



Asian Development Bank - International Initiative for Impact Evaluation

Video Lecture Series

**Impact evaluations of social protection-
Project and Programmes:
considering cash transfers and educational
outcomes**

Heather Lanthorn

Overview



- Social protection: transfers, pensions, and public works



Overview



- Social protection: transfers, pensions, and public works
- Cash transfers and educational outcomes: theory of change
 - *Builds on Video Lecture 2*



- Social protection: transfers, pensions, and public works
- Cash transfers and educational outcomes: theory of change
 - *Builds on Video Lecture 2*
- Impact evaluation example: Cambodia Education Sector Support Project Scholarship Programme (CSP)
 - Research questions
 - Regression discontinuity design (RDD)
 - *Builds on Video Lecture 4*

- Social protection: transfers, pensions, and public works
- Cash transfers and educational outcomes: theory of change
 - *Builds on Video Lecture 2*
- Impact evaluation example: Cambodia Education Sector Support Project Scholarship Programme (CSP)
 - Research questions
 - Regression discontinuity design (RDD)
 - *Builds on Video Lecture 4*
- Systematic review: Balance of evidence of effect of cash transfers on education outcomes
 - *Builds on Video Lecture 5*

Conditional cash transfers (CCTs)



- Variants of the idea are ~200 years old but have gained particular attention in the past 15 years



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 - 1997: PROGRESA (later, *Oportunidades*) programme, in Mexico



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 - 1997: PROGRESA (later, *Oportunidades*) programme, in Mexico
- Particularly spread through Latin America, with later efforts in Africa and Asia
 - Now in effect in 37+ low- and middle-income countries
 - In Asia:
 - Bangladesh
 - Cambodia
 - Indonesia
 - Philippines
 - Turkey

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“It is fair to say that CCTs are one of the most studied programmes in development economics.”

Baird, S., Ferreira, F. H. G., Özler, B., Woolcock, M. *Relative Effectiveness of Conditional and Unconditional Cash Transfers for Schooling Outcomes in Developing Countries: A Systematic Review*. Campbell Systematic Reviews 2013:8

UCTs v CCTs: current debate



- Unconditional cash transfer (UCT)
- Conditional cash transfer (CCT)



Adapted from:
Baird, S., Ferreira, F. H. G., Özler, B., Woolcock, M. *Relative Effectiveness of Conditional and Unconditional Cash Transfers for Schooling Outcomes in Developing Countries: A Systematic Review*.
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- Unconditional cash transfer (UCT)
 - Households lack money, not rational priorities for how to use or invest it to suit
- Conditional cash transfer (CCT)



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 - Lack of information on true costs and value



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 - Induce change through changing relative price of schooling
 - Not just income effect of cash transfer



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 - Households lack money, not rational priorities for how to use or invest it
- Conditional cash transfer (CCT)
 - “Market failure” related schooling for children
 - Lack of information on true costs and value
 - Induce change through changing relative price of schooling
 - Not just income effect of cash transfer
 - Political feasibility
 - May be more palatable to taxpayers (and donors) if transfers are seen as promoting/rewarding socially desirable, rather than being “handouts”



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Theory of change: transfers



**Cash
transfer**

**Academic
achievement
(test scores)**

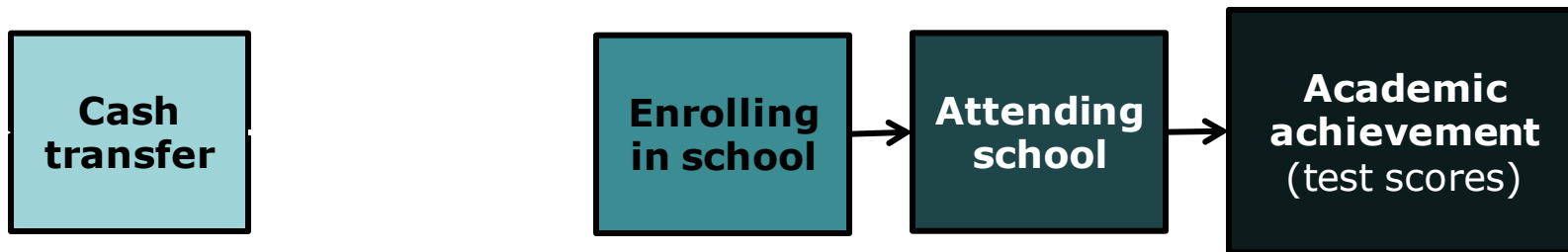
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Theory of change: transfers



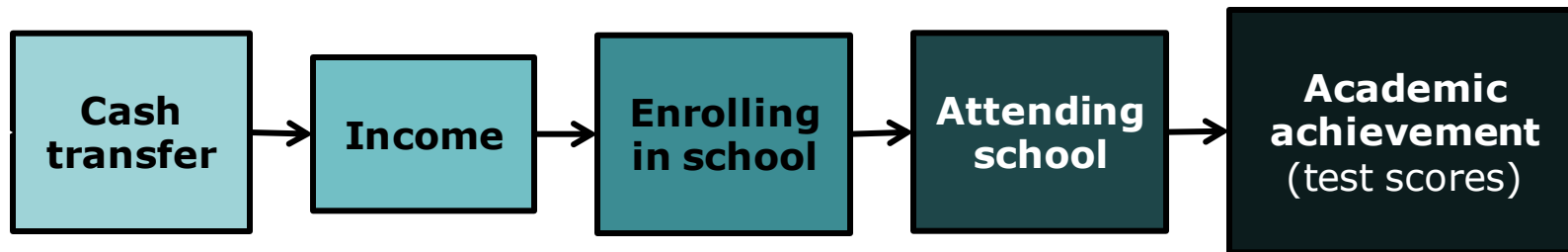
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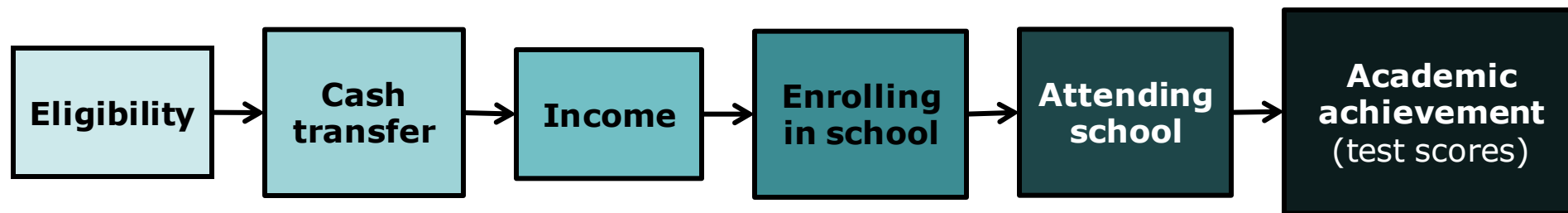
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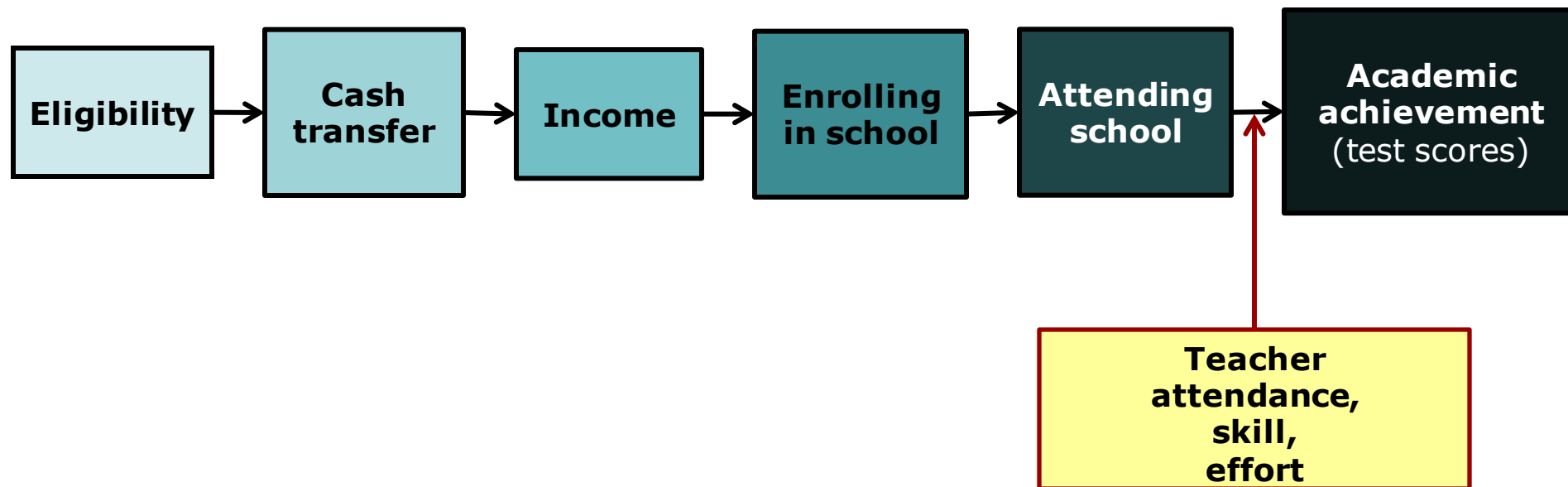
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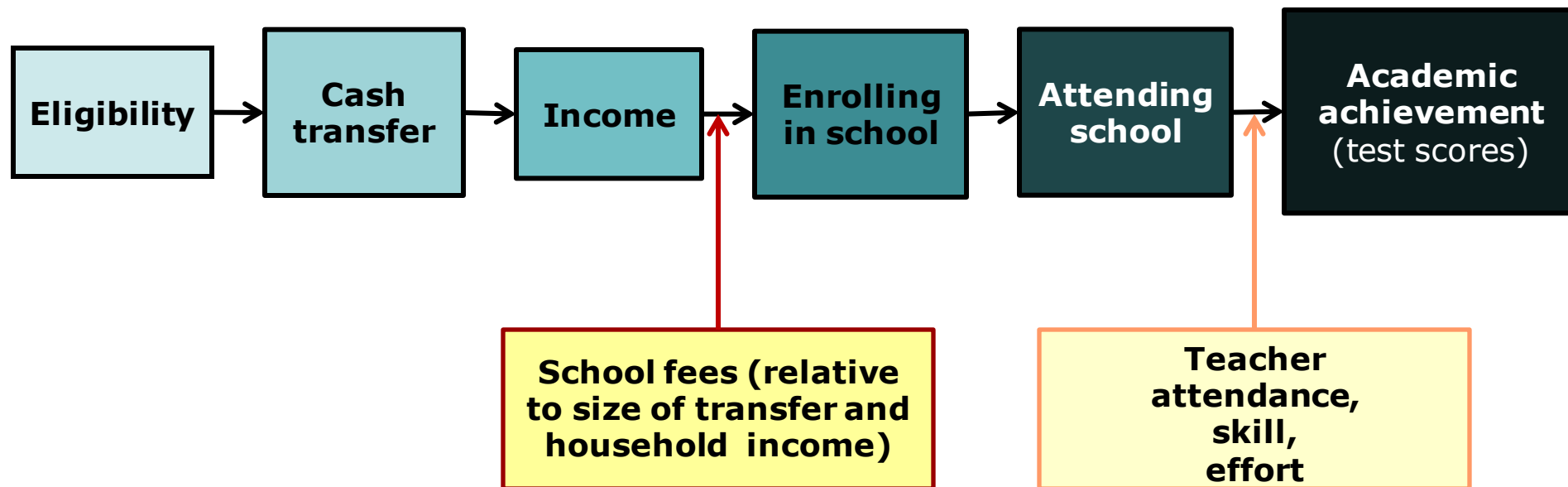
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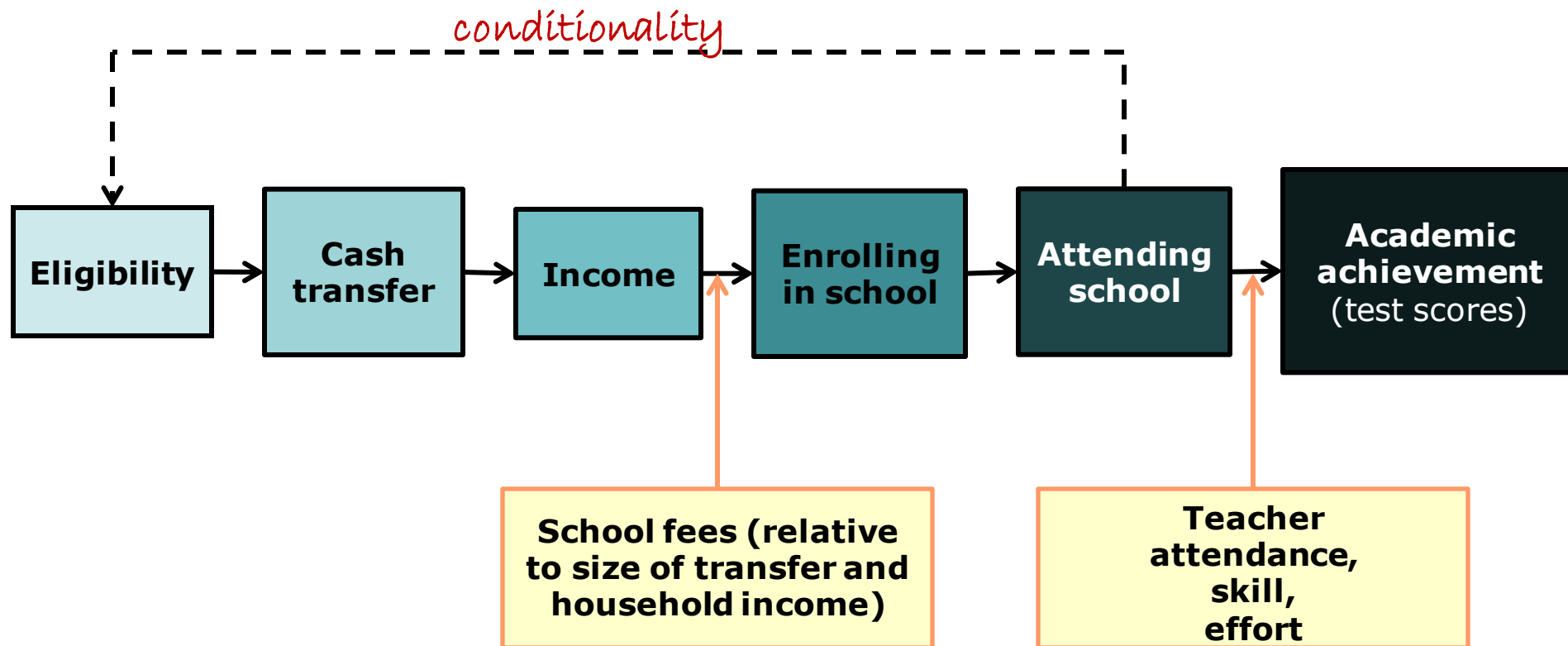
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Impact Evaluation (IE) example



