World Science Forum 2013

Science for Global Sustainable Development

Is there an overproduction of PhDs in Brazil?

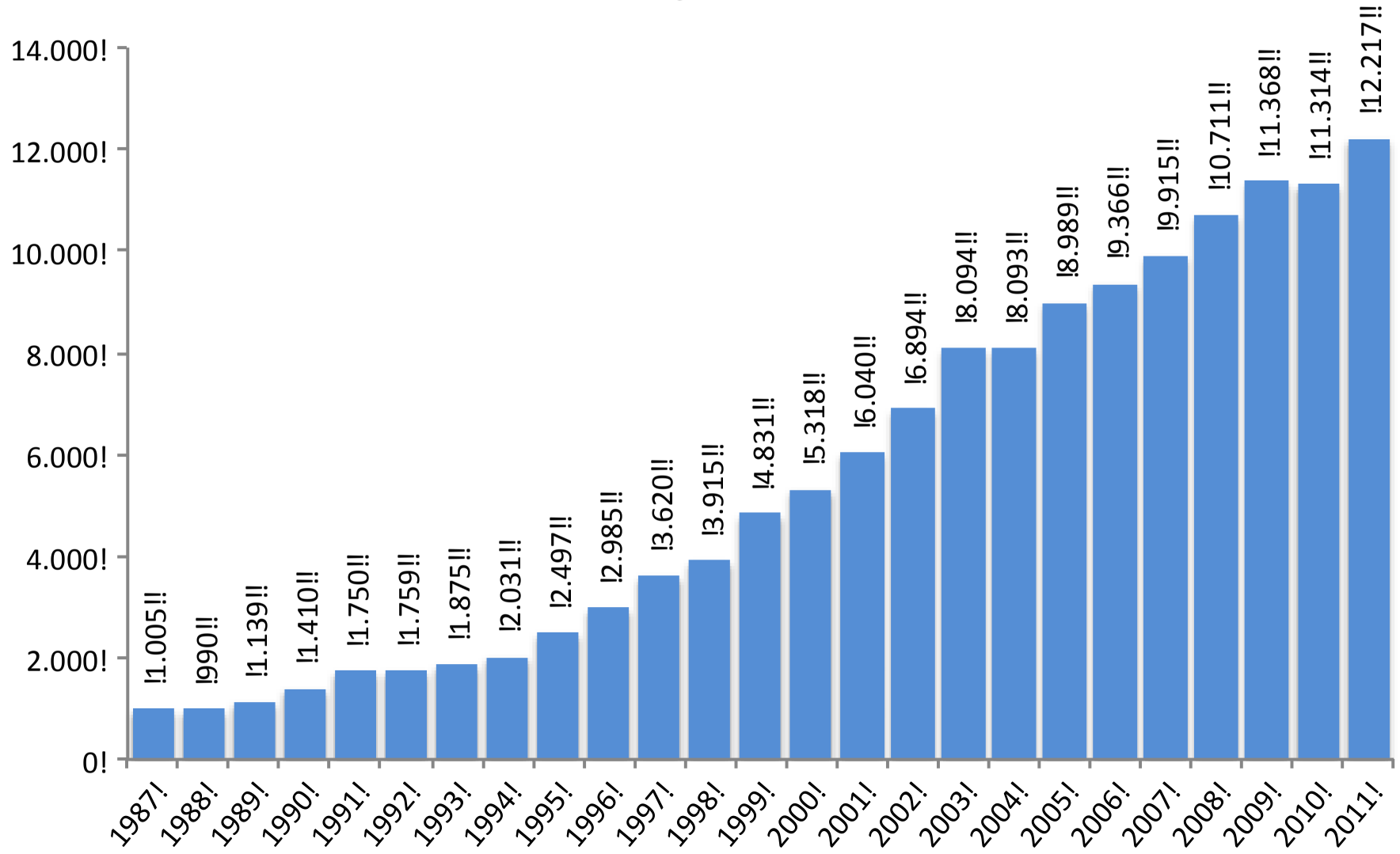
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Session: *"Young Scientists and Social Innovators Making Science Sustainable for the Next Generation"*

