

Informality, population aging, educational attainment, and earnings in Brazil

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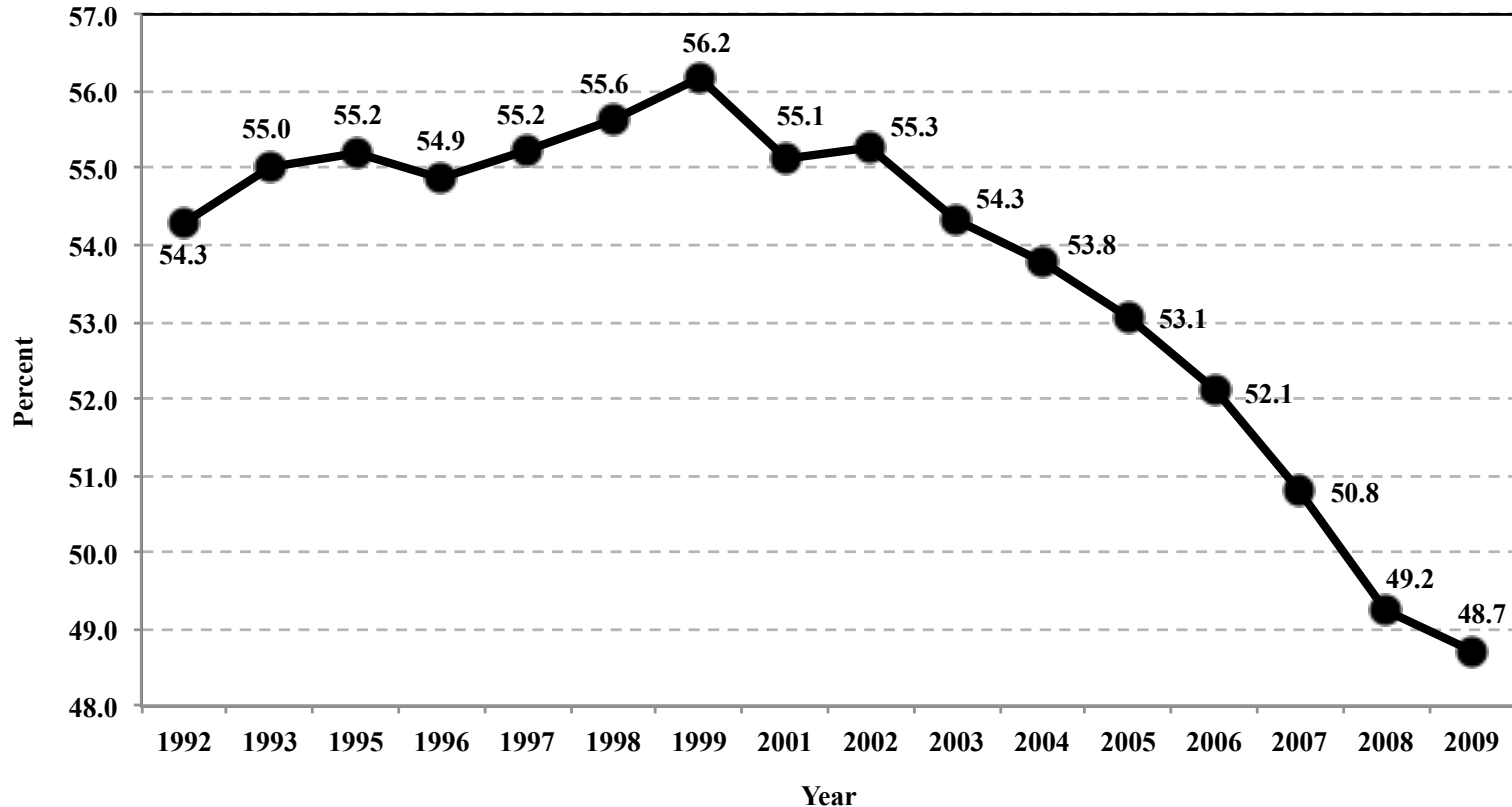
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Objective

- Estimate association of earnings of male workers in Brazil with:
 - Population aging
 - Educational improvement
 - Decrease in informal economic sector
- Major demographic and educational changes have large regional variations

Workers in informal sector, Brazil



Sources: Neto and Zylberstajn (1999) for 1992–1999; Brazilian Ministry of Labor and Employment (MTE) for 2001–2009.

