

Effect of growing up poor on labor market outcome: Evidence from Indonesia

Mayang Rizky, Daniel Suryadarma, Asep Suryahadi

The SMERU Research Institute

Forum Kajian Pembangunan, October 2020

Two competing views of intergenerational poverty

THE CONVERSATION

Disiplin ilmiah, gaya jurnalistik

🔍 Cari analisis, penelitian, akademisi...

COVID-19 [Bisnis + Ekonomi](#) [Kesehatan](#) [Kota](#) [Pendidikan](#) **[Politik + Masyarakat](#)** [Sains + Teknologi](#) [Seni + Budaya](#) [Lingkungan Hidup](#) [In English](#)

Mengapa orang Indonesia merasa kunci sukses seseorang ada pada ikhtiar dan bukan latar kelas sosialnya?

Juni 23, 2020 1.56pm WIB



Penulis

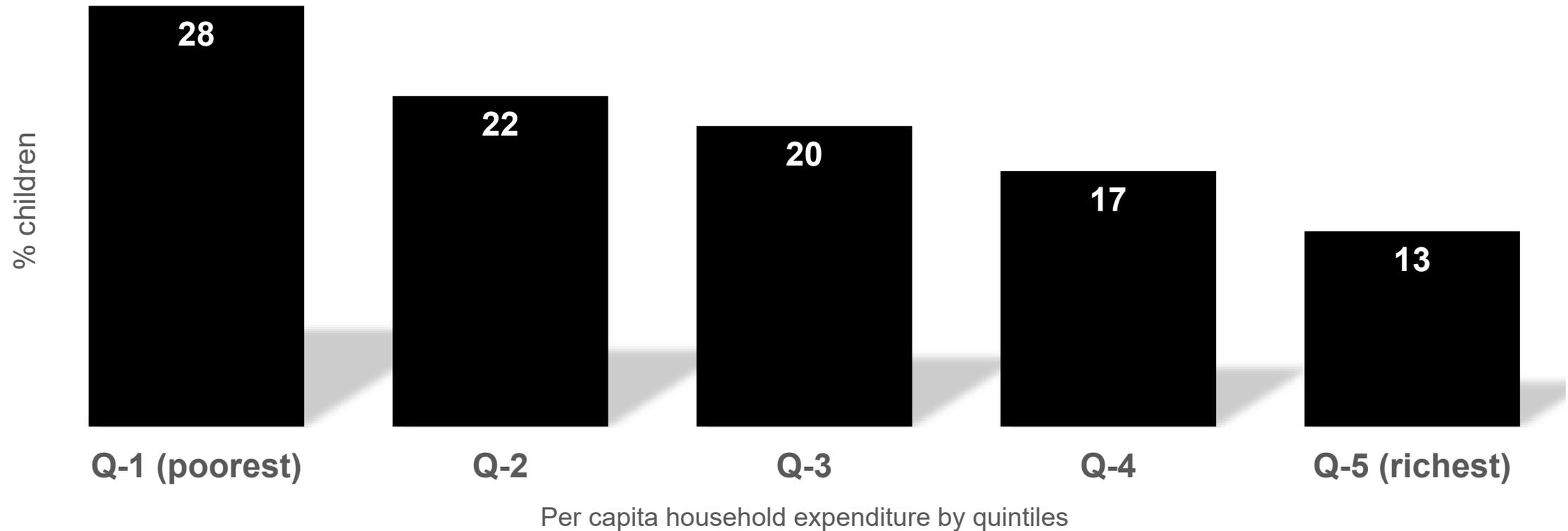


Senza Arsendy

Researcher, Inovasi untuk Anak Sekolah Indonesia (INOVASI)

Children have a higher risk of poverty

Distribution of children by expenditure quintiles, 2009



Source: UNICEF, SMERU, Bappenas (2013).

