

**SUMMER SCHOOL – HSE – JUNE 2017**

# **Human Capital and Inequality**

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# Changing Views on Inequality - Historical Overview

## Debates in the XIX<sup>th</sup> Century – Overview:

- Classical Political Economy – Functional vs. Personal Distribution;
- Socialism and the Social Question;
- Development of National Statistics;
- The new devices of Graphical Representation
  - Pareto – 1895; Lorenz – 1905



## The popularity of Pareto's Curve (1848-1923):

- An appearance of stability of inequality across time and space;
- Ineffectiveness of Redistributive Policies;
- Fighting Socialism;
- An Empirical Illusion?
- The critique of Pareto's analysis

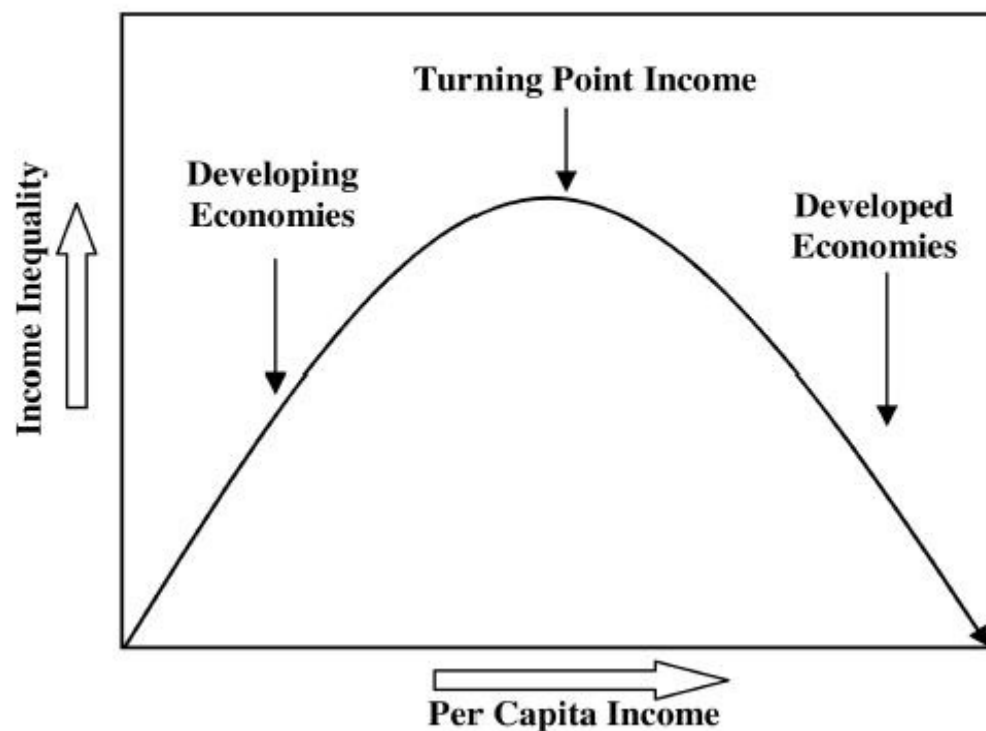
## **New possibilities, new agenda:**

- The setting of the NBER (1920) and the Conference of Research on Income and Wealth (1936 -...)**
- The improvement of national income statistics;**
- The emphasis on explanatory research**
  - Statistical vs. Causal approaches**
  - Micro vs. Macro perspectives**
- The Kuznets' Curve - 1955**

# Simon Kuznets (1901 – 1985) – Nobel (1971)



The Kuznets Curve



# **Inequality Debates in the Mid-Twentieth Century:**

- Growth vs. Distribution;**
- Exogenous and Structural Forces;**
- Property and Transmission of Wealth;**
- Chance and the limited effects of Redistribution;**
- Individual Choices and Characteristics;**

# Relevance of Inequality for Economics:

- **Personal Inequality – magnitude, evolution, explanation;**
- **Effects of inequality – in growth, social cohesion, etc;**
- **Ethical and Political Issues – normative debates;**

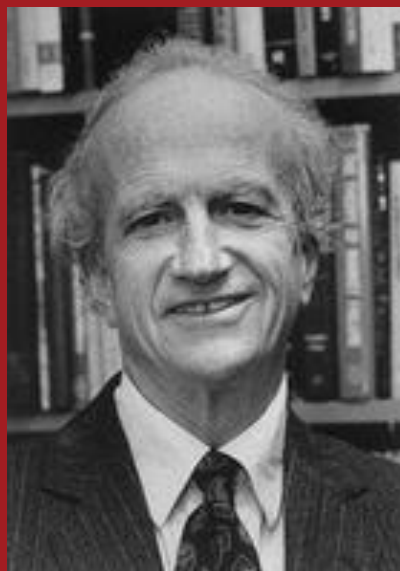


# Education And Human Capital

# Education and Inequality in mid-XXth Century:

- Cause or Consequence?
- Friedman and Kuznets (1945) – Study on Professional Income;
- Jacob Mincer PhD Dissertation (1957) - Human Capital and the Personal Distribution of Income;
- The expansion of schooling and the availability of data.

# Human Capital Theory



**Jacob Mincer (1922-2006) – Gary Becker (1930-2014) – T. W. Schultz (1902-98)**

# Human capital - stock of skills, knowledge, and expertise accumulated by a worker

## Activities that increase Human Capital:

- **Schooling**
- **On-the-job training**
- **Healthcare**
- **Migration**
- **Home activities**

# Human capital theory:

- **Human Capital:**
  - **Develops skills;**
  - **Raises productivity in market & non-market activities;**
  - **Increases potential earnings and economic growth**
- **Individuals and societies spend resources in HC due to consumption and investment motivations**
- **Education becomes an individual and social Investment**

# HC Individual Benefits

## Monetary:

- Higher earnings (wage rates/hours of work)
- Lower unemployment
- Longer professional activity

## Non- Monetary:

- Non-market productivity
- Health
- Family welfare

# HC Social Benefits

## Monetary:

- More productive labour force
- Technological progress
- Income inequality
- Labour market efficiency

