



# Evidence for policy: The role of child cohort studies in public policy

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# Governments require evidence for policy decision making and for accountability for the expenditure of public money

## Before policy decisions

- To enable policy debate based on evidence rather than ideology or tradition.
- To determine need and to target clientele
- To choose between policy options based on evidence of cause and effectiveness of intervention.
- To determine the best time for interventions and the most policy sensitive factor for policy action
- To increase the chances and durability of successful results

## After policy implementation

- Evaluation of policy outcomes
- Reporting for public accountability
- Adaptation or change of public policy

**Governments invest in data infrastructure for public good: the advancement of knowledge but also for policy making for the wellbeing of citizens**

**1. Cross sectional surveys:**

- National
- Repeated, to build trends
- Focused on a particular issue

**2. Special surveys**

- Small in-depth surveys
- Qualitative surveys
- Time use surveys
- Community level surveys

**3. Second generation Longitudinal surveys (different from traditional cohort studies)**

**Requires stable funding with allowance for inflation**

# The demand for evidence for policy requires data with special characteristics



## Second generation longitudinal surveys

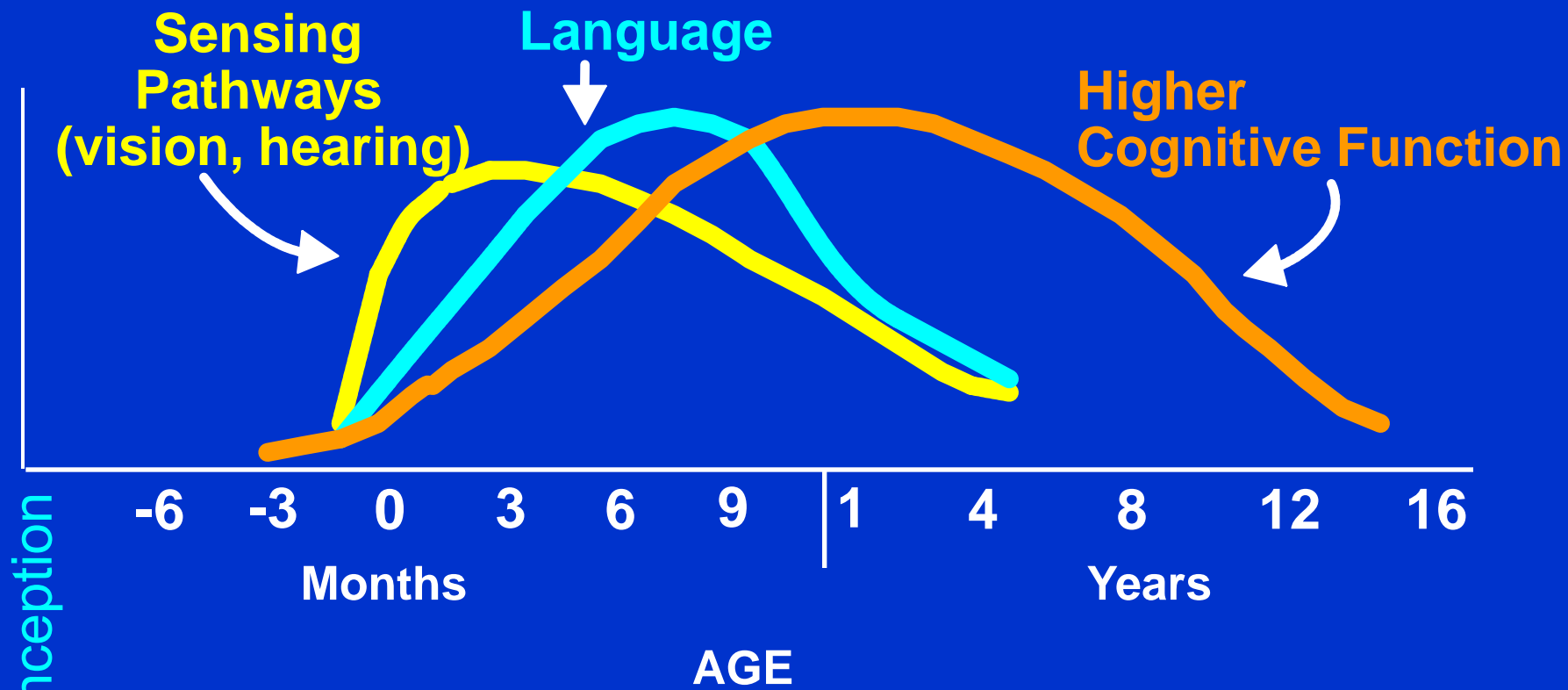
- Large national sample with geo-coding
- Sample stratified on key factors
- Over sampling of small but important sub-populations (immigrants)
- Cycles adjusted for periods of rapid human development/life stage transition
- At least three cycles, preferably long run (life course perspective)
- Assessed measures of development outcomes in each cycle (international if possible)
- Key explanatory variables
- Multiple respondents
- Multi-cohort