Childhood conditions and adult outcomes

- In developed countries (Currie 2009) and developing countries (Maccini and Yang 2009)
- Term effects:
 - Short- and medium-term: education (Duncan et al 2009; Dahl & Lochner 2012), health and cognitive (Loken et al 2012; Maika et al 2017)
 - Long-term: labor market outcome/earnings (Cho and Heshmati 2015; Lesner 2017; Bellani & Bia 2019)
- The effect is at its greatest:
 - Earlier ages → US (Duncan et al 1998; Levy and Duncan 1999)
 - Later childhood → Northern Europe (Jenkins & Schluter 2002; Lesner 2017)
- Indonesia: both early- and later-poverty have equal effects on children's cognitive (Maika et al 2017).

We follow 1,522 children from 2000 to 2014

Indonesian Family Life Survey (IFLS) 2000, 2007, and 2014

8-17 years old
poor and non-poor children



22-31 years old
working adults



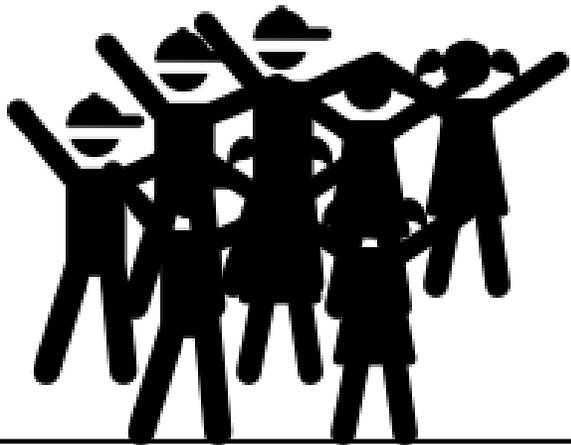
We find that