## Non-Monetary:

- Crime reduction
- Social mobility
- Social cohesion
- Health

# Education and Income



## Returns to Investment in Education Regional Averages (%)

Region	Social			Private		
	Primary	Sec.	HE	Prim.	Sec.	HE
Asia	16.2	11.1	11.0	20.0	15.8	18.2
Europe/Middle East/ North Africa	15.6	9.7	9.9	13.8	13.6	18.8
Latin America/ Caribbean	17.4	12.9	12.3	26.6	17.0	19.5
OECD	8.5	9.4	8.5	13.4	11.3	11.6
Sub-Saharan Africa	25.4	18.4	11.3	37.6	24.6	27.8
World	18.9	13.1	10.8	26.6	17.0	19.0

## Rates of Return by Gender

<b>Level of Education</b>	<b>Men</b>	<b>Women</b>
<b>Primary</b>	<b>20,1</b>	<b>12,8</b>
<b>Secondary</b>	<b>13,9</b>	<b>18,4</b>
<b>Tertiary</b>	<b>11,0</b>	<b>10,8</b>

Psacharopoulos e Patrinos (2002)

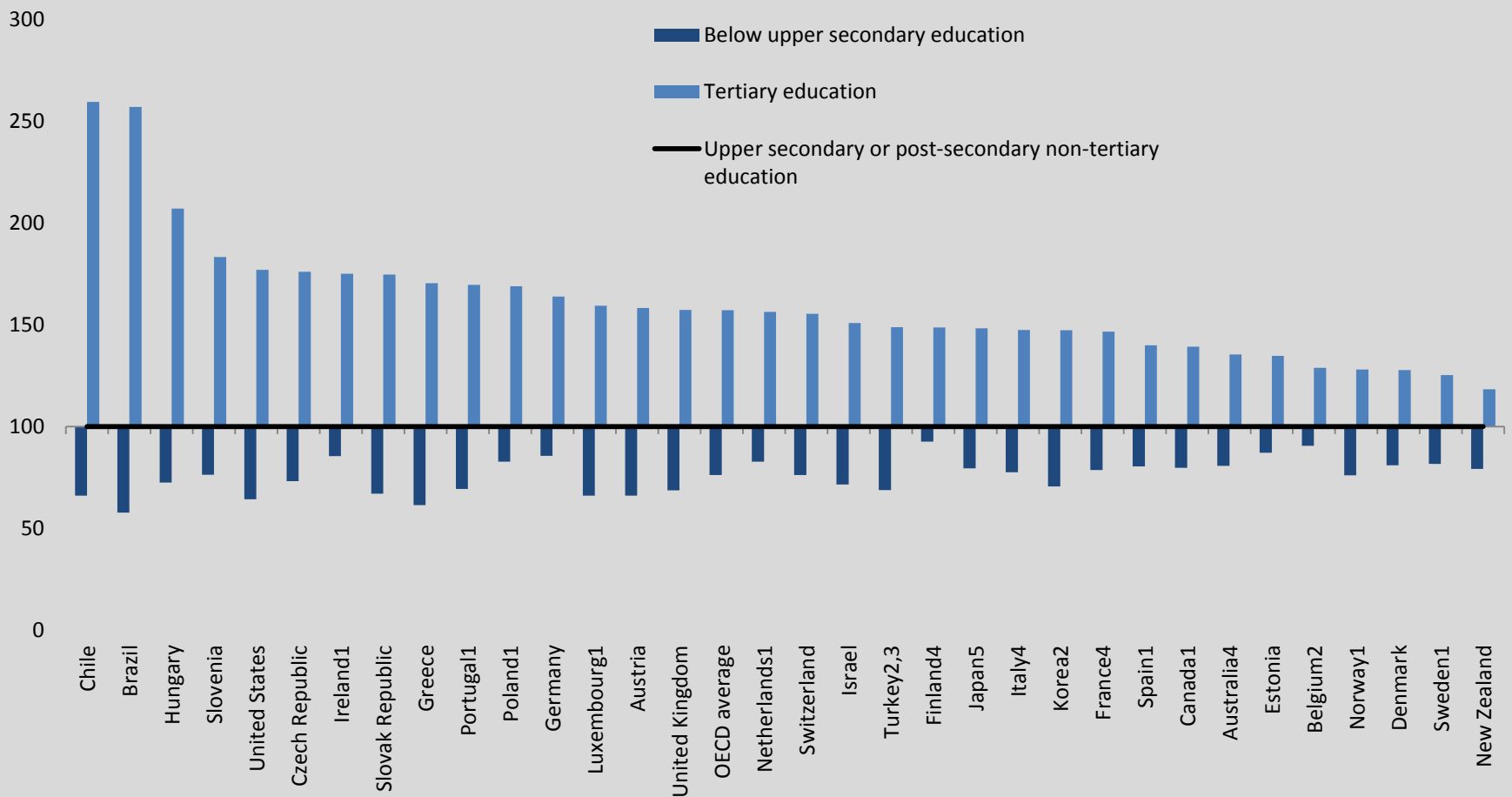
## Rates of Return by Level of Income

<b>Level of Per Capita Income</b>	<b>Primary</b>	<b>Secondary</b>	<b>Tertiary</b>
<b>High</b>	<b>25,6</b>	<b>12,2</b>	<b>12,4</b>
<b>Medium</b>	<b>27,4</b>	<b>18,0</b>	<b>19,3</b>
<b>Low</b>	<b>25,8</b>	<b>19,9</b>	<b>26,0</b>

Psacharopoulos e Patrinos  
(2002)

