

BROOKINGS

QUALITY. INDEPENDENCE. IMPACT.

# The Economics of Human Development

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Center for Universal Education

Brookings Institution

# Nobel Laureates

- Jan Tinbergen – (1903-1994)
- Theodore W. Schultz – (1902-1998)
- Robert W. Fogel – (1926 - ...)
- Amartya Sen – (1933 - ...)

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- Amartya Sen – (1933 - ...)
- James Heckman – (1944 - ...)

# Jan Tinbergen

- Born: 1903, Den Haag, Netherlands
- Nobel Prize Economics '69



Photo credit: Nobelprize.org

# Theodore W. Schultz

- Born: 1902, South Dakota, USA
- Nobel Prize Economics '79

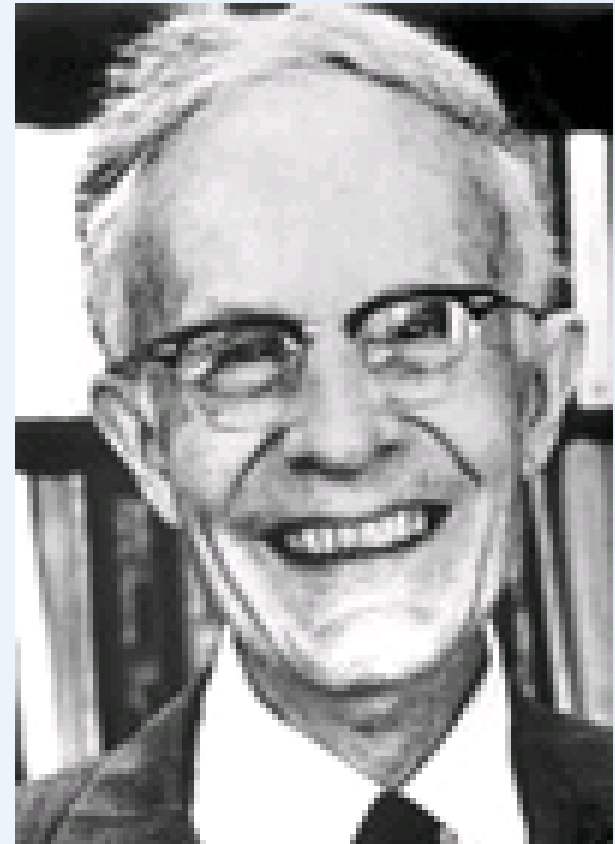


Photo credit: Nobelprize.org

# Robert W. Fogel

- Born: 1926, New York, USA
- Nobel Prize Economics '93



Photo credit: Nobelprize.org

# Amartya Sen

- Born: 1933, Dhaka, Bangladesh
- Nobel Prize Economics '98

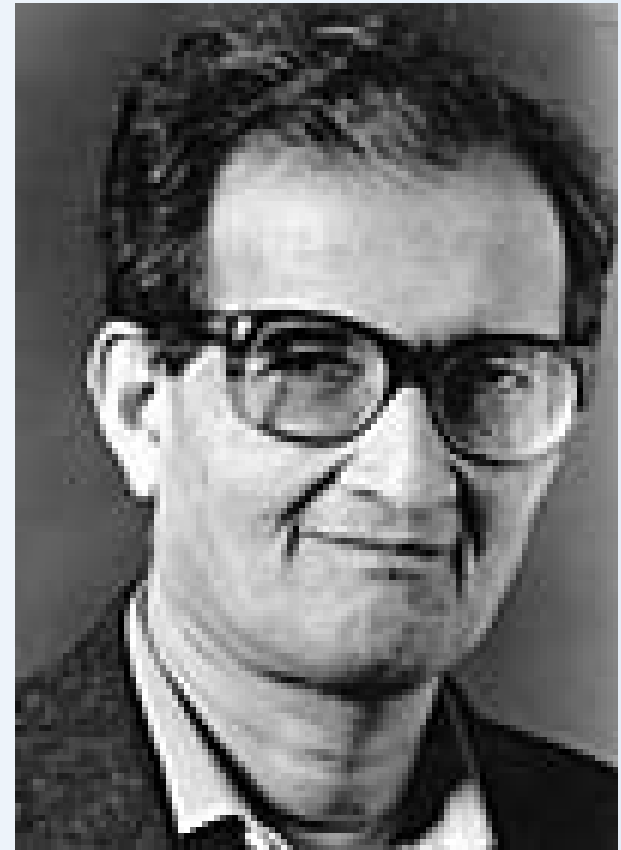


Photo credit: Nobelprize.org

# James Heckman

- Born: 1944, Chicago, USA
- Nobel Prize Economics 2000

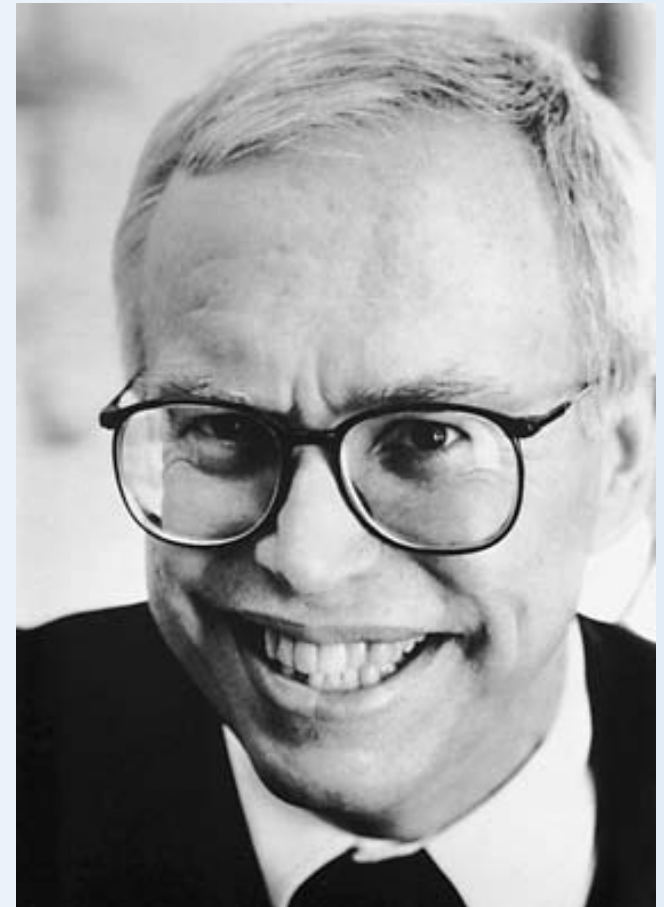
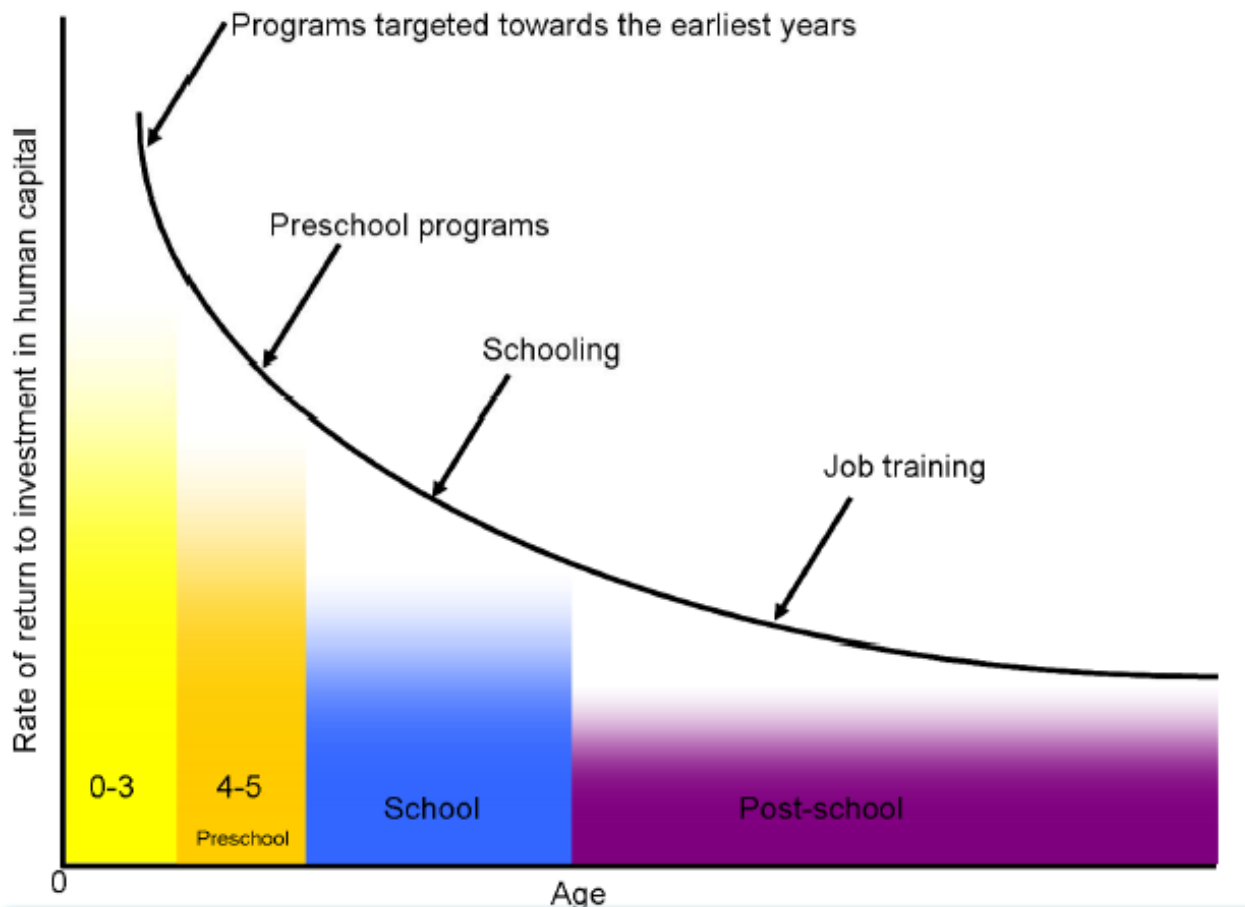


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## High Returns from Early Investments