- A child (8-17 years old) who lived in a poor family suffers from an 87% earnings penalty relative to their counterparts
- The effect remains after we account for a large set of mediators
- But, we find no evidence that receiving government transfers (BLT & Raskin) mediates the effect of growing up poor on earnings as adults
- Therefore, an in-depth impact evaluation of programs aimed at breaking intergenerational poverty is important.

What we measure?

Indonesian Family Life Survey (IFLS) 2000, 2007, and 2014

8-17 years old
poor and non-poor children



Children's poverty status in 2000
and 2007 (poor=1, non-poor=0)

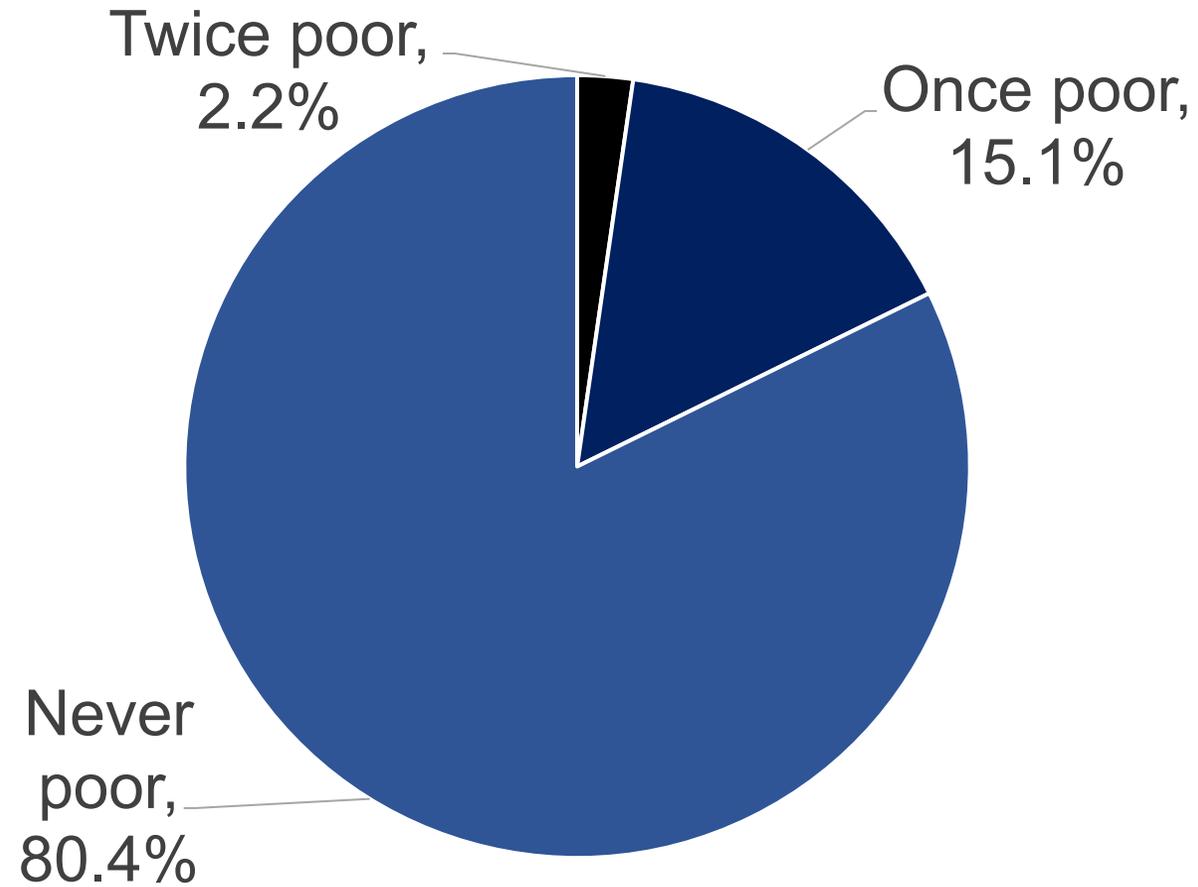
- Measures of human capital:
 - Performance in cognitive and numeracy tests, years of schooling
 - Lung capacity (mean volume, l/min)
- Age, sex, urban/rural location, mother's education and work status
- Household characteristics

