

# NTA by SES (NTASES, N project)

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November 12, 2014  
NTA 10, Beijing, PRC



# Outline

- What is NTA by SES?
- How to measure?
- What are the major challenges?
- See some results

# SES?

- Gender + time use
- Income/consumption level
- (Parents') education
- Urban vs. rural (+ time use?)
- Region
- Formal vs. informal sector
- Extended household vs. nuclear household
- Ethnicity/race/immigrants
- Marital status

# NTA and SES

- What: Disaggregate NTA by household or individual characteristics
- Why: SES is an important analytical dimension in many countries
  - SES is highly associated with many other social, economic and demographic variables
  - Large heterogeneity in public and private flows within age groups
  - Intergenerational transmission of inequality
- How: Estimate NTA by SES

# How to do it?

Step 1. Just construct NTA

a) And allocate values based on individual characteristics (if you can)

b) And allocate values based on household characteristics (if you can)

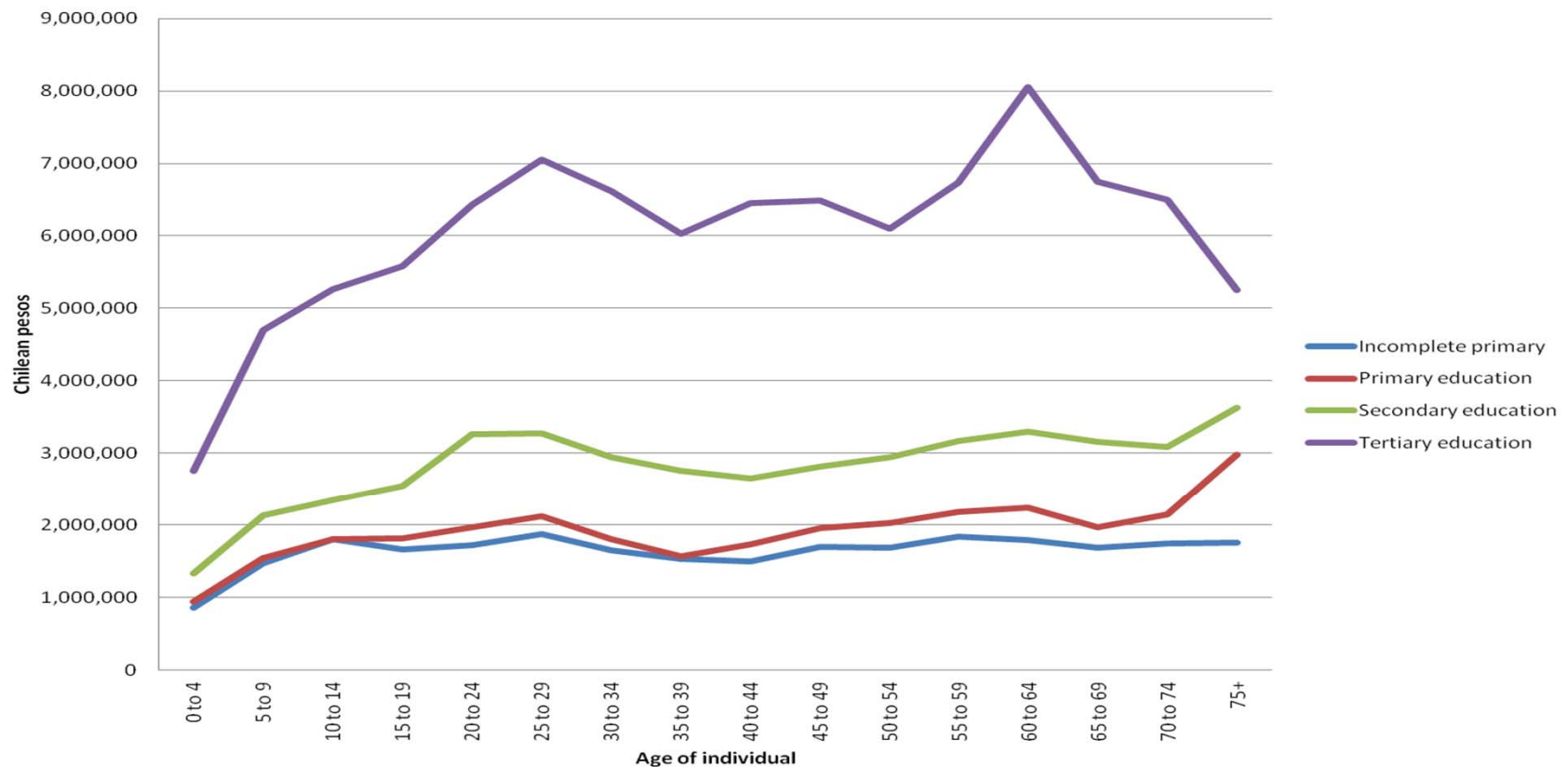
E.g. 1) gender

E.g. 2) household head education, rural vs. urban

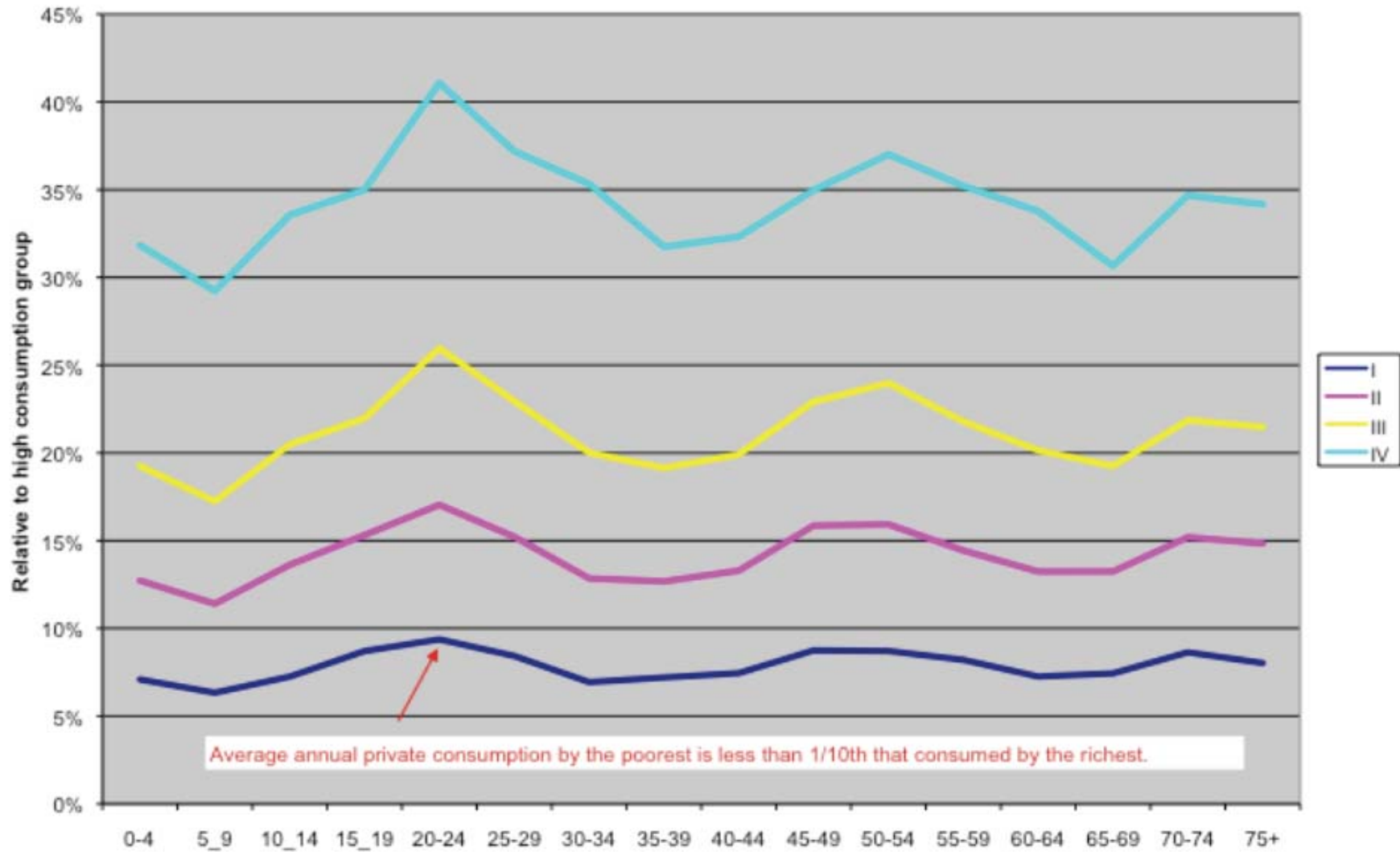
E.g. 3) income, consumption

# Annual consumption by education of household head (Chile, 2007)

Figure 1: Annual consumption per capita by age and education of household head, Chile 2007



Chile, 2004: Annual private consumption by age and quintile



Average annual private consumption by the poorest is less than 1/10th that consumed by the richest.

