

# Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world

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January 25, 2007

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# Acknowledgements

**UNICEF – Yuko Nonoyama, Nurper Ulkuer,  
Ian Darnton-Hill, Miriam Labbok, Alan  
Court**

**Innocenti Research Centre – David Parker  
and staff**

**Bernard van Leer Foundation – Marion Flett  
Deanna Olney, UC Davis**

# The Challenge:



**What interventions have worked at scale to reduce the loss of developmental potential from the 4 major risks and 3 emerging risks?**

**What are the barriers to increased investment in these interventions?**

**What are the benefits of increased investment in these interventions?**

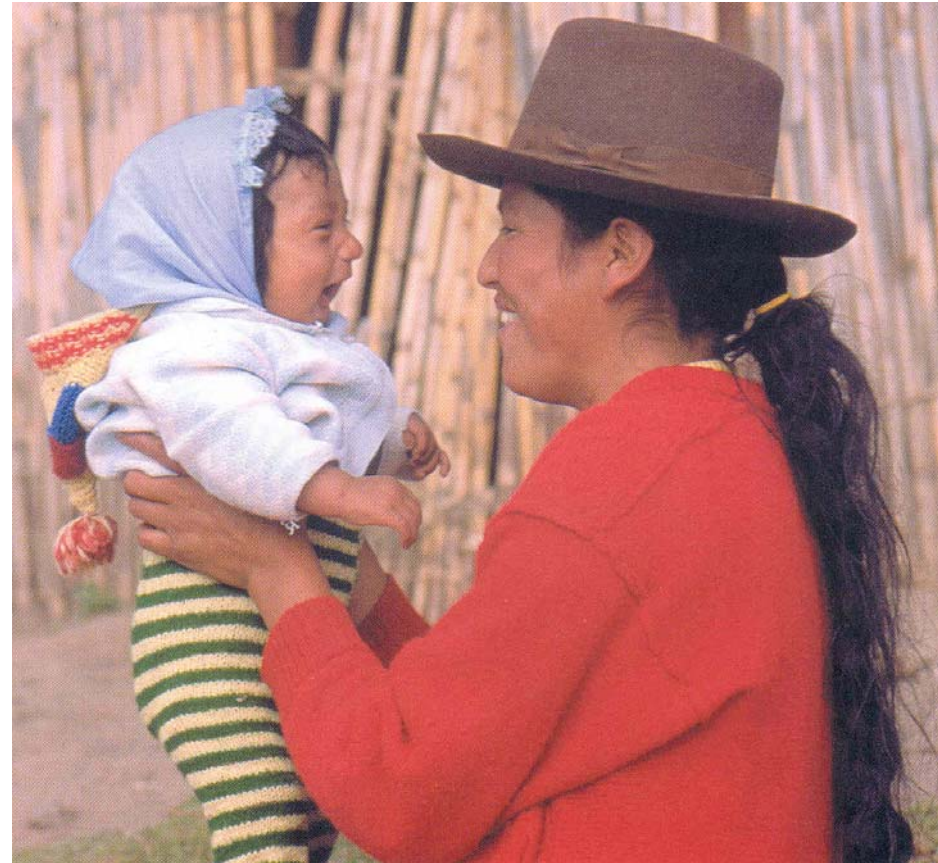
# Risks (based on paper 2)

## **Well-documented risks:**

stunting  
iron deficiency  
iodine deficiency  
lack of cognitive and  
social-emotional stimulation

## **Potential risks:**

Social  
Environmental  
Infectious



# Why Now?

## **New Interest**

Developing countries are becoming interested in ECD – health and nutrition, pre-primary education, conditional cash transfer programmes, comprehensive (e.g., Nicaragua, Ghana, Kenya, Malawi, Laos, many others) **often for poverty reduction**

## **New data availability**

- Meta-analyses of longitudinal studies in industrialized countries and large-scale evaluations
- New evaluations of large-scale programmes in developing countries

## **New demands on children**

- education, urbanization, and globalization

# **Many programmes exist – often not at scale**

**Development information is being added to growth cards – in over 50 countries**

**Health care centers incorporate Care for Development into health visits (Moldova, Kazakstan, Syria, Lebanon, Vietnam, etc.)**

**Community child development centers in homes to provide support, feeding, access to health care for poor (Burma, Nicaragua, Bolivia, Colombia, Philippines, Malawi, India, Swaziland).**

**Parenting and family support for young children affected by AIDS, others at risk**

# 3-6 Months

## What you can do

Have large colourful objects for your child to see and to reach for



Talk to & respond to your child. Get a conversation going with sounds or gestures.