- Key research question:
 - What is the causal (**attributable**) impact of being *offered* a cash transfer on:

Adapted from:
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Impact Evaluation (IE) example



- Key research question:
 - What is the causal (**attributable**) impact of being *offered* a cash transfer on:
 - Enrolment
 - Attendance
 - Test scores (mathematics and vocabulary)

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IE example: CSP in Cambodia



- “Scholarships” (transfers) to low-income households for the lower secondary school cycle (3 years; Grade 7, 8, 9)

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IE example: CSP in Cambodia



- “Scholarships” (transfers) to low-income households for the lower secondary school cycle (3 years; Grade 7, 8, 9)
- Transfers paid out three times per year, conditional on:
 - Enrolment
 - Attendance
 - Grade progress

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- Transfers paid out three times per year, conditional on:
 - Enrolment
 - Attendance
 - Grade progress
- Amount of transfer approximately the cost of secondary school fees (*direct costs*)

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Selection process



Selection of lower secondary schools

- Served low-income areas
- High levels of non-enrolment, drop-out

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Selection process



**Selection of lower
secondary schools**



**Collection of primary
school data**

- All 6th grade students potentially attending that secondary school filled out an application: gender, household characteristics
- *All 6th grade students across the country completed the application on the same day*

Adapted from:
Filmer, D. and N. Schady. *School enrolment, Selection and Test Scores*. Impact Evaluation Series 34.
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Selection process

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Collection of primary school data



Assignment of a "drop-out risk" score



- Score created from student and household factors that predicted likelihood of not enrolling in 7th grade, having completed 6th grade in national data

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Selection process

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Assignment of a "drop-out risk" score

Eligibility

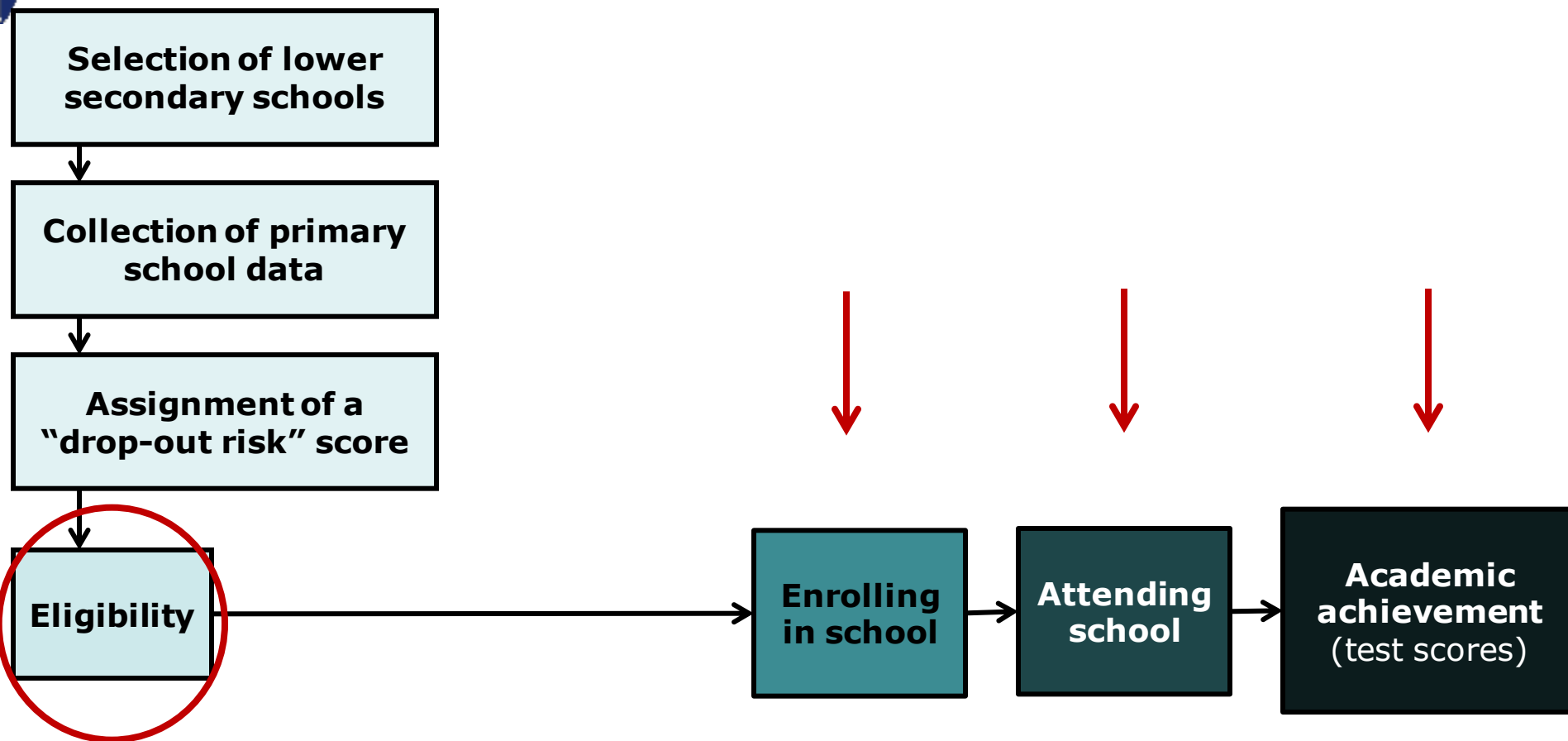


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- Score created from student and household factors that predicted likelihood of not enrolling in 7th grade, having completed 6th grade in national data
- In schools with:
 - **> 200** students, bottom **50** students offered
 - **≤ 200** students, bottom **30** students offered

Adapted from:
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Evaluation design (RD)



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Evaluation design (RDD)



- An eligibility criterion can be used in a **regression discontinuity design** for evaluating *causal* impact.
 - One of the quasi-experimental methods



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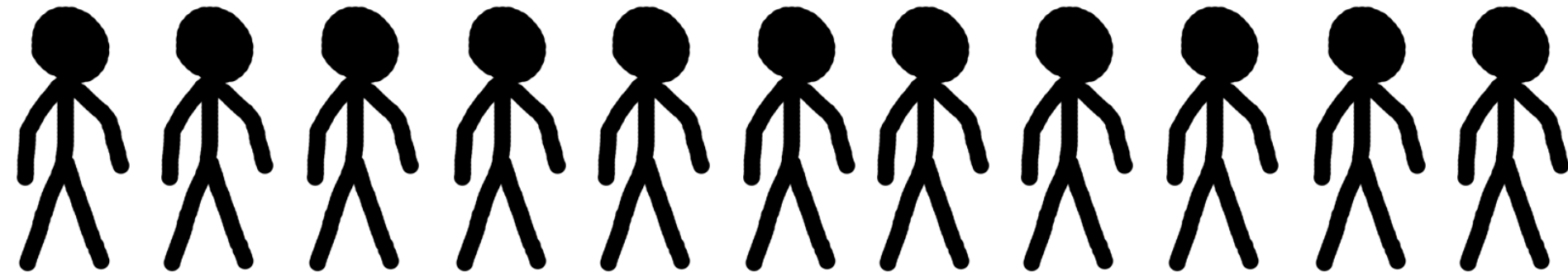
- An eligibility criterion can be used in a **regression discontinuity design** for evaluating *causal* impact.
 - One of the quasi-experimental methods
- Recall that:
 - Attributing causal impact to an intervention requires a comparison group
 - Approximate what would have happened in absence of the treatment

- An eligibility criterion can be used in a **regression discontinuity design** for evaluating *causal* impact.
 - One of the quasi-experimental methods
- Recall that:
 - Attributing causal impact to an intervention requires a comparison group
 - Approximate what would have happened in absence of the treatment
 - One way to construct a comparison group uses knowledge of a well-understood, programme-imposed cut-off for inclusion
 - This cut-off creates a ***discontinuity***

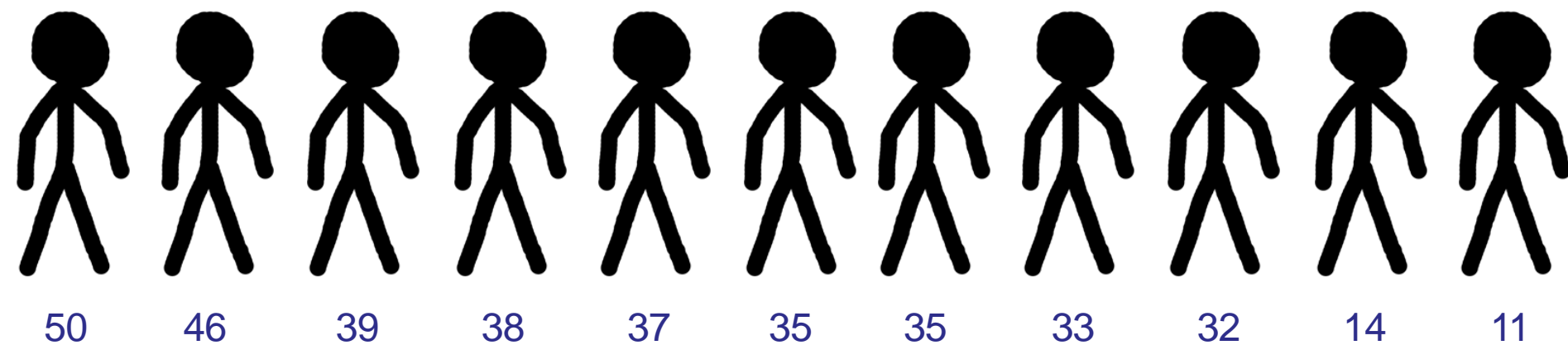
Evaluation design (RDD)



Hypothetical large school, "School A"