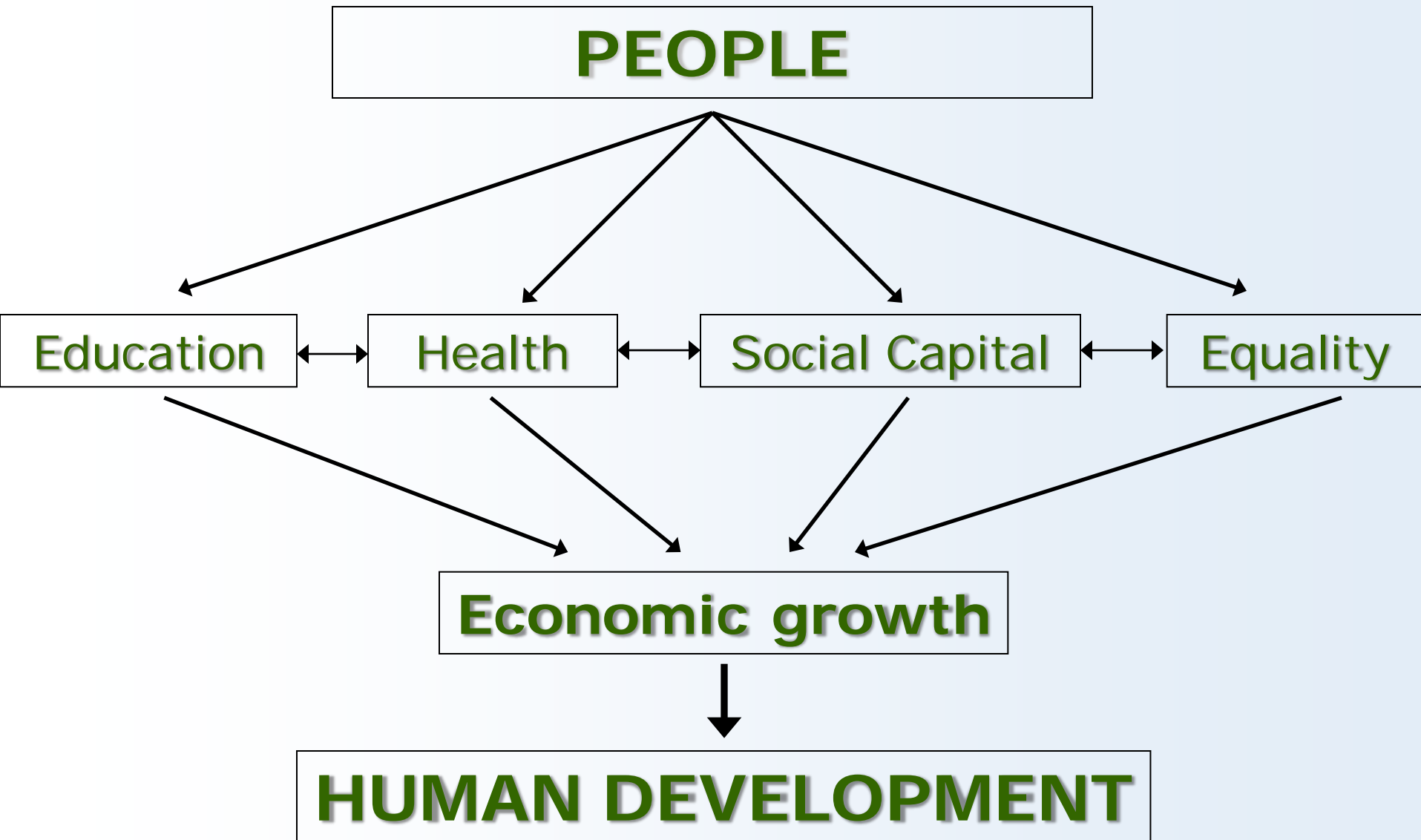


-TAKE  
ADVANTAGE OF  
MALLEABILITY

-BUILD STRONG  
FOUNDATIONS  
FOR FURTHER  
LEARNING

-PREVENT  
EARLY DAMAGE /  
AVOID LOSS OF  
POTENTIAL  
WHICH CANNOT  
BE REMEDIATED

**INVEST STRONGLY IN EARLY CHILDHOOD PROGRAMS, EVEN IF  
PAYOFF IS ONLY 20+ YEARS FROM TODAY**



# Immediate benefits of investing in young children (0-5 yrs.)

Cognitive development

Psychosocial stimulation

Nutritional supplementation

Health care

Parental training

- Higher IQ
  - Practical reasoning
- Eye and hand coordination
  - Hearing and speech
  - Reading readiness

# Immediate benefits

## Health outcomes

Psychosocial stimulation

Nutritional supplementation

Health care

Parental training

- Less morbidity
- Less mortality
- Less malnutrition and stunting
- Better personal hygiene and health care
- Less child abuse

# Immediate benefits

Social development

Psychosocial stimulation

Nutritional supplementation

Health care

Parental training

- Higher self-concept
- Better non-cognitive skills
  - Less aggressive
  - More spontaneous
- More interactive play
  - Better parent-child relationship
- Better peer relationship
  - More socially adjusted

# Adult outcomes → Individual Prosperity

## Returns to education

- Income
- Child care quality
- Own family health
- Social cohesion
- Poverty reduction
- Reduced fertility
- Crime reduction
- ...



Photo credit: Scientific American.

# Adult outcomes → Individual Prosperity

## Returns to better child health

- Better health
- Higher life expectancy
- Better weight and height
- Higher productivity
- Less absenteeism
- Higher income