22-31 years old
working adults



Hourly wage as a measure
of labor market outcome

17% of children in the sample are poor



They live in a relatively different condition

Poor children

-0.3 standard deviation
below the average cognitive and mathematics scores

Years of schooling **8.4**

-0.02 standard deviation
below the average volume of lung capacity (l/min)

68% unschooled
4% secondary school **Mothers**

Household size **>5**

One-third
Television

2% Cleaner
cook-fuel

A quarter
Proper sanitation

vs

Non-poor children

0.06 standard deviation
above the average cognitive and mathematics scores

10.1 Years of schooling

0.1 standard deviation
above the average volume of lung capacity (l/min)

<6 Household size

Mothers 41% unschooled
12% secondary school

One-half
Proper sanitation

13% Cleaner
cook-fuel

>70%
Television

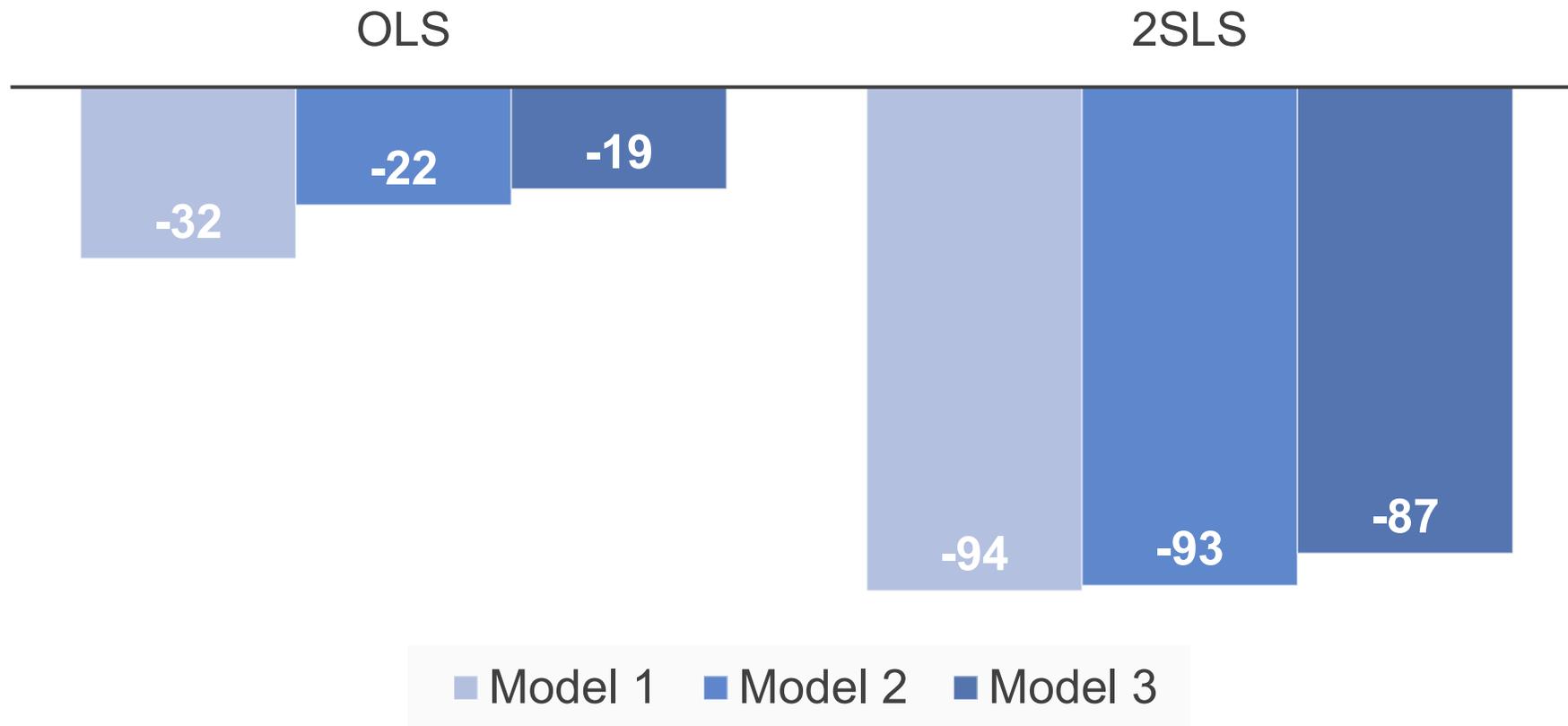


Earnings gap between poor and non-poor children

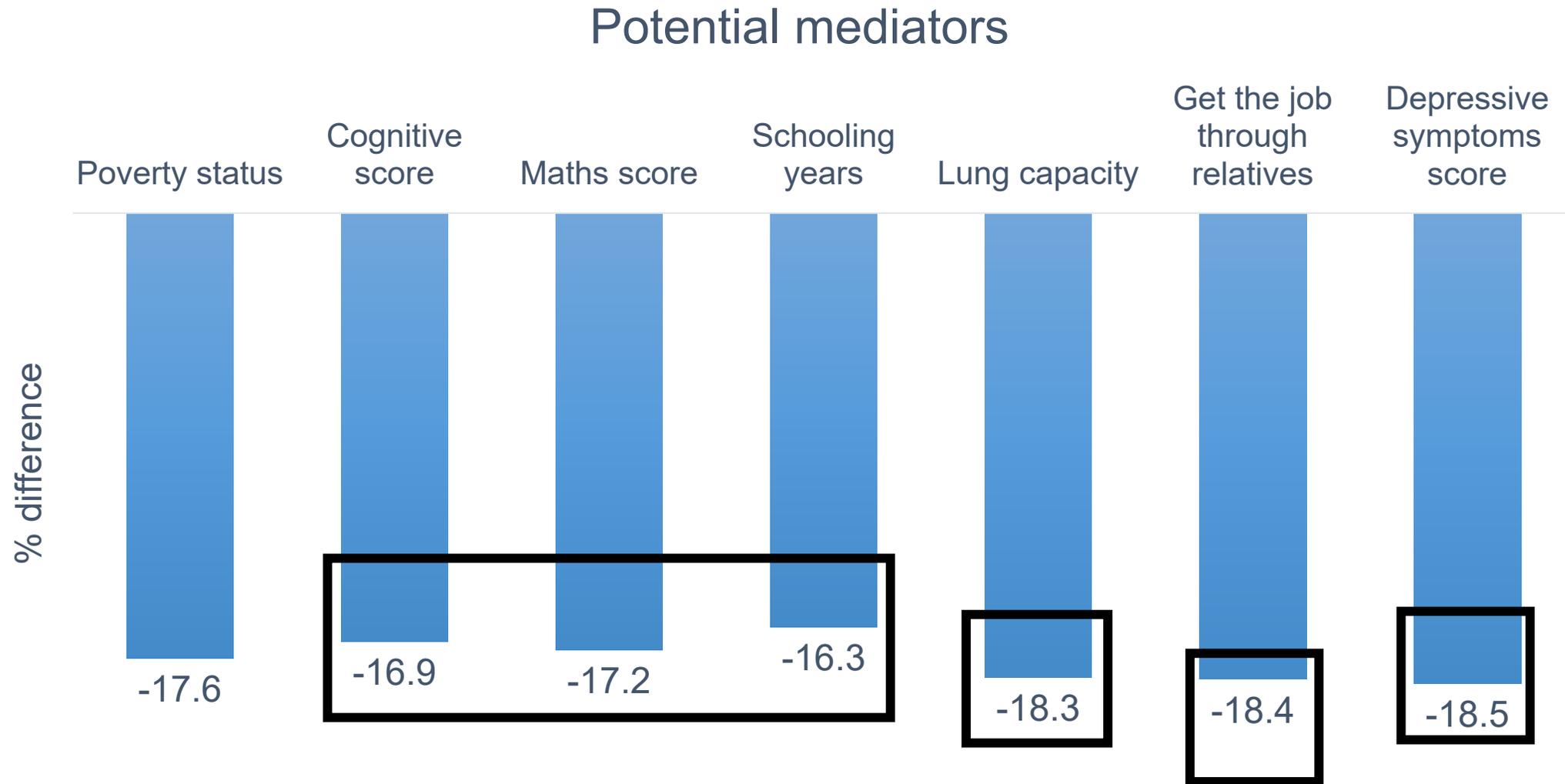


Poor children earn 87% less

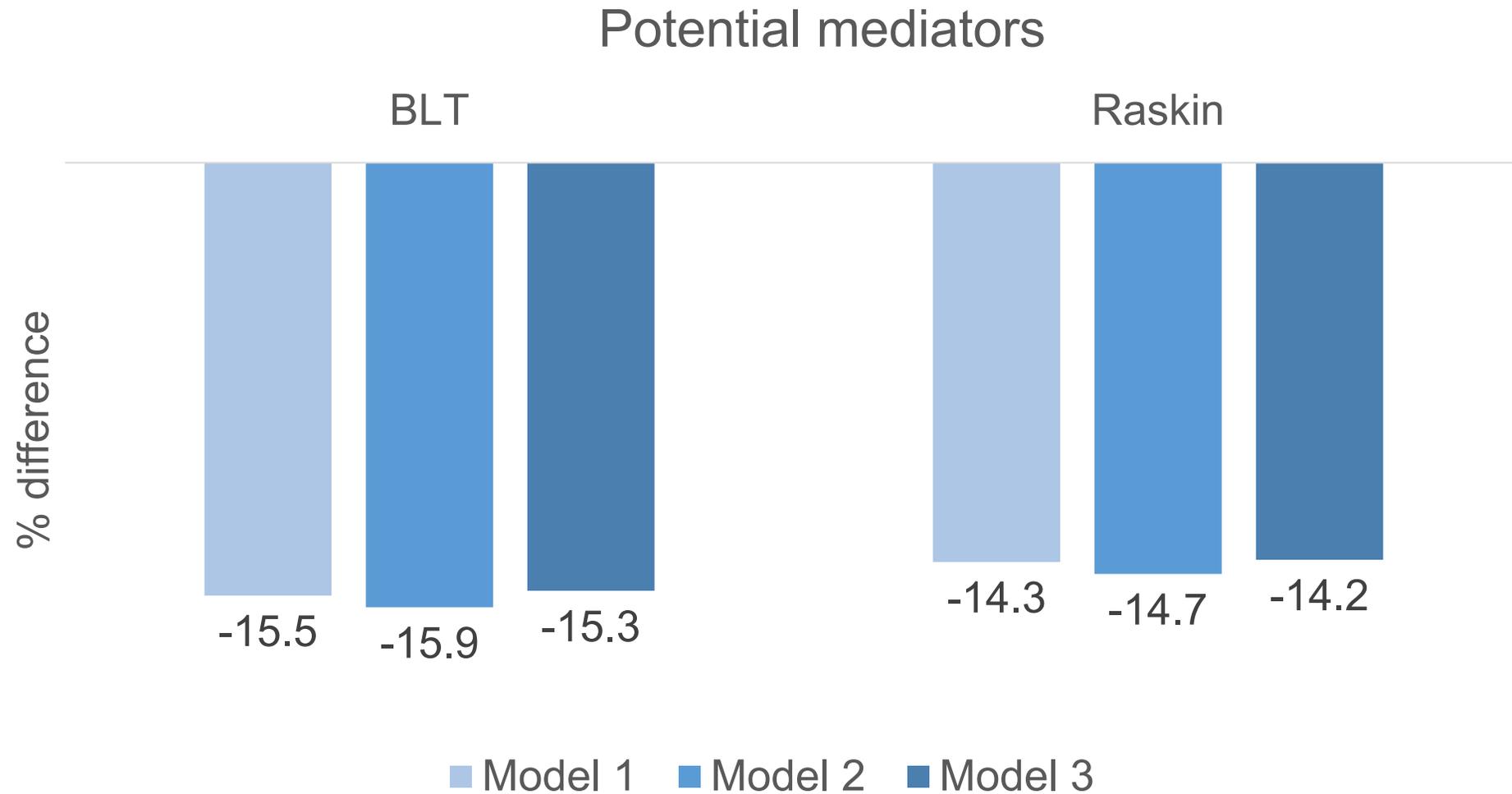
Earnings penalty of growing up poor (% difference)



