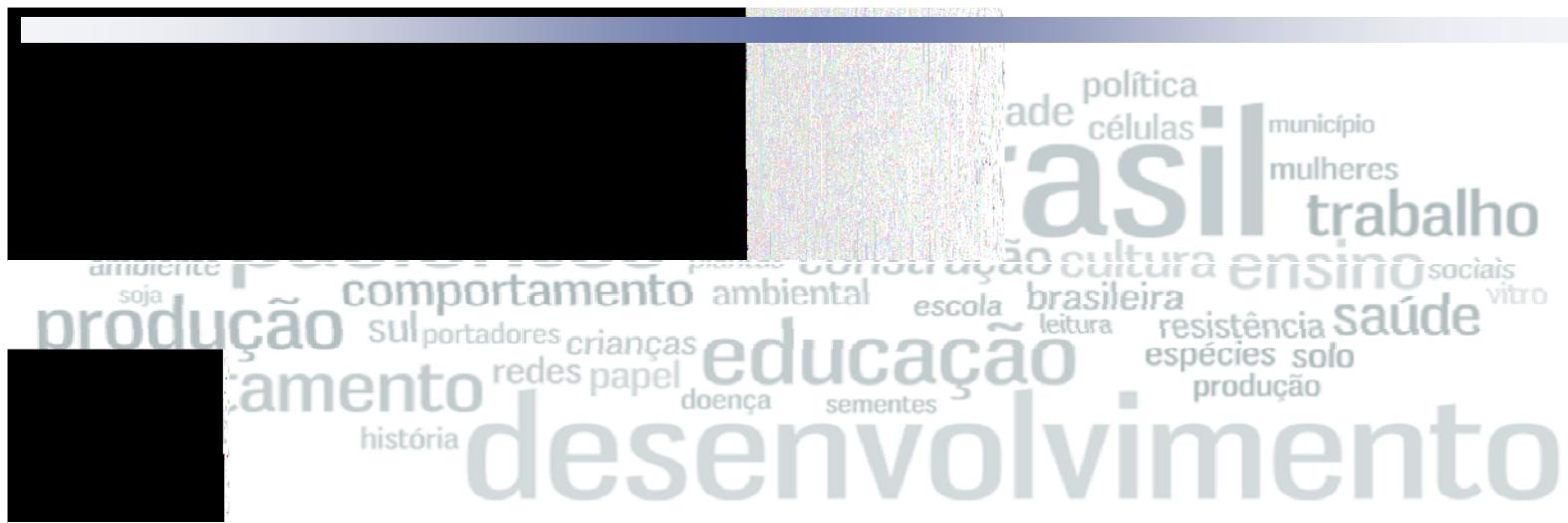


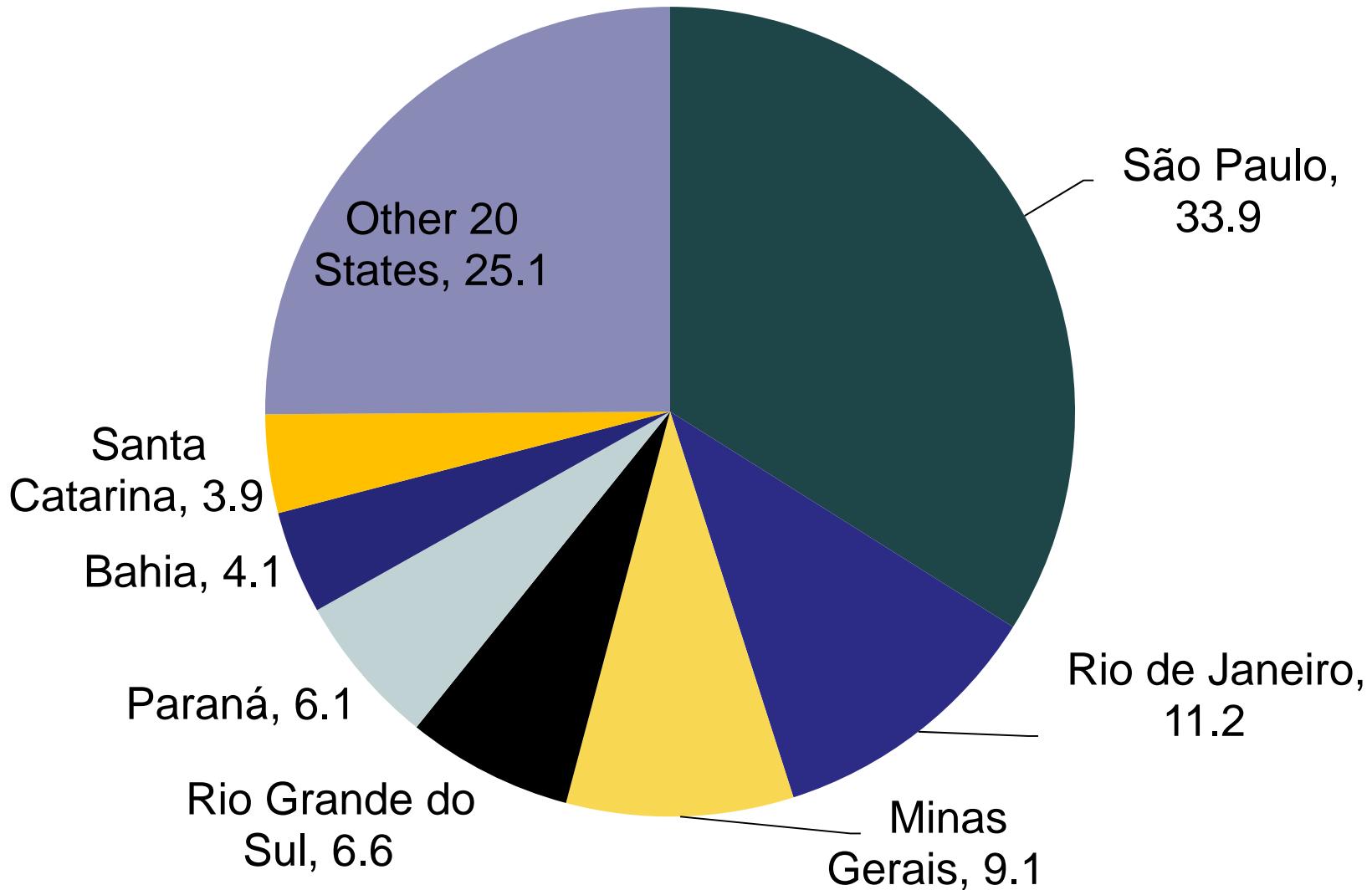
# A panorama of Science, Technology and Innovation indicators in Brazilian States