Photo credit: Reuters/ Aly Song

# Adult outcomes → Individual Prosperity

Returns to better non-cognitive skills

- Social competence
- Social relations
- Norms and values
- Less delinquency

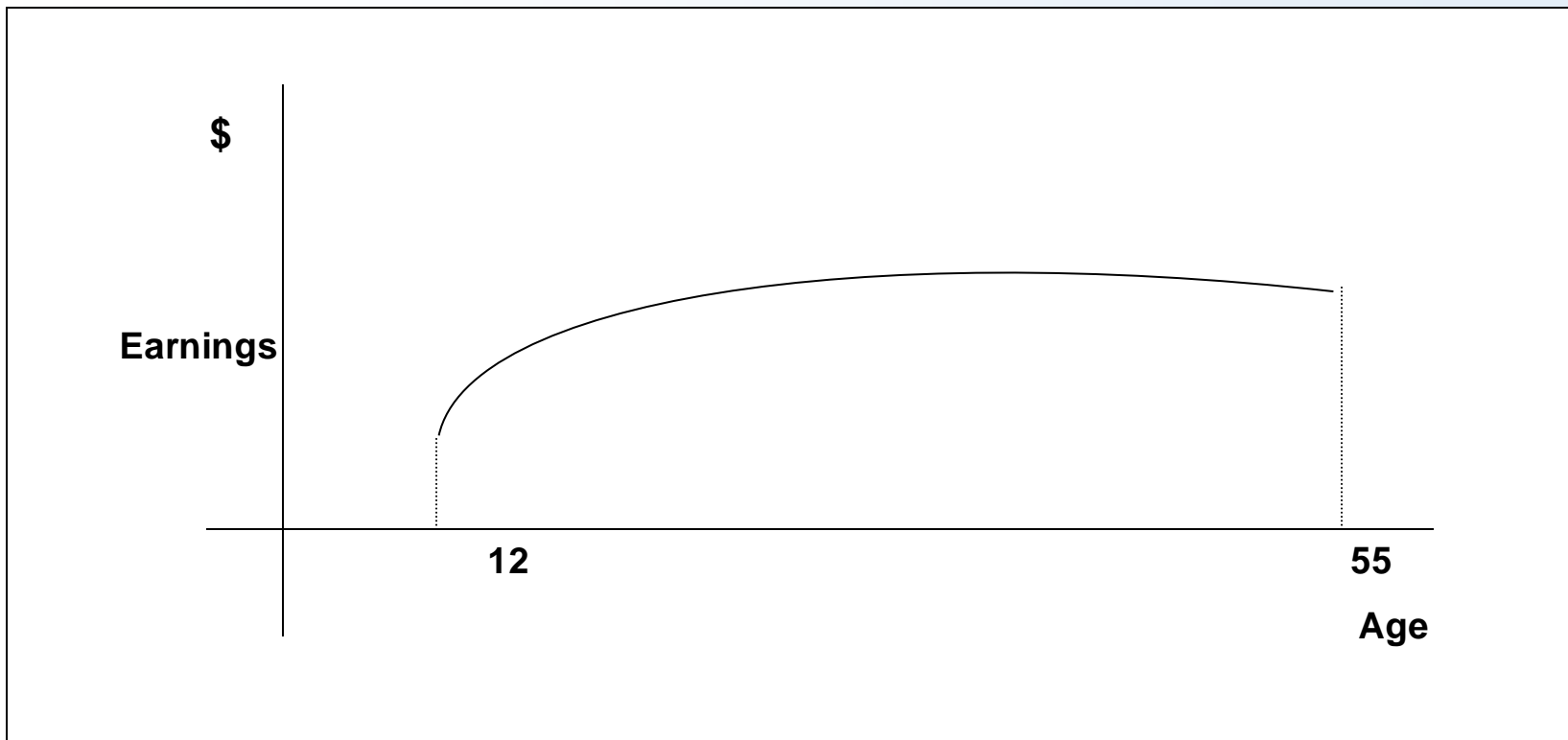