# Household characteristics? (disaggregation of data)

- 1) Total household income (labor earnings, self-employment income, business revenue, asset income, transfer income)
- 2) Per capita household income
- 3) Equivalence-scale-based per capita household income/consumption
- 4) Per capita or total household consumption



# Macro control problem

- If you cannot assign individual or household characteristics, then you need separate macro control by SES

e.g, tax profiles and government asset allocation—can still assign based on micro survey data share

# Data issues

- Constructing NTA requires individual or household micro-survey data sets
- A good survey data set has the properties of:
  - Extent: It has the variables of interest at a certain level of detail
  - Reliability: The variables are measured without error
  - Validity: The data set is representative

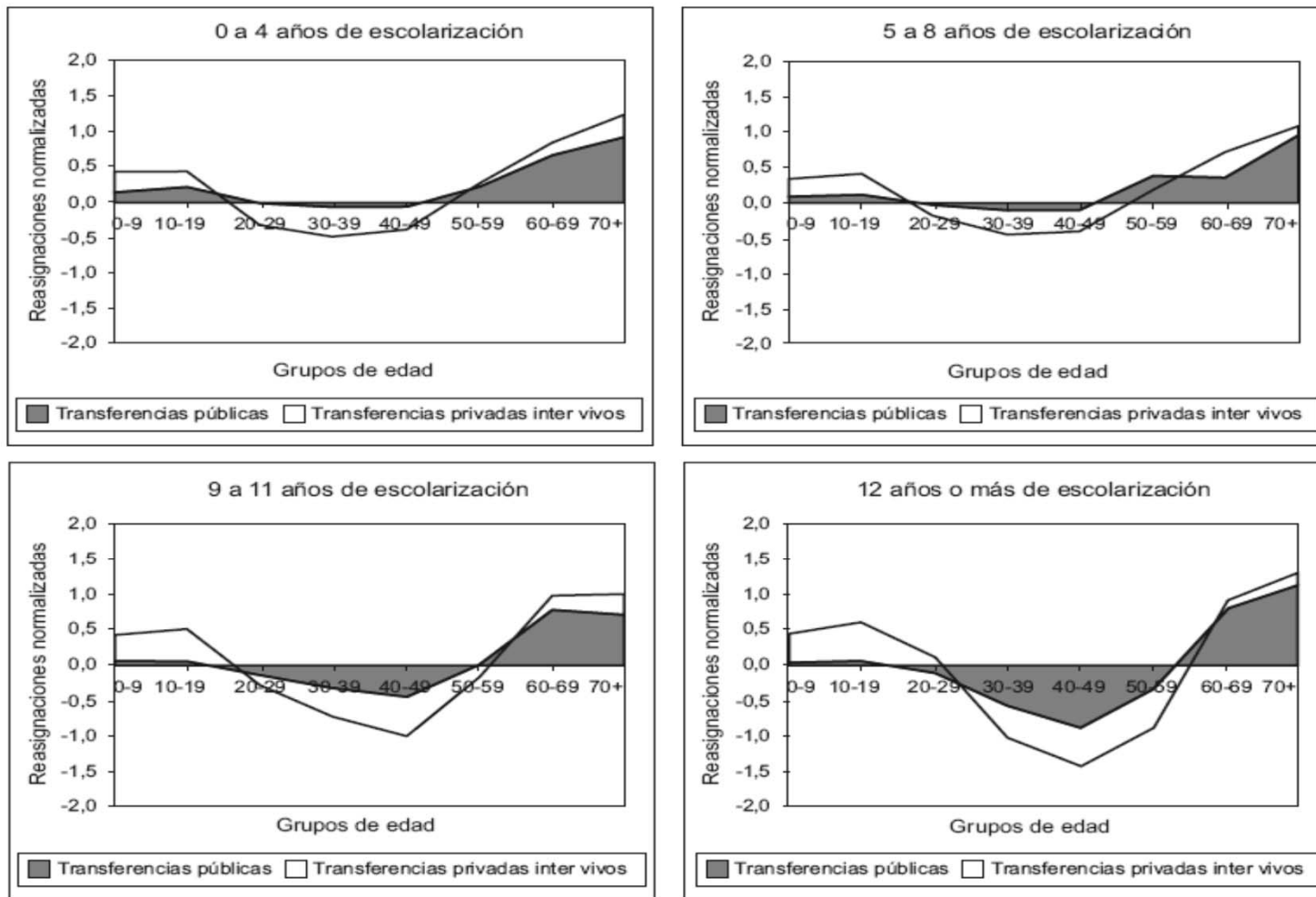
# Reliability: Measurement error

- Non response rate by SES (representative)
- Response error
  - Respondents do not know what is required
  - Incentive to understate/overstate
  - Recall bias: Related to period of survey
  - Coding error: Using wrong/different reporting units
- Reporting error: Heaping or outliers
- Discrepancy between aggregate value and individual value