## What children can do

Around 6 months, most children can

Hold head steady when held upright



Turn to a voice



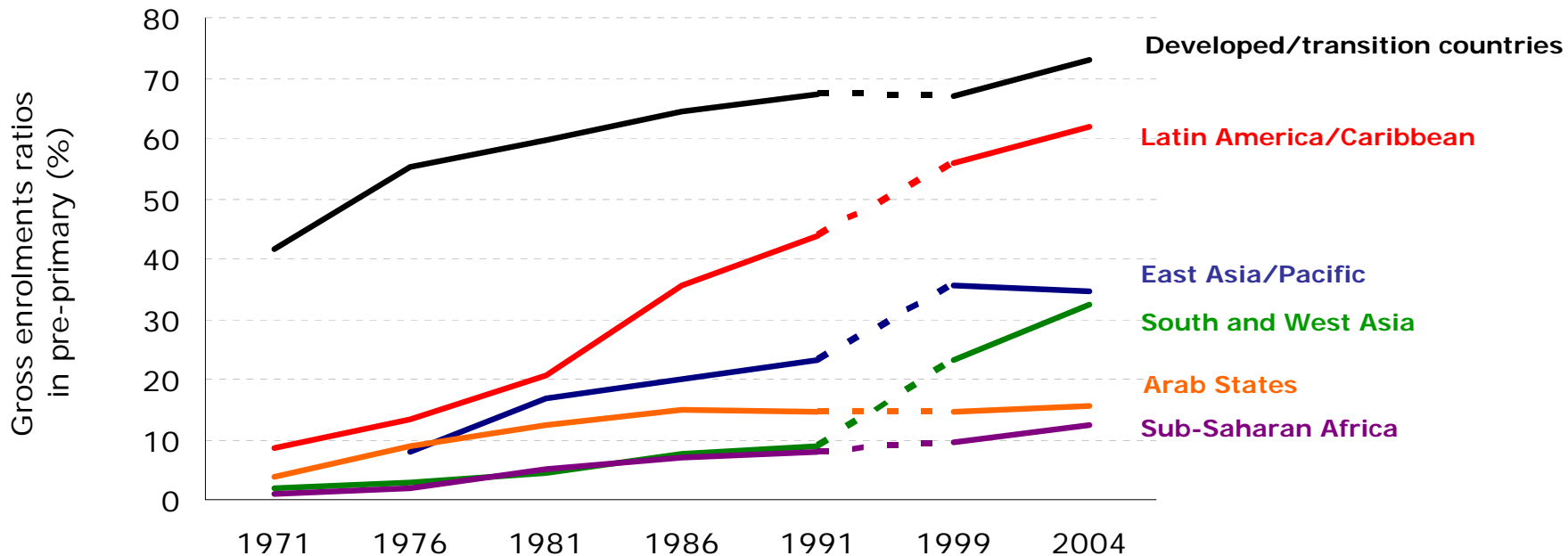
Reach out for objects

# Trends in pre-primary enrolment

A three-fold increase in pre-primary enrolments over 30 yrs

More than 1 in 3 children now enrolled

Huge regional differences



# Strategies

- **Improve food intake and reduce stunting**
- **Reduce iodine and iron deficiencies**
- **Stimulation combined with nutrition and health programmes**