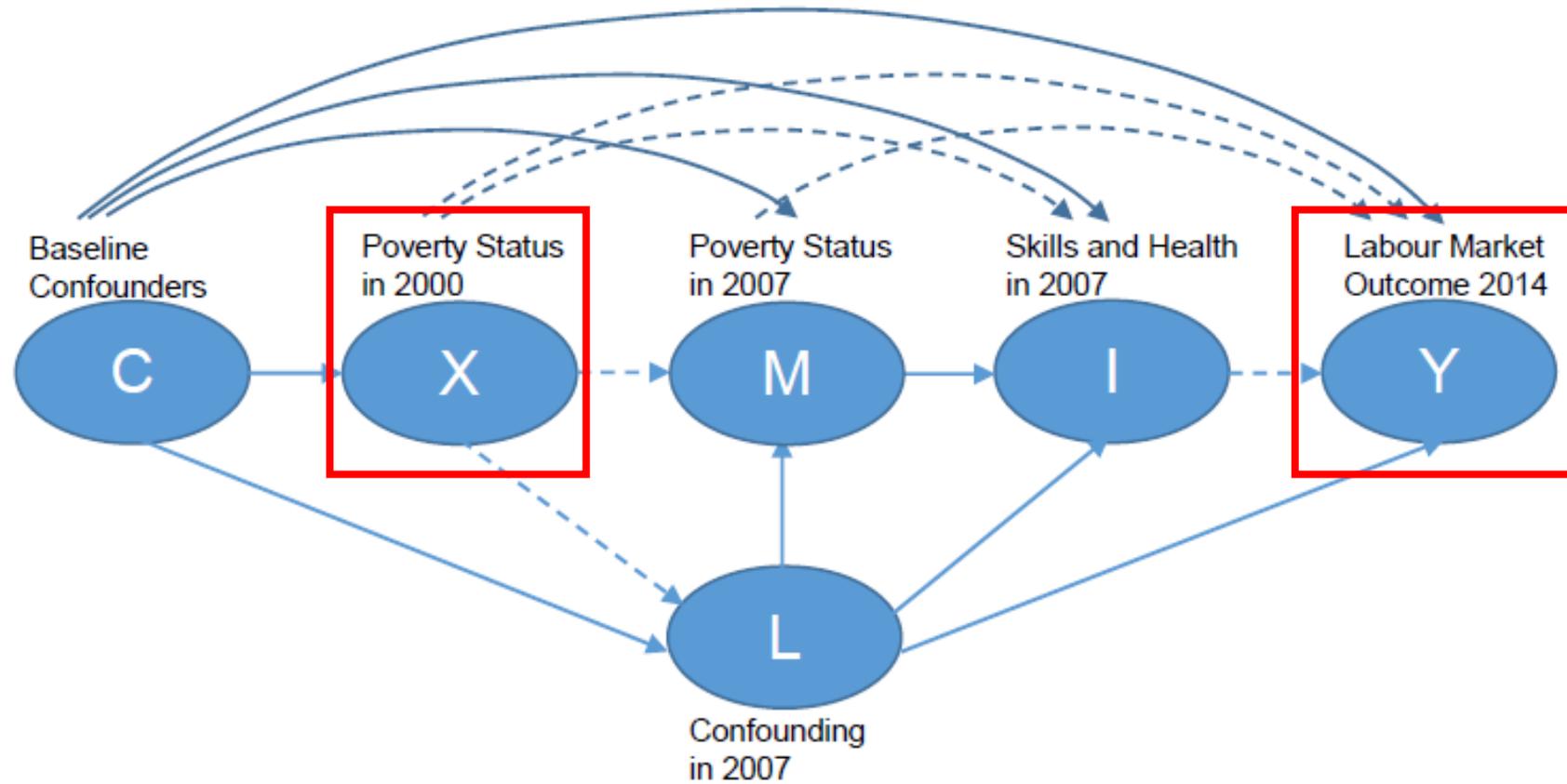
No single mediator could offset the gap



Can (small) transfers help?



Study framework



Identification strategy

$$\ln \text{hourlywage}_{i2014} = \beta_0 + \beta_1 \text{poor}_{i2000} + \beta_3 X_i + u_i$$

- Problems: endogenous poverty and measurement error in earnings
- Use instrument of shift-share in agricultural sector from 1997 to 2000
- Why agriculture?
 - 70% of poor households had their heads working in agricultural sector
 - Rural poverty is higher, both pre- and post-crisis
 - More than half of employment in Indonesia: agriculture
 - The only sector experienced an increase in LFP when crisis
- Shocks to poverty are exogenous to local conditions in the province

Instrument

$$p_{it} = z_{ijt^0} g_{jt}$$

- z_{ijt^0} as the share of poor people in agriculture (j) in province i at time t^0 (1997) and g_{jt} as the national growth in agriculture at time t (2000).
- The expected inflow rate of poor people in agriculture p_{it} is therefore a weighted average of the national growth rate in agriculture (“shift”), with weights that depend on the distribution of earlier poor people at time t^0 (“shares”).

Robustness check

Variables	OLS			2SLS		
	(1)	(2)	(3)	(4)	(5)	(6)
Poverty status in 2000 (poor=1)	-2.071** (1.528)					
Lowest 20 th (quintile 1=1)		-1.583** (0.744)				
Second fifth (quintile 2=1)			-2.370* (1.304)			
Third fifth (quintile 3=1)				2.501 (1.551)		
Fourth fifth (quintile 4=1)					3.102 (1.747)	
Highest 20 th (quintile 5=1)						1.522** (0.735)
Additional controls	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R-squared	-	-	-	-	-	-
First-stage F-statistics	14.737	17.386	12.2	9.14	14.901	15.644

Additional controls include baseline confounders in 2000 and 2007: mother's characteristics, household size, access to electricity, safe drinking water, improved sanitation and cooking fuel, and television. Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.