Photo credit: Reuters/ Anthony Njuguna



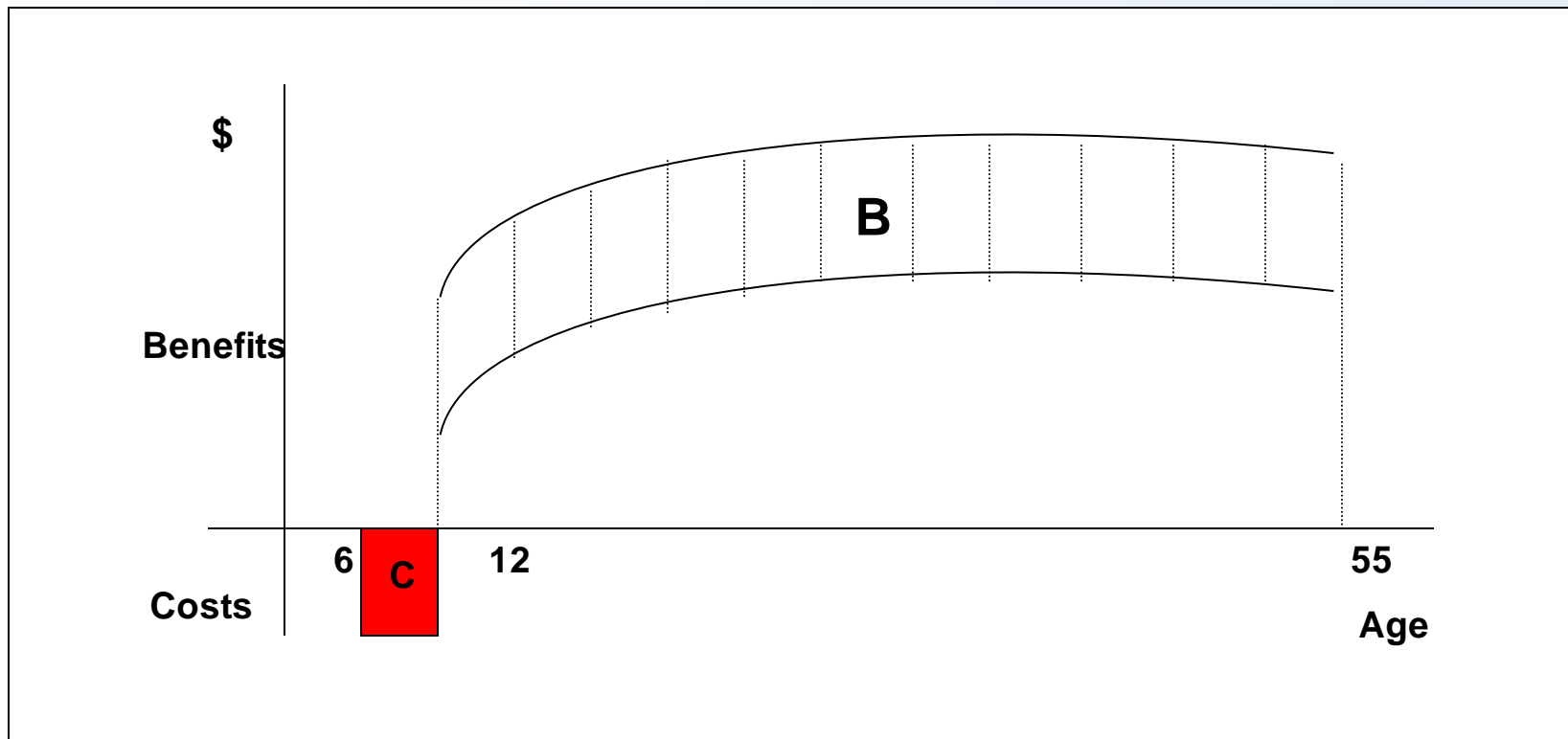
# How to evaluate economic benefits of education

## Age-Earnings profile without schooling



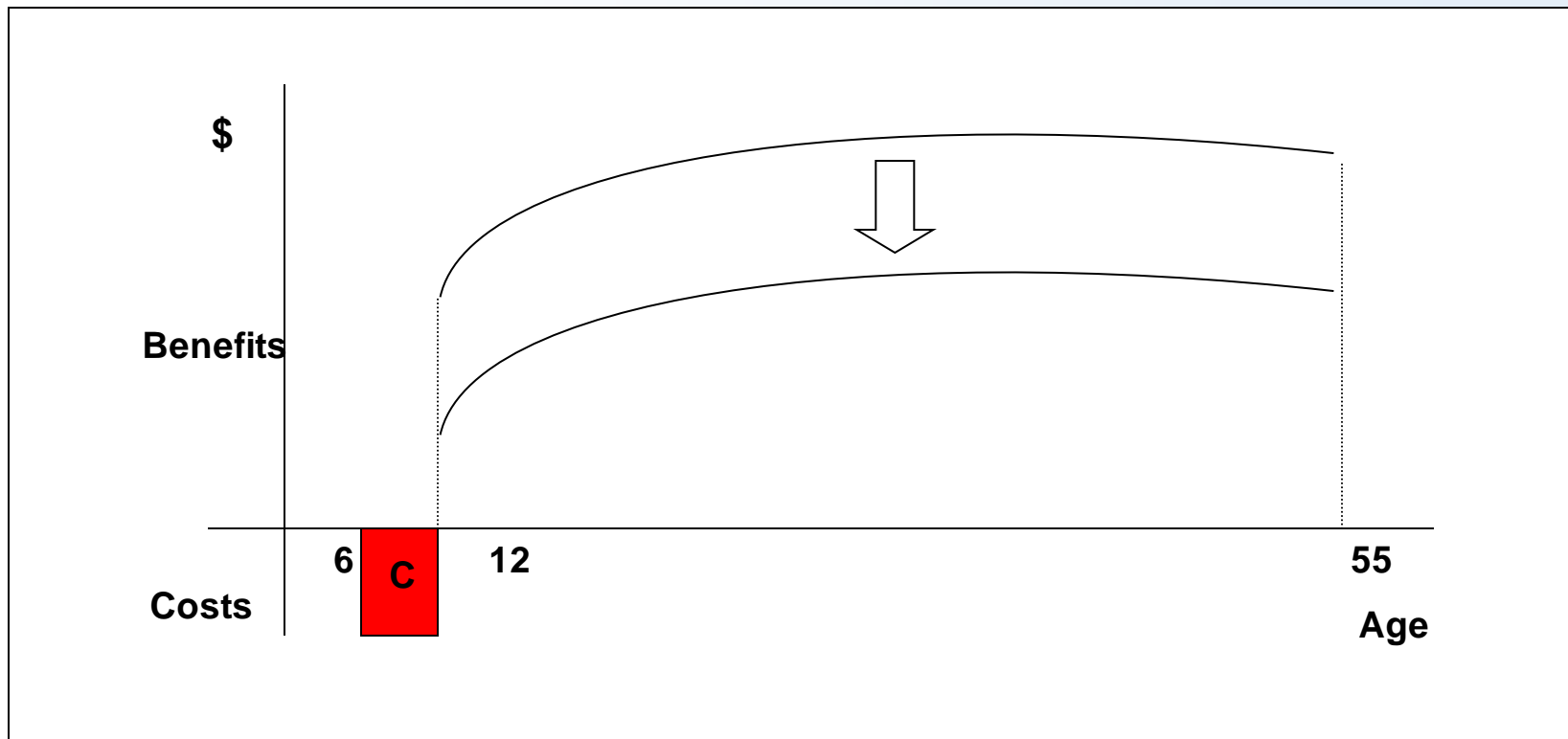
# How to evaluate economic benefits of education