# Brazil: What funds consumption?

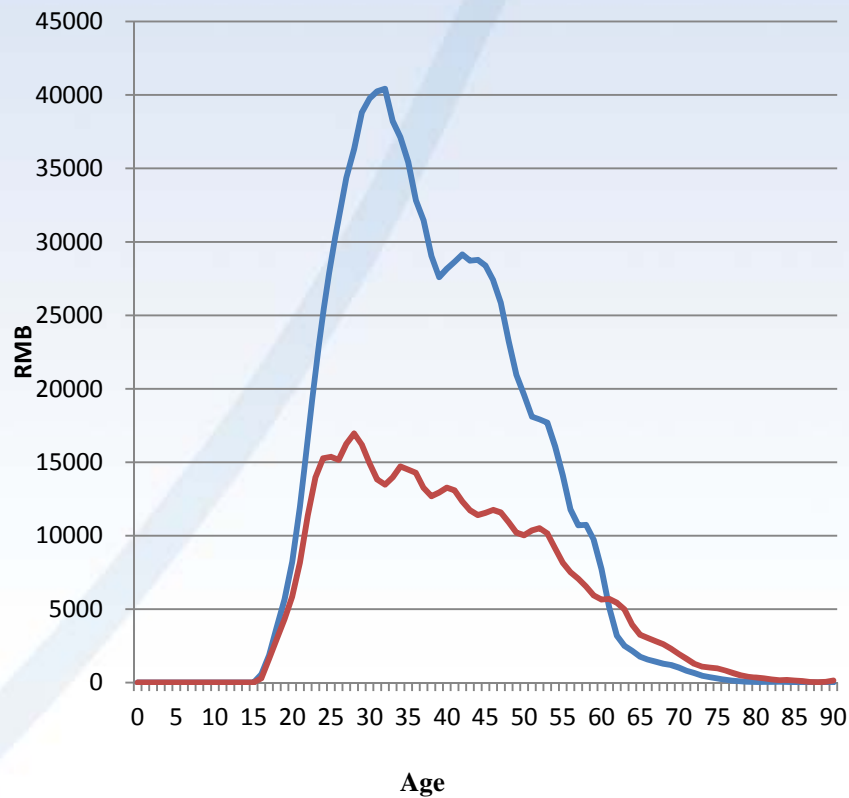
Among elderly of any SES and children of low SES = public transfers

Gráfico 3  
REASIGNACIONES ETARIAS POR NIVEL DE INSTRUCCIÓN<sup>a</sup> NORMALIZADAS,<sup>b</sup>  
BRASIL 1996