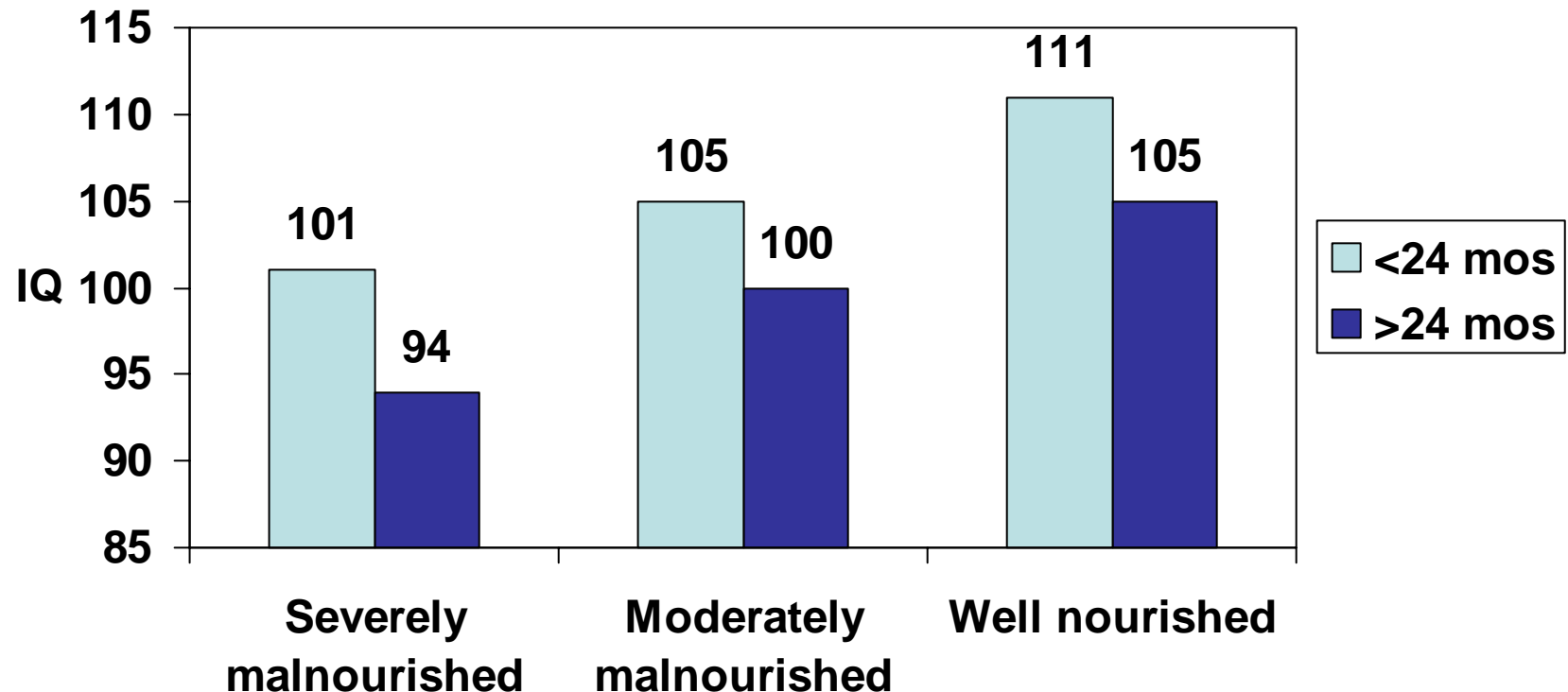
## Effects On:

- **School performance**
- **Cognitive and**
- **socio-emotional**
- **development**
- **Lifetime earning**

**Focus on combined programmes;  
potential for synergy**



# Effects of combined improved nutrition and environment



Adapted from Winick et al 1975, 1977

IQ scores of female Korean orphans vary by history of malnutrition and age of adoption, favoring better nutrition and younger age of adoption.