Age-Earnings profile with and without schooling



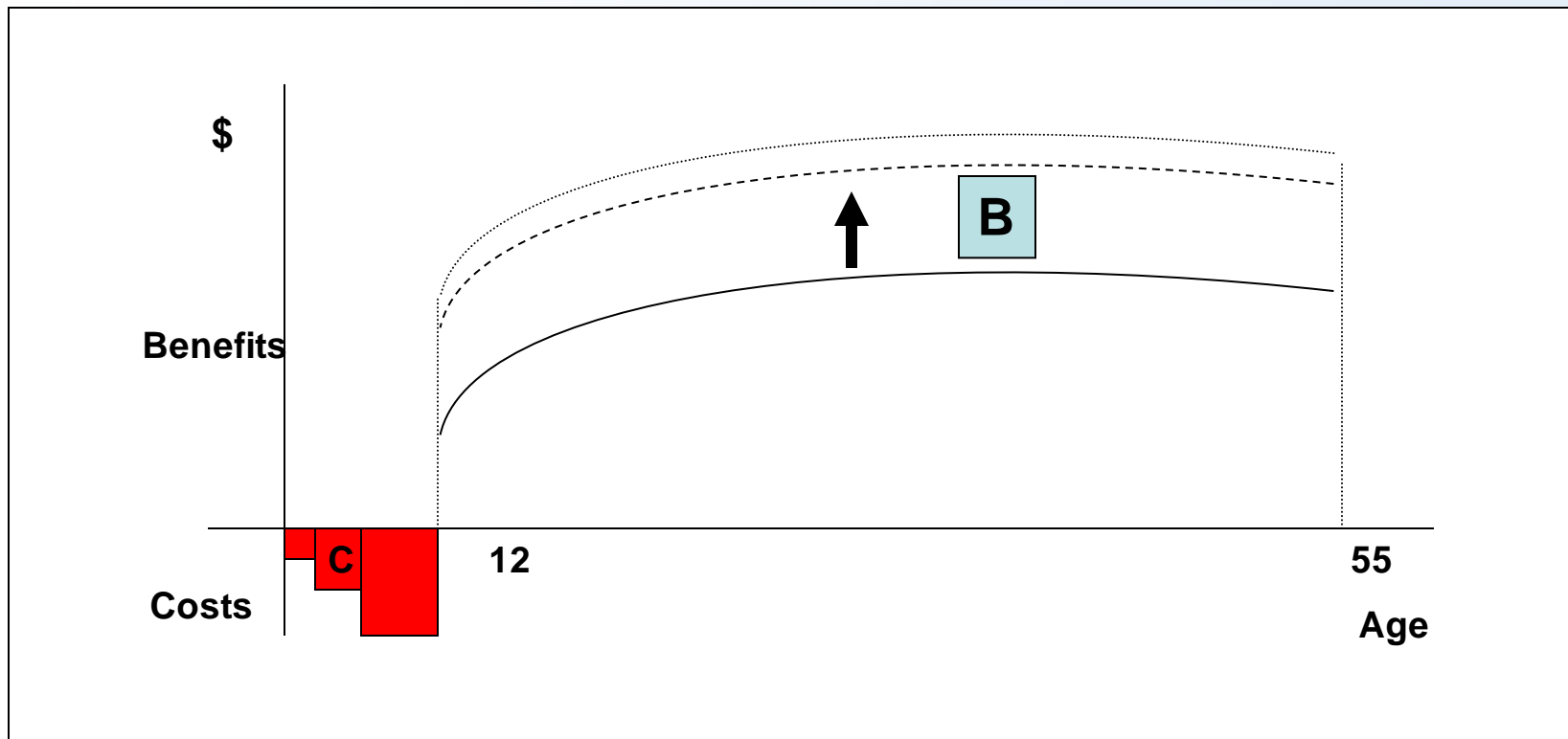
# How to evaluate economic benefits of education