# Relative earnings of 25-64 year-old workers, by educational attainment

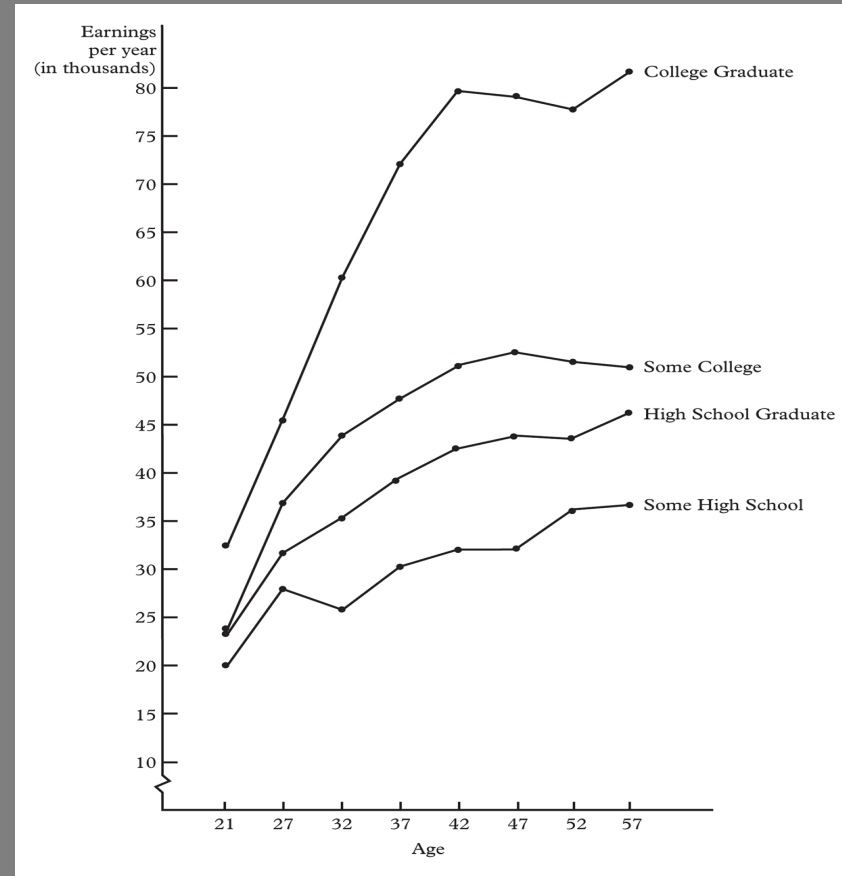
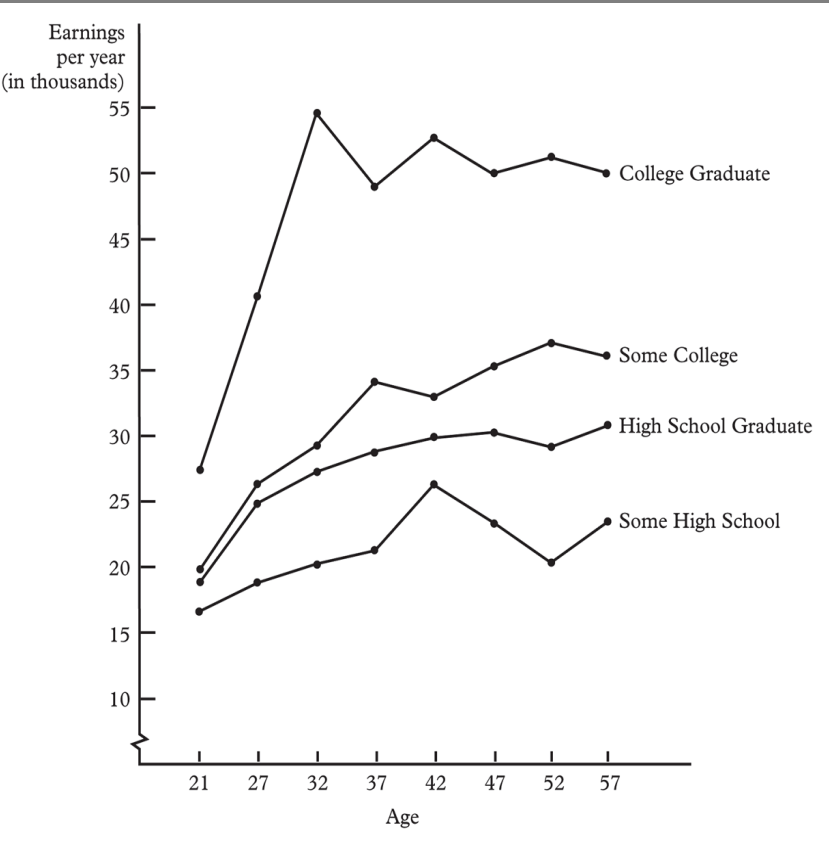
Upper secondary or post-secondary non-tertiary education = 100



## **Age-earnings profiles:**

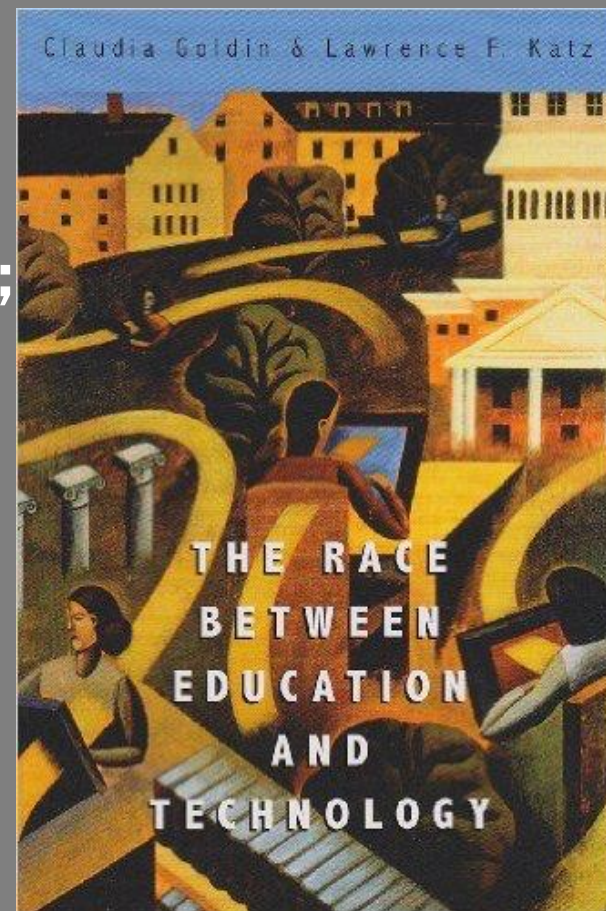
- **Show how typical earnings vary with age and educational qualifications**
- **Education induces a differential**
- **Differential tends to increase with age**