Data

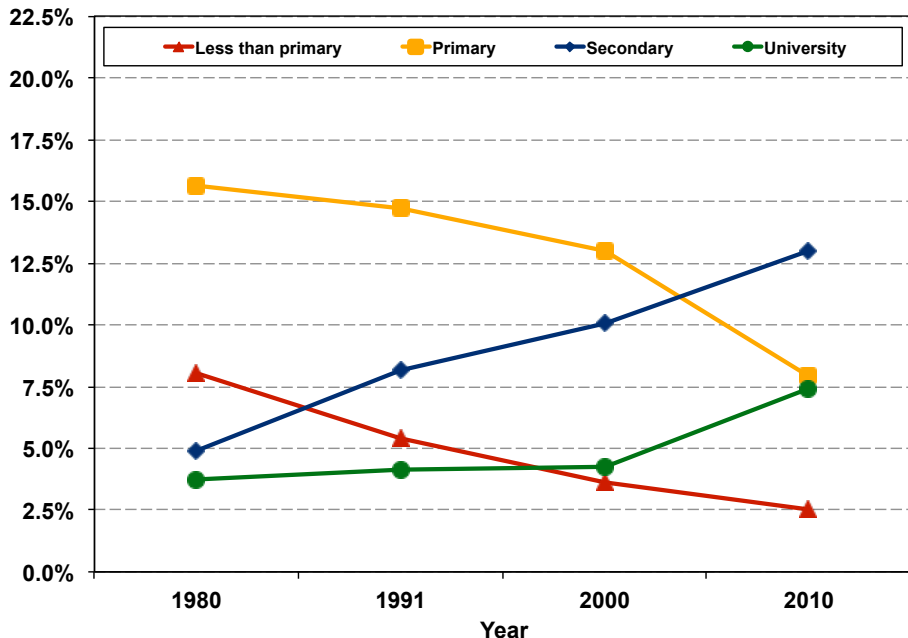
- Brazilian Demographic Censuses:
 - Year: 1980, 1991, 2000, 2010
 - 502 micro-regions
 - 32 age-education-sector groups
 - Age: 15–24, 25–34, 35–49, 50–64
 - Education: less than primary, primary, secondary, university
 - Economic sector: formal, informal

Variables

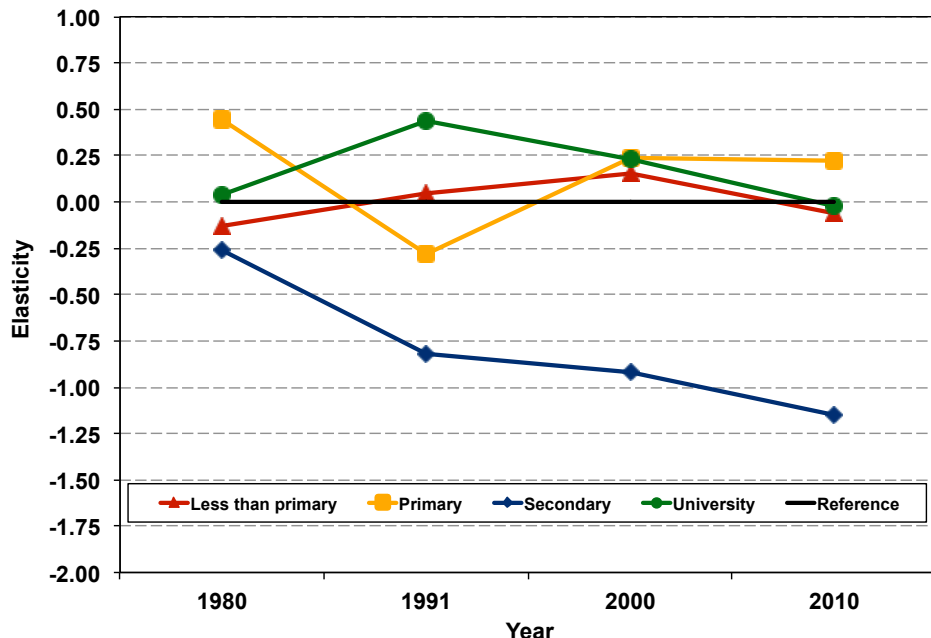
- **Independent variables**
 - Male working population aggregated by year, area, and age-education-sector group
- **Dependent variable**
 - Natural logarithm of individual earnings of Brazilian male workers