General-Coordination of Indicators  
Ministry of Science & Technology - Brazil

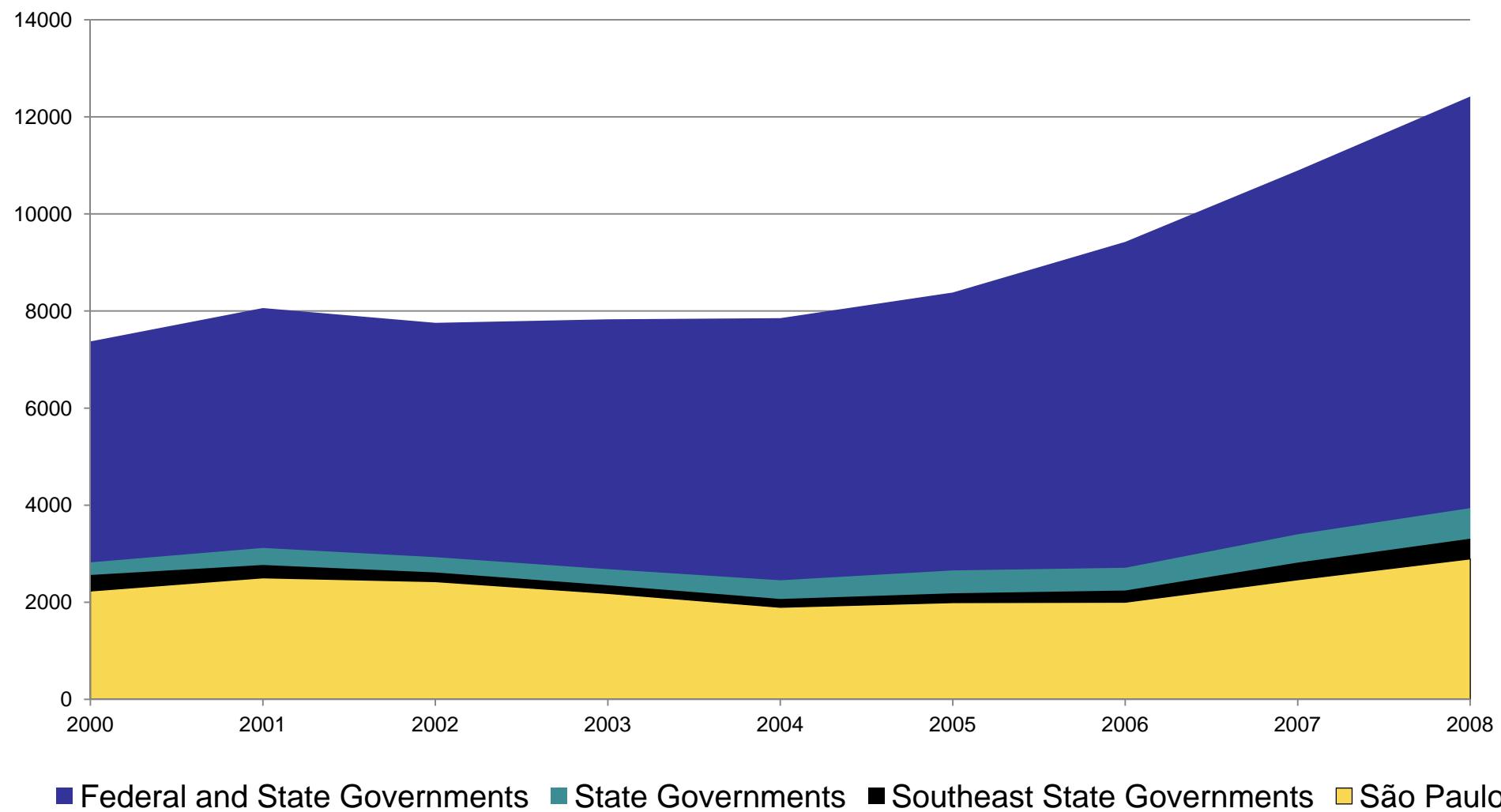


# Brazilian States: Heterogeneity

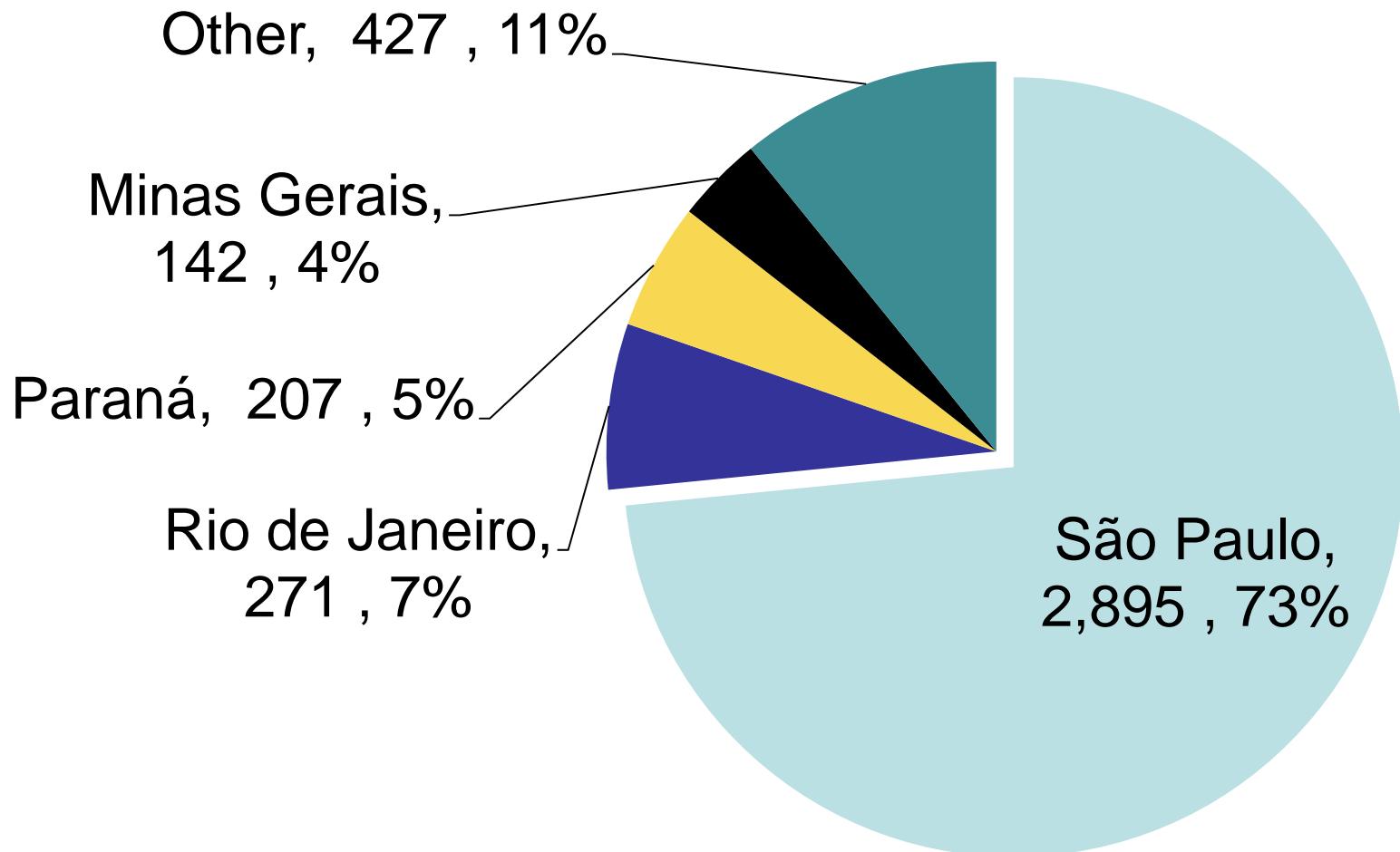
Percentage of GDP by State, 2007



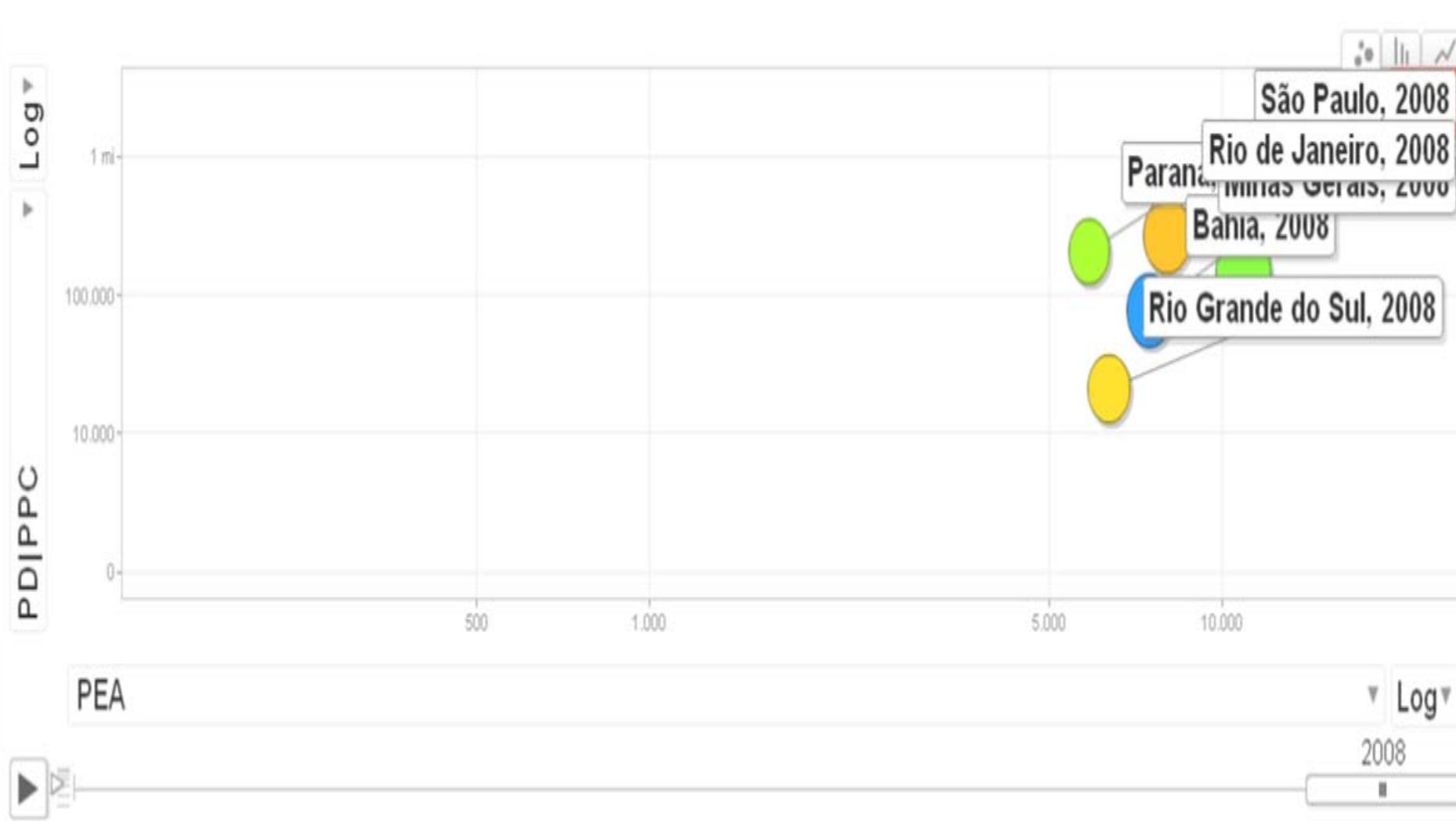
## Brazil's government financed GERD: total, state gov., region & state with highest expenditure, 2000-2008, USD Millions PPP



