

# Does “three-missions” fit all? A critical view on Spanish universities

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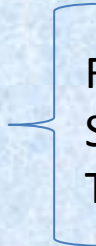



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Lund, October 2013

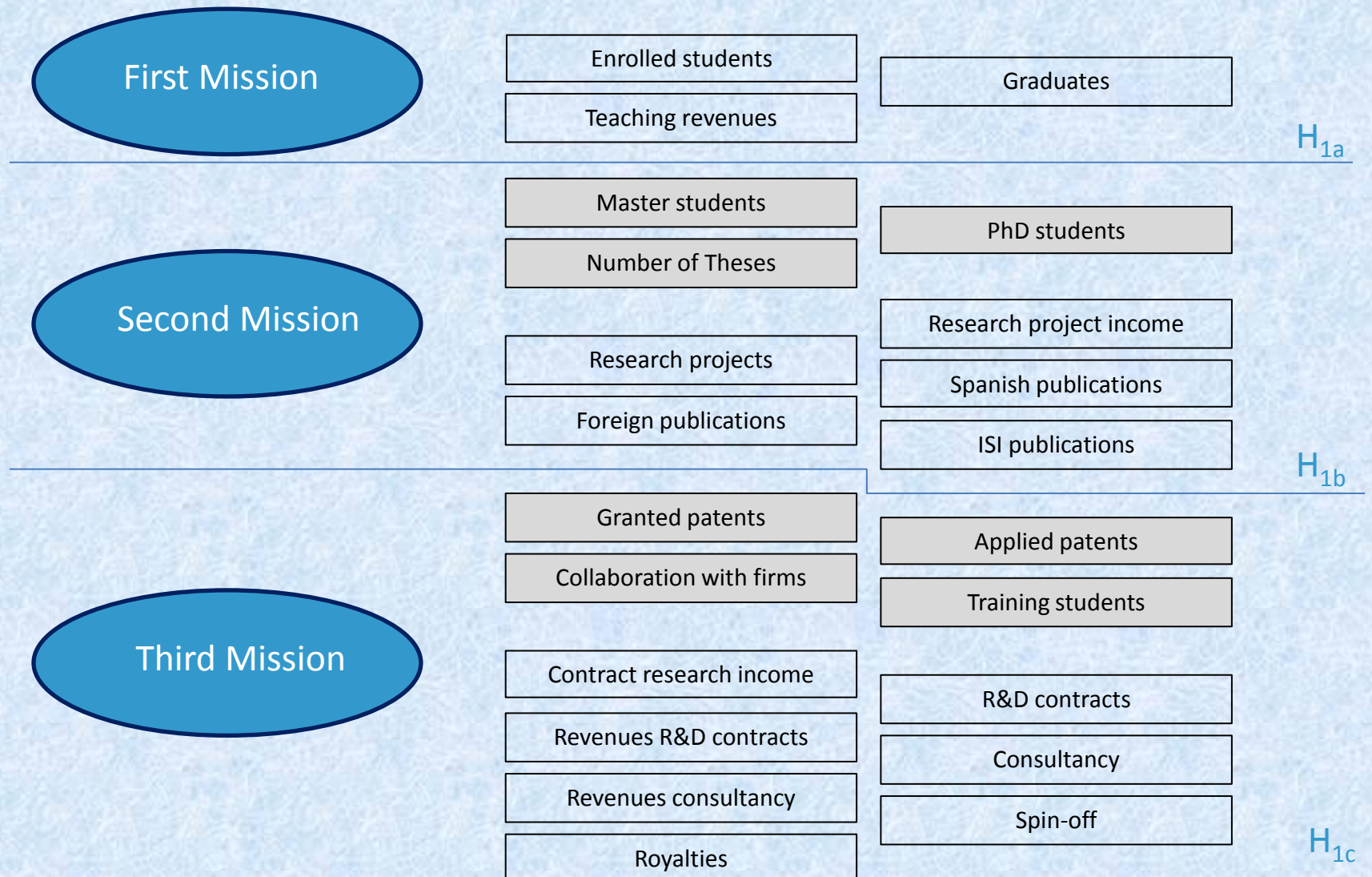


# INTRODUCTION

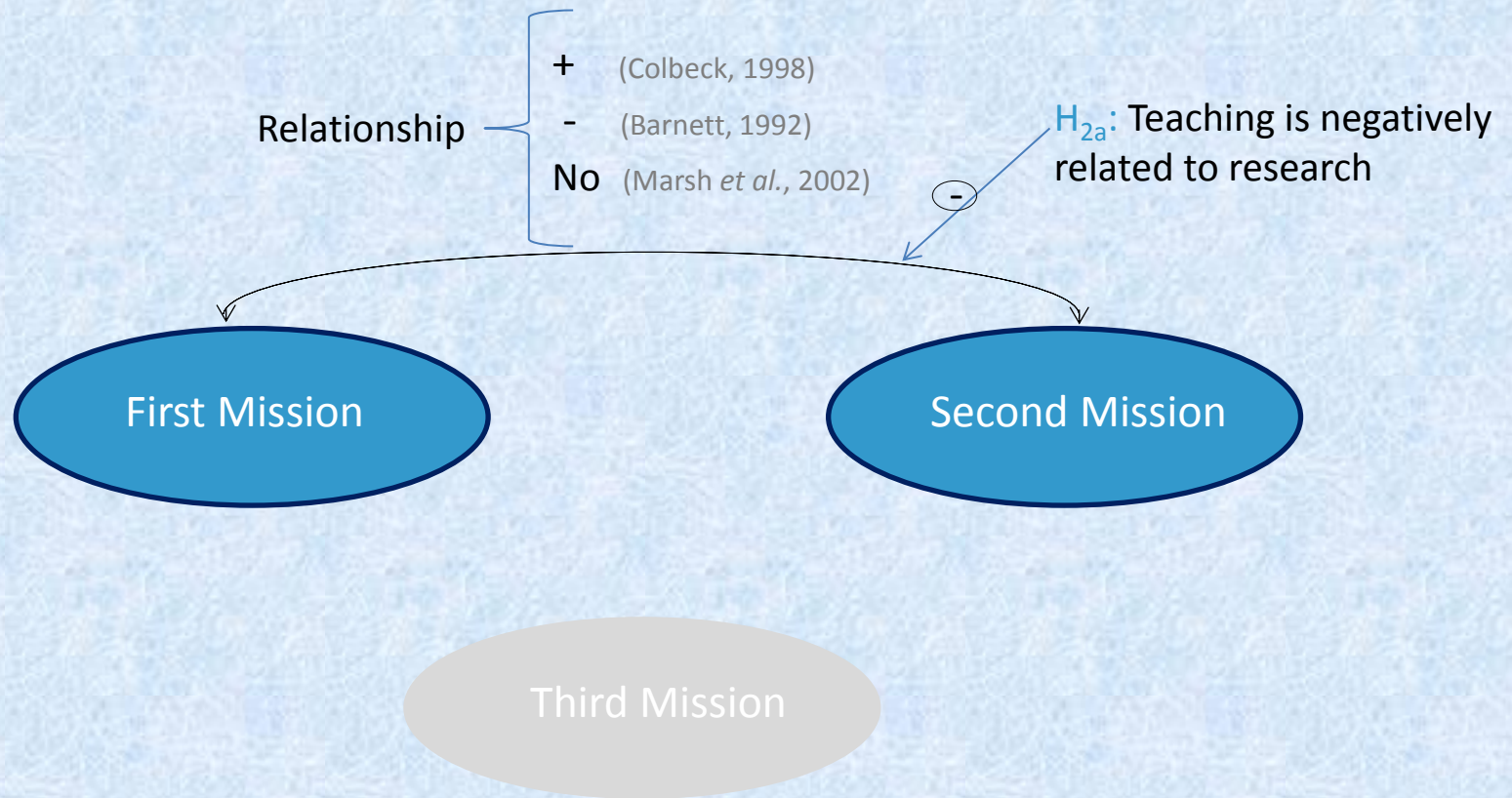
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- Universities 
  - First Mission  Teaching
  - Second Mission  Research
  - Third Mission  Interaction with socioeconomic environment (ISEE)
- Is it realistic the expectation that university engages in all of these missions simultaneously?
- Objectives:
  - To explore the **connection** between the **theoretical rationale** of university **missions** and the practical implementation of **indicators** for their measurement.
  - To assess the **compatibility** among the universities' three missions by studying their relations.