Age 25–34, Brazilian formal sector

Male distribution



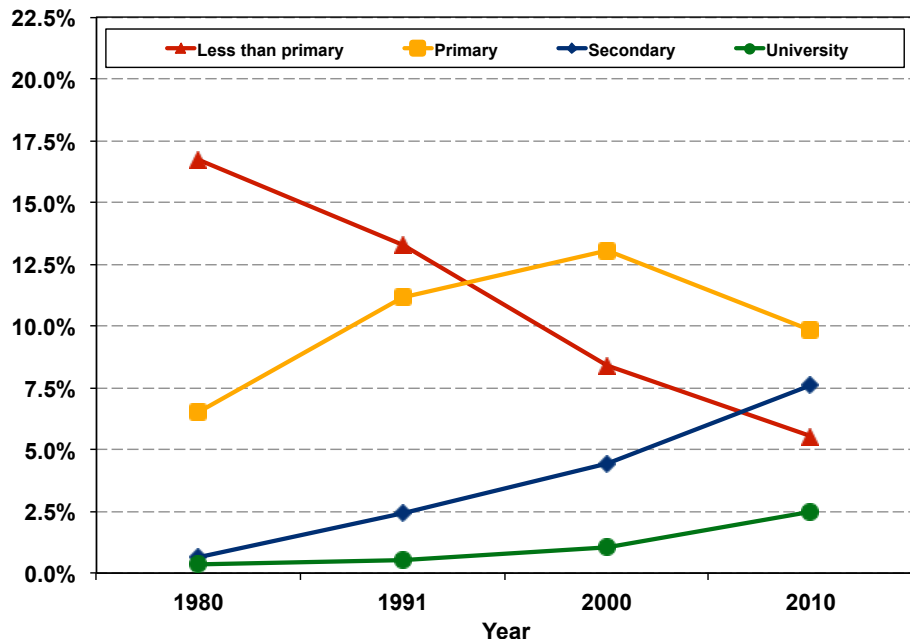
Male distribution effects on earnings



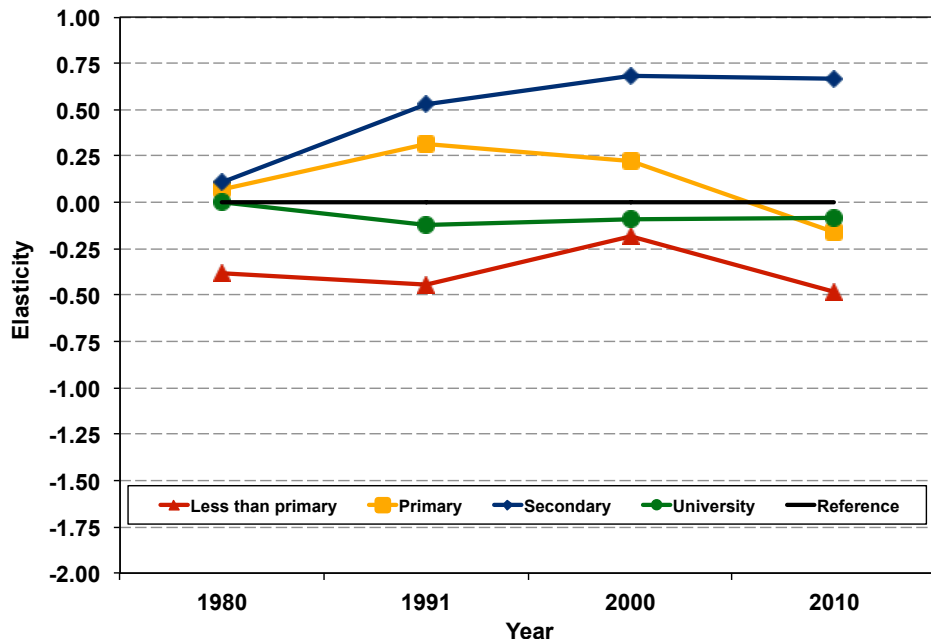
Source: 1980–2010 Brazilian Demographic Censuses.