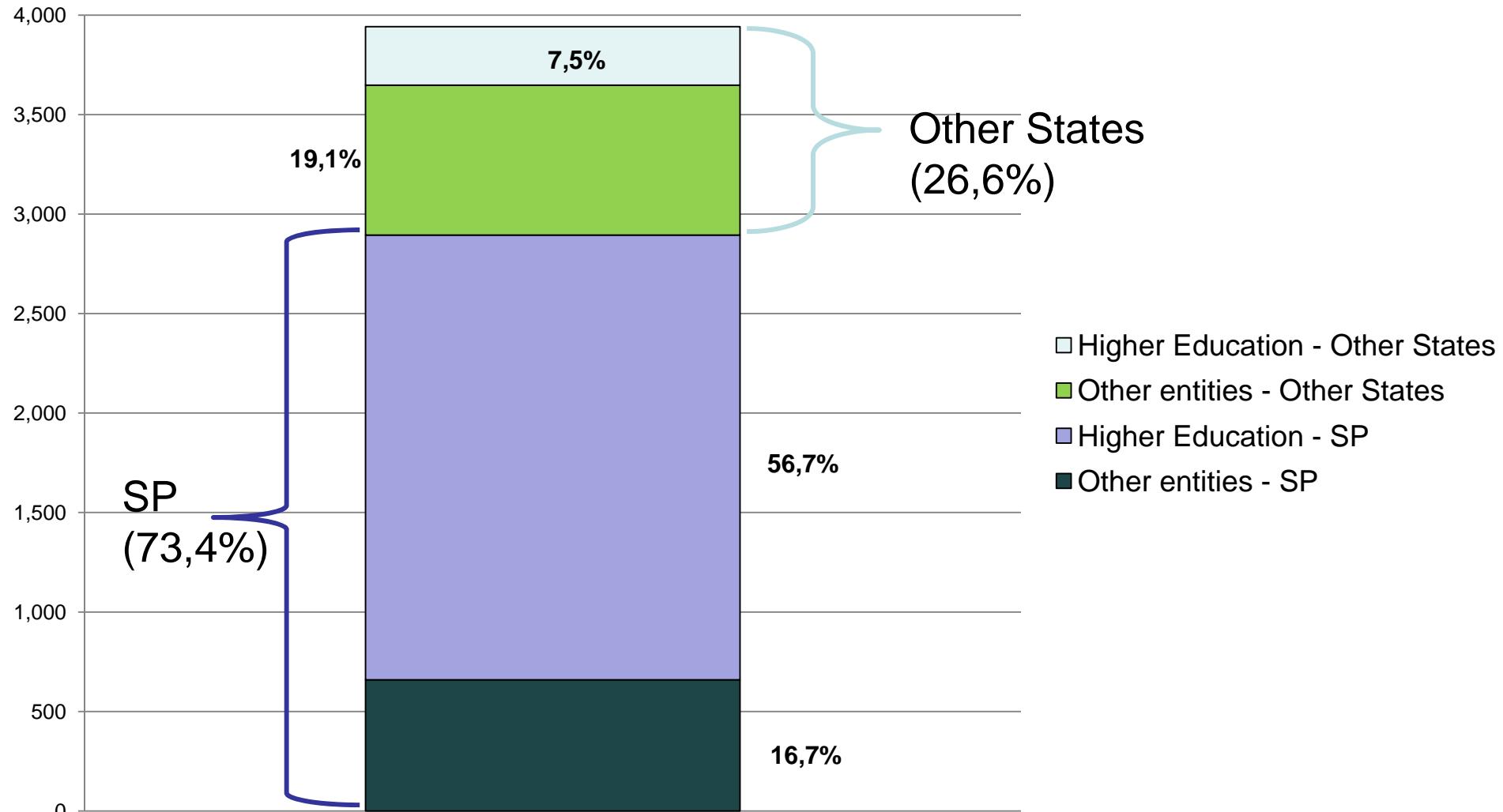
# Brazil: State Governments financed GERC by state, 2008 (USD millions PPP)



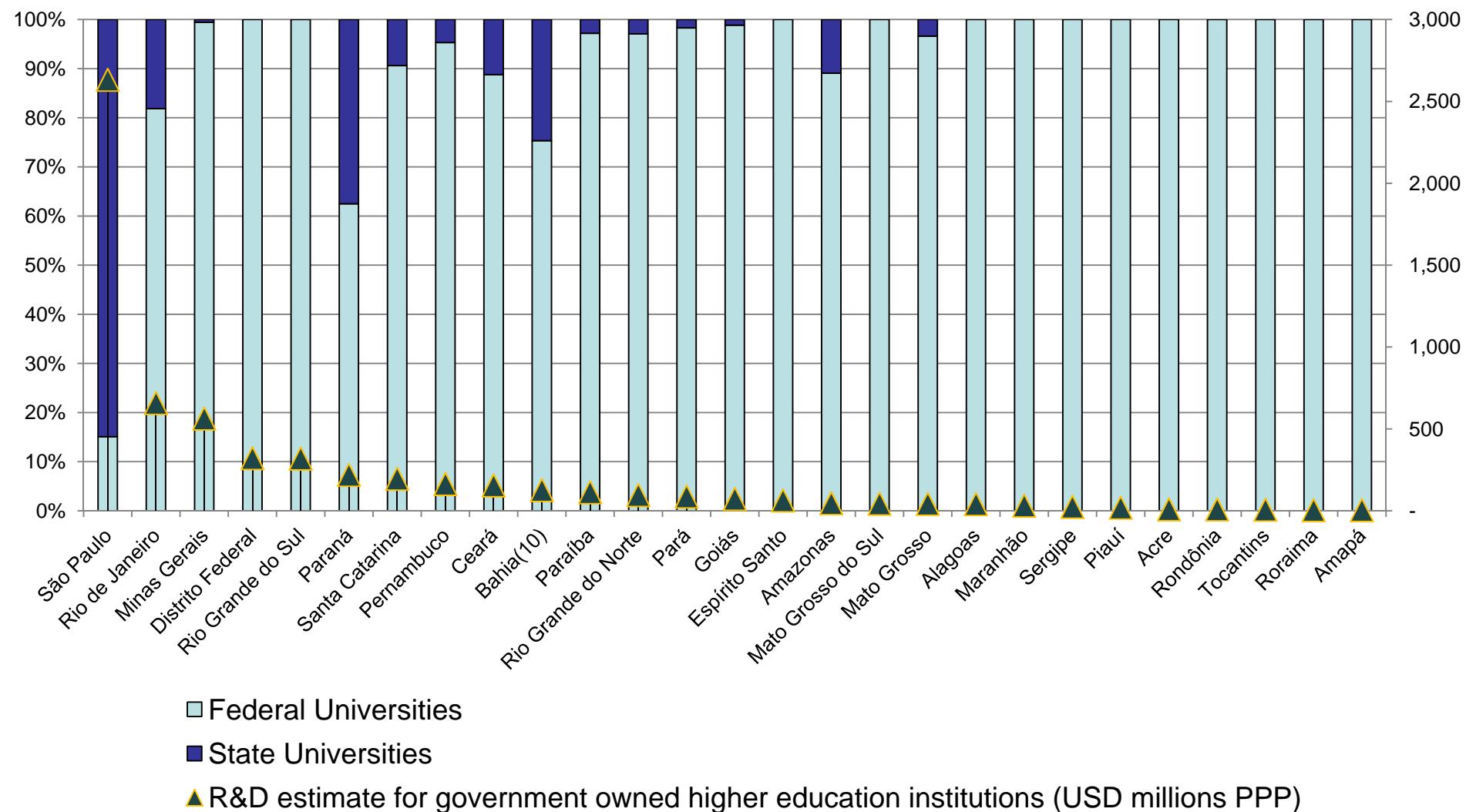
# Brazil: State Governments financed GERD by state, 2008 (USD thousands PPP)



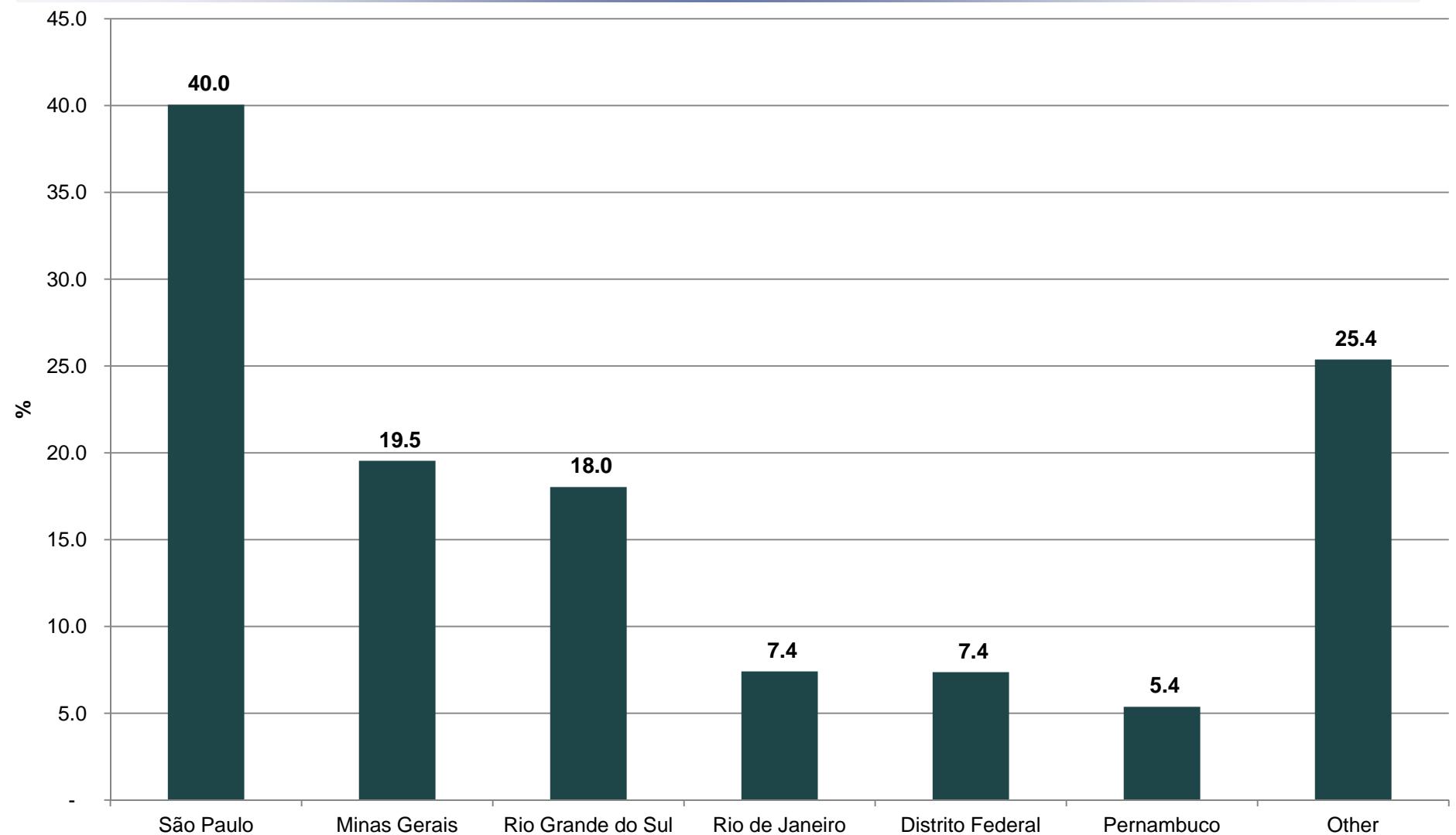
## Brazil: State Governments financed GERD perf. by the state gov. owned higher educ. inst. and by other entities, São Paulo and other States, 2008 (USD millions PPP)