# Criteria for programme evaluations since 1990:

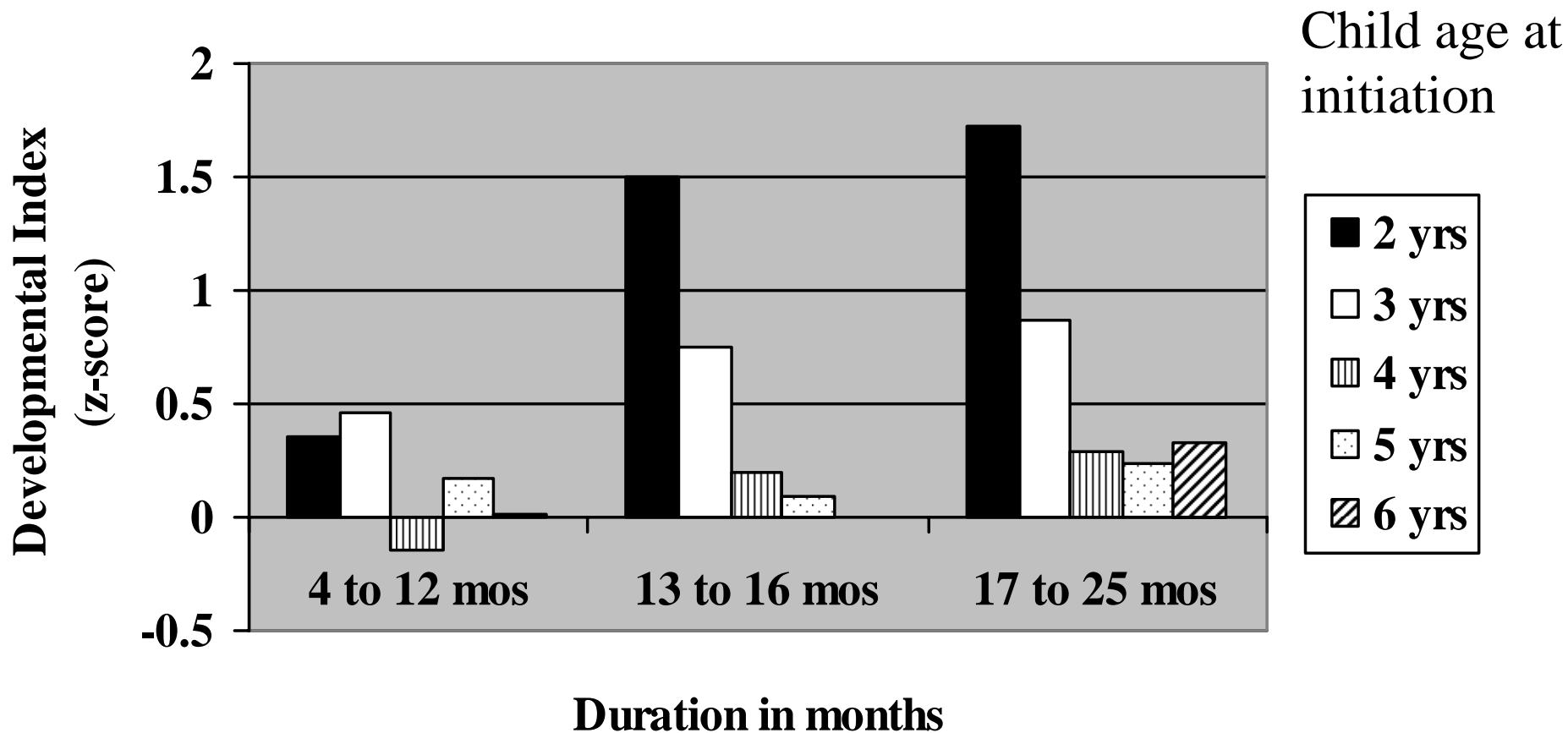
- Randomized controlled trial or matched groups
- Intervention before child was 6 years of age
- Intervention was a programme or effectiveness study
- Child development was assessed
- Disadvantaged children
- Developing country

**20 out of 34 located met these criteria**

# Effects of interventions on cognitive and social-emotional development

Type of intervention	Significant results (of total evaluations)	Effect sizes
Mainly centre-based	8 of 8	0.23 to 1.40
Mainly parent-child and parenting	5 of 6	0.45 to 0.8
Comprehensive	5 of 6	0.37 to 1.80

# Philippines Early Child Development Programme



Developmental index varies by child's age and duration of time in program, favoring younger children with longer duration.

# Characteristics of Successful Programmes

- **Comprehensive**
- **Focus on disadvantaged children**
- **Begin with younger children**
- **Sufficient intensity and duration**
- **Quality**
  - **Training of staff,**
  - **Children have opportunities for initiative and exploration in their learning environment**
  - **Partnership with families**
  - **Blend traditional child rearing with evidence-based approaches**

# Other risks and status of possible interventions

## **Social risks:**

Maternal depression

Violence toward children

Parental loss

*Problem recognized; need for research on interventions.*

## **Environmental risks:**

Lead and arsenic

*Mitigation possible; effects on child development not yet known.*

## **Infectious risks:**

Malaria

HIV infection

*Negative effects on children; effects of treatment not known.*

# Benefit of investment in early child development

**An ECD programme with effect size of 1.0 and 90% coverage would result in almost 1 additional year of schooling and a 5-10% increase in lifetime earnings.**

**The Bolivia World Bank (PIDI) programme of home-based preschools and feeding had a benefit of \$1.8 to \$3.66 per dollar of project cost**