Rio de Janeiro, Brazil, November 24-26, 2013

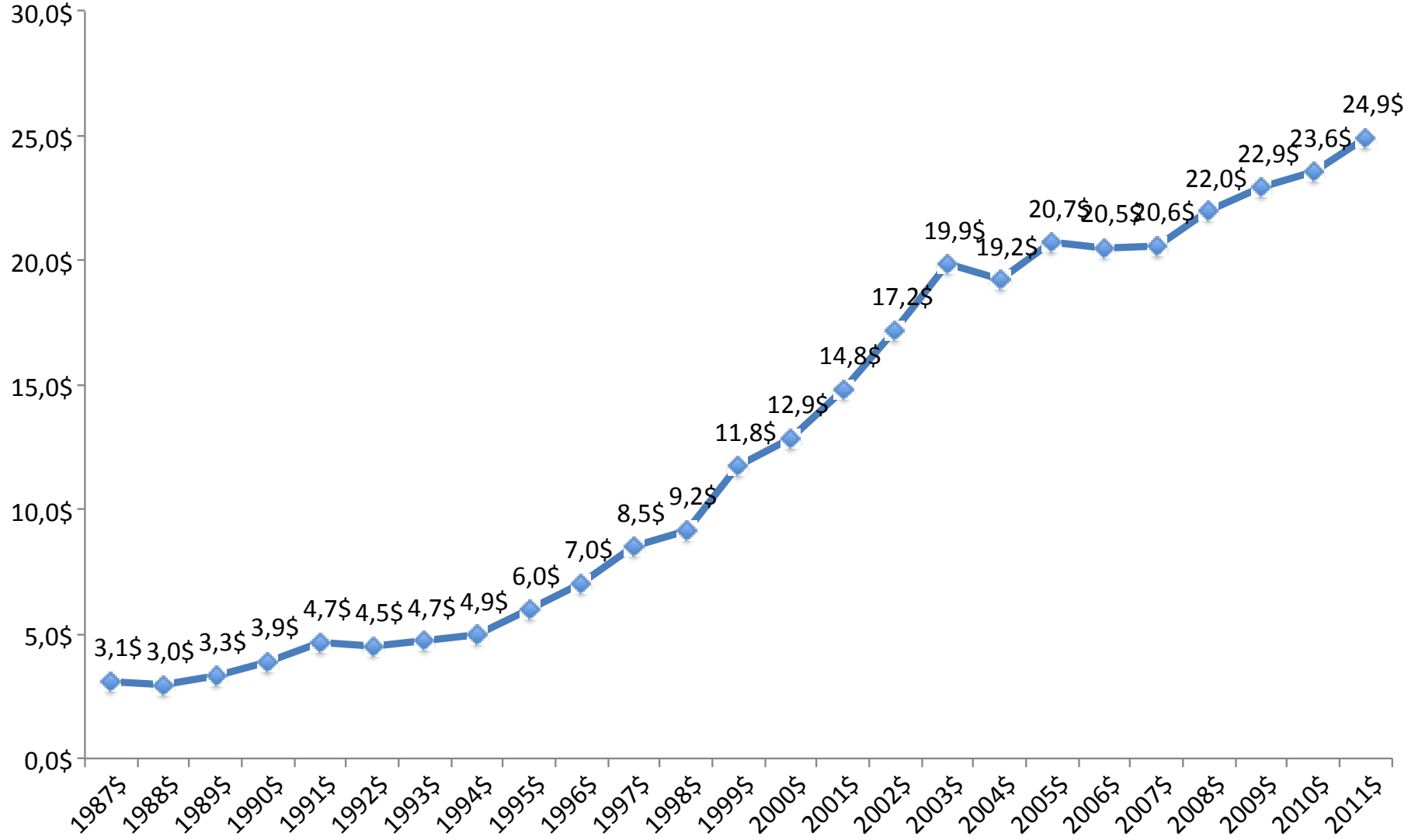
1. Supply of young scientists in Brazil



Sources: Capes/MCTI (2010 and 2012, table 3.5.1).

1. Supply of young scientists in Brazil X USA

Number of earned doctoral degrees in Brazil as a percentage of those earned in the U.S., 1987-2011



Sources: NSF/NIH/USED/USDA/NEH/NASA (2012, Table 1) and Capes/MCTI (2010 and 2012, table 3.5.1).

2. Two programs supporting the absorption of young scientists by the job market

Programa Nacional de Pós Doutorado – PNPD (National Program of Post-Doctorate)

This CAPES/MEC; CNPq/MCTI and FINEP/MCTI program, initiated in 2007, gives fellowships up to 5 years for young doctorate holders. The fellowships are awarded for developing activities of scientific research, graduate and undergrad teaching and technological innovation in research institutions, universities as well as in business firms.