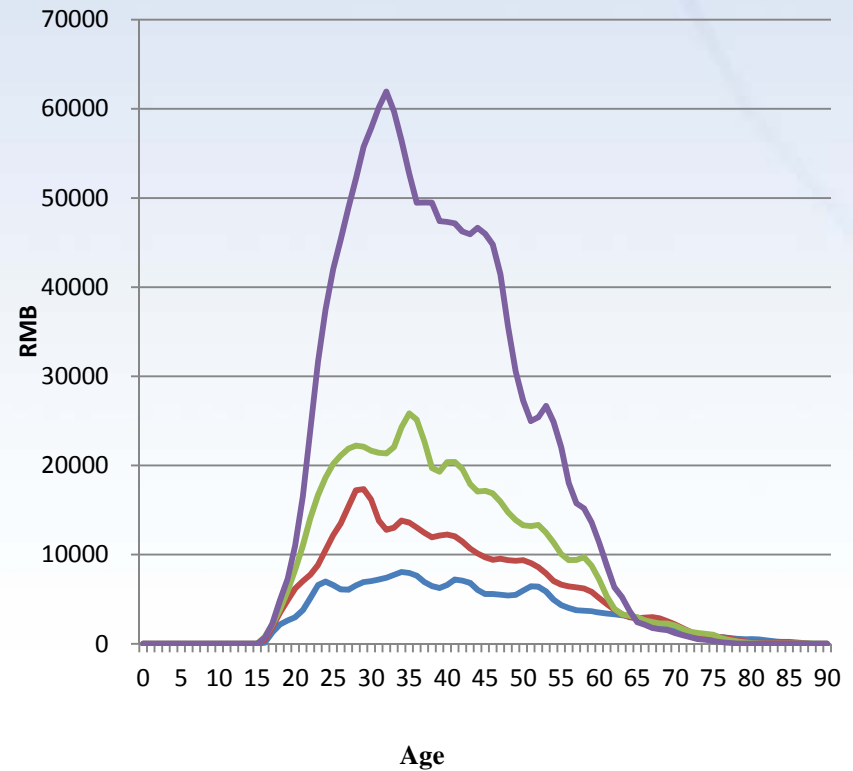


Source: Turra & Queiroz

# Labor income profiles by residence and per capita household income (China, 2009)



— Urban — Rural

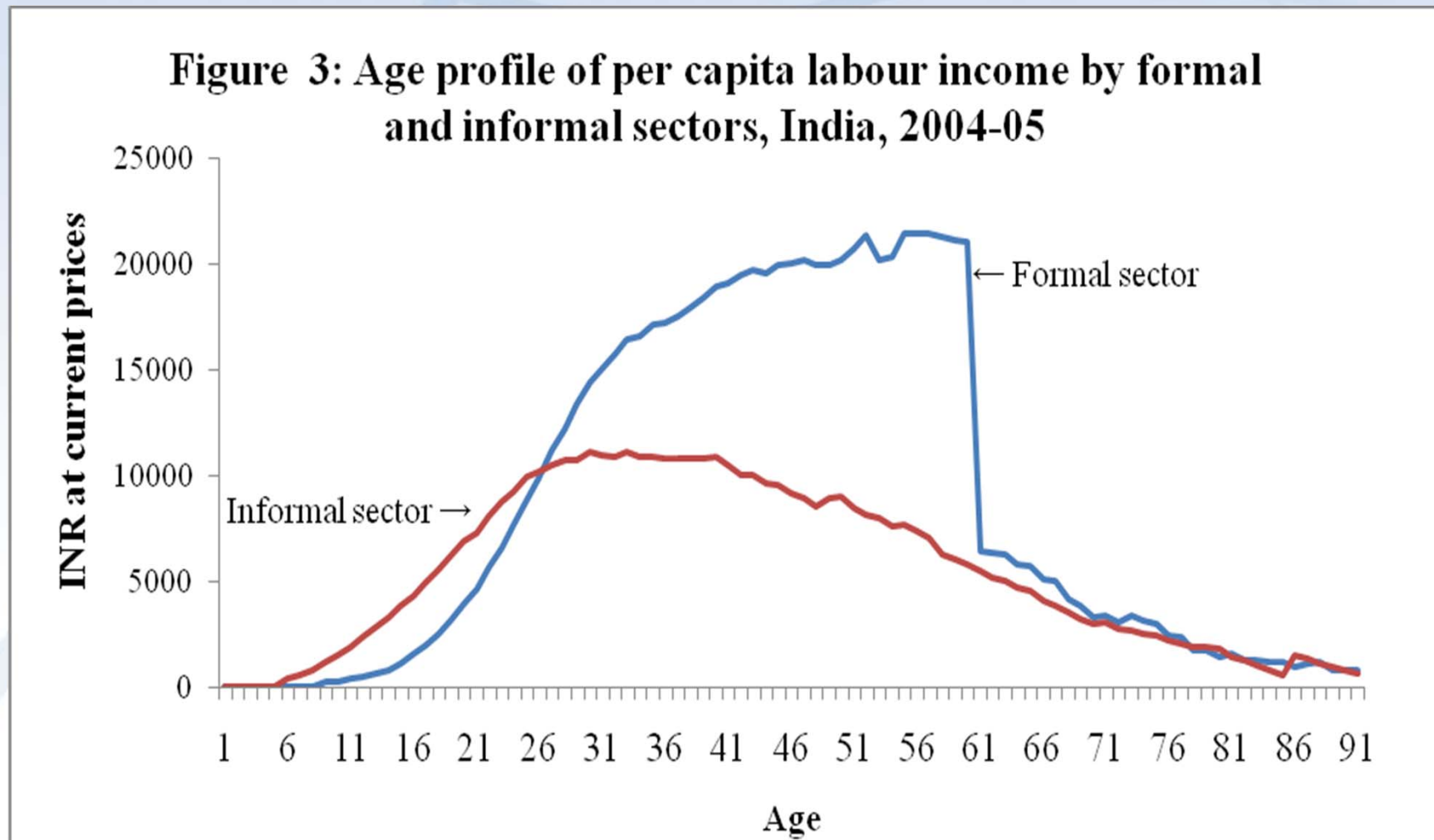


— quartile 1 — quartile 2 — quartile 3 — quartile 4

Source: Shen and Lee (2014)