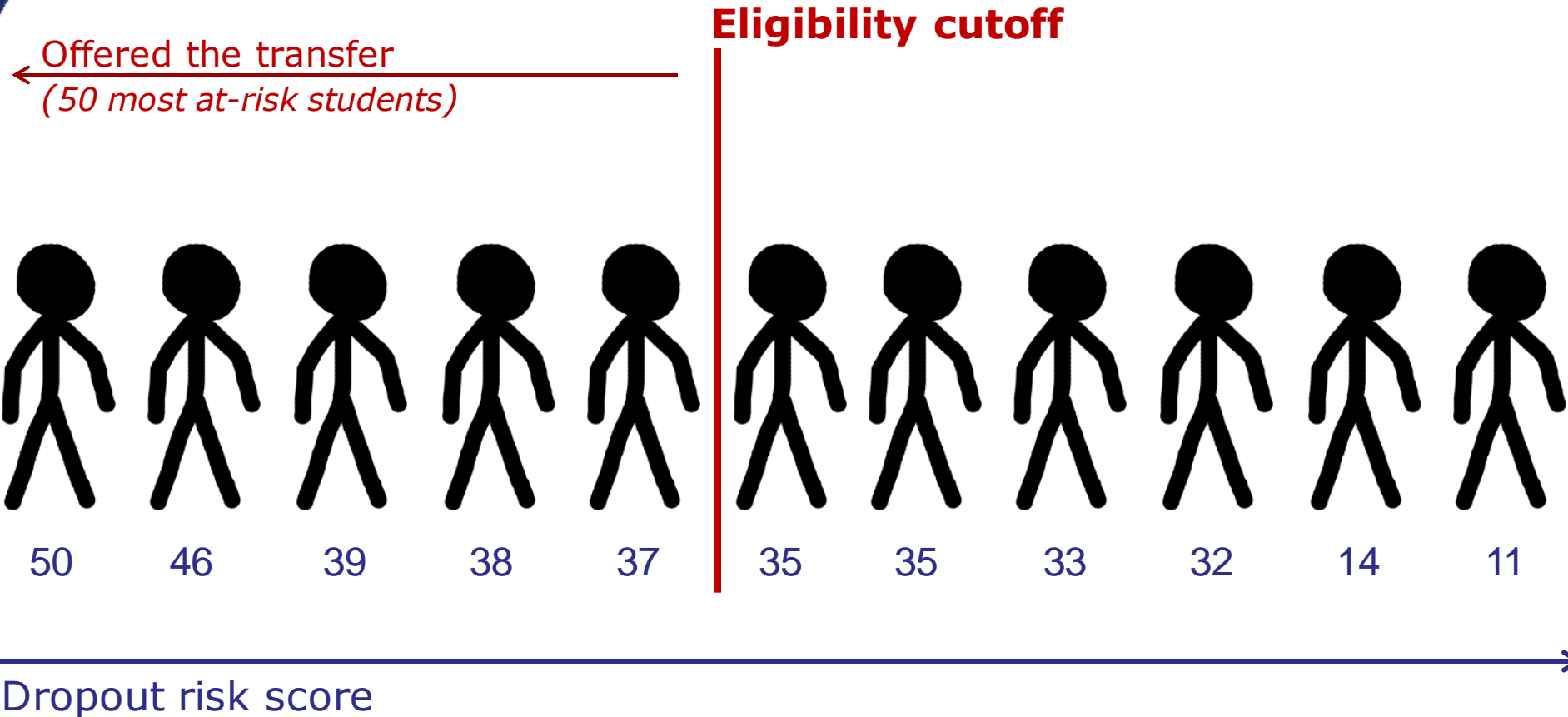


Evaluation design (RDD)



Dropout risk score

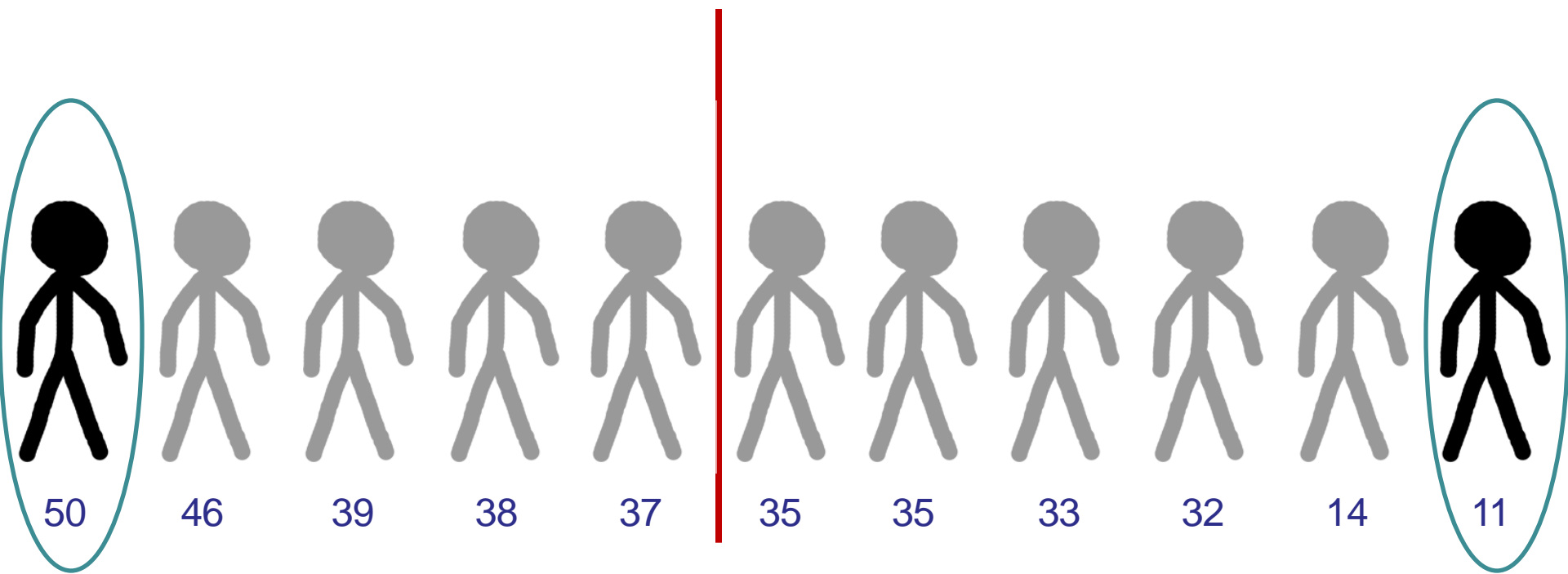
Evaluation design (RDD)



Evaluation design (RD)



Comparable?

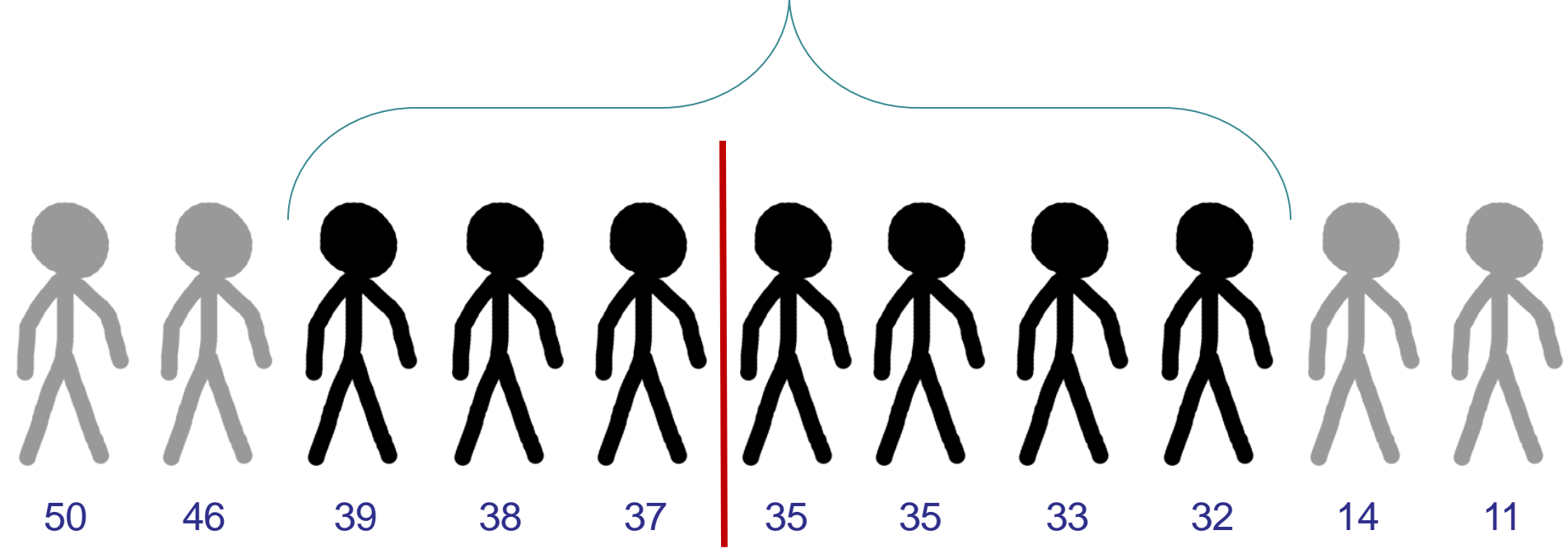


Dropout risk score

Evaluation design (RD)



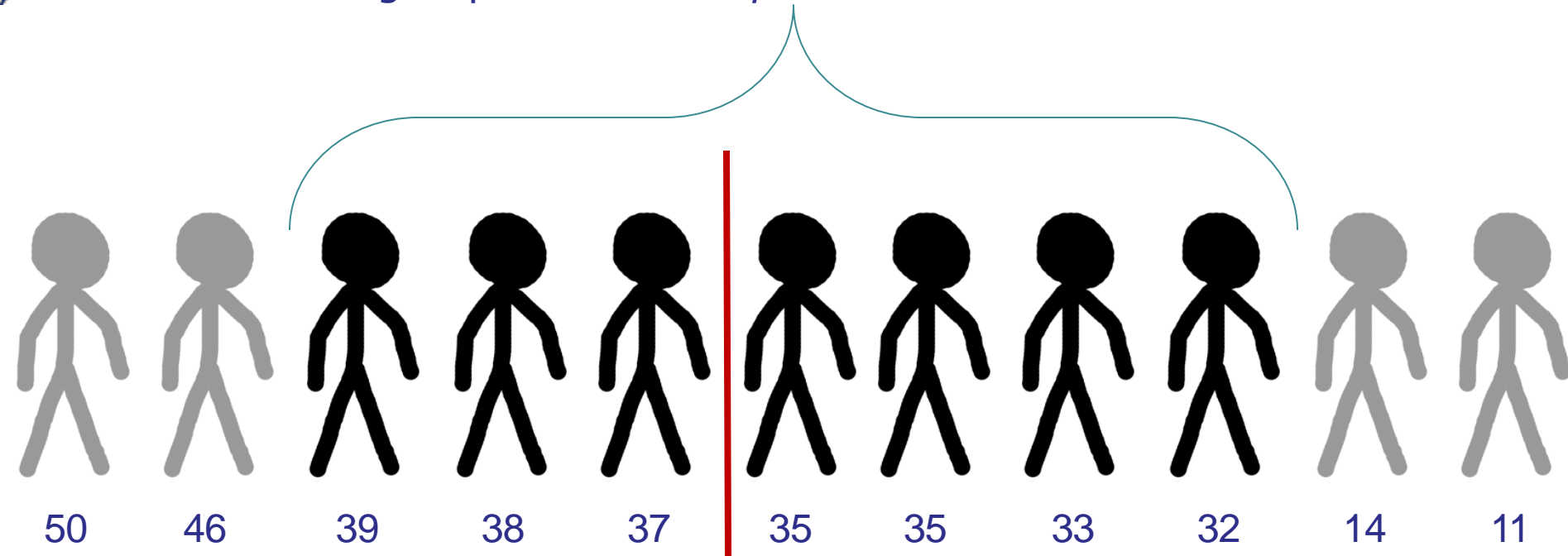
Comparable?