Source: <http://www.capes.gov.br/bolsas/bolsas-no-pais/pnpd> Accessed November 21, 2013.

Programa RHAE - Pesquisador na Empresa (RHAE Program - Researchers in firms)

This MCTI/CNPq program, created in 1987, gives fellowship up to 3 years to qualified personnel in support to R&D activities in the private sector.

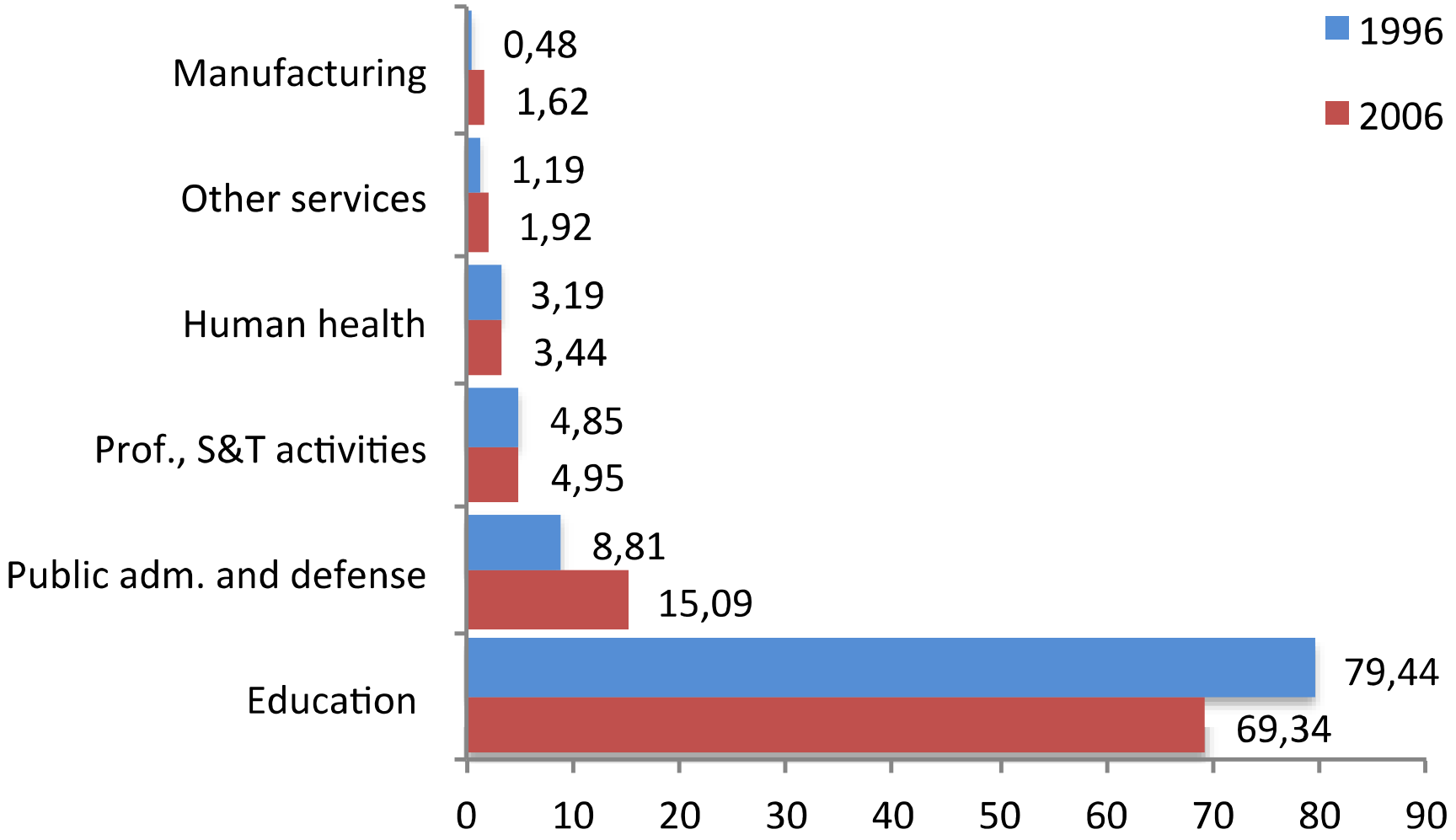
2012: BR$ 60 million (approx. US$ 27 million) / 1.558 applications / 247 firms supported / 925 fellowships (255 master degree and 125 doctorate holders)

Source: <http://rhae.cnpq.br/> Accessed November 21, 2013.