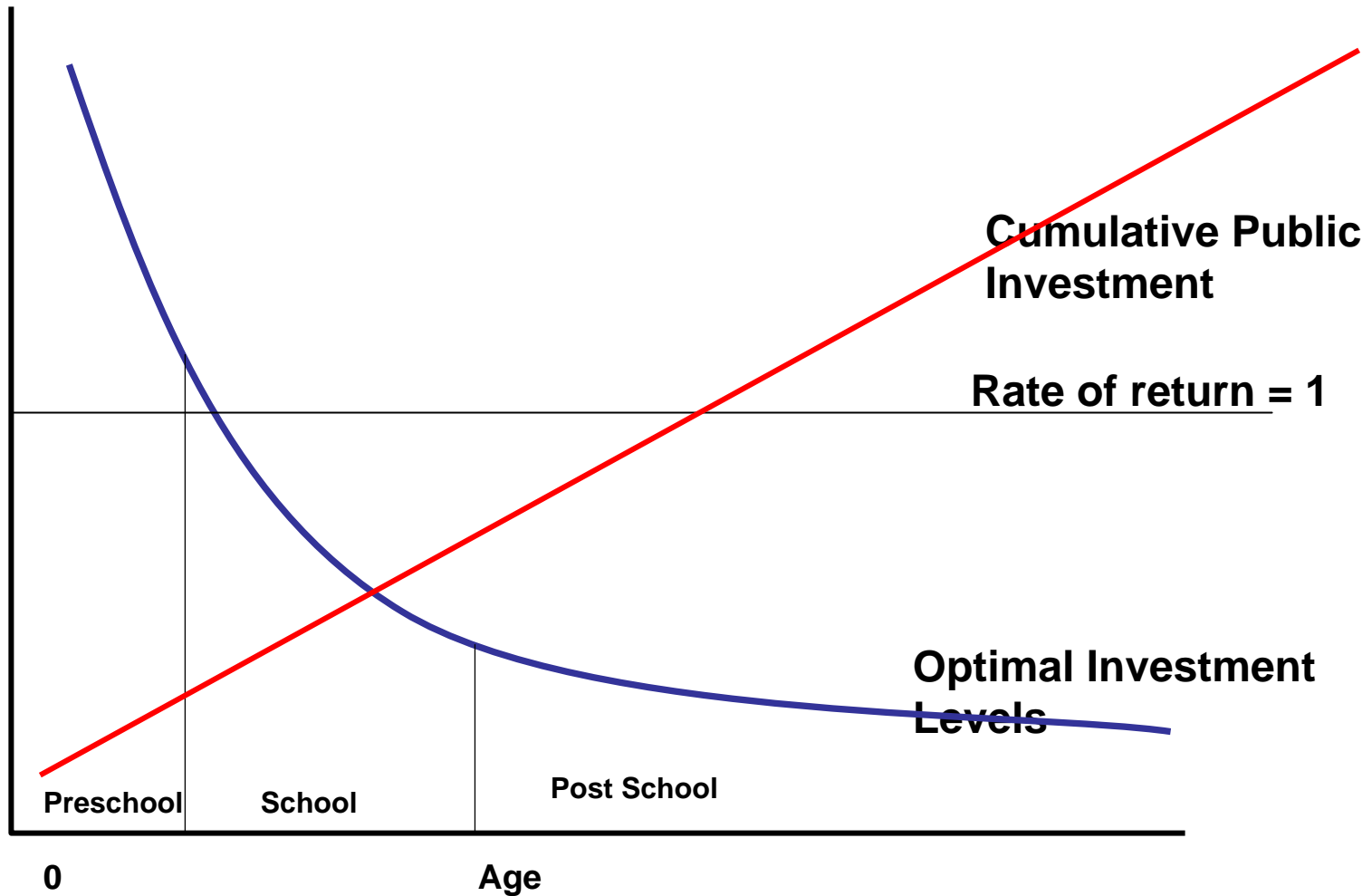
# Benefit of investment in early child development

**Nobel Laureate J. Heckman: “Early interventions targeted to disadvantaged children have much higher returns than later investments. »**

**“It is a rare public policy initiative that promotes fairness and social justice and at the same time promotes productivity in the economy and in society at large ».**