# Monetary Earnings (Mean) for Full-Time, females and males



## HC and Income Inequality:

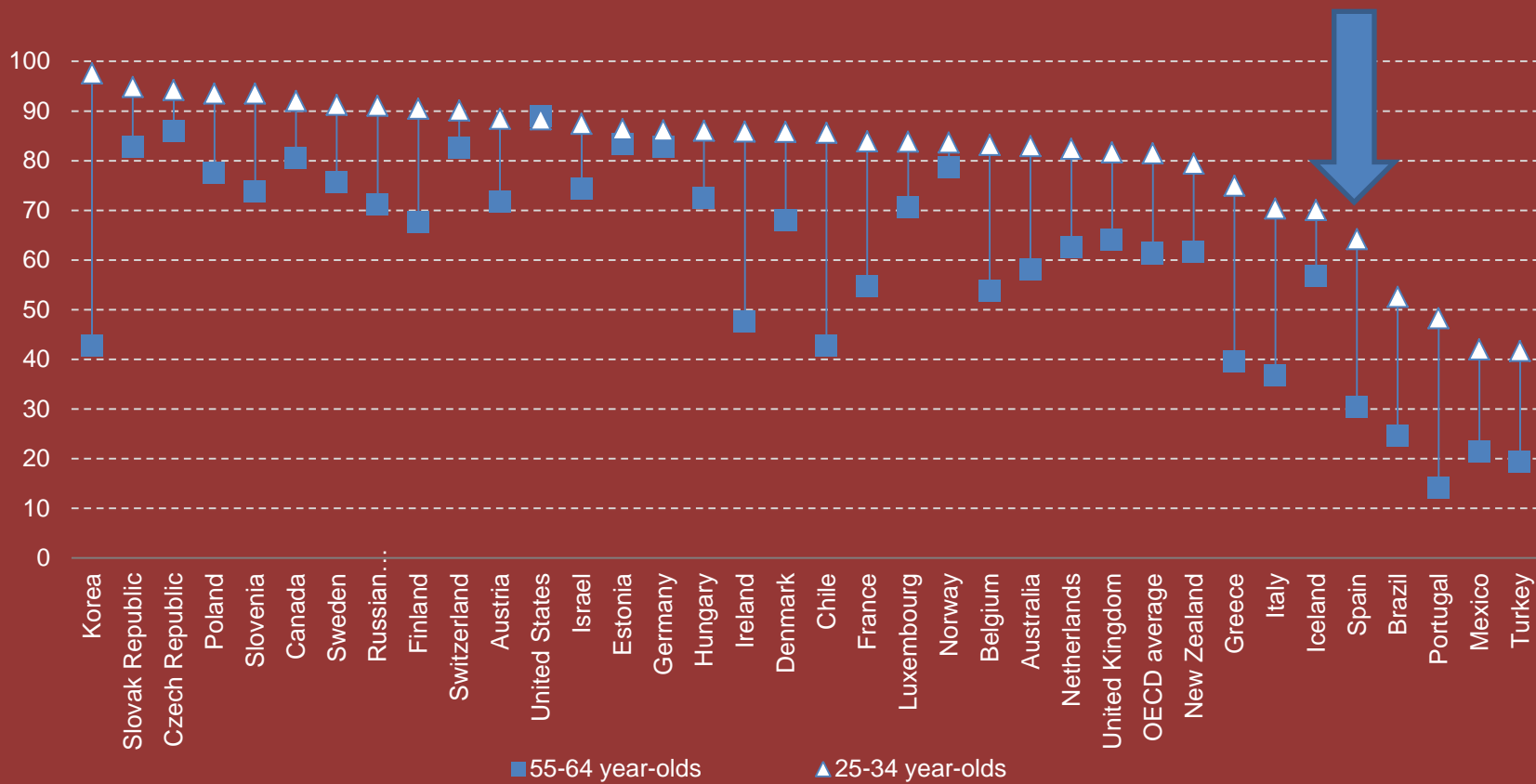
- Expansion of Education & Wage Premium;
- S vs. Demand – Scarcity and Abundance;
- S/D curves shift over time;
- Temporary disequilibria - Overeducation;
- Skill-Biased Technological Progress;
- Quality & Skills vs. Diploma & Credentials;