3. Employment in non-academic sectors is growing faster than in education

Percentage of doctorate holders who received their degrees in 1996 and 2006 with formal employment in 2009, by sectors (the five largest employers)

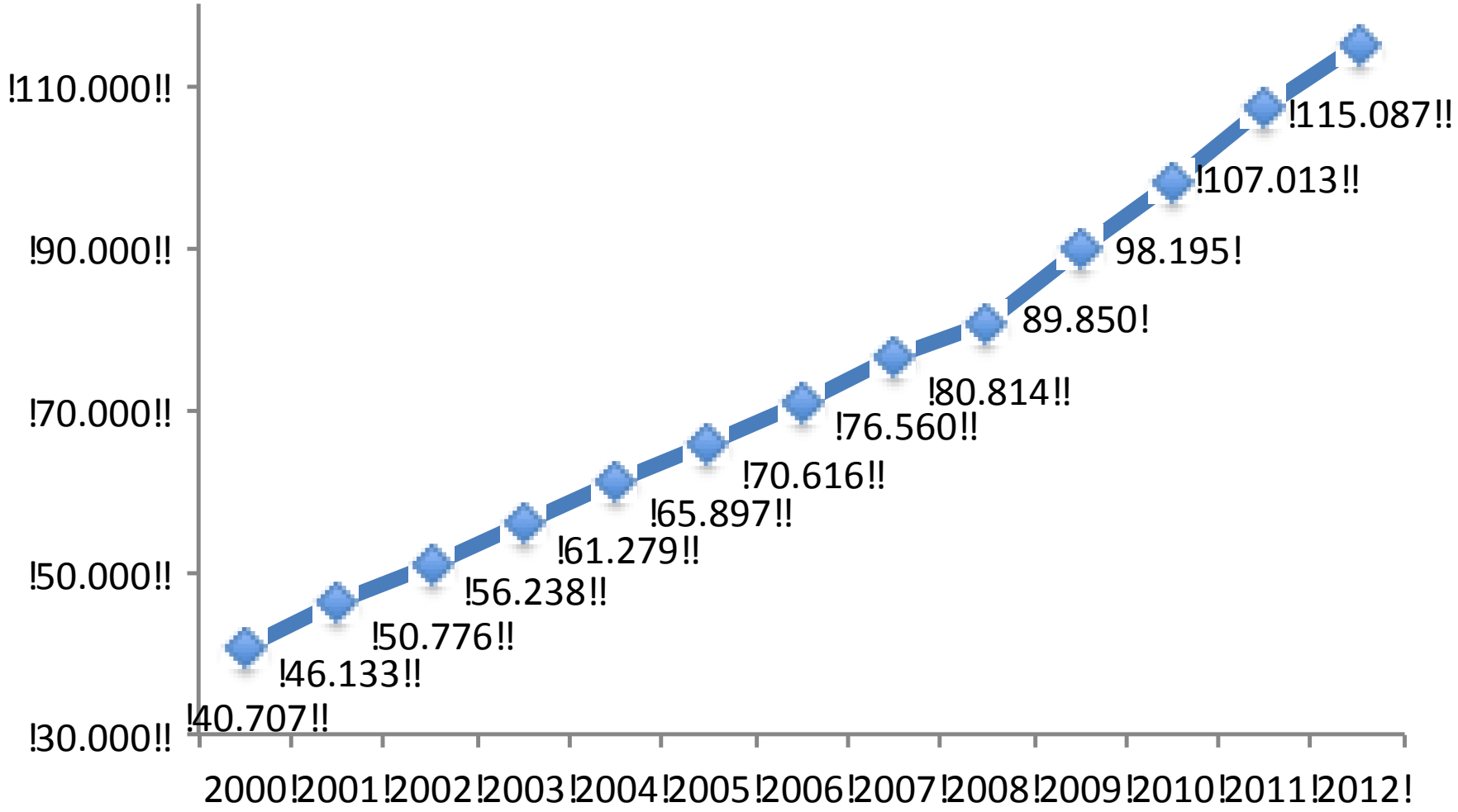
(As a percentage of employed doctorate holders)