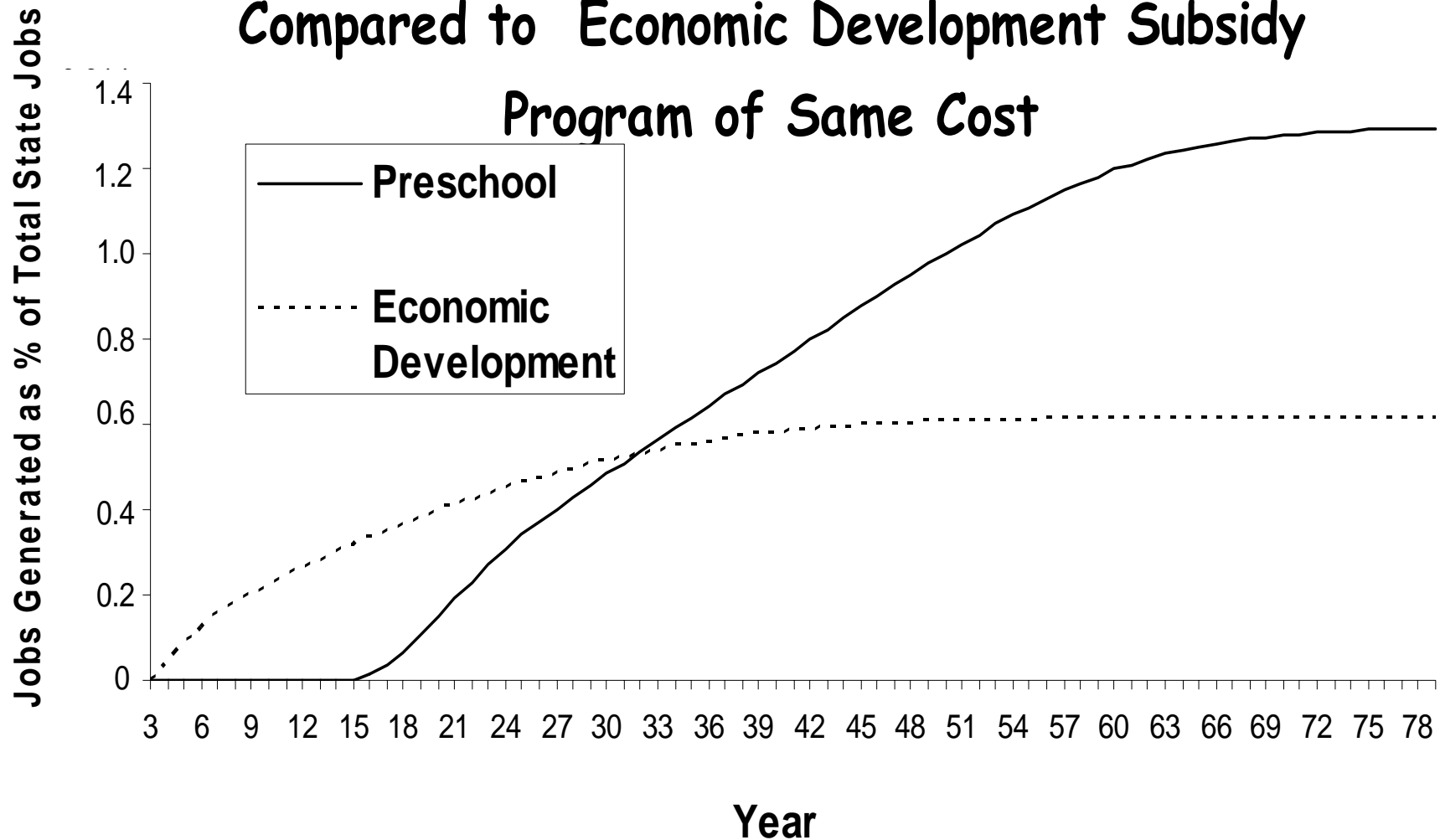
(Science, 2006)

# Cost-benefit analysis



Source: Heckman & Carneiro Human Social Policy, 2003, Voices for America and the Child and Family Policy Center. Early Learning Left out An Examination of Public Investment in Education and Development by Child Age, 2004