Age 25–34, Brazilian informal sector

Male distribution



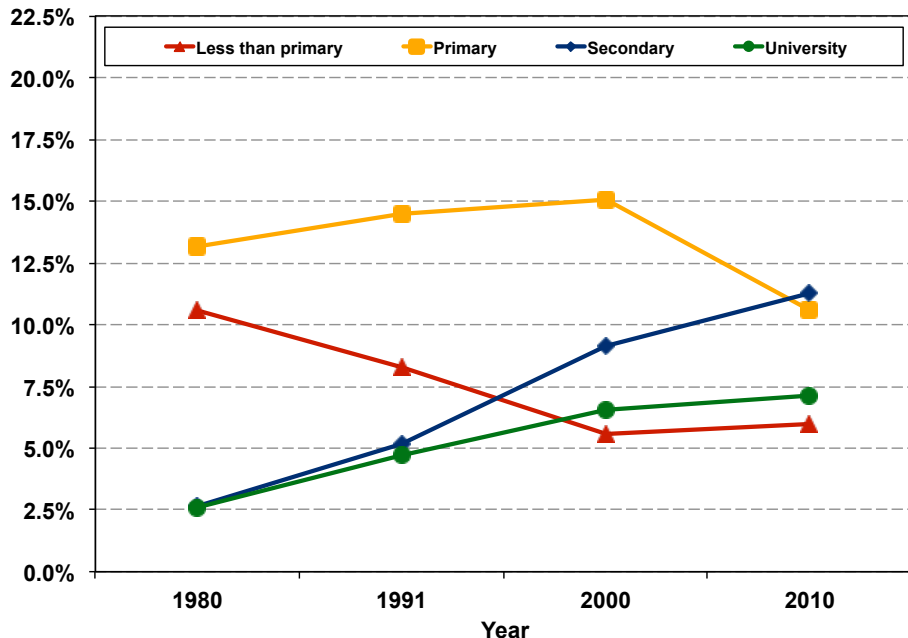
Male distribution effects on earnings



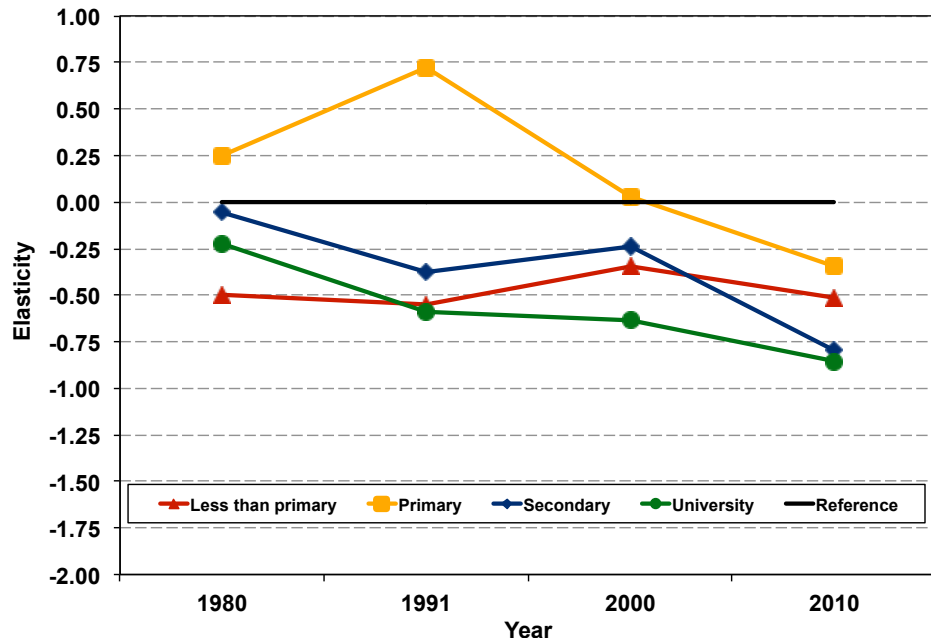
Source: 1980–2010 Brazilian Demographic Censuses.