Source: Coleta Capes (Capes, MEC) e RAIS 2009 (MTE). (Compiled by CGEE). (Viotti et al. (2010) Doutores

4. Employment in higher education institutions is also very strong

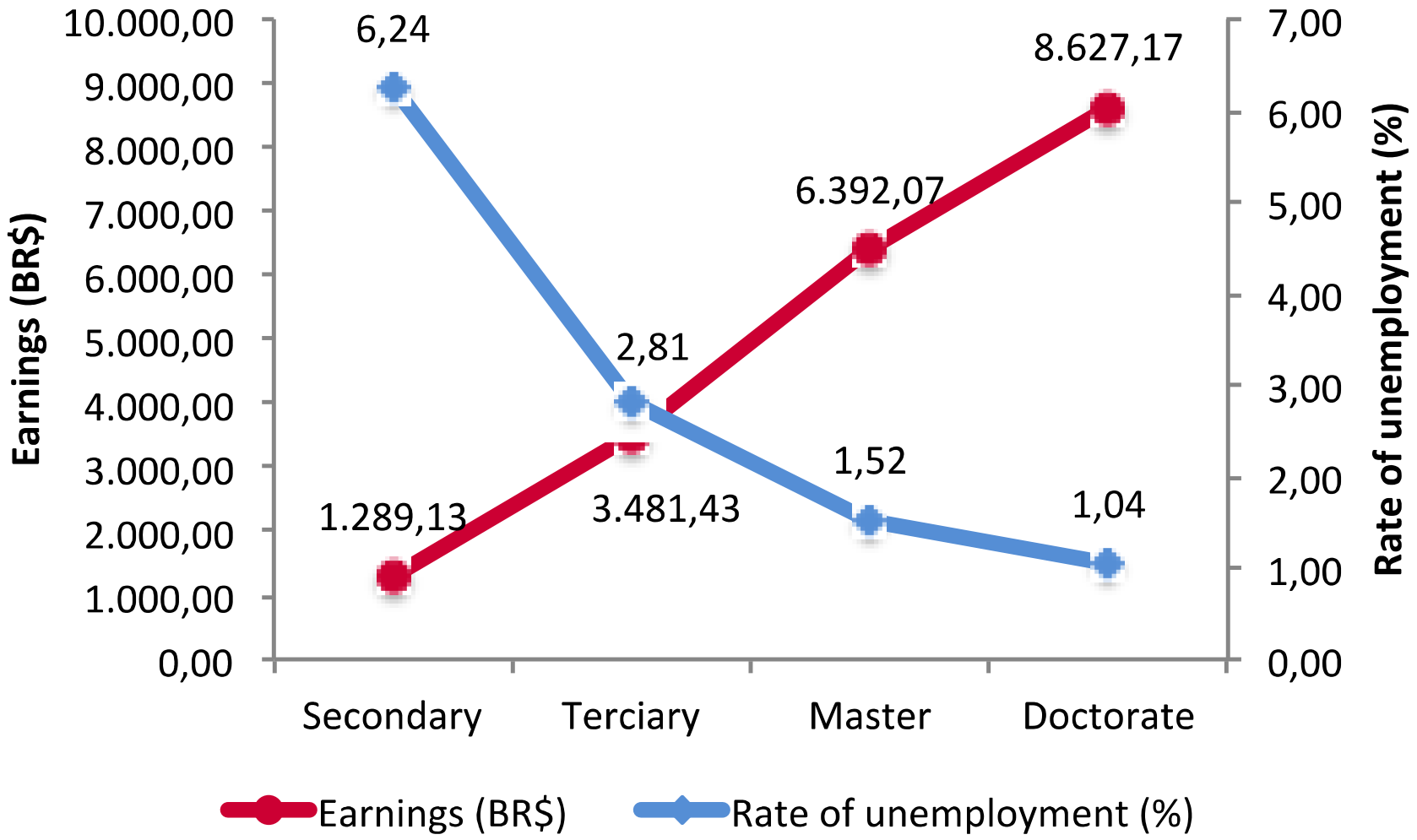
Number of doctorate holders employed in higher education institutions, Brazil, 2000-2012



Source: MEC/INEP/DAES (Brazil: Higher Education Census from 2000 to 2012)