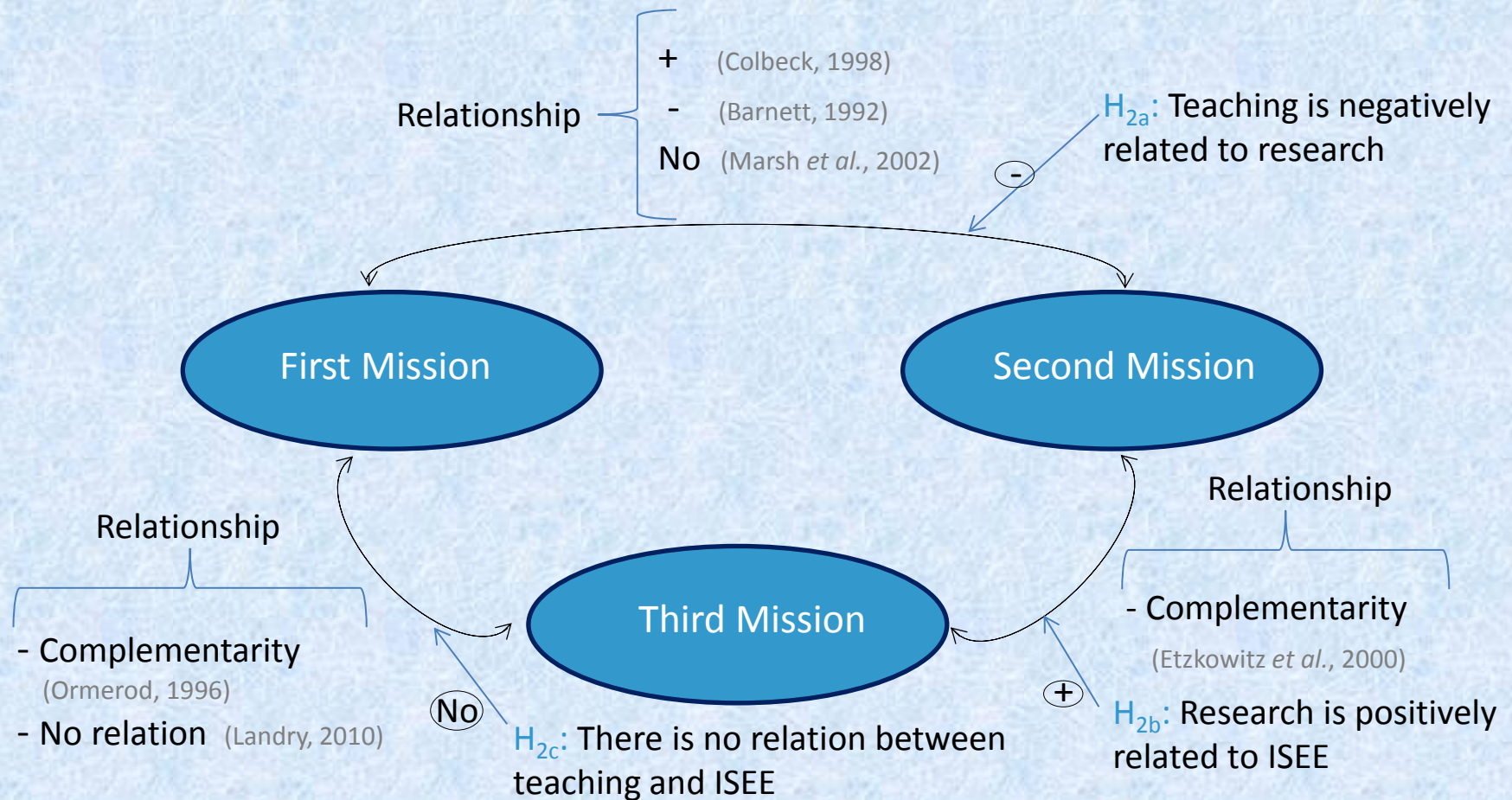
# HOW DO MISSIONS MEASURE?