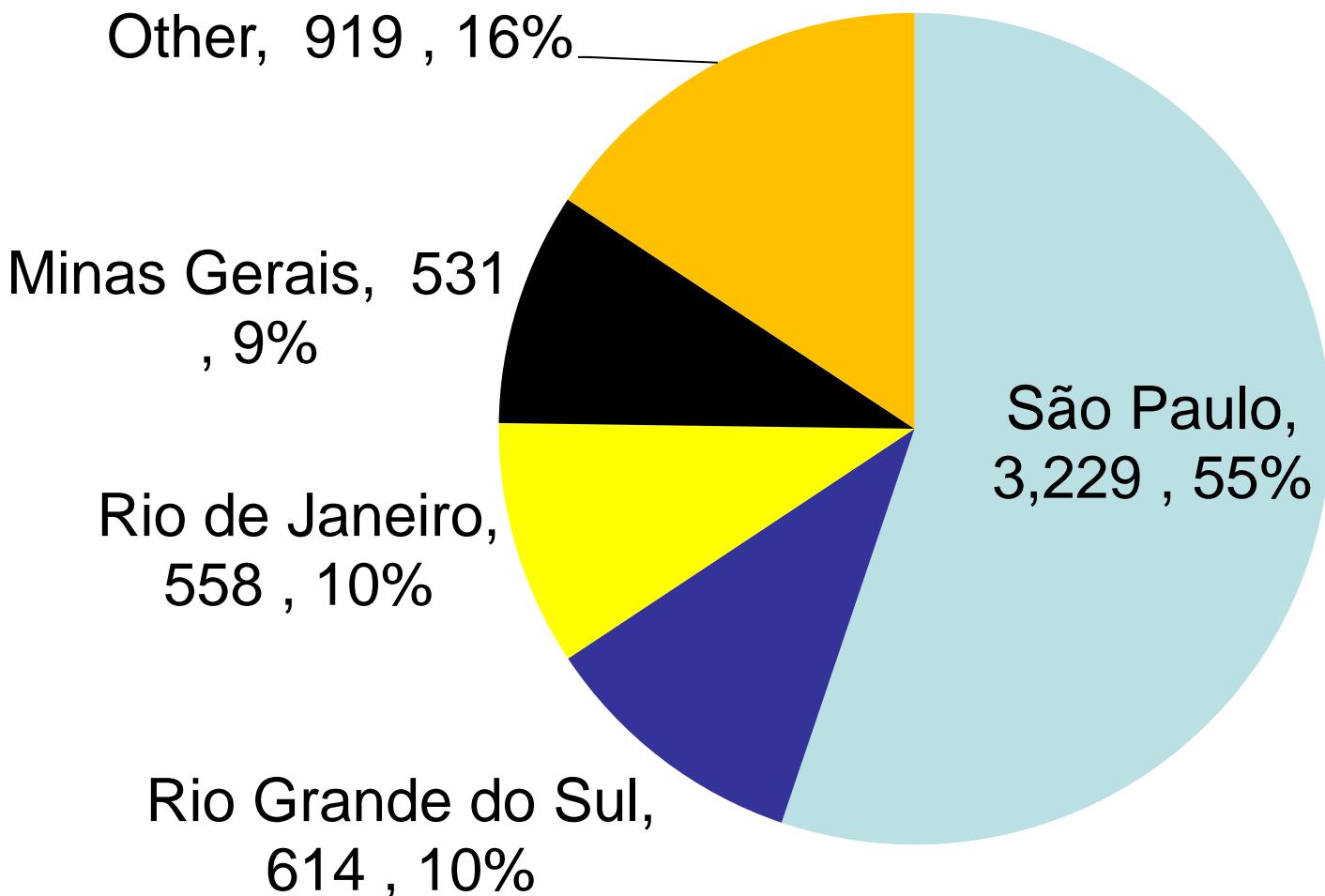
# Percentage of higher education expenditure on R&D by federal and state owned inst. by state, 2008



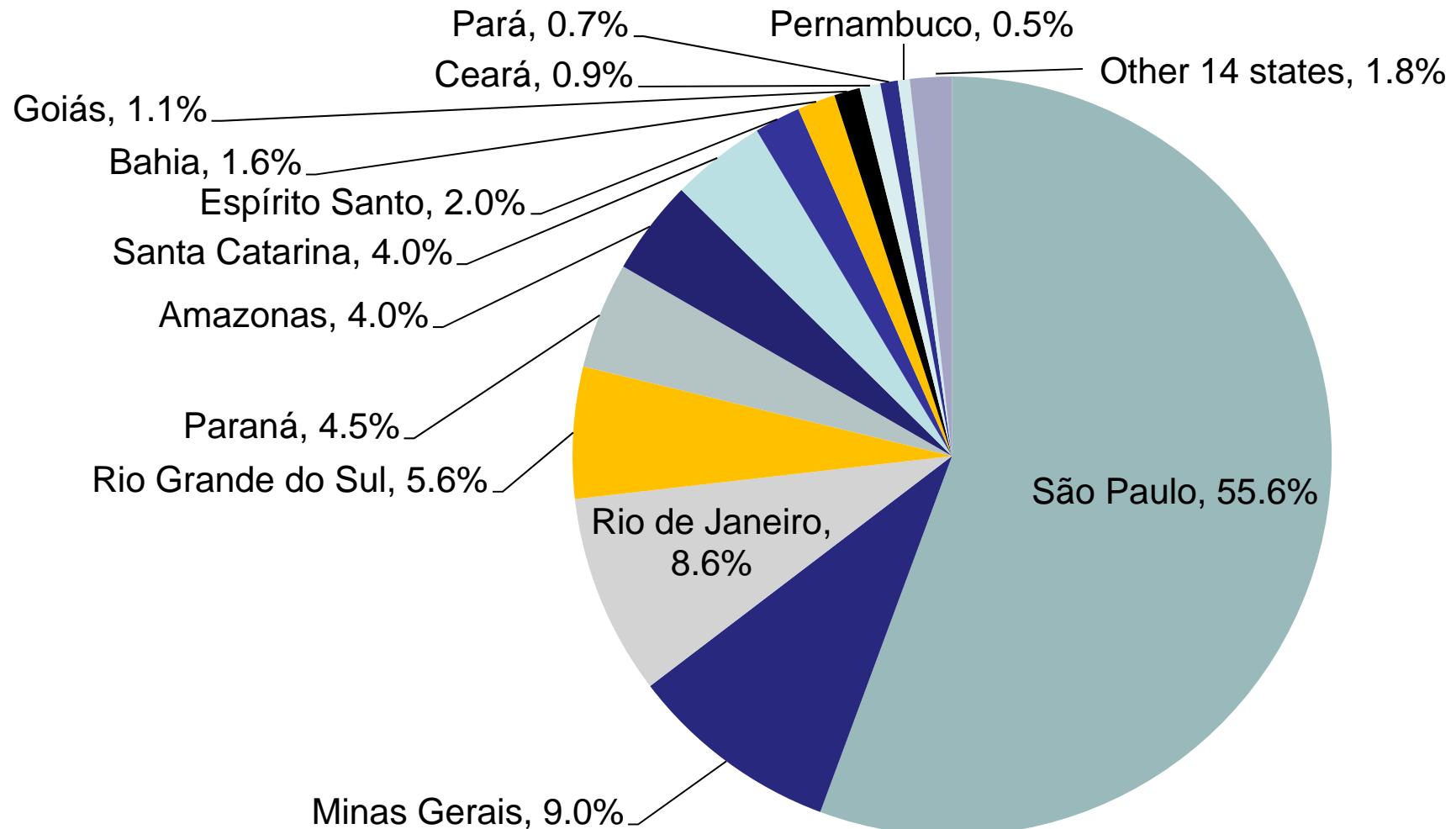
# Percentage of indexed Brazilian scientific articles by state on Web of Science, with double counting, 2008