Reduction in the cohort's full productive potential

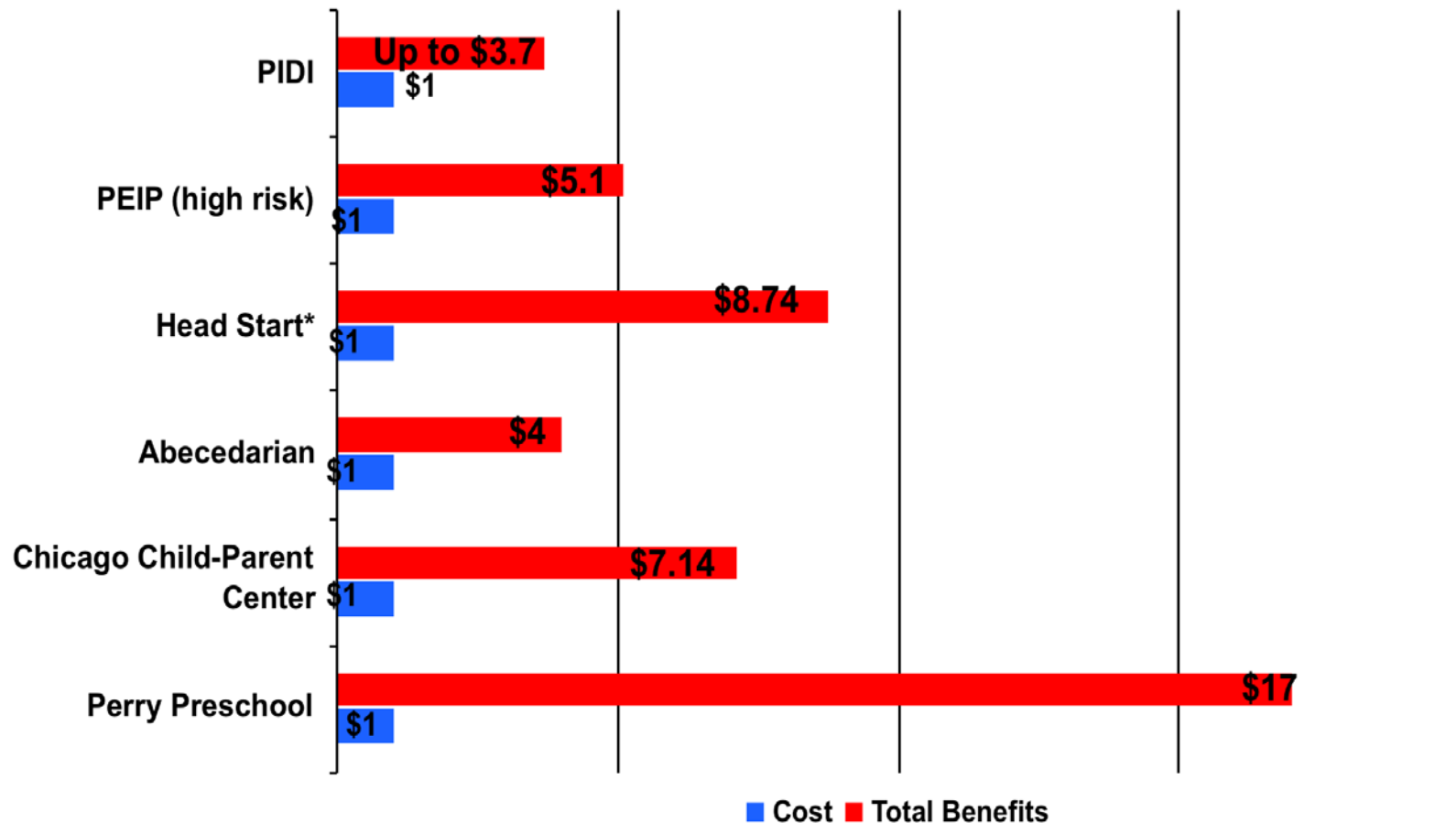


# How to evaluate economic benefits of education

Regaining the lost productive potential



## ECD Cost–Benefit Analysis



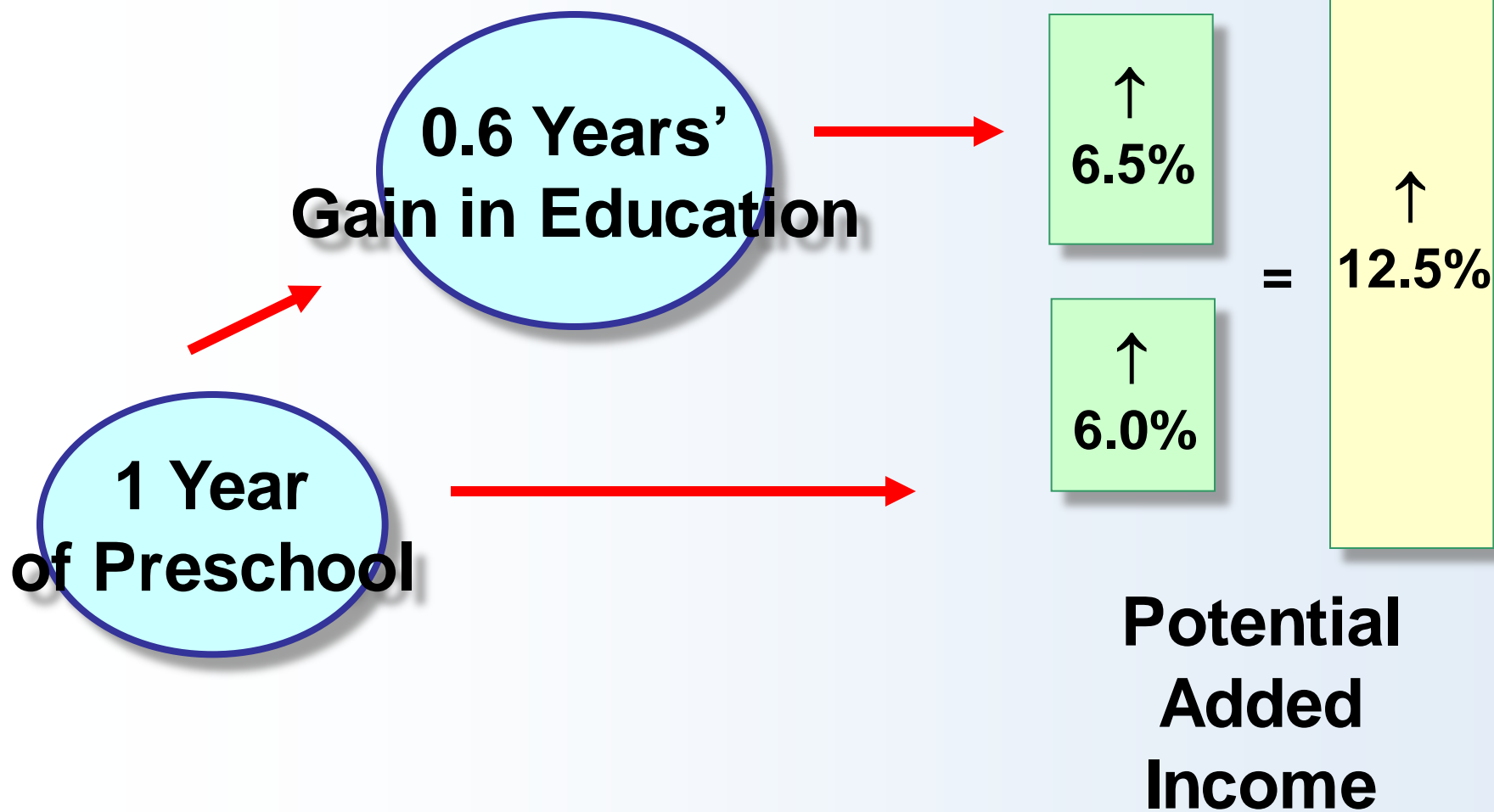
\* Hypothetical benefit–cost analysis. J.H. Meier, 2003.