# **Growing Inequality among Graduates – Looking at the Portuguese Case**

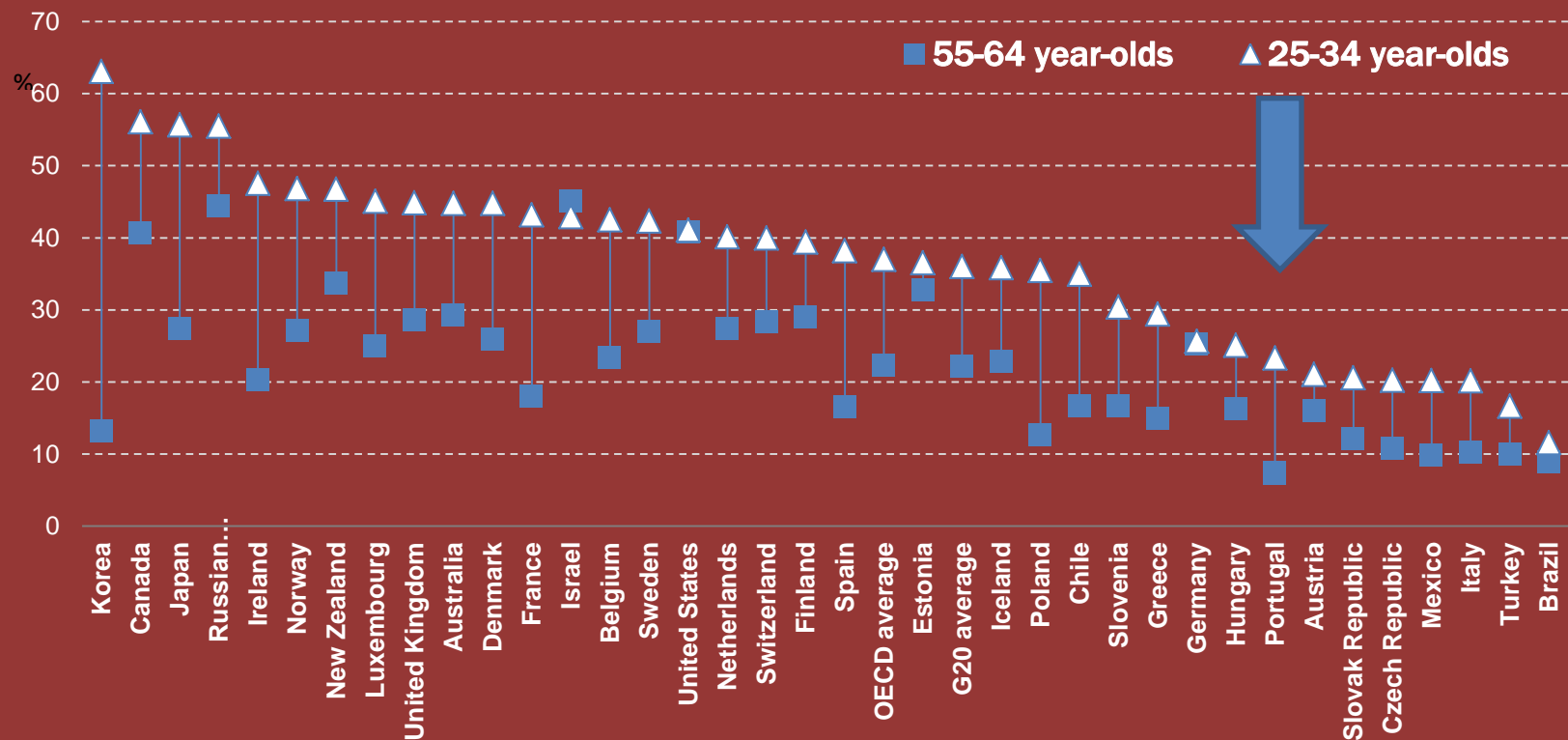


## Educational attainment by Age Groups – Secondary Education



## Educational attainment per Age Group – Tertiary Education

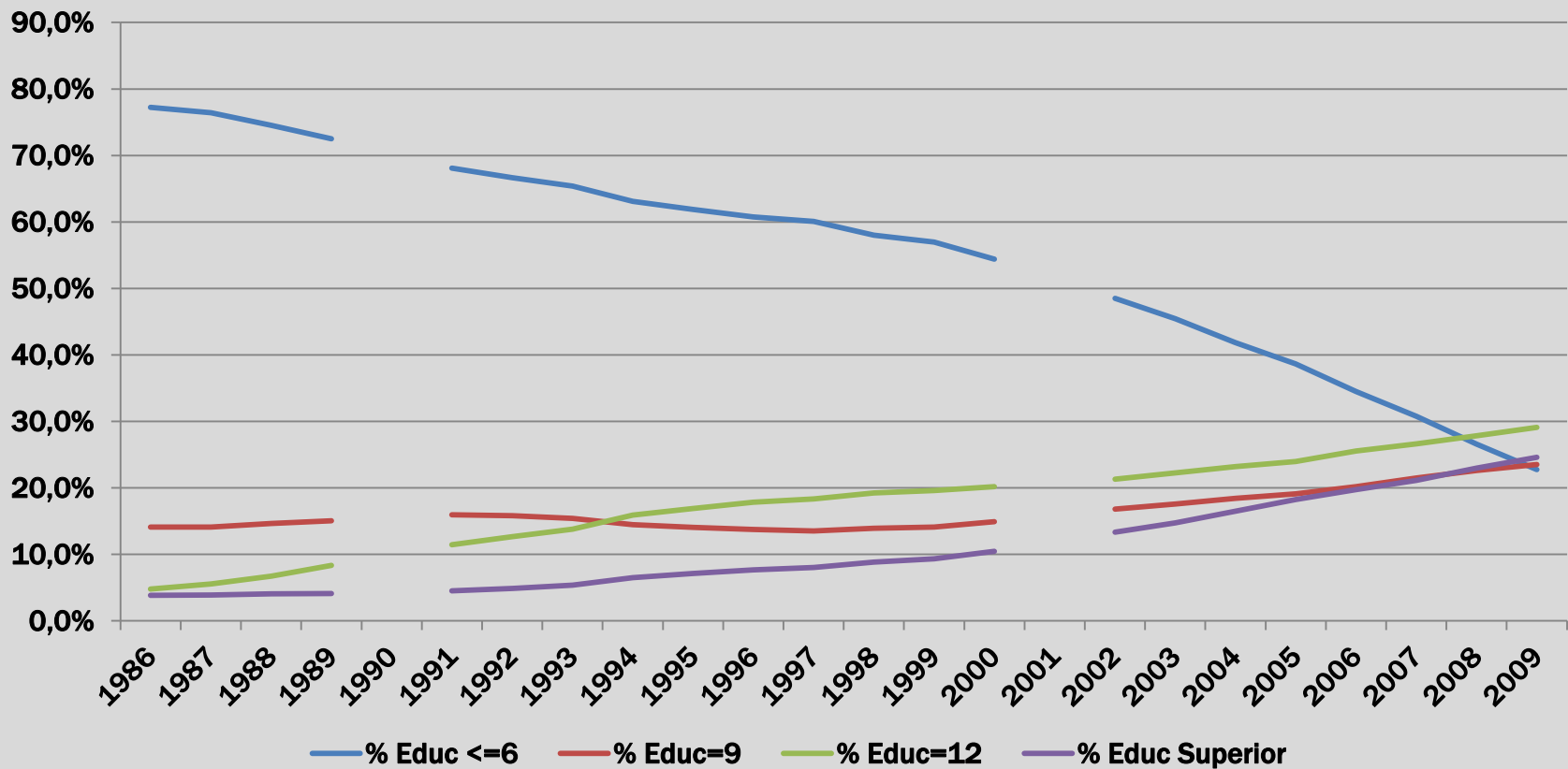
Source - OCDE



