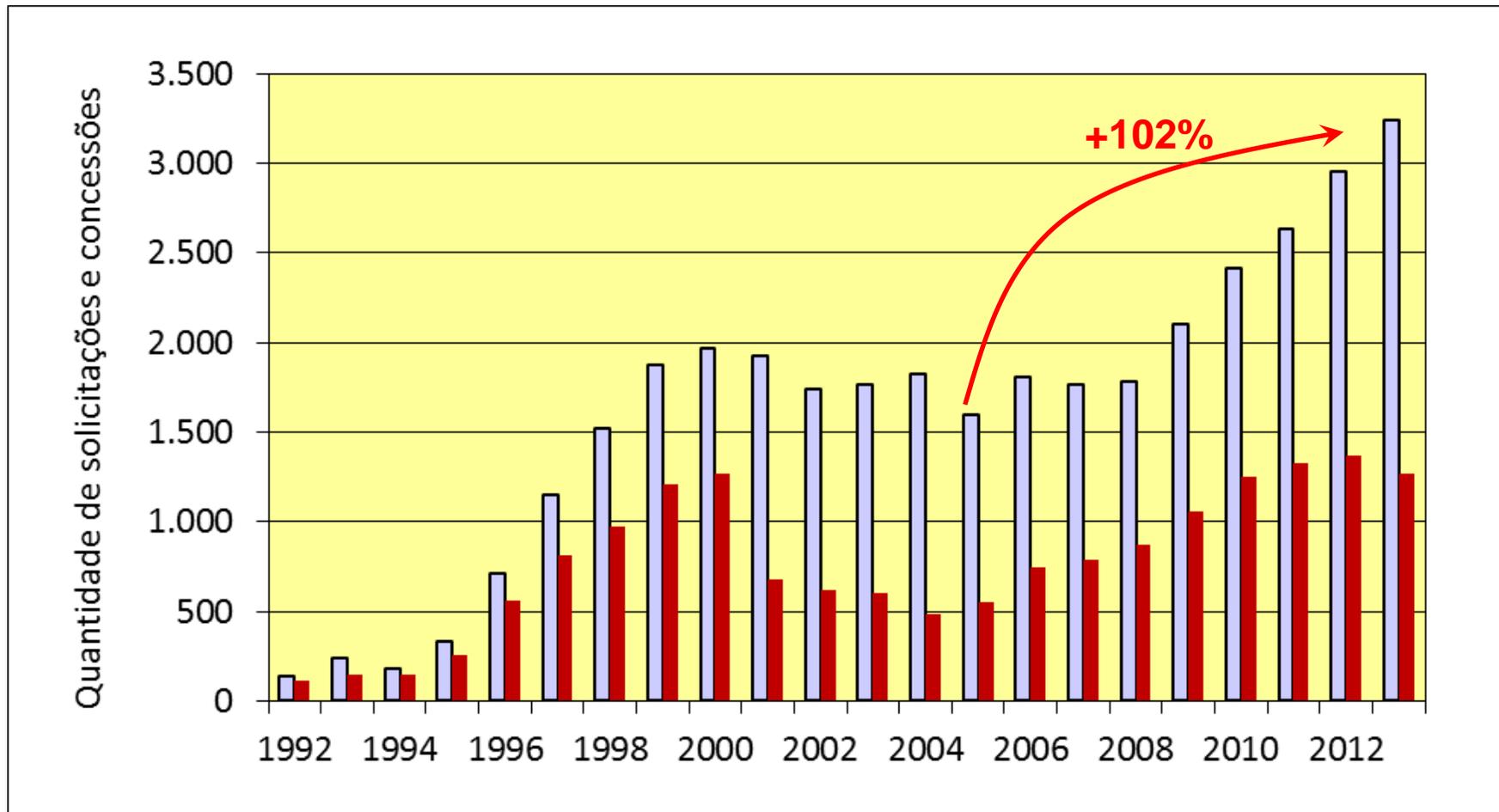
Procedimentos e Critérios

Elevação dos referenciais acadêmicos

- Detalhamento dos formulários de parecer
 - Em preparação pelo CPD para Temáticos, JO, APR>300k, DR, e PD
- Crescimento na demanda de bolsas exige elevação dos referenciais acadêmicos
 - Histórico Escolar impecável
 - Impacto das publicações do orientador
 - Experiência bem sucedida do candidato em pesquisa no exterior (BEPE)
 - Vinculação a CEPID, Temático, JP
- Formulário para solicitação de reconsideração
 - Envio à assessoria não é automático
 - Mera discordância com assessoria deve ser previamente avaliada pela CA e CAD
 - Análise dos casos em que haja reformulação ou novas informações
- Temáticos, JP, APR
 - Experiência bem sucedida em excelentes grupos de pesquisa no exterior
- Apoio Institucional
 - Entrevistas CAD para Temáticos e JP
- Necessidade de justificativa acadêmica nas recomendações CA e CAD

Bolsas de Doutorado

Solicitações e Concessões



FAPESP: international agreements for joint research funding

- Agreements with foreign funding agencies, universities and companies

UK: RCUK; KCL; Surrey; Southampton; Nottingham, Manchester, Keele, IoE/UoL; Bangor, Birmingham, Bath, East Anglia, York, Edinburgh, Cambridge; BG, GSK, BP
Ge: DFG
Fr: ANR; CNRS; INSERM; INRIA; INRA
Ca: ISTP; NSERC; U. Toronto; U. Western Ontario, McMaster, CALDO
EU: CNPq (Bioenergy)

Is: Hebrew Univ. Jerusalem ; MATIMOP
Ar: CONICET; Cl: CONICYT
U.S.: NSF – CNIC and ICC; Microsoft Research; Boeing; Agilent Technologies
MIT, USC, U Michigan, UC Davis
Portugal: FCT
Fi: AKA / De: DCSR
Spain: Salamanca, CSIC

- 303 joint proposals supported, 2005-2010
 - U.S 115; France 87; Germany 41; U.K. 27; Argentina 11; Canada 8; Portugal 8

Ousadia da proposta de pesquisa

NSF

Transformative research involves ideas, discoveries, or tools that radically change our understanding of an important existing scientific or engineering concept or educational practice or leads to the creation of a new paradigm or field of science, engineering, or education. Such research challenges current understanding or provides pathways to new frontiers.