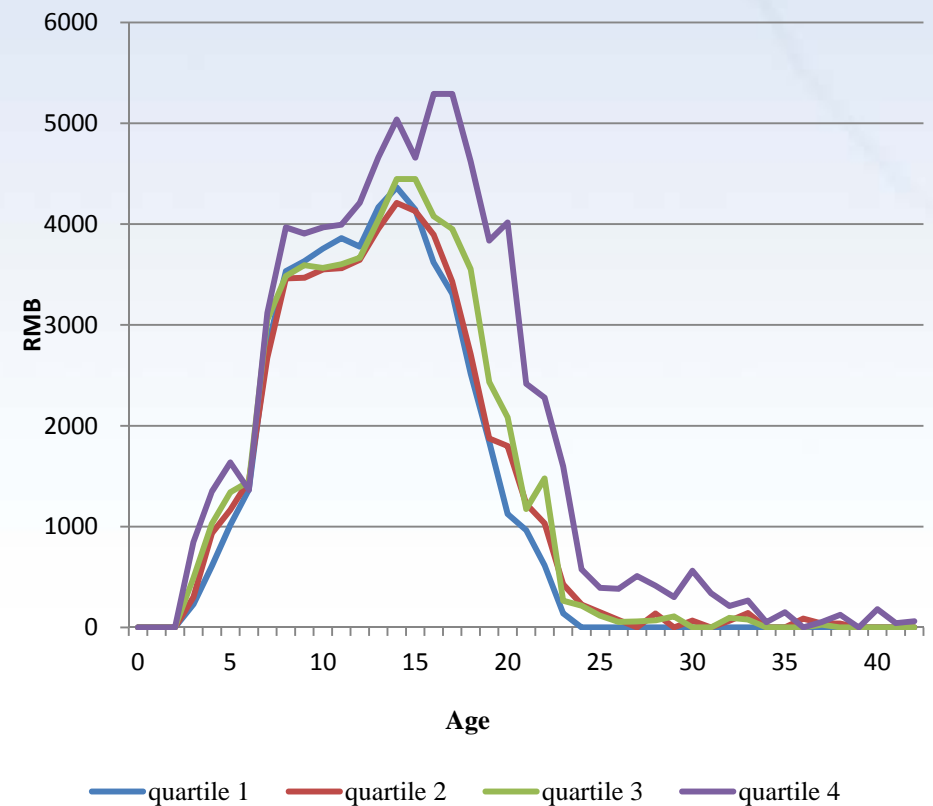
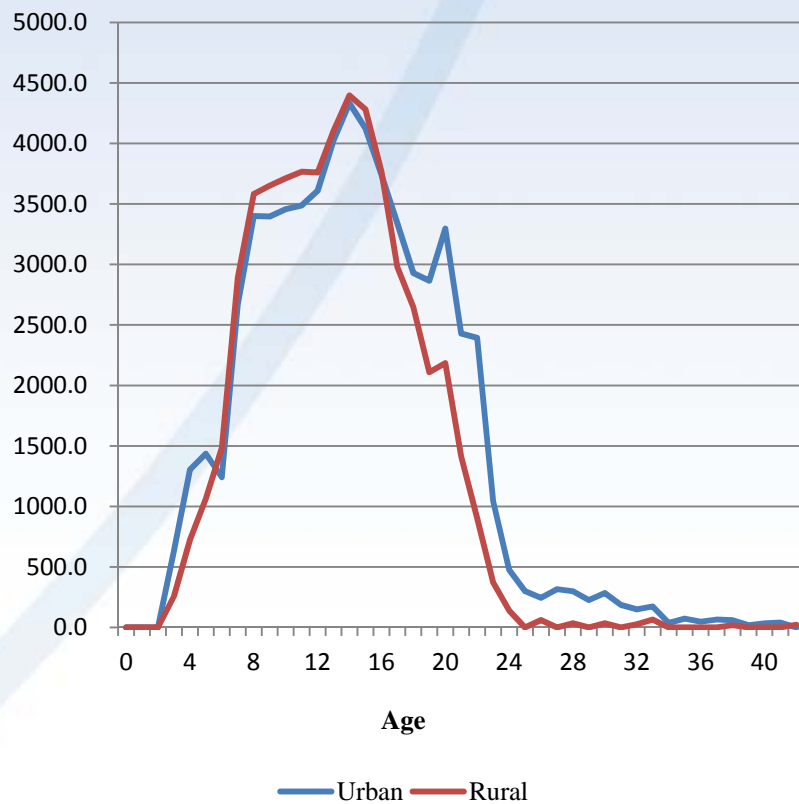