# Qualification of the Portuguese Labour Force

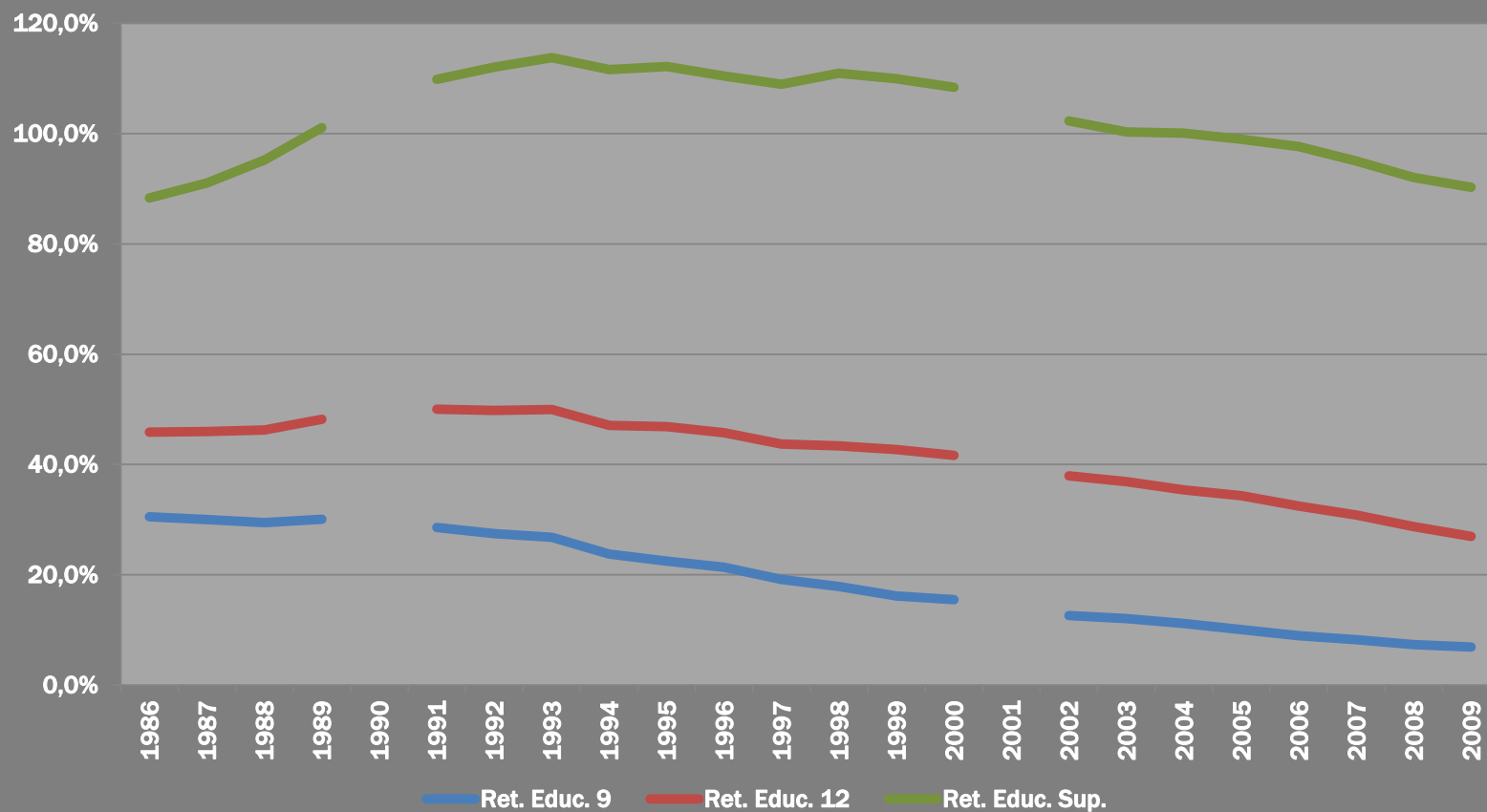
(Source: Quadros de Pessoal - Teixeira, Portela, Cerejeira, Simões e Sá)

**% of workers aged 30-35 by their level of schooling**



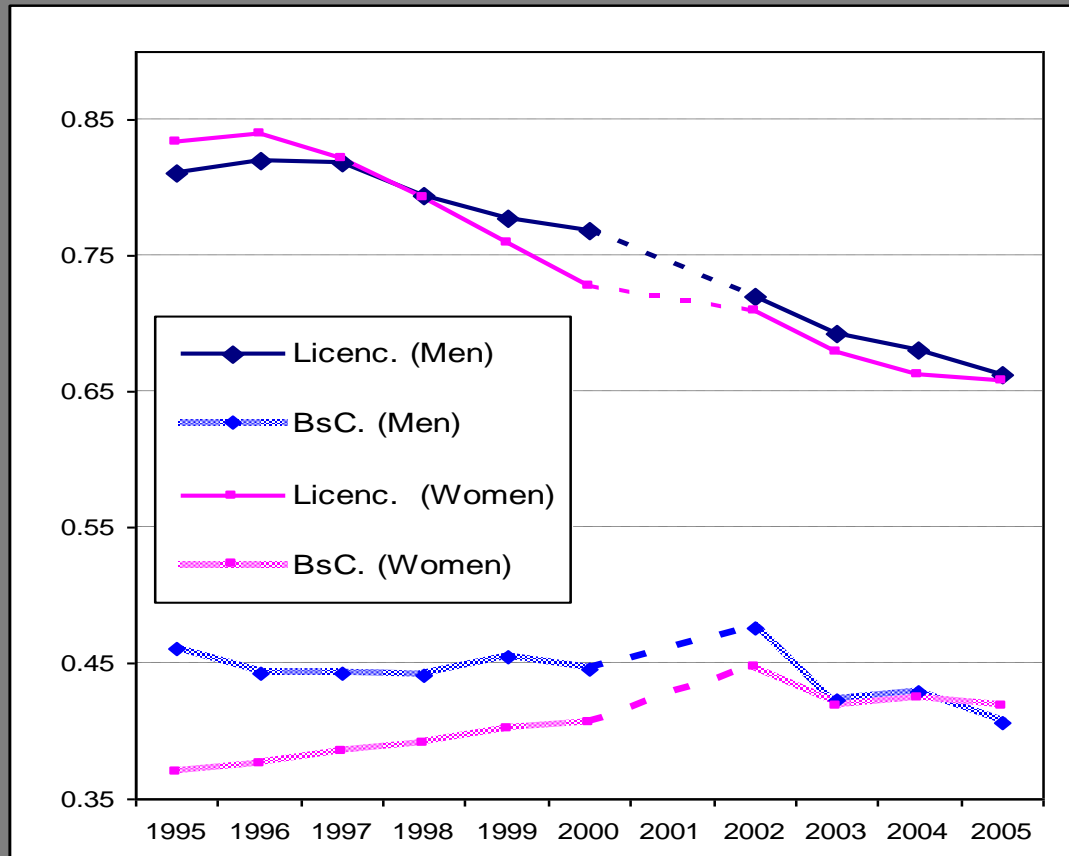
## Wage Premium regarding those Workers with 6 years of schooling for workers aged 30-35 years