5. The job market for doctorate holders in Brazil is very tight

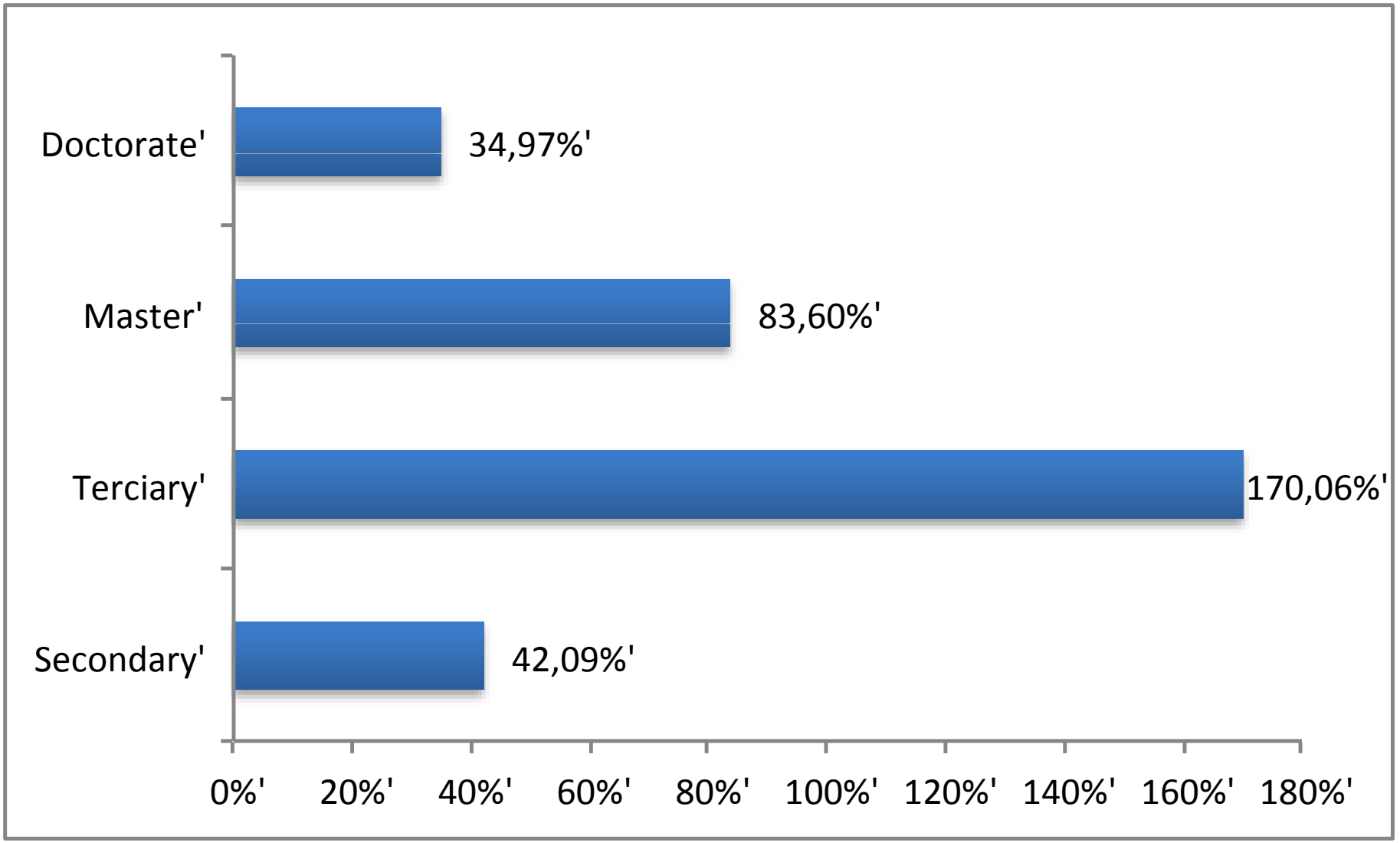
Average gross monthly earnings and rate of unemployment by level of education, Brazil, 2010 (BR$)



Source: IBGE (Brazil, Censo Populacional 2010). (Viotti et al. (2012) Mestres 2012, chapter 4, figure 4.3.)

5. The education bonus paid for doctorate holders in Brazil is very high

Educational bonus: average additional earnings by level of education, Brazil, 2010 (%)



Source: IBGE (Brazil, Censo Populacional 2010). (Viotti et al. (2012) Mestres 2012, chapter 4, figure 4.4.)

6. There is no overproduction of PhDs in Brazil

Is this sustainable?

References

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