Dropout risk score →

Evaluation design (RD)

Assumption for evaluating impact:
these groups are similar *pre-treatment*

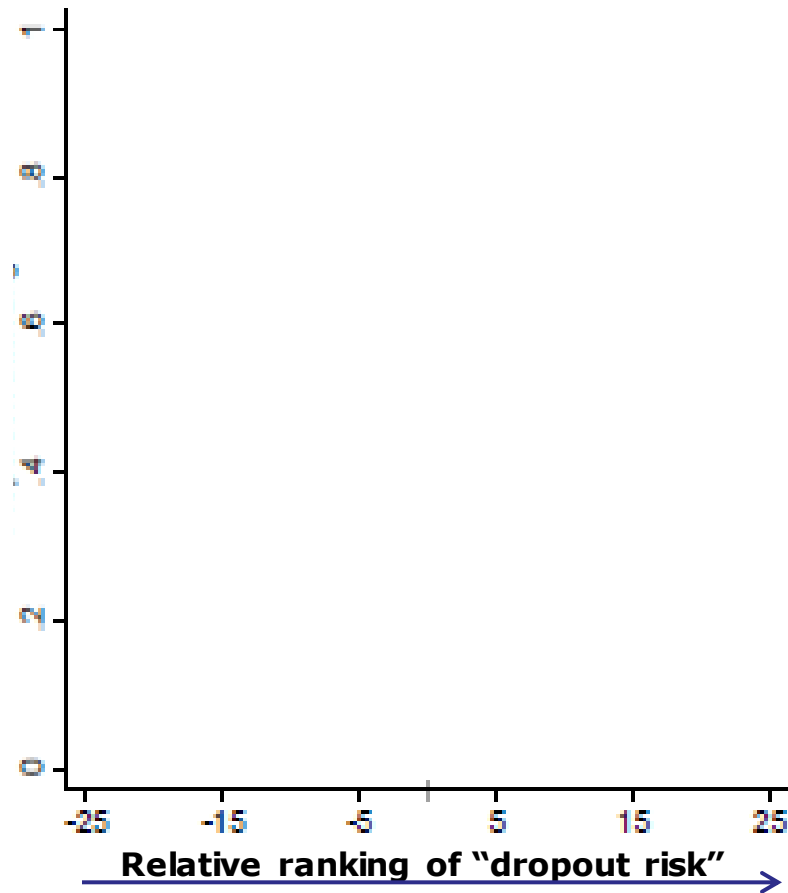


Dropout risk score

Note that:

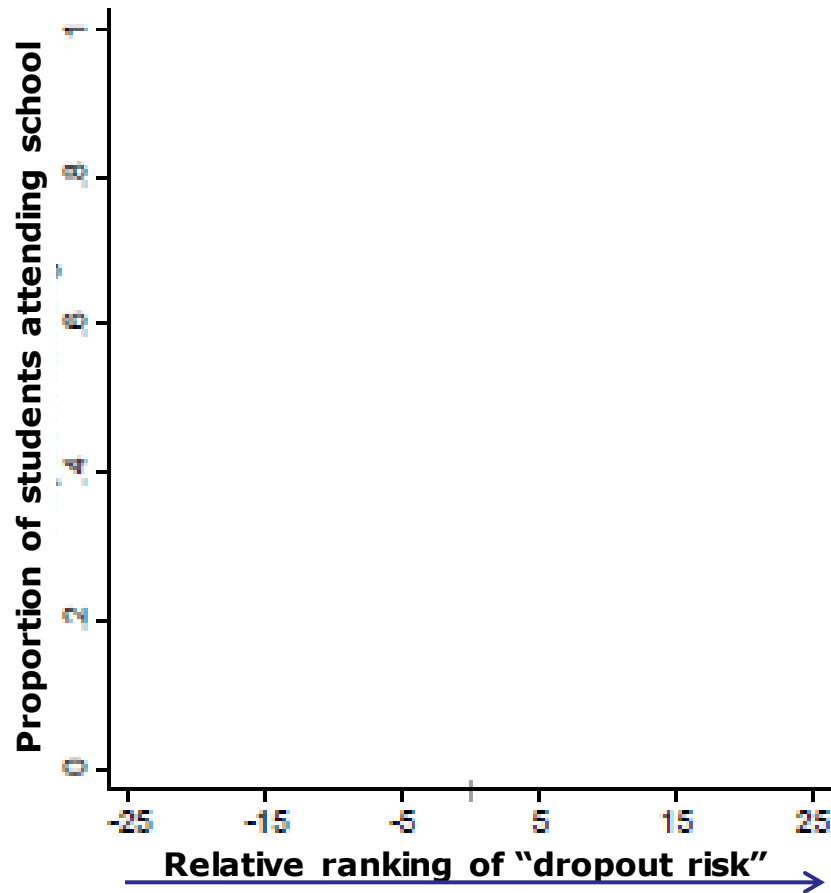
- This assumption is partially empirically testable with baseline data
- But, assumption also rests on similarity of “unobservables”
- This assumption depends on an *arbitrary* cut-off

Evaluation results



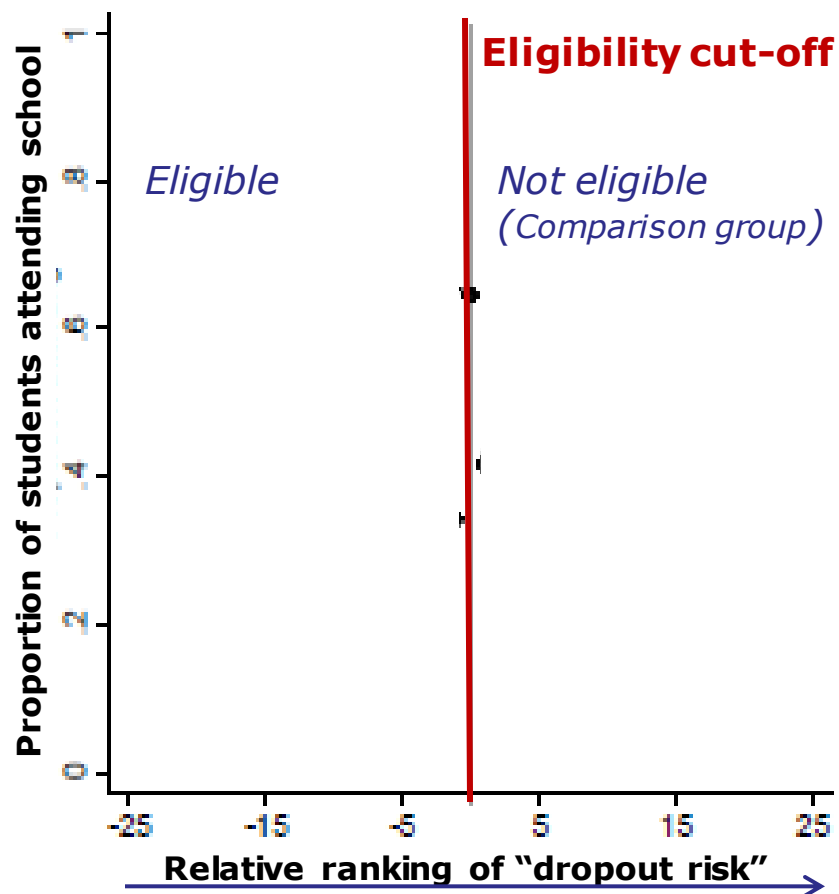
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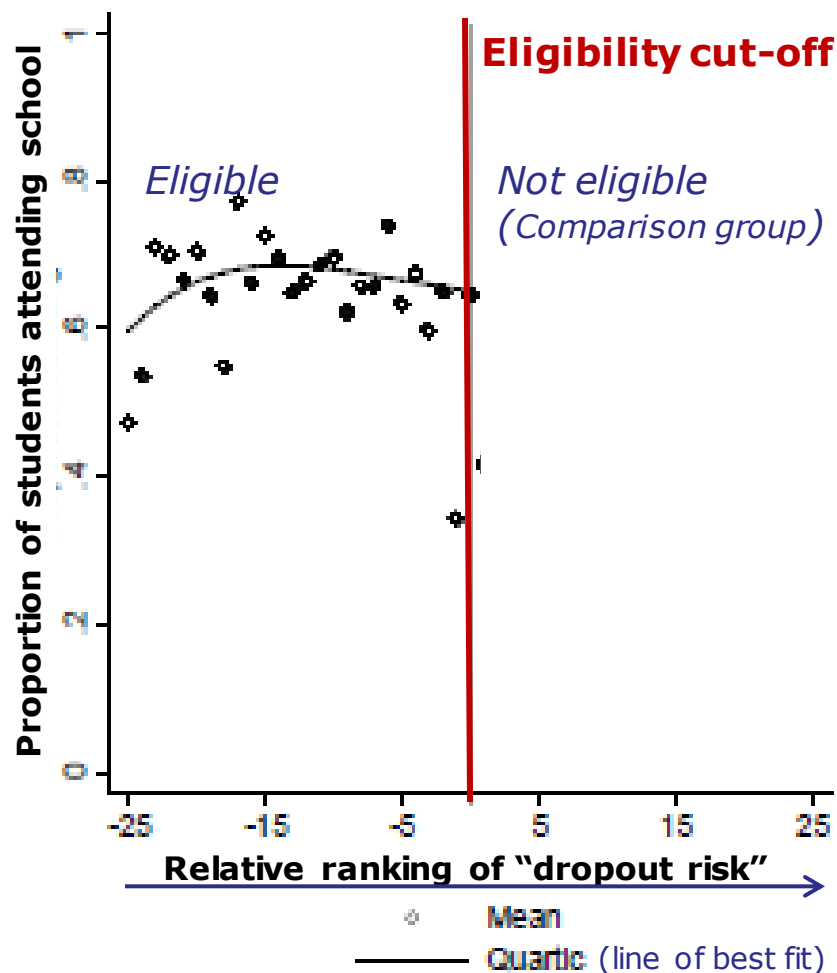
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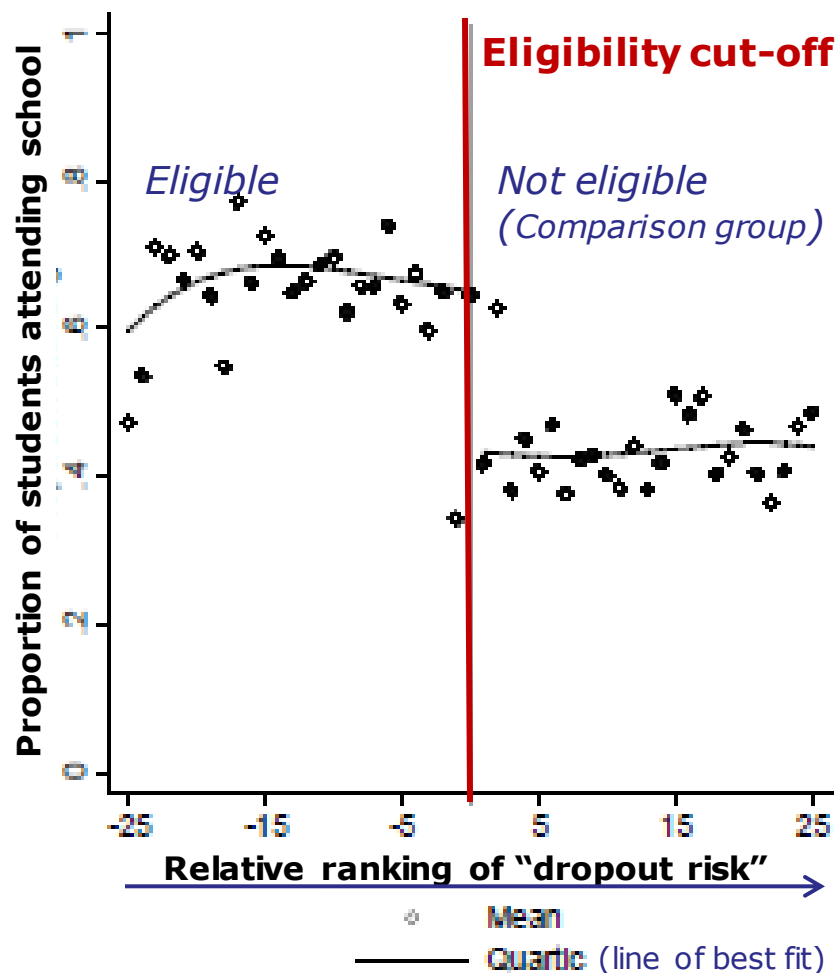
Evaluation results



“Distinct “jumps” at the cut-off would suggest that the programme affected outcomes.”