**Source:** J.H. Meier, *Success of Head Start—School Readiness*, 2003; L.A. Karoly, M.R. Kilburn, J.H. Bigelow, et al., *Assessing Costs and Benefits of Early Childhood Intervention Programs*, Rand Corp., 2001; J. Behrman, Y. Cheng, & P. Todd, Evaluating Preschool Programs When Length of Exposure to the Program Varies: A Nonparametric Approach, *Rev Econ Stat* 86(1):108-32, 2004.

## Brazil – Economics of ECD

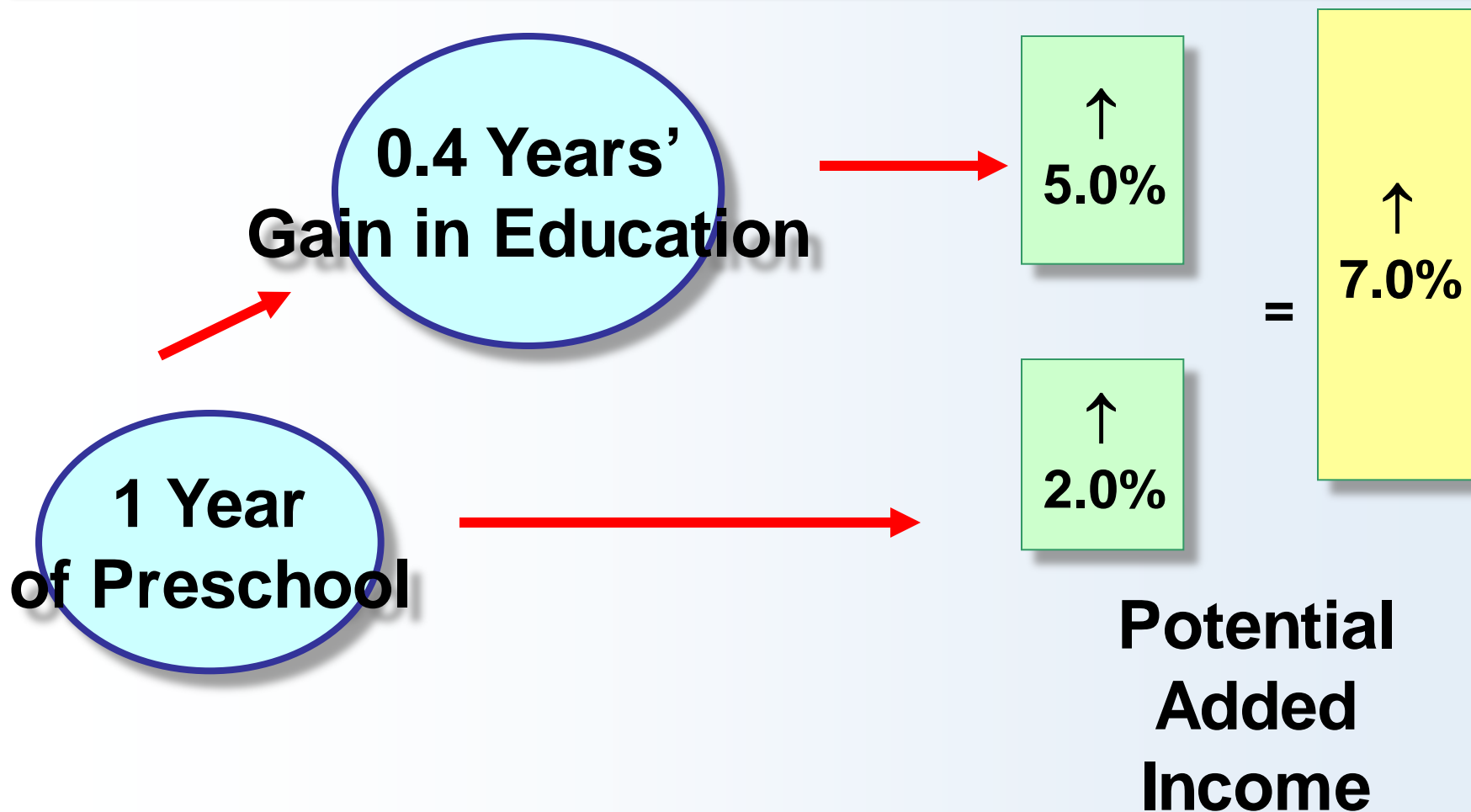
Increased Future Earning Capacity for Children

Whose Parents Are Illiterate



# Brazil – Economics of ECD

Children of Parents with 4 Years of Education



# Causes of Economic Growth

## Economic

- Savings
- Physical Capital
- Natural Resources
  - Trade Policy
  - Price Stability
  - Flexible Markets
- Low Government Exp.