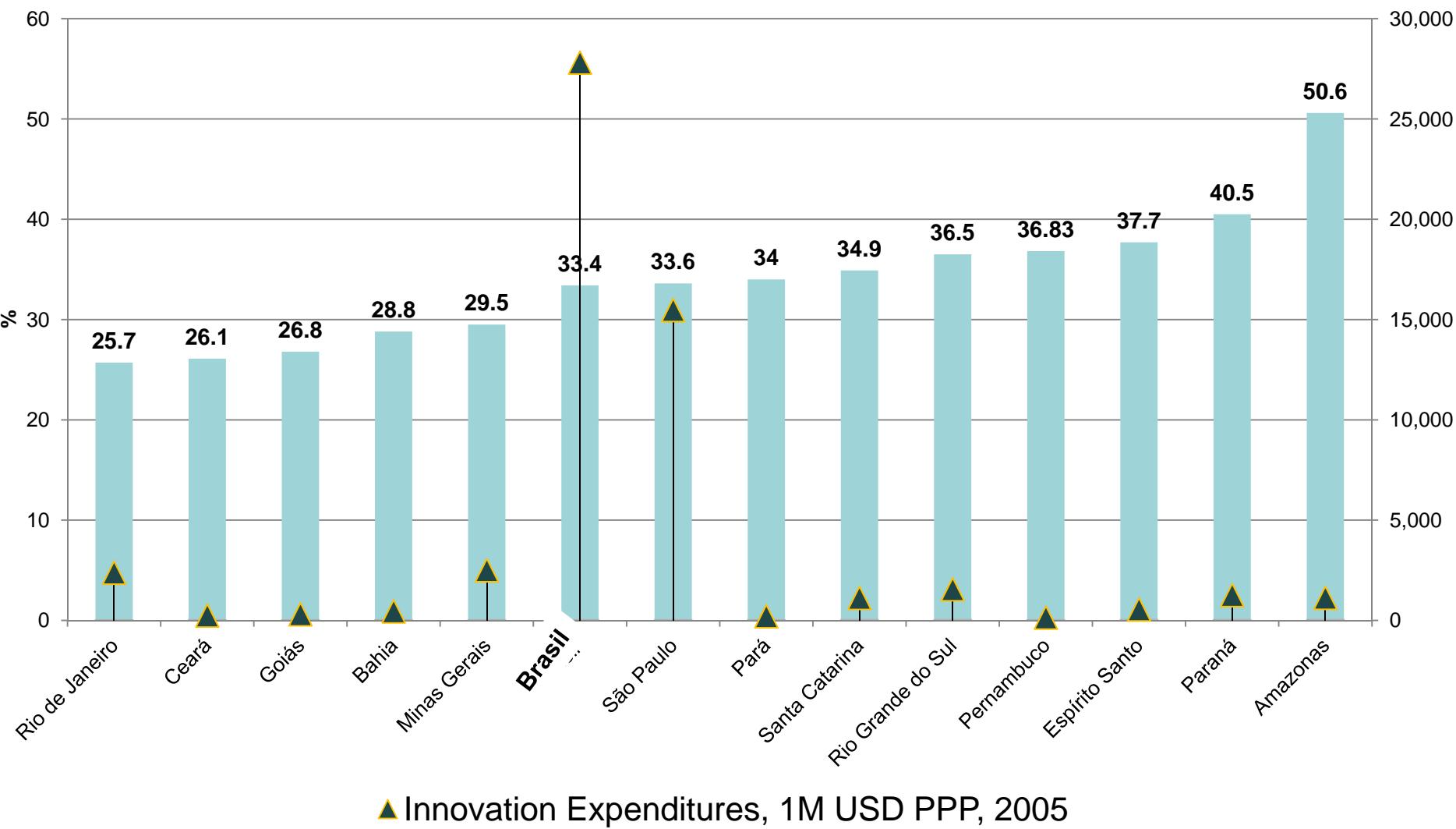
## Brazil: Number of patents granted by state of residence of applicant at National Inst. of Indust. Prop. (INPI), 2000-2008



# PINTEC 2005: Innovation activities expenditure by state, 2005



## PINTEC: Percentage of firms having introduced product or process innovation in mining, quarrying and manufact., 2003/2005



# Perspectives: IBGE's Technological Innovation Survey PINTEC 2008

- Current level of detail (PINTEC 2005):
  - Innovation in mining, quarrying and manufacturing enterprises by geographical regions & States where Industry GDP > 1%
- PINTEC 2008 (expected: oct/2010):
  - + services enterprises innovation by geographical regions & States where Services GDP > 5%

# Perspectives: Methodological overhaul @ MCT – Regional Focus

- State Government:
  - Co-operation with local S&T institutions to assure comparability with locally produced indicators & measure local initiatives;
- Federal Government:
  - Expenditures by state;
- Business Enterprise sector state estimate:
  - PINTEC 2008 +
  - Fiscal Info (revenue tax) +
  - Innovation survey for Federal Gov. owned enterp.

# Doutores 2010: PhDs by degree and work

## State, 1996-2006

	Unidade da federação do emprego																											
	AC	AM	AP	PA	RO	RR	TO	AL	BA	CE	MA	PB	PE	PI	RN	ES	MG	RJ	SP	PR	RS	SC	DF	GO	MS	MT		
AM	3	101	1	15	2	8	2	2	2	3	1	1	1	4	4	4	1				2	1	2	2	1	2	7	
PA		12	13	234	14	4			1	2	2	9	2	2	4	1		2	5	2		1	1	2	1	1	3	
RO				1																								
AL			1					64	1				3	2		1									2			
BA	3	1		10	1			1	7	737	19	2	8	18		3	4	11	5	4	5	10	4	14	2	3	6	
CE	2	4		18	4			4	8	16	585	4	28	14	38	23	2	2	2	3	2	2			9		5	
MA											9				2												2	
PB	2	7	3	11	2	8	3	25	40	35	10	375	67	5	41	1	3	1		2	4	1	9	1	9	5		
PE	4	6		23	1	4	5	81	59	71	9	179	817	37	32	1	9	10	13	7	8	3	41	3	1	4		
RN	1	4		15	2	1	2	23	20	9	49	18	17	271		1	12	2	2	1	1	6	1					
SE								8	3																		1	
ES			2					1	1			1	1			96	5	2	2		1			1			3	
MG	19	46	5	74	15	25	47	19	173	61	8	54	48	44	18	128	2863	139	153	86	58	45	168	136	57	101		
RJ	10	52	11	113	10	14	25	66	200	88	16	75	96	37	32	234	680	6715	181	155	138	71	352	51	43	67		
SP	85	270	33	419	115	43	111	194	967	474	126	384	361	192	194	341	2208	1236	19007	2502	892	714	799	584	631	488		



# **General-Coordination of Indicators**

## **Ministry of Science & Technology -**

### **Brazil**

**<http://www.mct.gov.br/indicadores>**

**Brasil** vida política cidade células município mulheres trabalho ensino sociais vitro  
genes risco direito bacia energia ambiente soja comportamento ambiental construção cultura brasileira leitura resistência espécies solo produção  
pacientes professores plantas gestão escola desenvolvimento história  
produção portadores crianças redes papel doença sementes  
tratamento história