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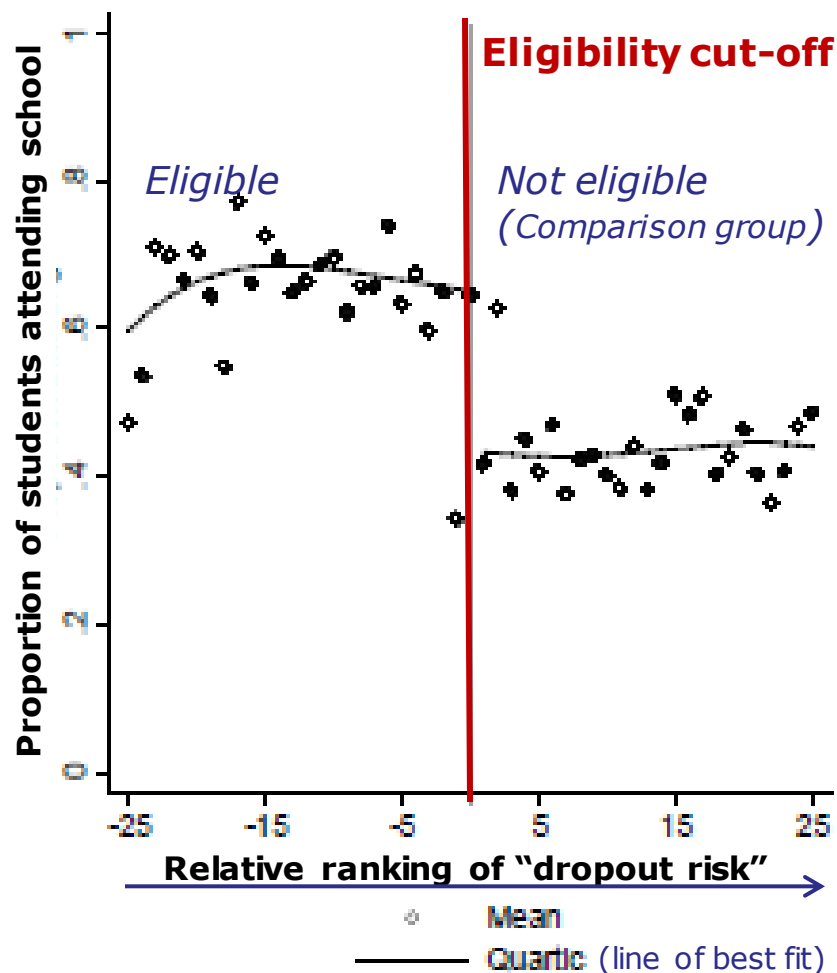
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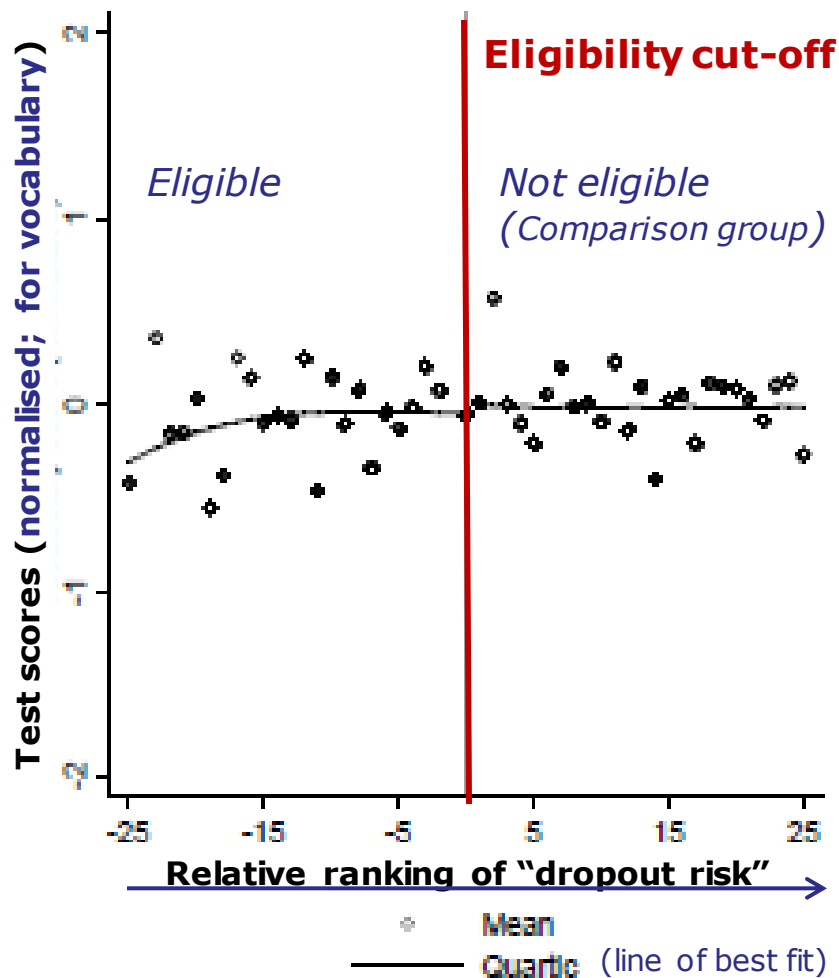
Evaluation results



~25 percentage point change in attendance
(sample size: 3225)

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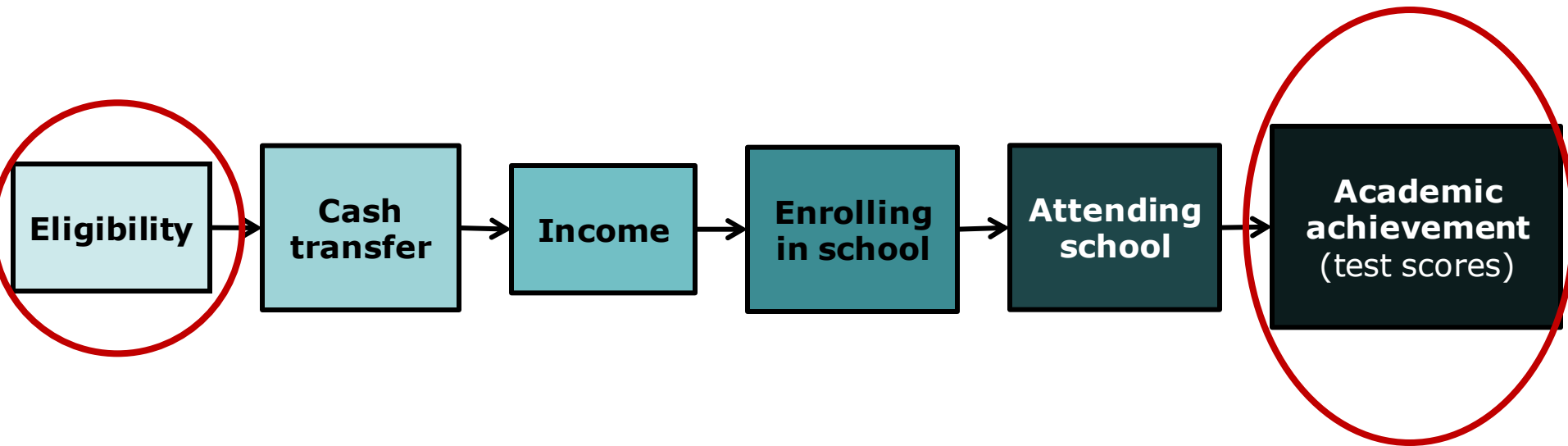


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Balance of evidence from SR



What does a systematic review (SR) tell us about the impacts of being eligible for a cash transfer on schooling achievement?



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Balance of evidence from SR



CCTs on test scores

Programme
name

Country

Standard
deviation change
(95% CI)