# Labor income profiles by formal vs. informal sector (India, 2004–05)



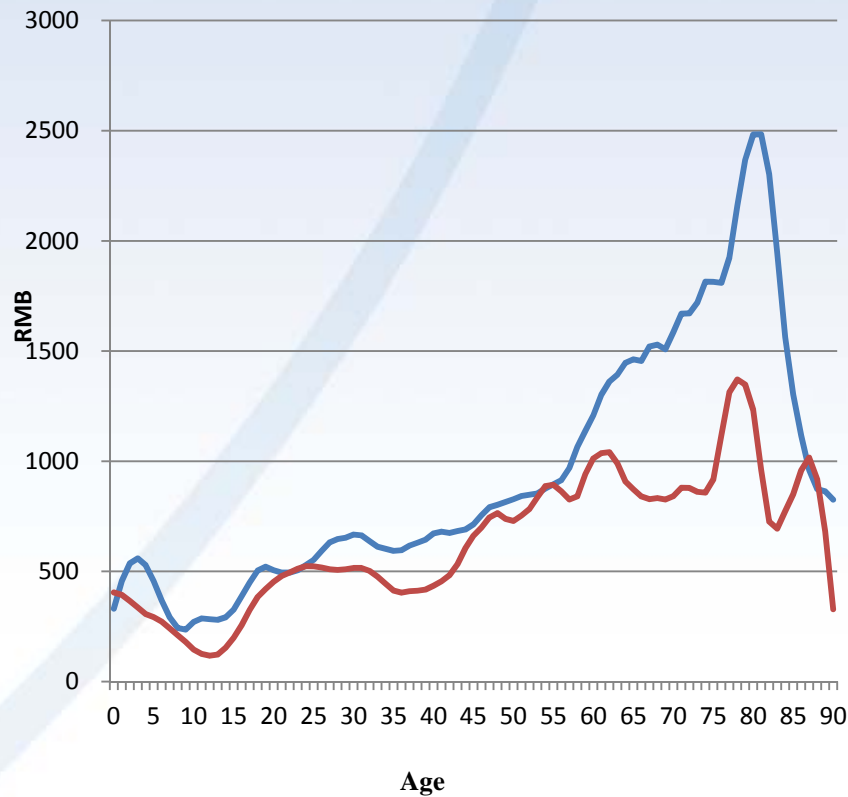
Source: Narayana (2014)

# Public education profiles by residence and per capita household income (China, 2009)

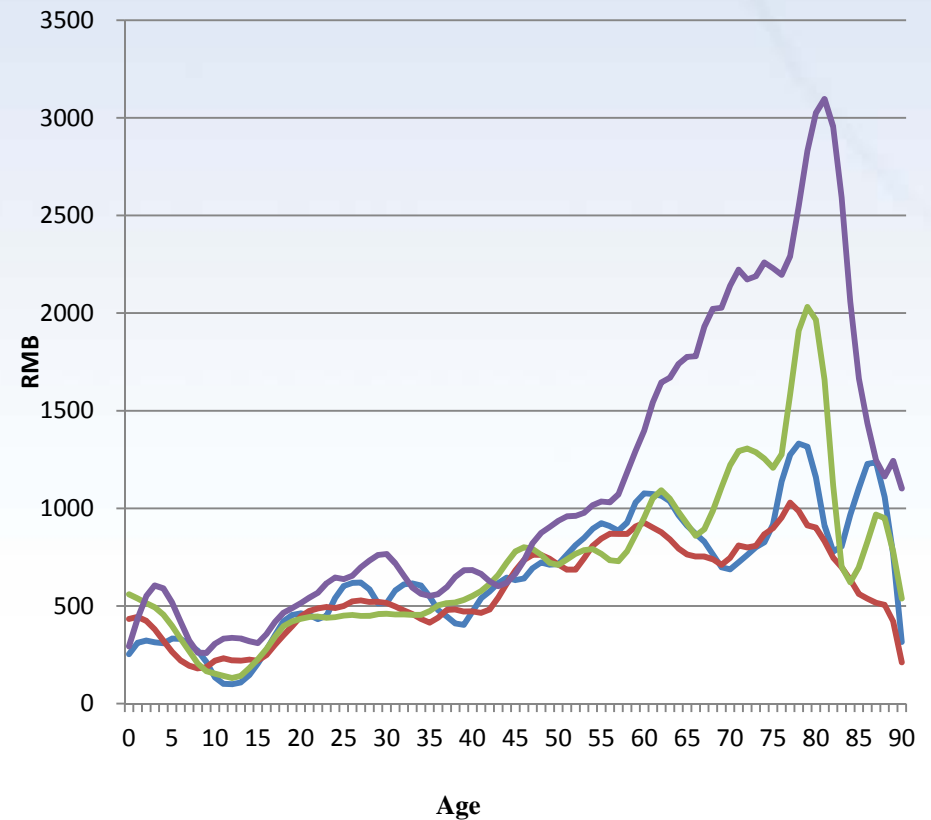


Source: Shen and Lee (2014)