**Roberto.Pinho@mct.gov.br**



# A panorama of Science, Technology and Innovation indicators in Brazilian States

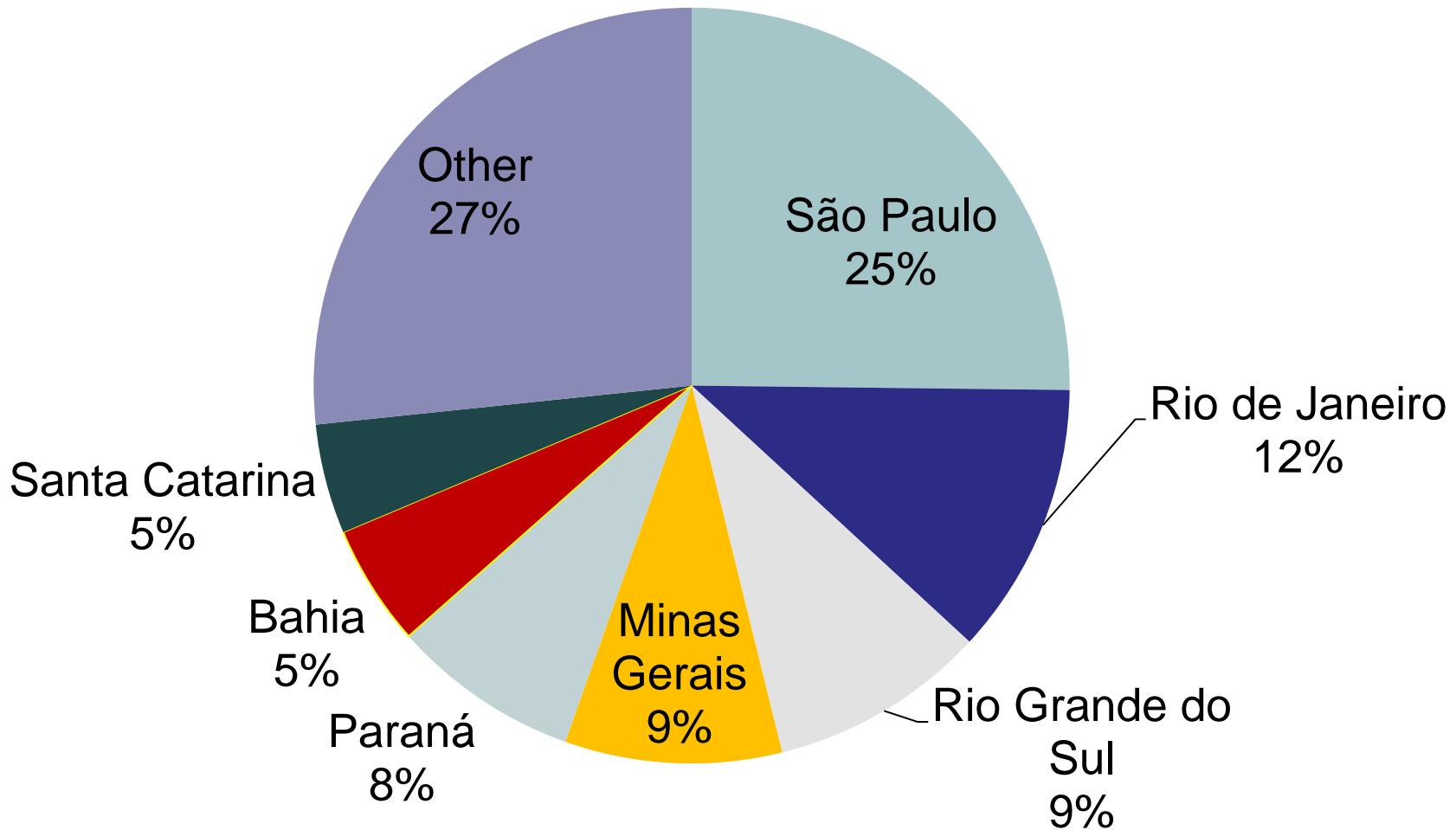
# **General-Coordination of Indicators**

## **Ministry of Science & Technology - Brazil**

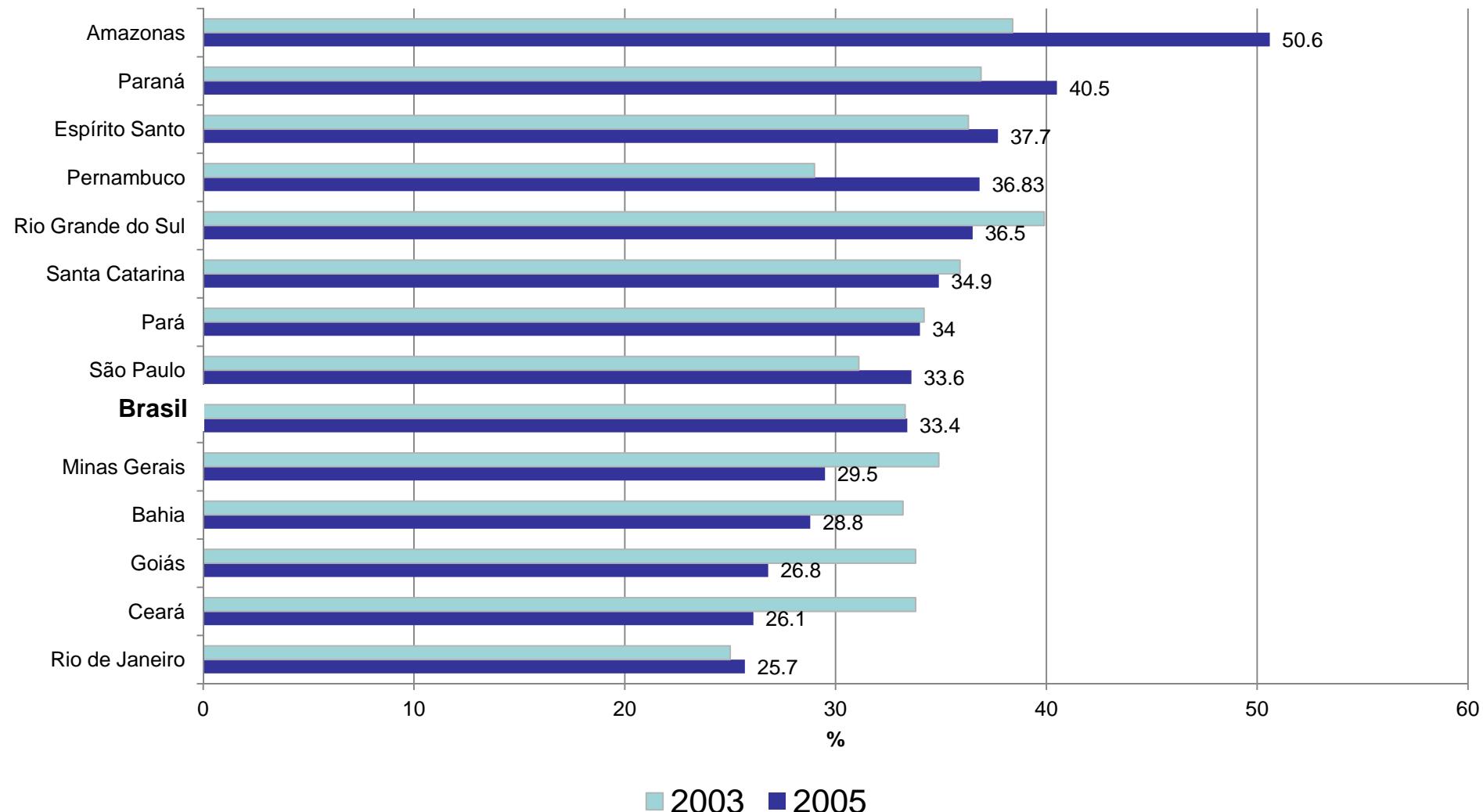


<b>UF's selecionadas</b>	<b>Gasto Total</b>		<b>P&amp;D Interno</b>	
	<b>2005</b>	<b>2003</b>	<b>2005</b>	<b>2003</b>
1º - São Paulo	3,4	2,8	0,7	0,7
2º - Minas Gerais	3,2	2,4	0,5	0,3
3º - Amazonas	3,1	2,7	0,6	0,7
4º - Goiás	3,0	1,9	0,2	0,1
<b>Total Brasil</b>	<b>2,8</b>	<b>2,5</b>	<b>0,6</b>	<b>0,5</b>
5º - Espírito Santo	2,7	1,4	0,2	0,2
6º - Paraná	2,5	3,8	0,3	0,5
7º - Ceará	2,5	3,6	0,3	0,1
8º - Pará	2,3	2,3	0,1	0,1
9º - Rio Grande do Sul	2,2	2,2	0,4	0,4
10º- Santa Catarina	2,2	2,1	0,5	0,3
11º- Pernambuco	1,8	2,1	0,1	0,1
12º- Rio de Janeiro	1,6	1,3	0,6	0,5
13º- Bahia	1,4	1,8	0,3	0,2

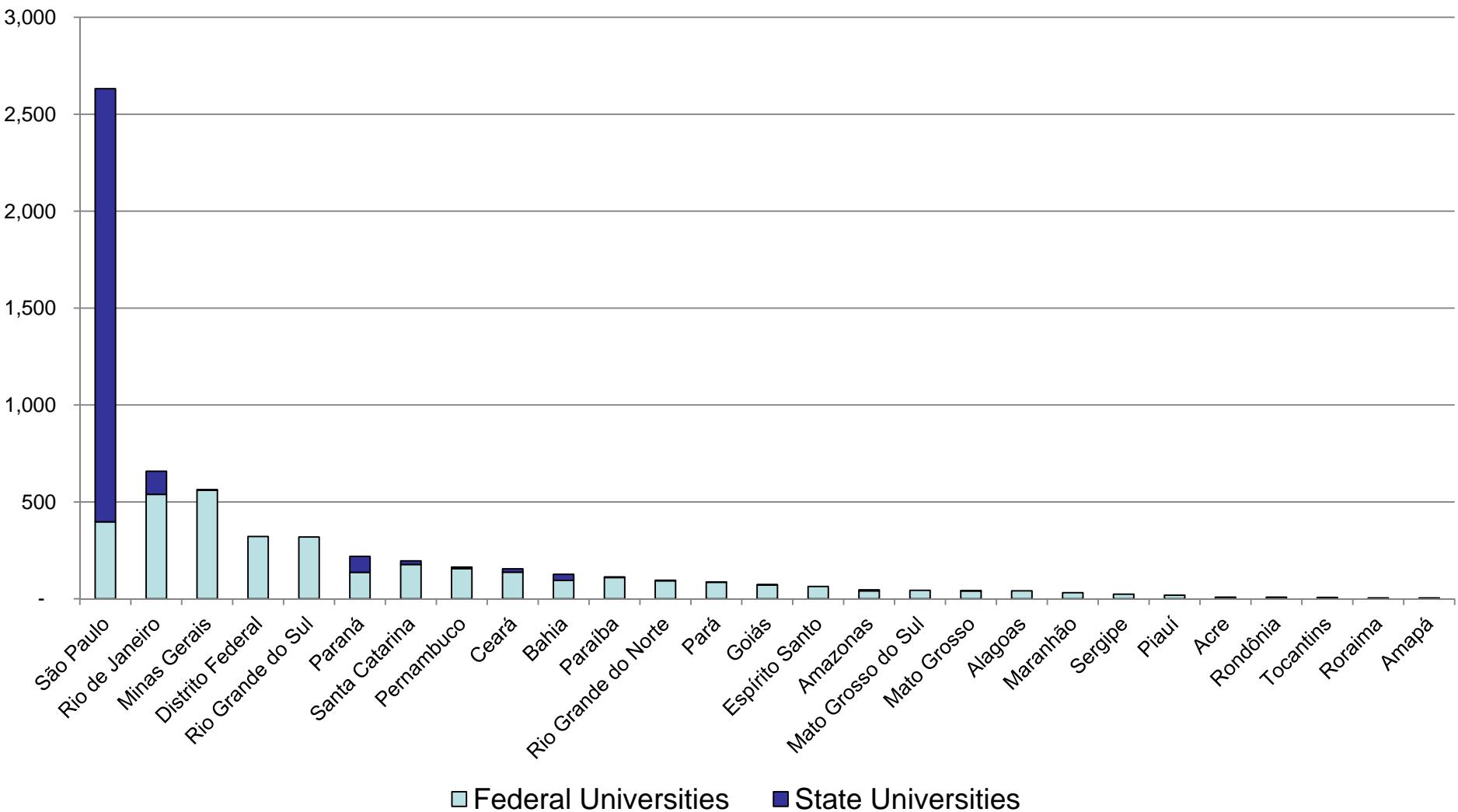
# Brazil: Researchers at CNPq's Directory of Research Groups, by state, 2008