# UNIVERSITY MISSIONS



# UNIVERSITY MISSIONS



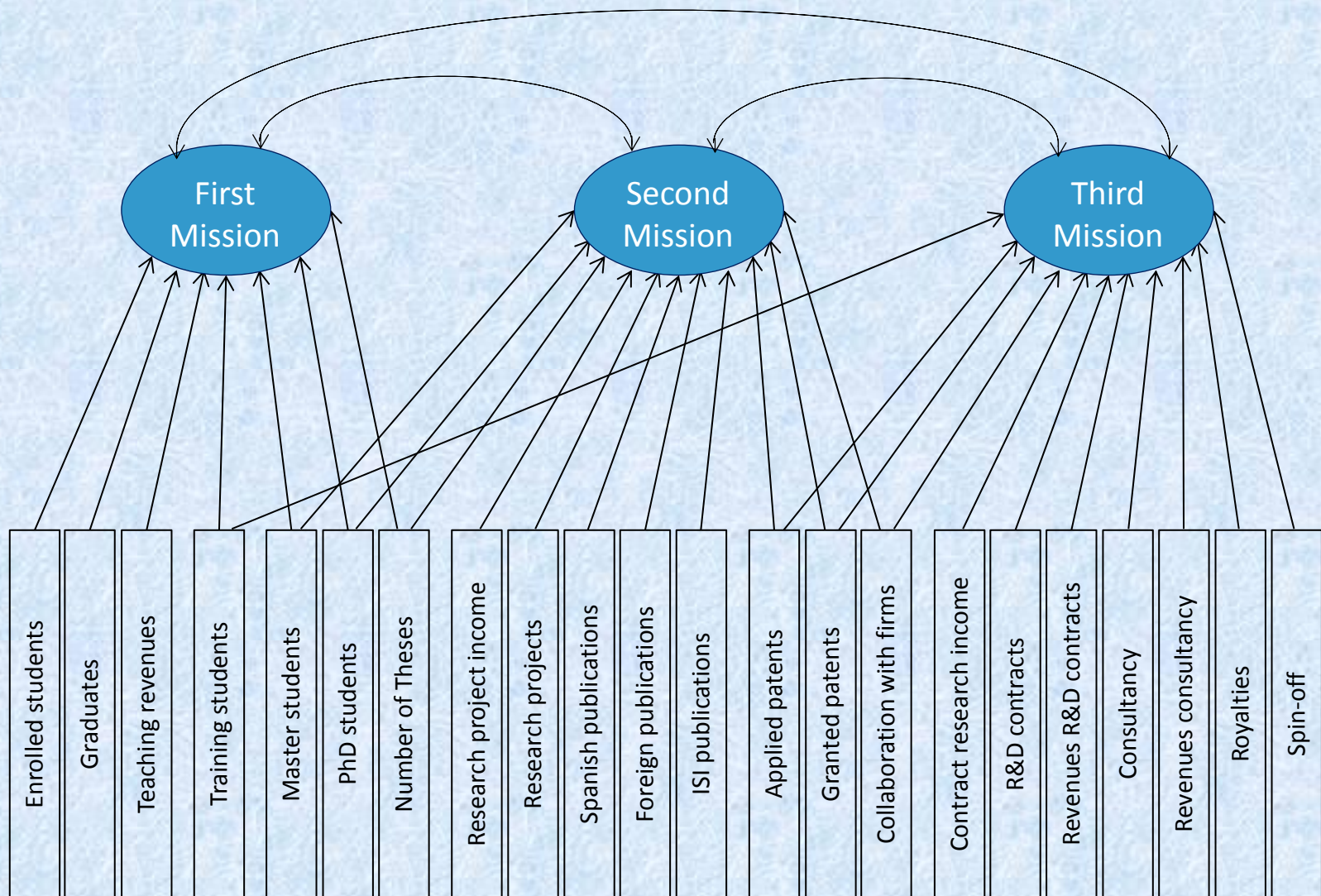


# SOURCES AND VARIABLES

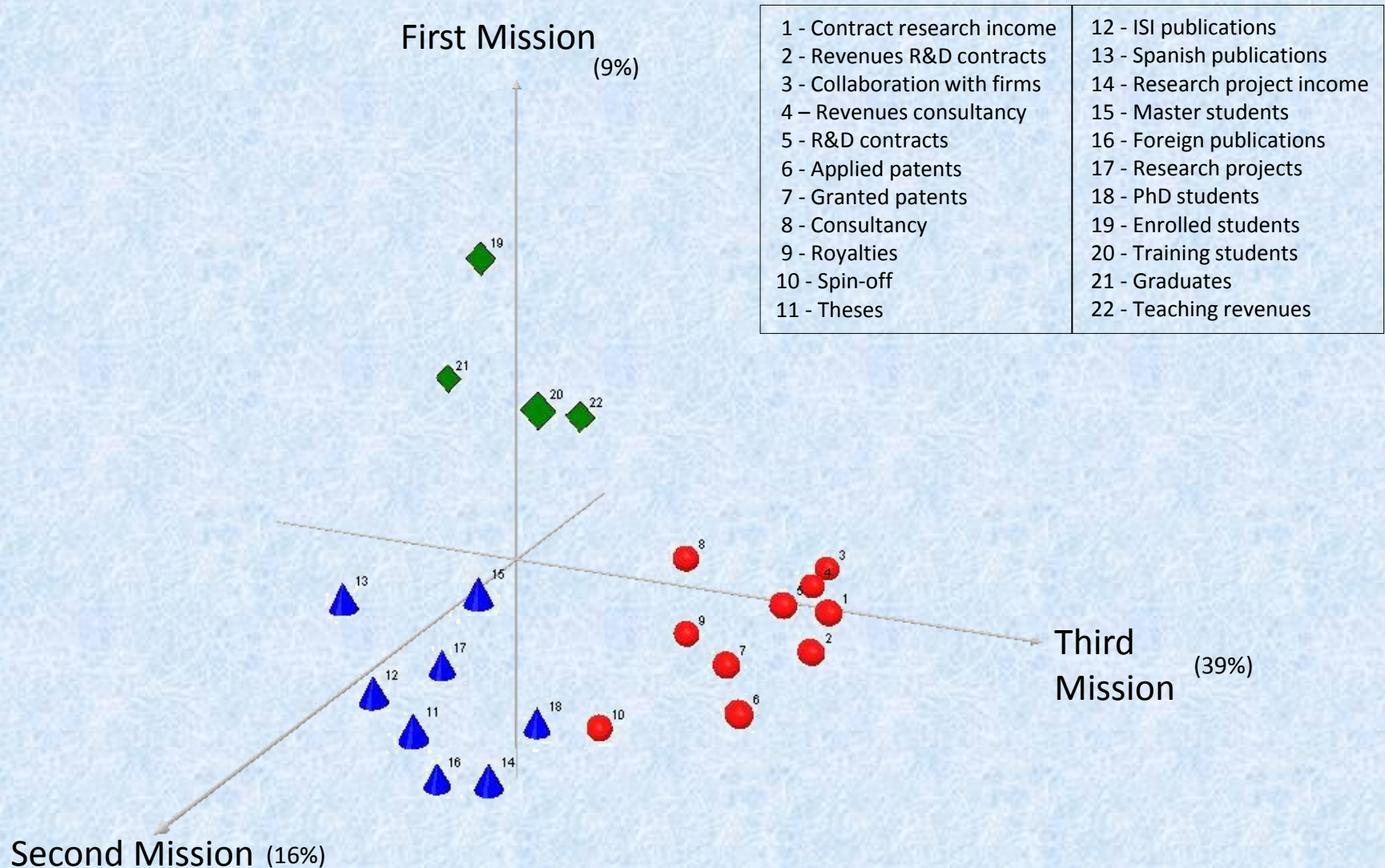
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- **Unit of analysis:** 47 Spanish Public universities
- **Sources:**
  - Ministry of Education (ME)
  - Spanish National Institute (INE)
  - Conference of Spanish University Rectors (CRUE)
  - Spanish Patent and Trademark (OEPM)
  - Survey RedOTRI
- **Period:** biannual 2007-2008
- **Indicators:**
  - Cumulative value
  - Normalized variables
  - Controlled by university size
- **Analysis:**
  - Exploratory Factor Analysis (EFA)
  - Confirmatory Factor Analysis (CFA)