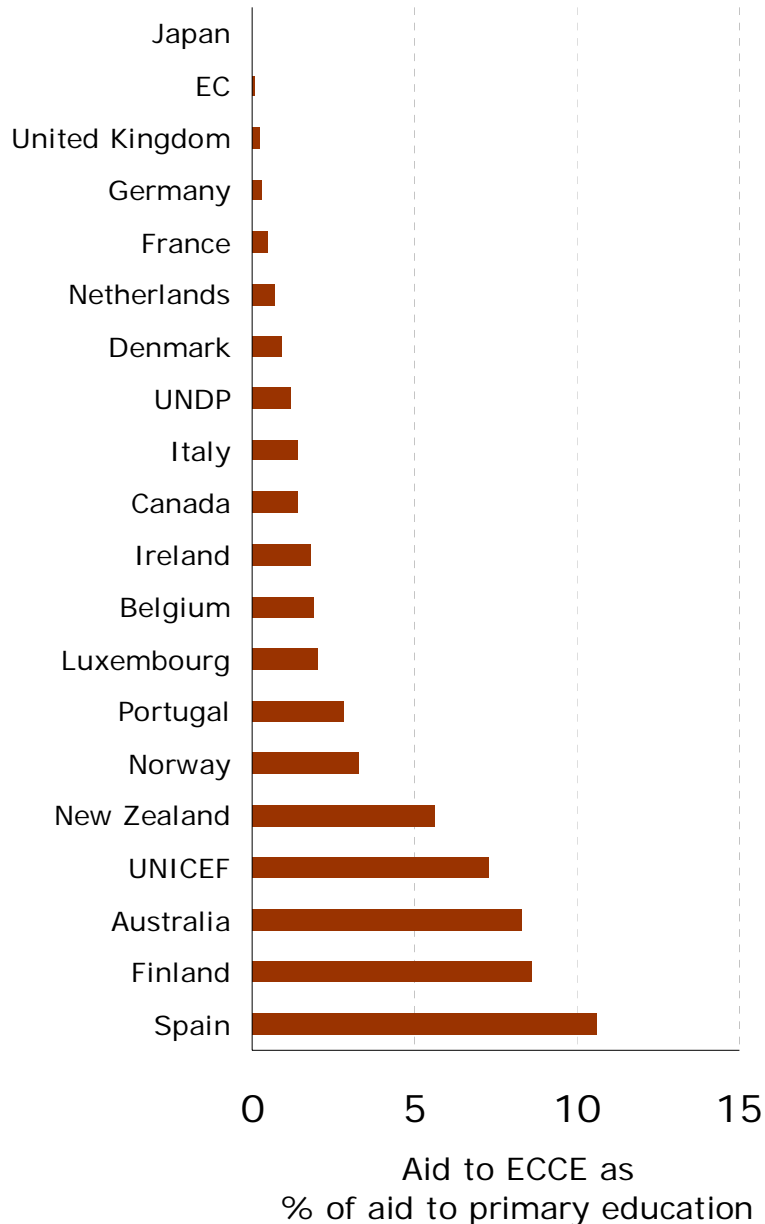
# Employment from Universal Preschool Program, Compared to Economic Development Subsidy Program of Same Cost



Source: Bartik (2005)

Dr. Greg Duncan, U of Chicago

# Early Child Development: Low priority for donors



Almost all donors allocate to pre-primary less than 10% of what they give to primary

Bilateral donors give priority to centre-based programmes for children from age 3

**From EFA Report,  
UNESCO 2007**

# Barriers to Investment

- **Loss of developmental potential is not recognized**
- **No global indicators of child development**
- **Harder to justify long-term benefits than short term**
- **Multiple stakeholders for young children**
- **Variety of strategies for promoting early child development, not a single one**

# Research, Policy, and Programme

## Recommendations- examples

- **Implement early child development interventions combining with health and nutrition services**
  - families and caregivers age 0-6 yr,
  - center-based care age 3-6 yr
- **Strengthen the evidence base for interventions (e.g., maternal depression)**
- **Create coordinating mechanisms across ministries for Early Child Development**
- **Define a core set of globally accepted indicators for child development**

# **Short term programming wins – some examples**

**Link ECD information and support with growth monitoring**

**Incorporate play into nutrition rehabilitation  
(community or center)**

**Add Care for Development and even children's books to health care visit for child or mother**

**Identify the best strategies for strengthening families' developmental care for children**

**Evaluate and improve effectiveness**

# Conclusions

**Effective interventions are available**

**Early child interventions are more cost effective than interventions later in life**

**Response to Early Child Development has been too slow**

**To achieve the MDGs,  
the world needs to  
pay greater attention to  
comprehensive early  
child development  
programmes**