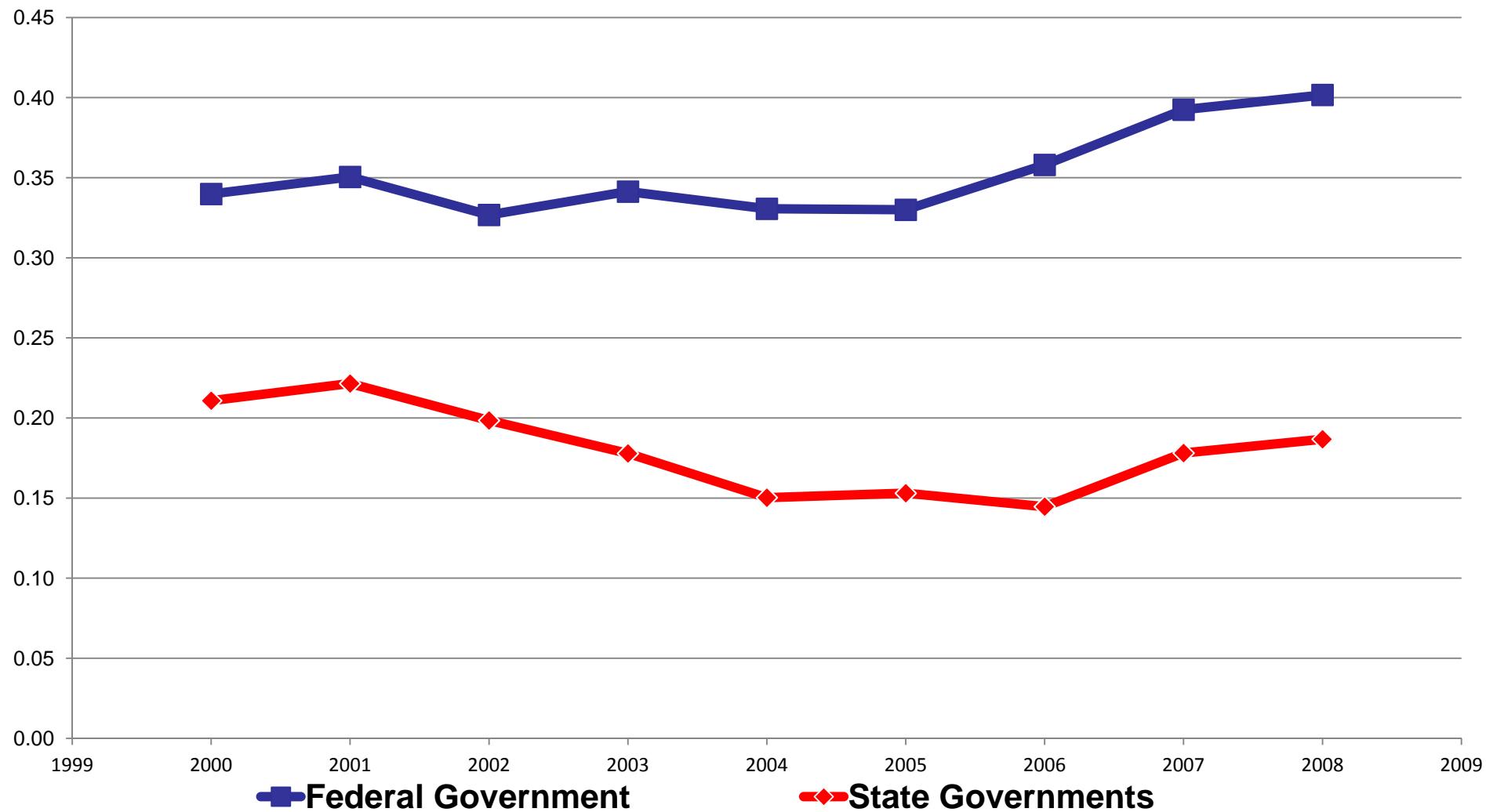
# PINTEC: Percentage of firms having introduced product or process innovation in mining, quarrying and manufact, 2003/2005