Systematic reviews often show
evidence using a **forest plot**

Line of no effect

0 .1 .2 .3 .4 .5

Intervention reduces test scores

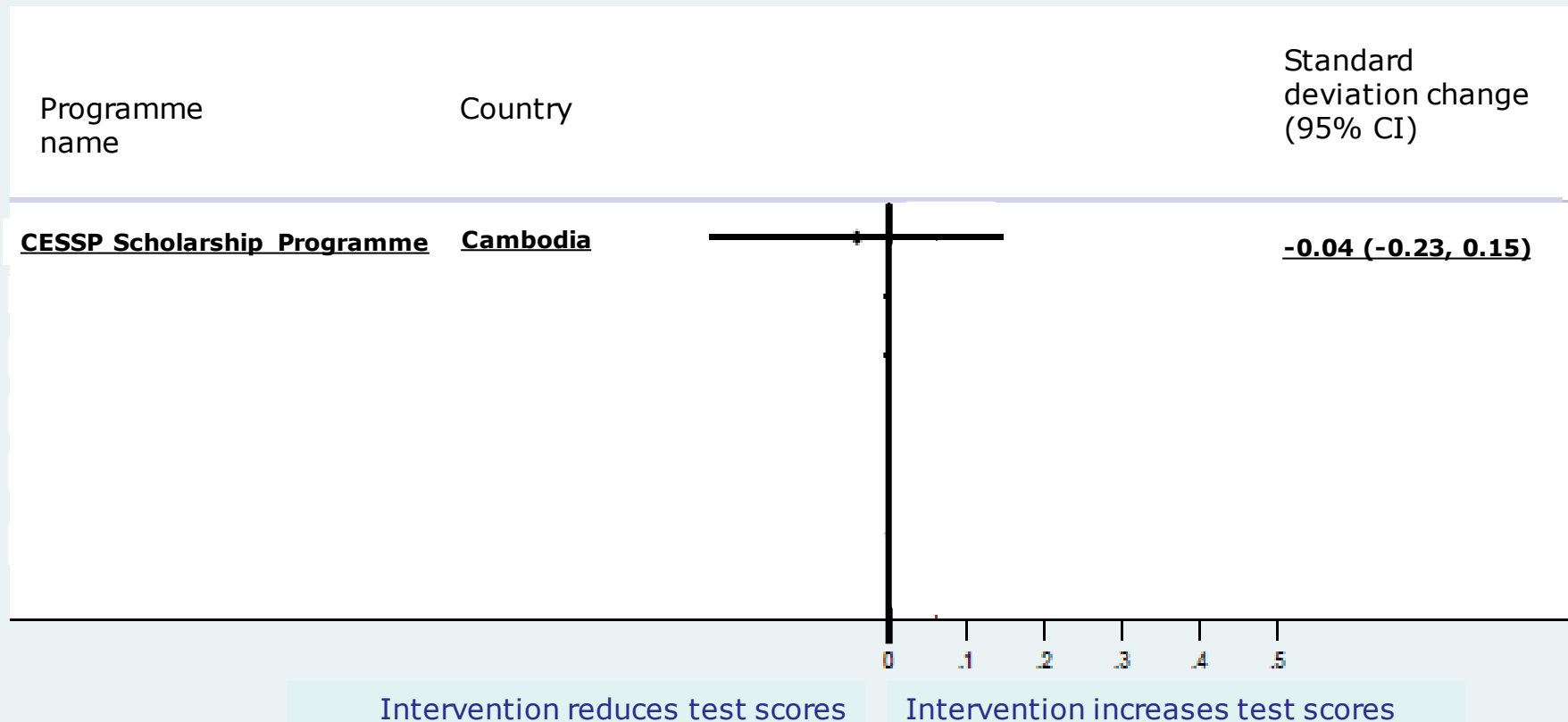
Intervention increases test scores

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CCTs on test scores

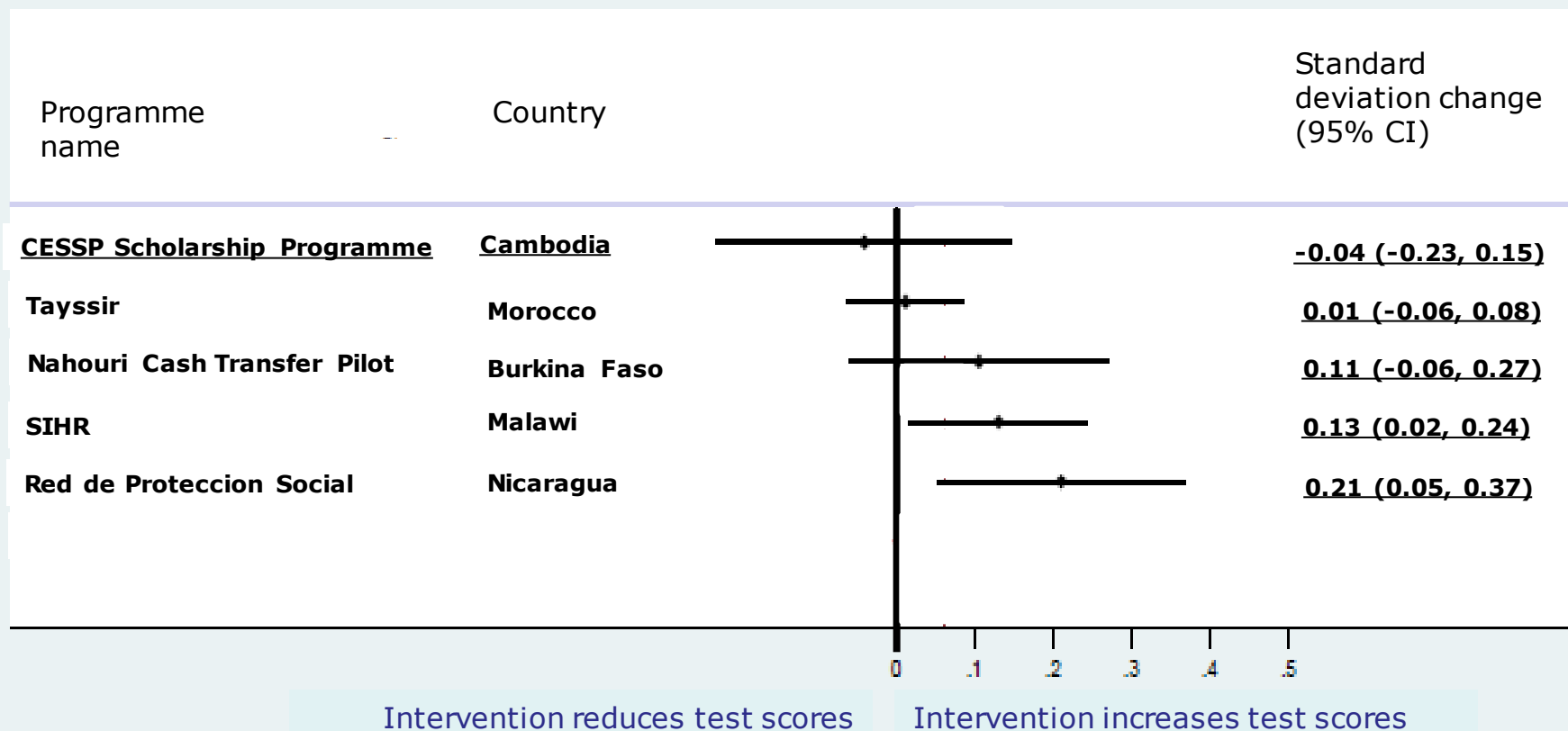


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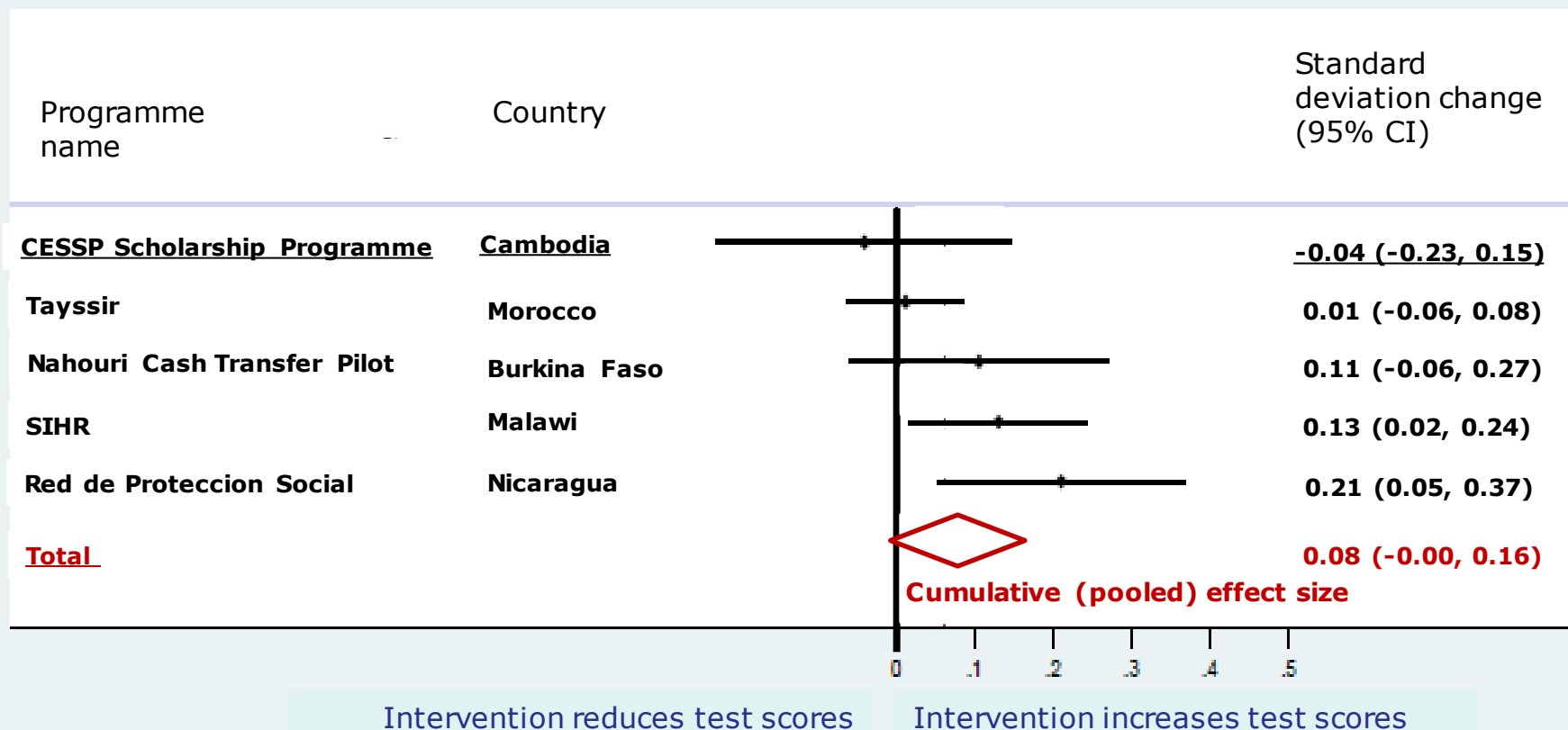


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Balance of evidence from SR



CCTs on test scores



No effect of being offered CCTs on learning outcomes.

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In sum



- Theory of change that cash transfers may improve achievement by encouraging school enrolment and attendance.



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- In Cambodia, a CCT did increase enrolment and attendance – but not test scores.



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- Theory of change that cash transfers may improve achievement by encouraging school enrolment and attendance.
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- In a systematic review, see similar results.



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- Theory of change that cash transfers may improve achievement by encouraging school enrolment and attendance.
- In Cambodia, a CCT did increase enrolment and attendance – but not test scores.
- In a systematic review, see similar results.
- “It is fair to say that CCTs are one of the most studied programmes in development economics.”
 - **Still a lot to learn in social protection!**



Theory of change



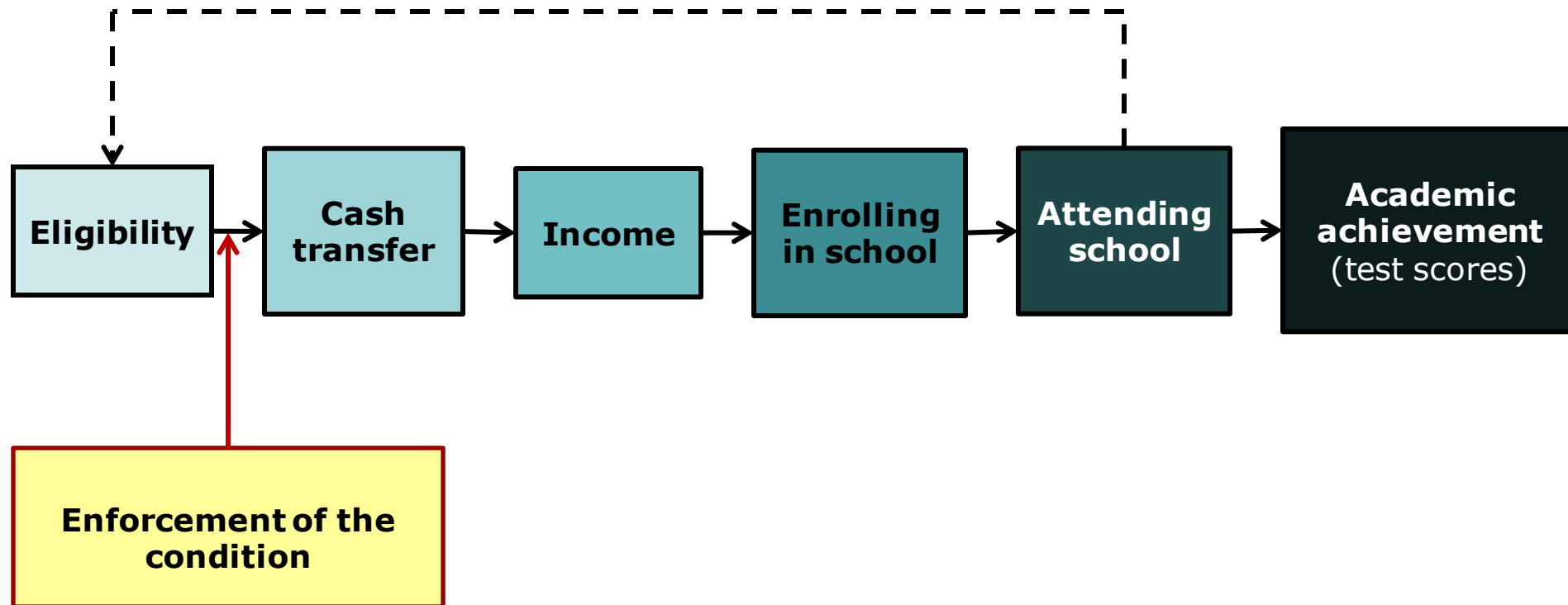
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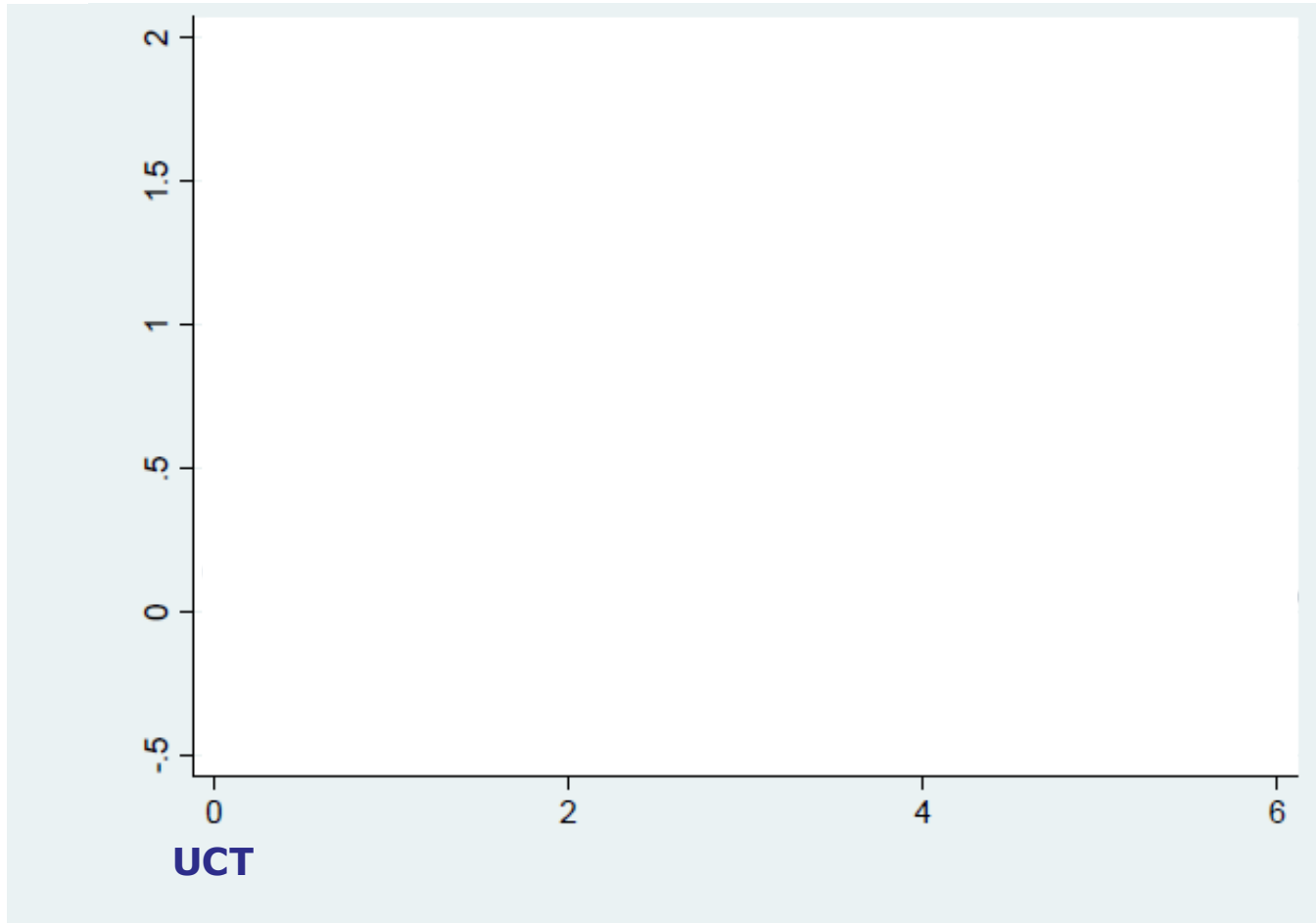