## Social

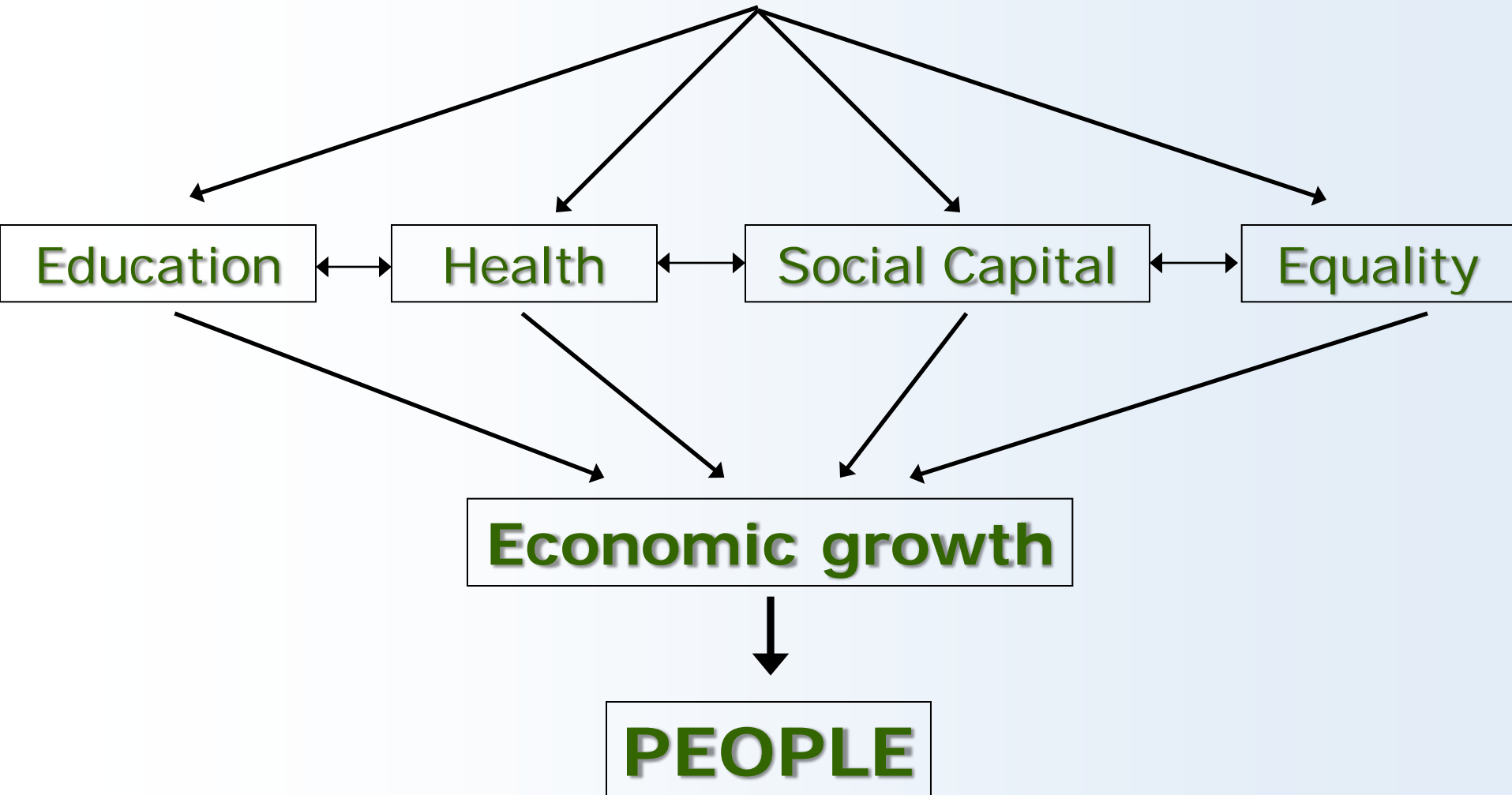
- Education
- Health
- Social Capital
- Equality



# Equality

- Importance for
  - » Poverty reduction
  - » Health of society
  - » Crime reduction
  - » Economic growth
  - » Social justice

# HUMAN DEVELOPMENT



# Implications for Development Policy and Programs

- People are means **and** ultimate objective of development
- Fundamental reassessment of “investing in people”
- *While growth in national production (GNP) is absolutely necessary to meet all essential human objectives, what is important is to study how this growth translates – or fails to translate – into human development in various societies.*

- Human Development Report 1990

# Advances in life sciences have deepened our understanding of the importance of dynamic interactions among:

- **Environmental Influences**
- **Social experiences at home**
- **Social experiences in school**
- **Nutrition**
- **Genetic predisposition**



Photo credit: Half the Sky Foundation

**Growing up in impoverished or unsafe conditions is associated with significant threats to:**

- Long-term Physical and Mental Health
- Cognitive Development
- Educational Achievement
- Emotional Well-being
- Social Adjustment

## Under-nutrition linked to poverty is estimated to contribute to:

- **35% of all child deaths** (due to measles, malaria, pneumonia, and diarrhea)
- **Stunted growth** for more than 200 million children worldwide



Photo credit: Reuters/Bazuki Muhammad

## Effective early childhood policy calls for an integrated approach to both stimulating minds and protecting brains:

*As ministries of:*

- **HEALTH** prioritize child survival
- **EDUCATION** promote child development
- **WELFARE** promote social development &
- **FINANCE** promote economic development,

an integrated biology of adversity offers a compelling knowledge base that could inform a unifying strategy across policy sectors.

# The Virtuous Cycle of Human Development:

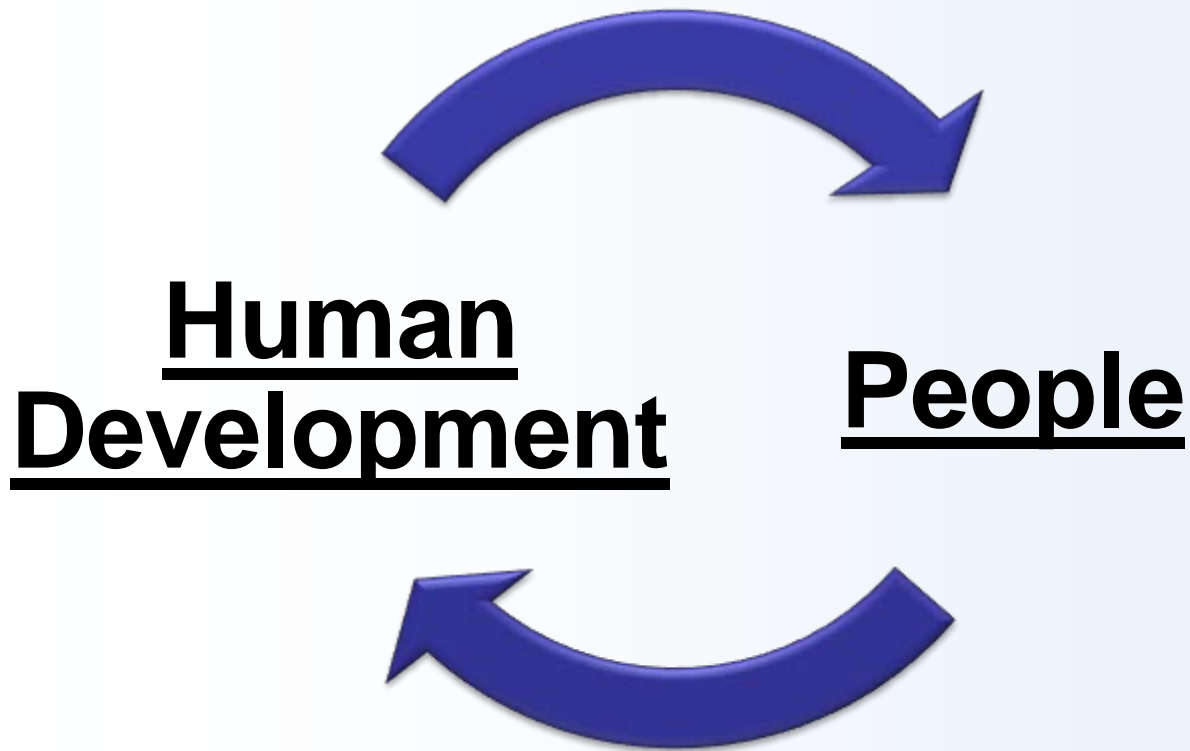


Photo credit: linktv.org