# Public health profiles by residence and per capita household income (China, 2009)



— Urban — Rural



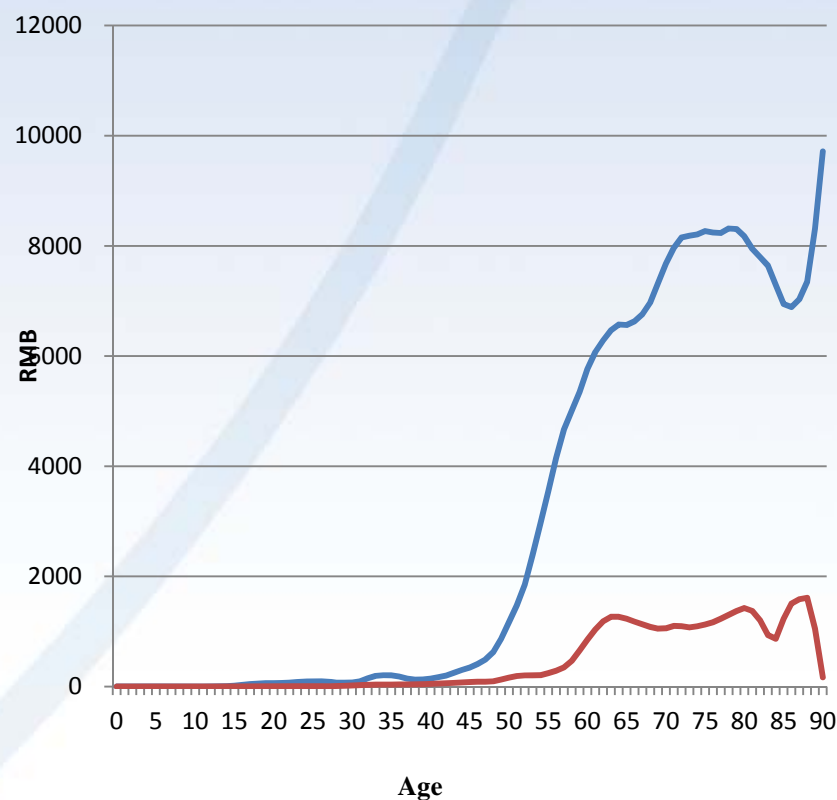
— quartile 1 — quartile 2 — quartile 3 — quartile 4

Source: Shen and Lee (2014)

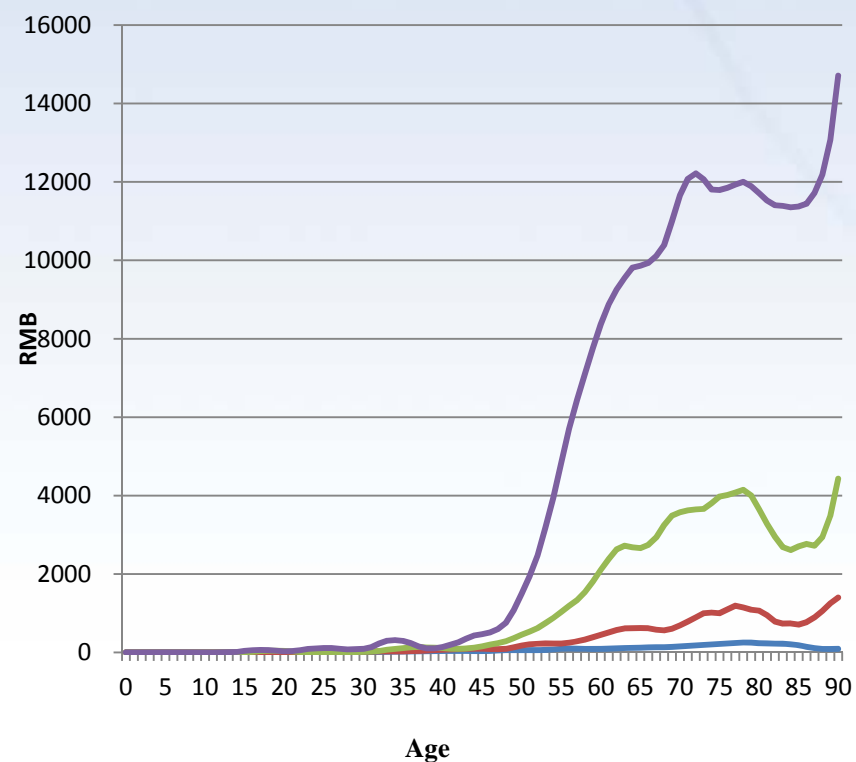




# Pension benefit profiles by residence and per capita hh income (China, 2009)



— Urban — Rural



— quartile 1 — quartile 2 — quartile 3 — quartile 4

Source: Shen and Lee (2014)