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Balance of evidence (scatter plot)



Transfers, enforcement, and school attendance

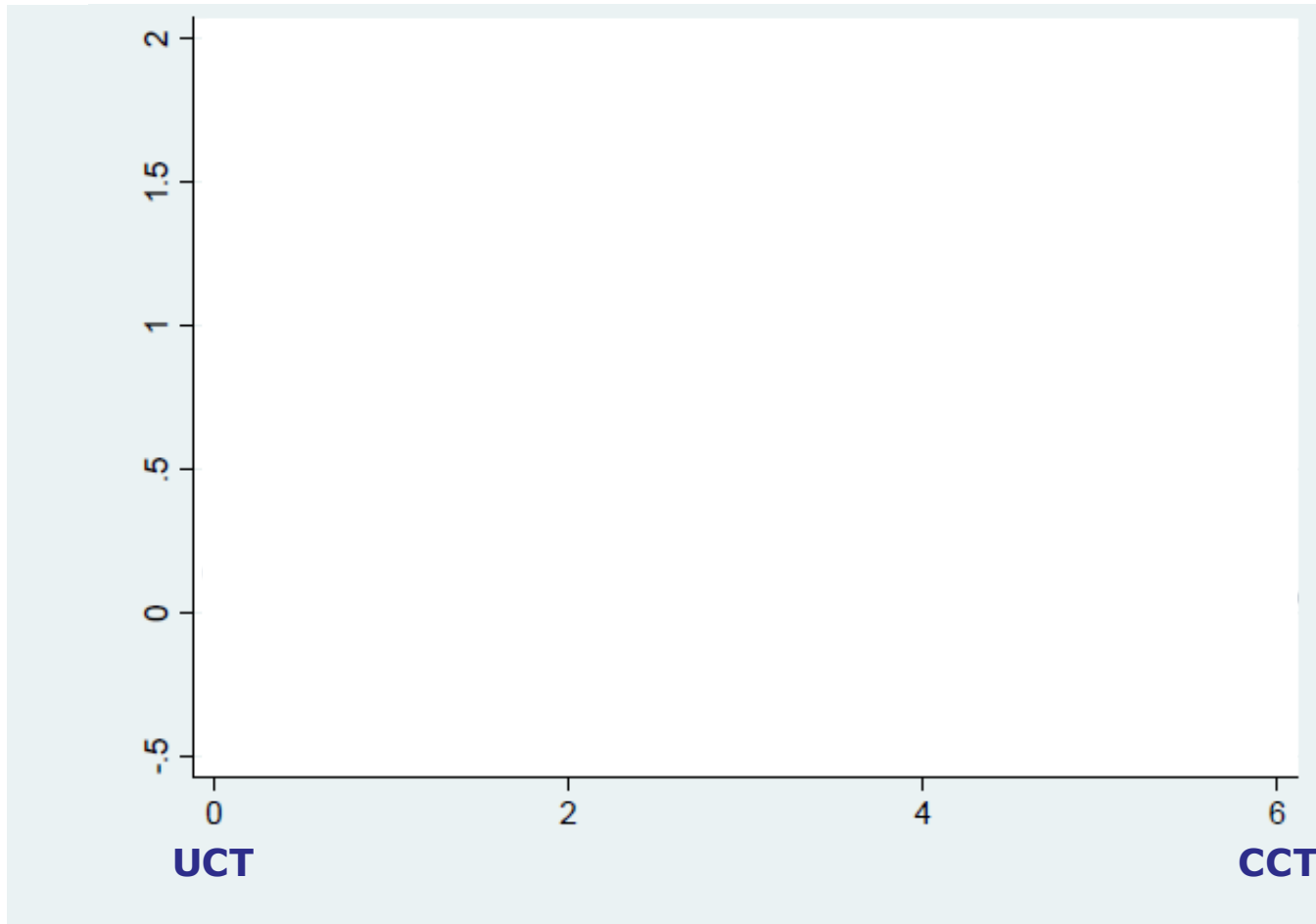


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Balance of evidence from SR



Transfers, enforcement, and school attendance

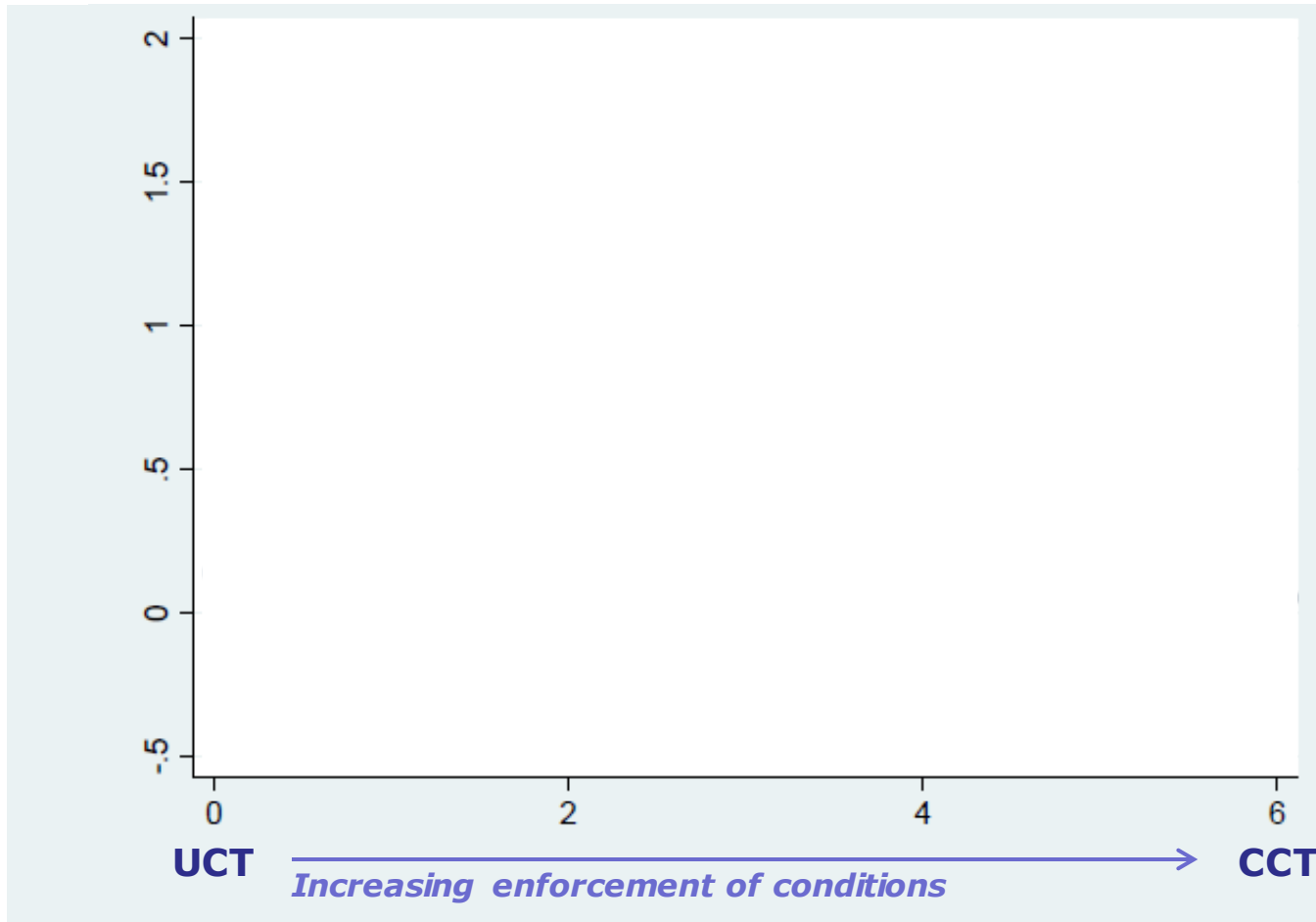


Adapted from:
Baird, S., Ferreira, F. H. G., Özler, B., Woolcock, M. *Relative Effectiveness of Conditional and Unconditional Cash Transfers for Schooling Outcomes in Developing Countries: A Systematic Review*.
Campbell Systematic Reviews 2013:8