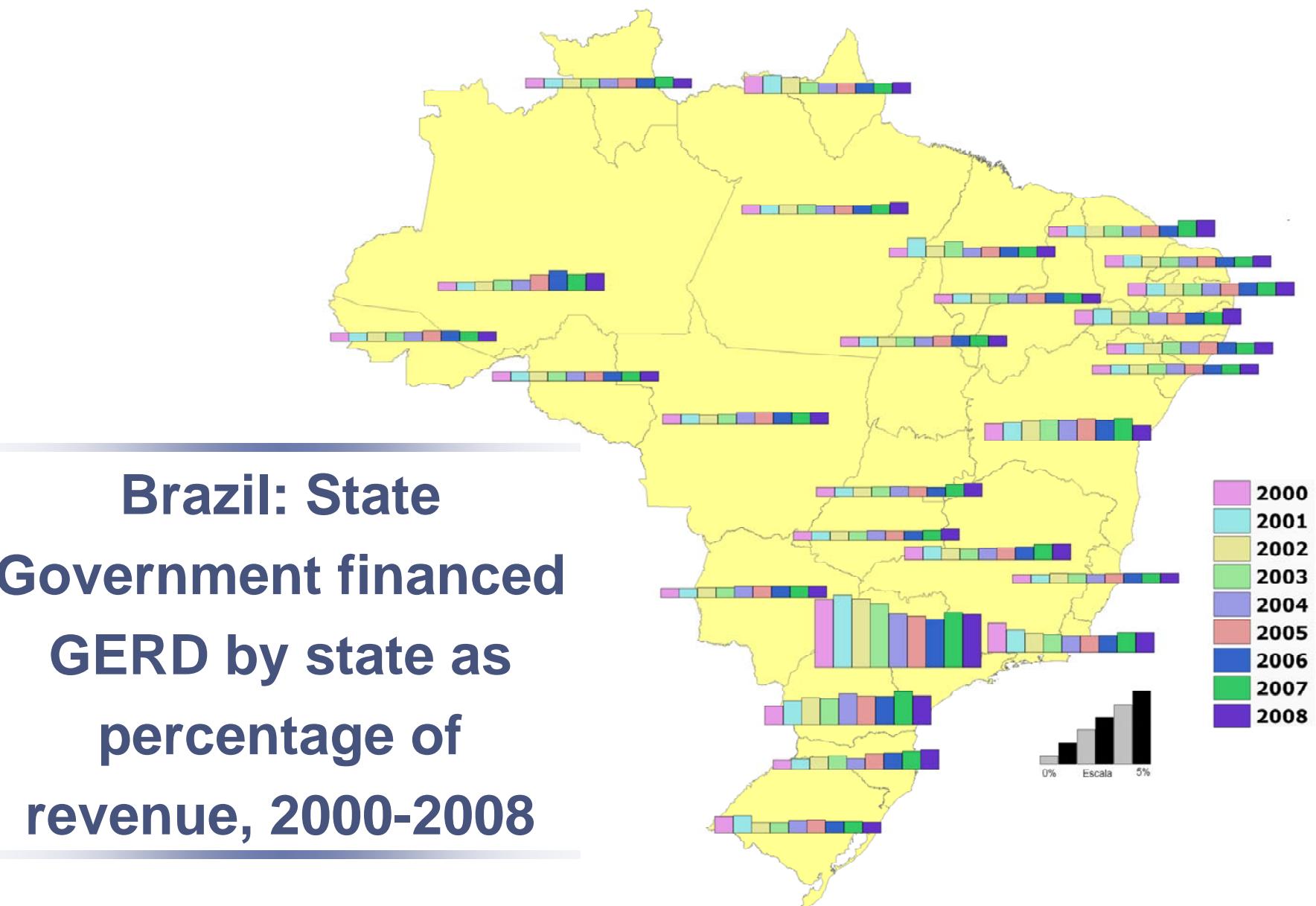


# Higher education expenditure on R&D estimate for federal and state owned inst. by state, 2008 (USD millions PPP)

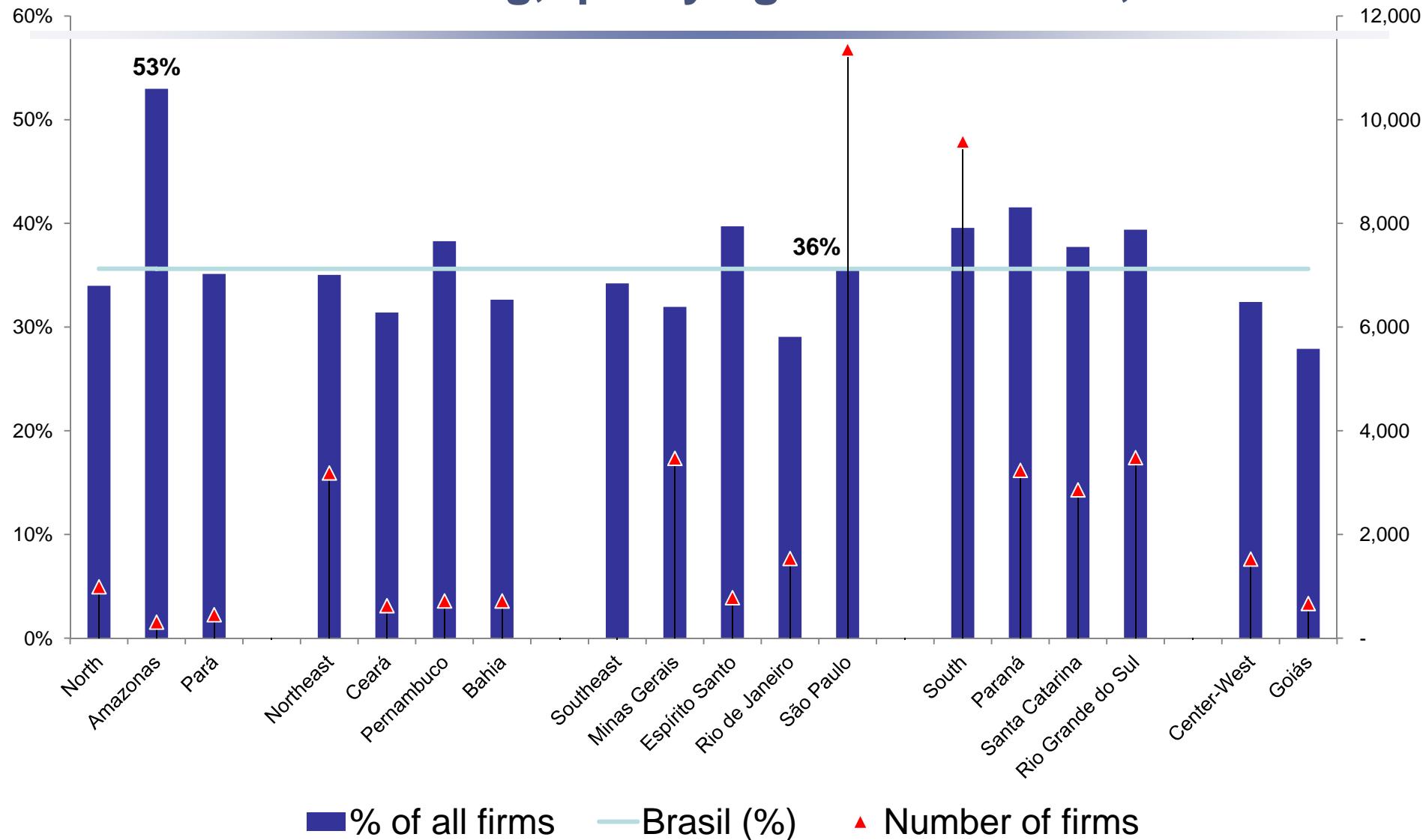


# Brazil: Federal and State Governments financed GERD as percentage of GDP, 2000-2008

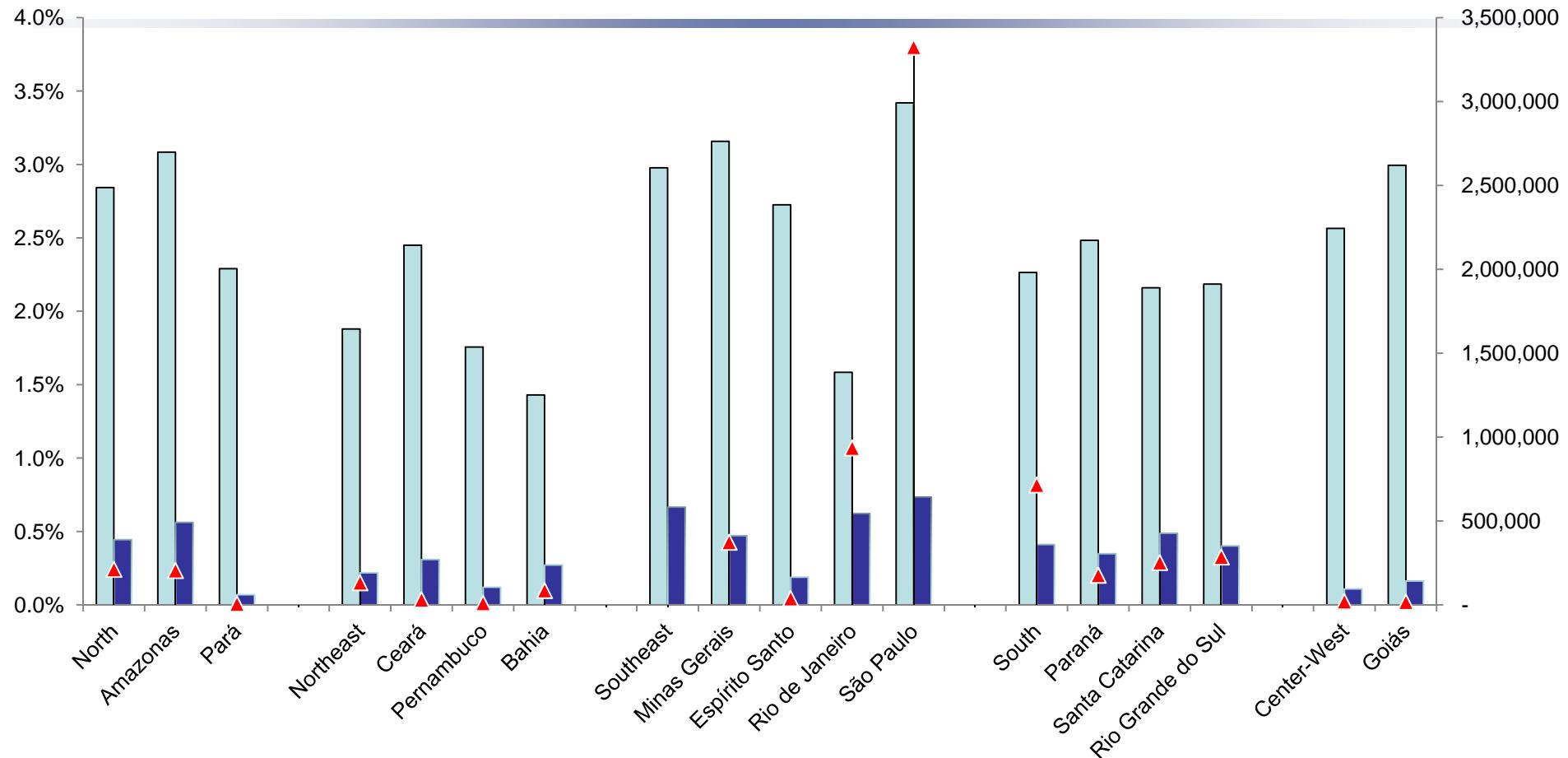




# PINTEC 2005: Firms having introduced a product or process innovation in mining, quarrying and manuf., 2003-2005



# PINTEC 2005: Innovation activities expenditure as percentage of sales revenue in mining, quarrying and manufact., 2005



■ Innovation activites expenditures as % of sales revenue ■ Intramural R&D expenditures as % of sales revenue

▲ RD Expenditures in 1,000 USD PPP

UF's selecionadas	Taxa de Inovação	
	2005	2003
1º - Amazonas	50,6	38,4
2º - Paraná	40,5	36,9
3º - Espírito Santo	37,7	36,3
4º - Pernambuco	36,8	29,0
5º - Rio Grande do Sul	36,5	39,9
6º - Santa Catarina	34,9	35,9
7º - Pará	34,0	34,2
8º - São Paulo	33,6	31,1
<b>Total Brasil</b>	<b>33,4</b>	<b>33,3</b>
9º - Minas Gerais	29,5	34,9
10º - Bahia	28,8	33,2
11º - Goiás	26,8	33,2
12º - Ceará	26,1	33,8
13º - Rio de Janeiro	25,7	25,0



## Pacientes

**SOL** MACOS PRODUCCAO CARNE ARRIZ SEMELNTES MANEJO RUMATAS GULITIVARES QARNE OVINOS COLHEITA DIFERENTES BONINOS DIFERENTES CORTES QUILIDAKE ZEA MILHO CORTE QUAIA SODA FEIJODEIRO MACA VACAS FOSFORO SOLOS PLASTER NITROGENIO DIETAS ACUCAR CAPIM DEESTRIBUICIA IDEAL EQUILIBRIO FRANGOS LEITE EQUINOS CARCACA ANTES EQUILIBRIO CAROTERISTICAS MELODE PLANTIO GENOTIPOS PLANTIO AMERICA