Fonte: Teixeira, Portela, Cerejeira, Simões e Sá



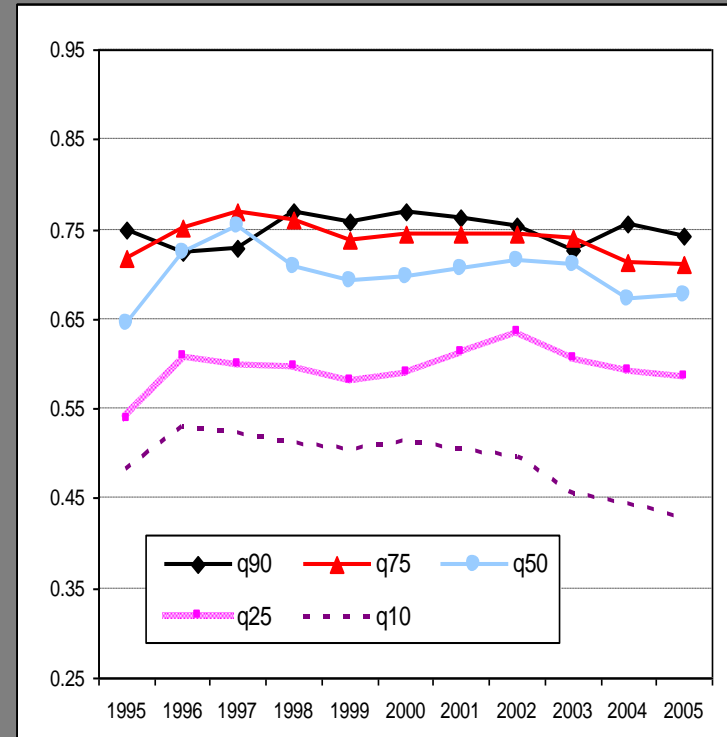
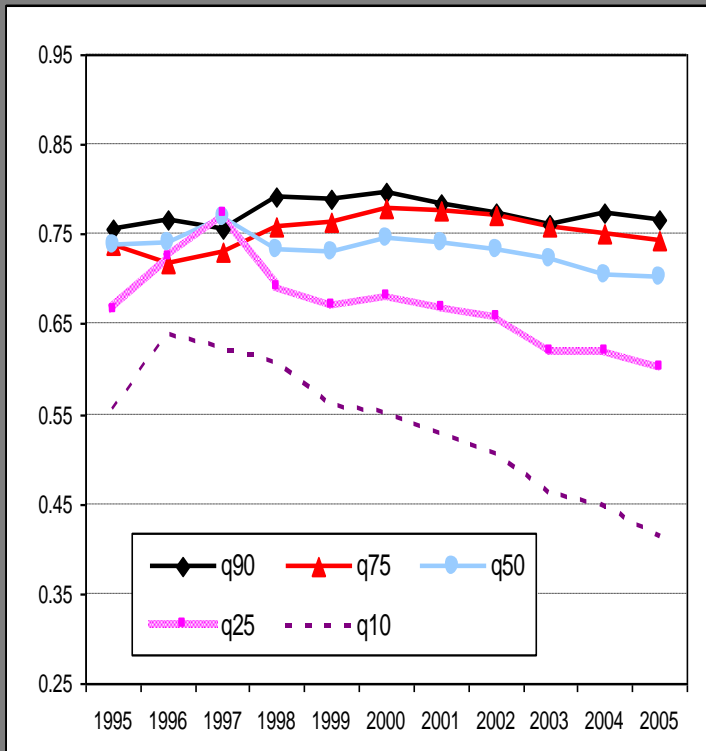
# Wage Premium for Young Graduates by Type of Degree – University vs. Vocational (1995 – 2005)

(Figueiredo, Teixeira & Rubbery, 2013)



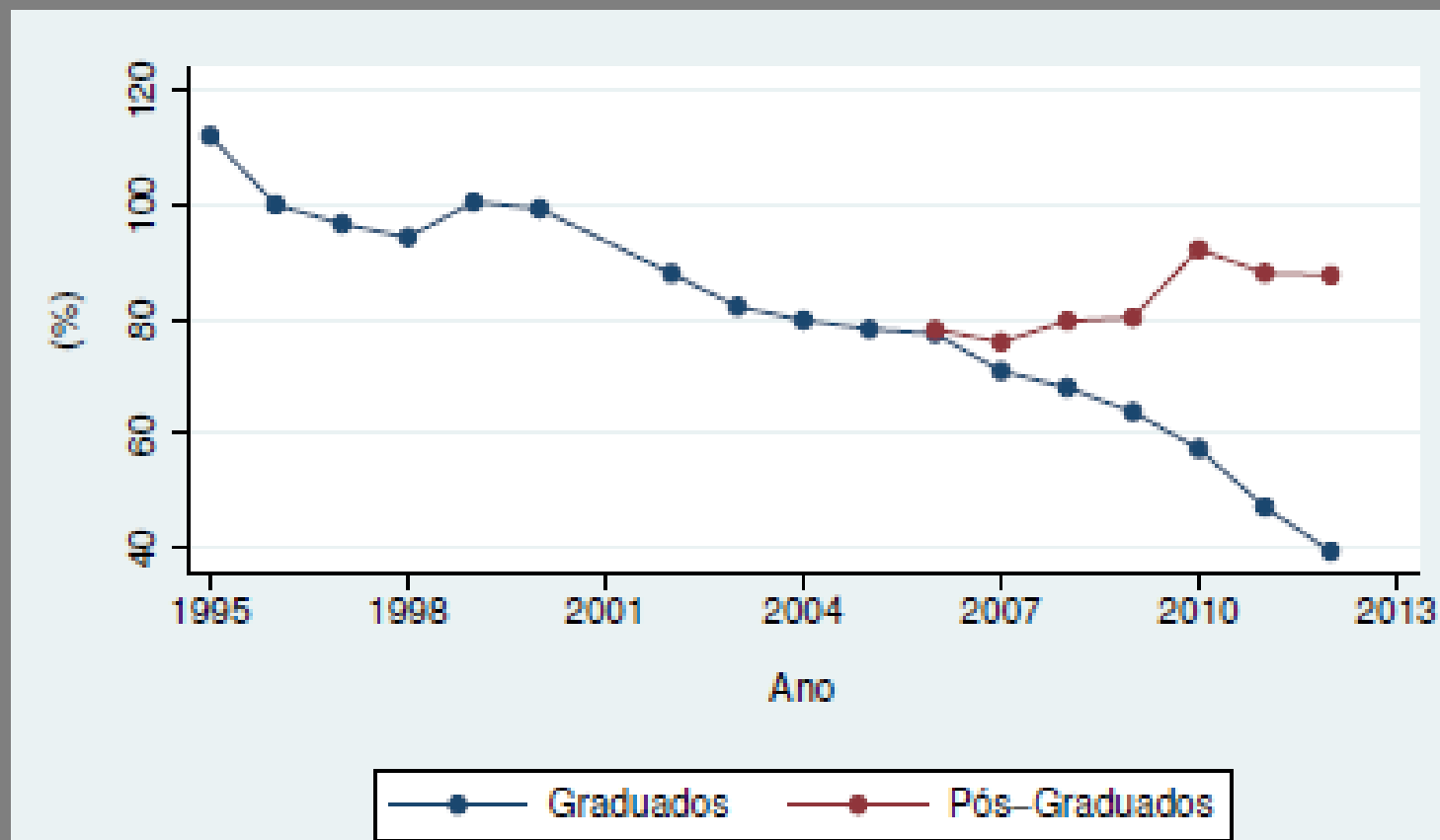
# Wage Premium for Young Graduates by Level of Income (1995 – 2005) – M and F