# THEORETICAL MODEL - CFA

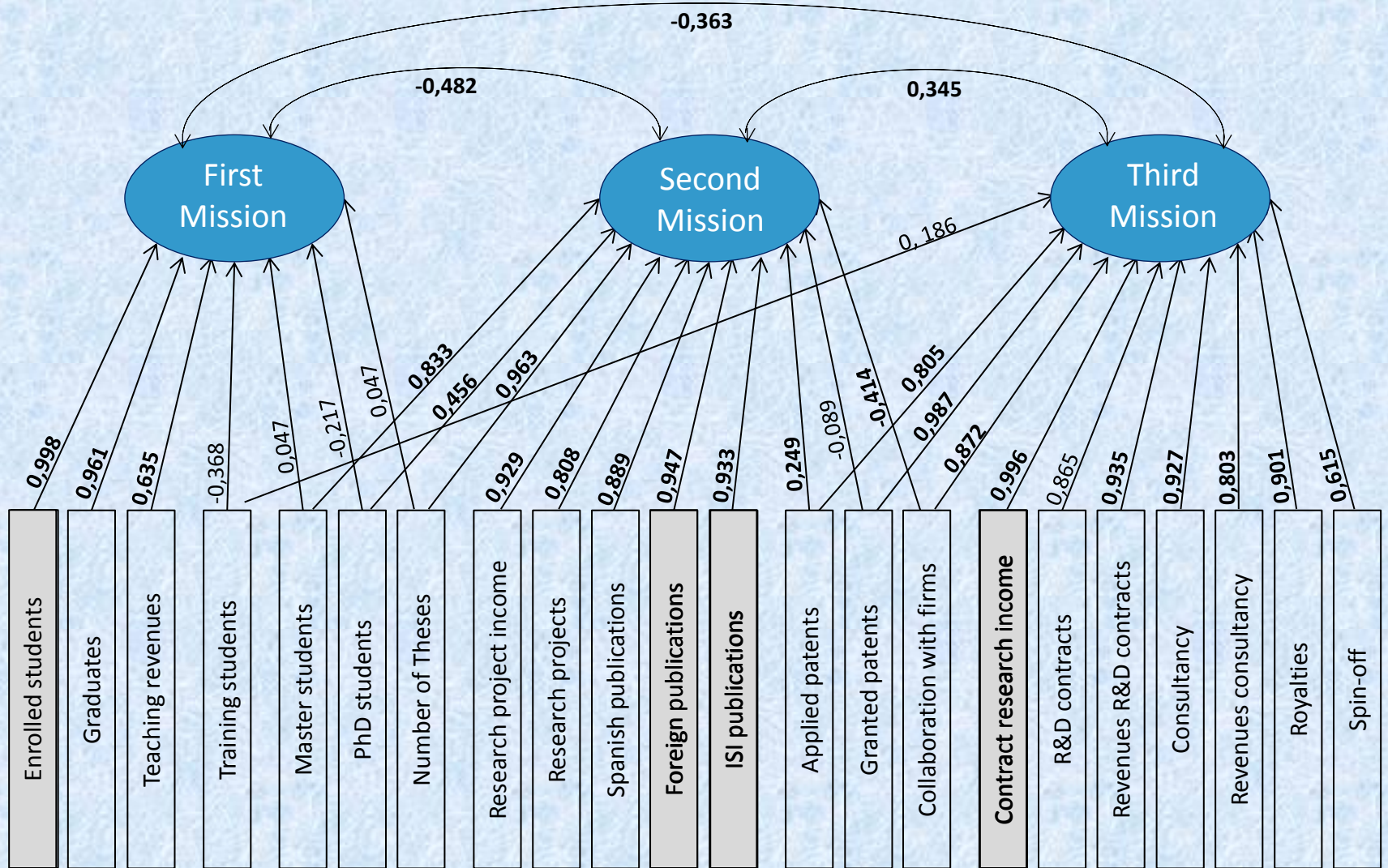


# RESULTS - EFA





# RESULTS - CFA



$\chi^2=200,76$ ; d.f.=200; p=0,47. NNFI=0,962; CFI=0,967; RMSEA=0,009

# CONCLUSIONS

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- Greater efforts on **research** or **ISEE** activities are **mutually beneficial** but are **detrimental** to **teaching**.
- To focus on **single missions** to achieve **quality** and **excellence**.  
(Geuna, 1999; EC, 2005)
- To **rethink** whether all HEIs should be **simultaneously** developing all **three missions** may be vital to ensure their contribution to the socio-economic development of regions.  
(EC, 2006; David and Metcalfe, 2007)
- The **Spanish model** of the **university-ISEE** relationship rests on **contracts** (mostly R&D contracts). To **emphasize on other linkages** [different from patents and licenses] and to not obscure the presence of other types of university-industry interactions that are less visible but are equally and even more important.  
(D'Este and Patel, 2007)
- To find an **equilibrium** between :
  - Developing an **understanding of industrial practice** and providing an education that equips students with more generic and **long-lasting skills**.  
(Salter and Martin, 2001)
  - **Open dissemination** of scientific knowledge for the advancement of science and **tighter restrictions** on the publication .  
(Tartari *et al.*, 2012)
  - **Autonomy** to establish researchers agendas and **application** and firms' financial rewards.  
(Noble, 1977)

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**THANK YOU!!**

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