Balance of evidence from SR



Transfers, enforcement, and school attendance

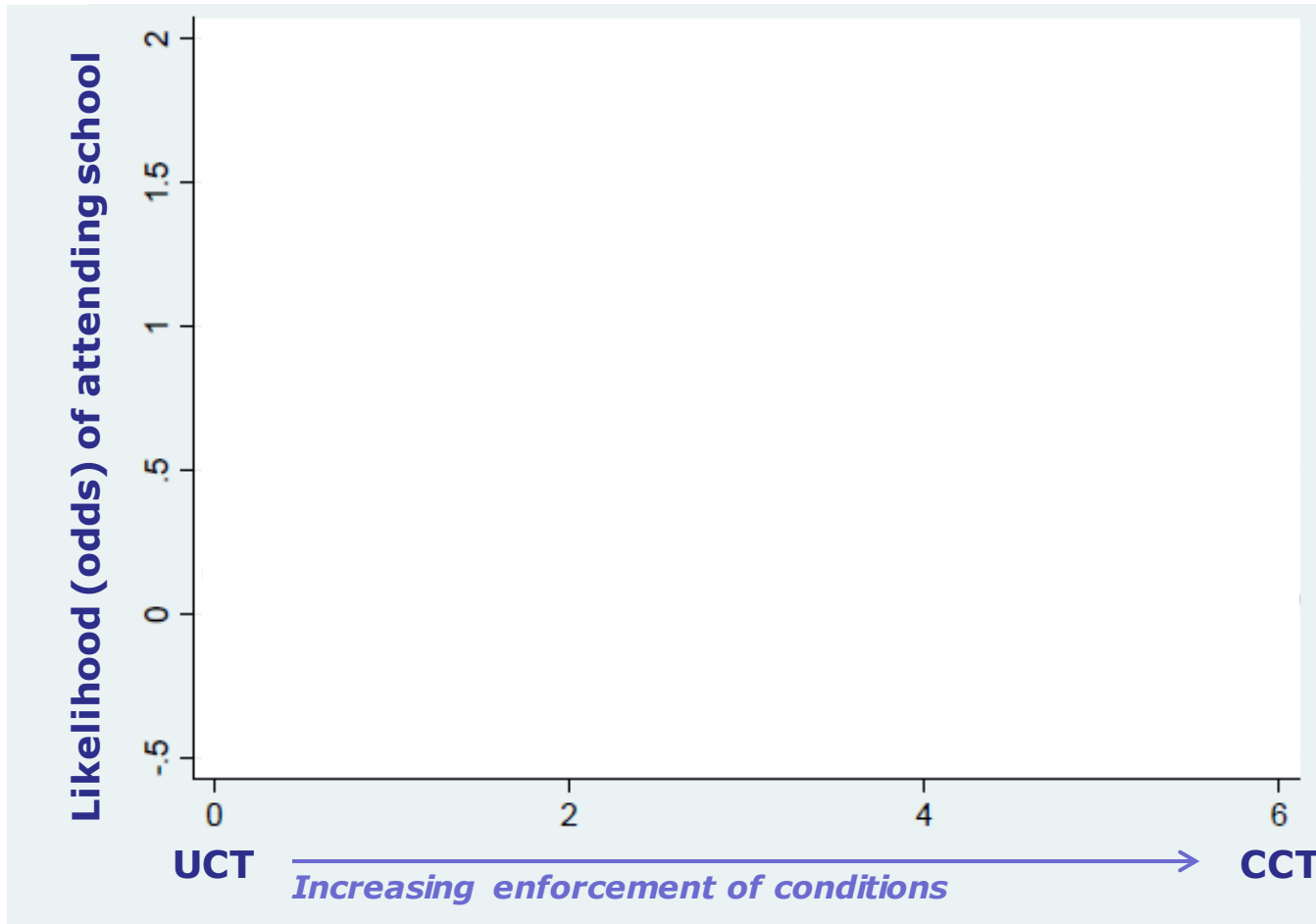


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Balance of evidence from SR



Transfers, enforcement, and school attendance

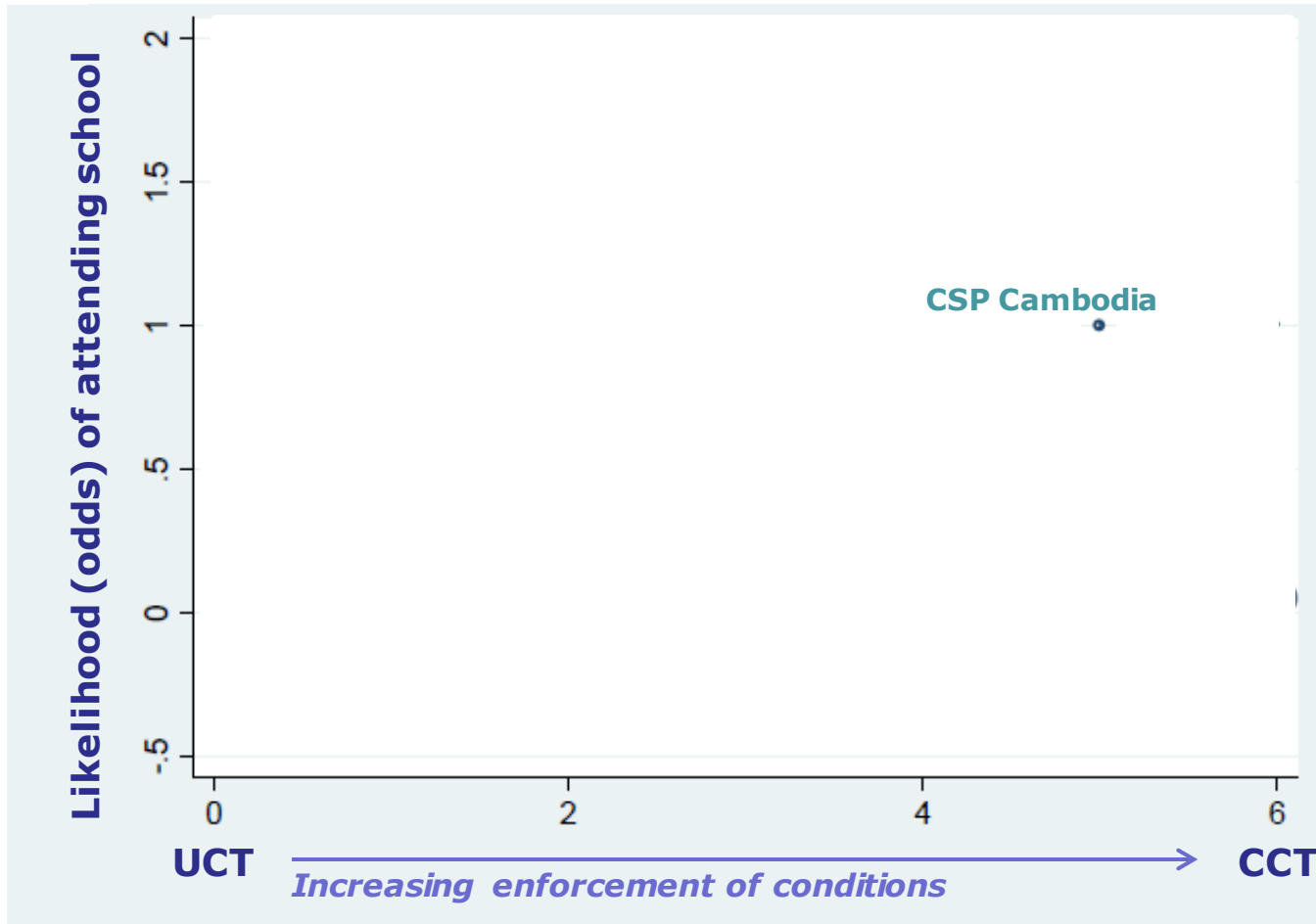


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Balance of evidence from SR



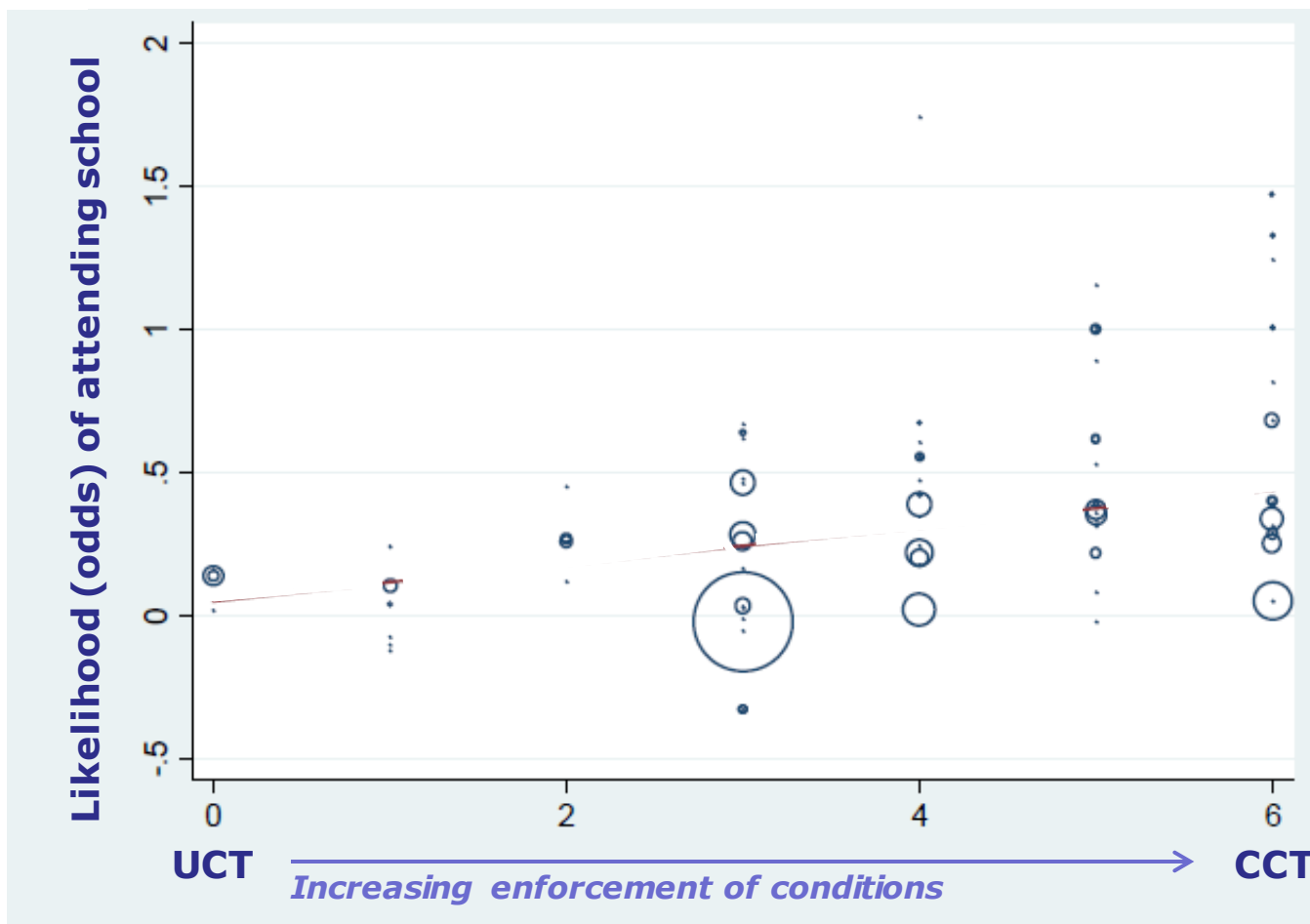
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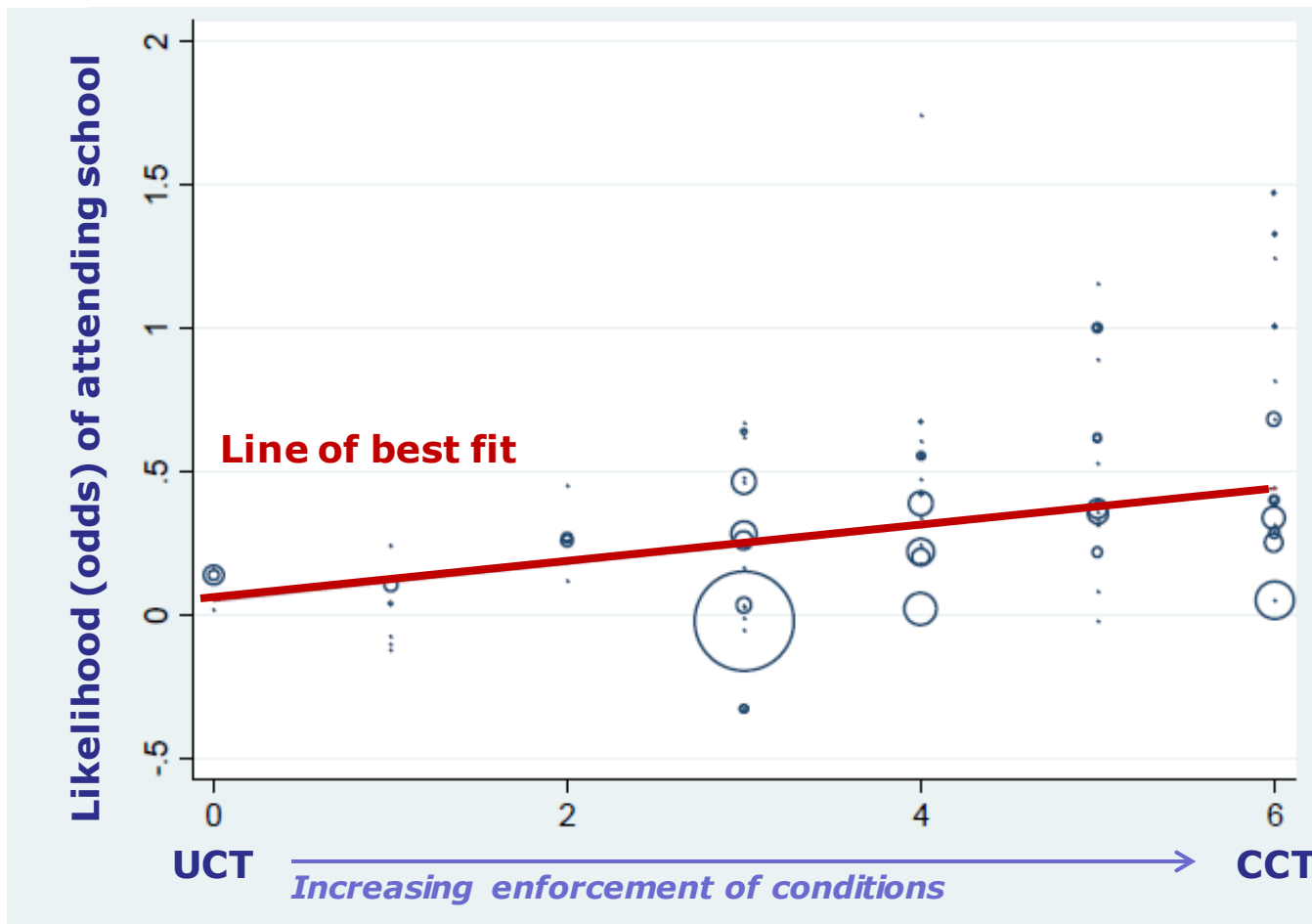
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Balance of evidence from SR

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