(Figueiredo, Teixeira & Rubbery, 2013)



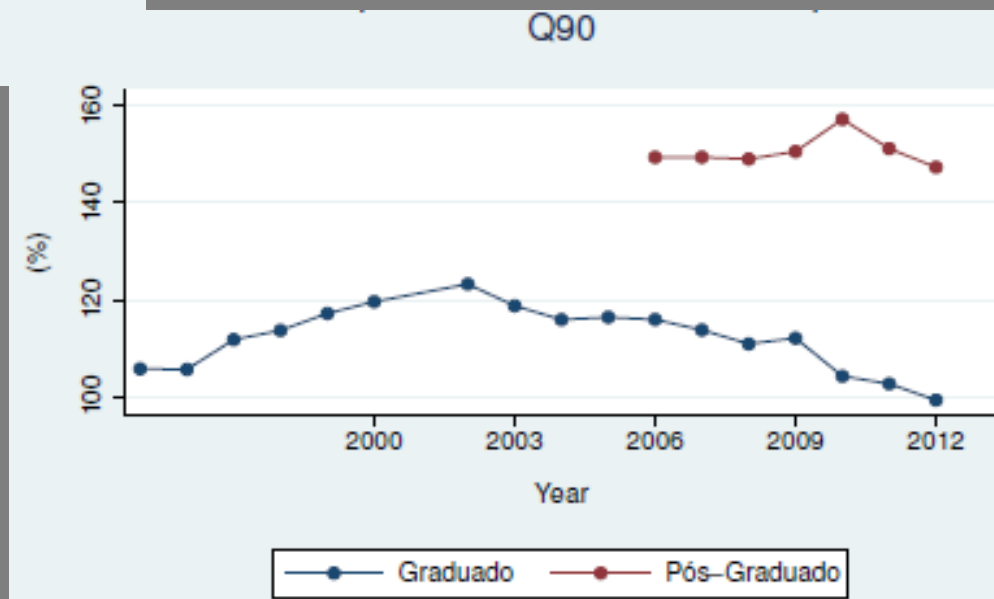
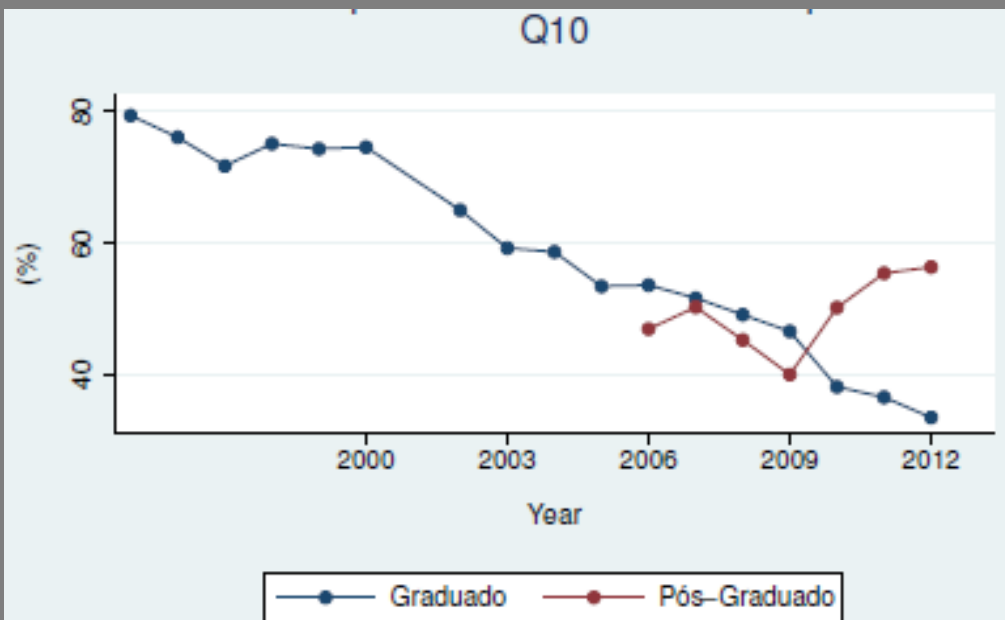
## Wage Premium for Young Graduates by Type of Degree – UG vs. PG (1995 – 2013)

(Fonte: Almeida et al, 2017)



# Wage Premium for Young Graduates by Type of Degree – UG vs. PG (1995 – 2013)

(Fonte: Almeida et al, 2017)





# Final Remarks

# Higher education and the Labour Market:

- **Benefits persist, but growing diversity - by gender, type and level of degree, field of study, income, ...**
- **S and D adjustments**
- **Social and Political expectations**
- **Alternative Explanations – Screening; Social Reproduction;**
- **Complex relationships between Education, Income, and the L Market**

## **Revival of Inequality Debates:**

- Evolution of Inequality since 1970s;**
- Inequality within and between Countries;**
- Petering out of some Factors contributing to reduced Inequality;**
- Interaction between different factors;**