Age 35–49, Brazilian formal sector

Male distribution



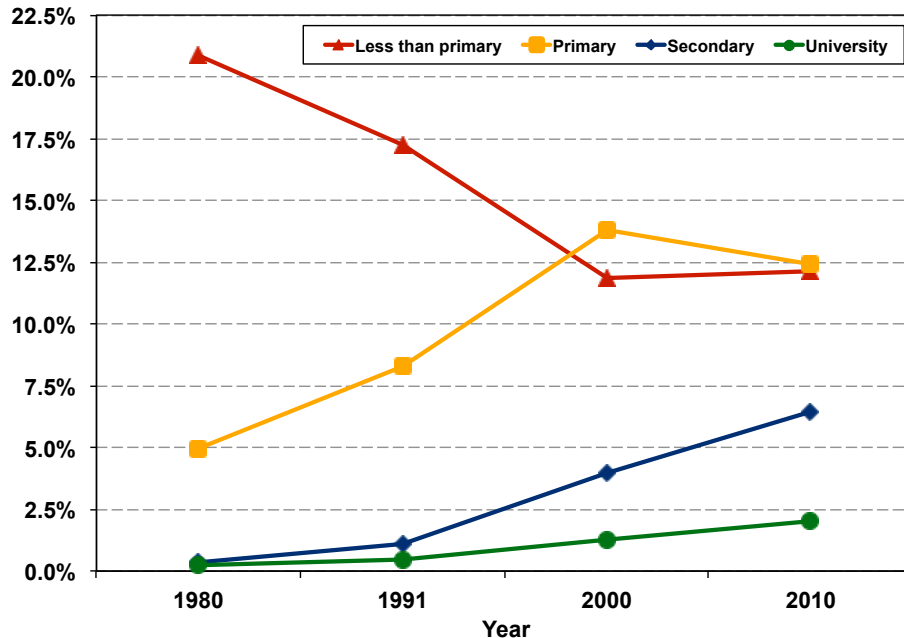
Male distribution effects on earnings



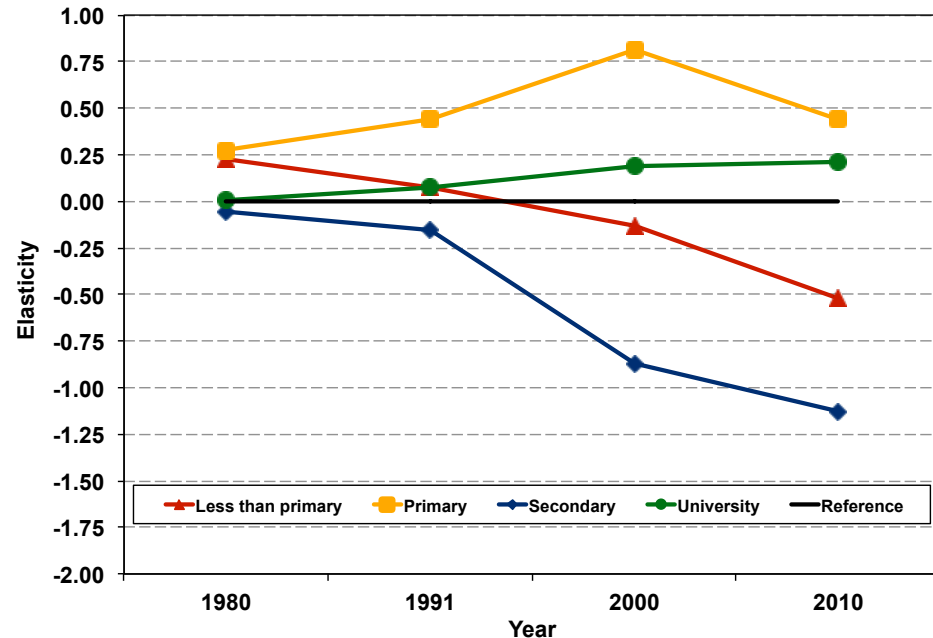
Source: 1980–2010 Brazilian Demographic Censuses.

Age 35–49, Brazilian informal sector

Male distribution



Male distribution effects on earnings



Source: 1980–2010 Brazilian Demographic Censuses.

Discussion

- Changes in age-education composition and economic sector are correlated with earnings
- Negative effects on earnings are stronger:
 - In the formal sector than in the informal sector
 - In more recent years