**Life is longitudinal, cumulative, holistic, complex and changed by decisions taken in response to opportunities, constraints and life events.**



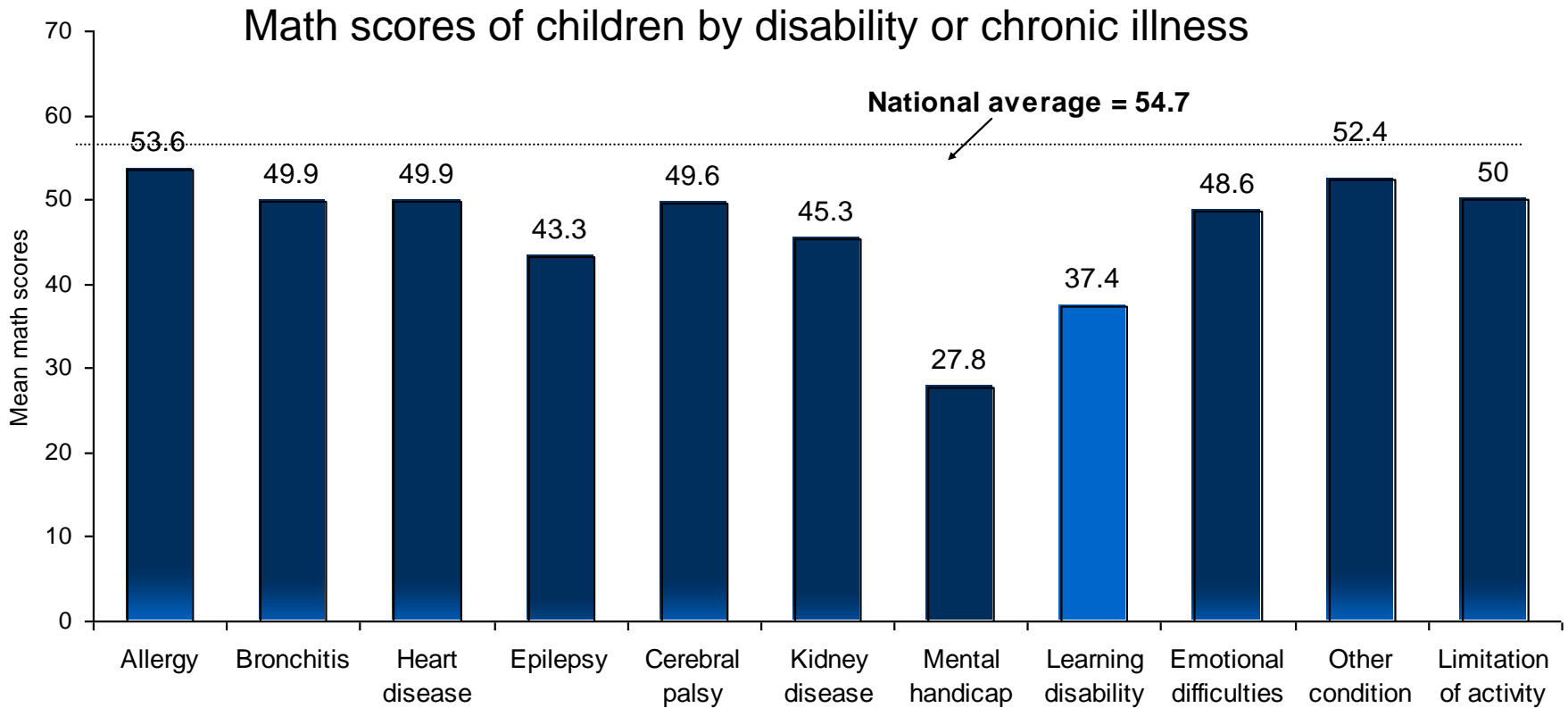
# Second generation longitudinal surveys are essential for generating evidence for policies related to Child Development over time



## Sensitive periods in early brain development

# Results are useful for policy from the first cycle

## Distribution of outcomes among disabled children

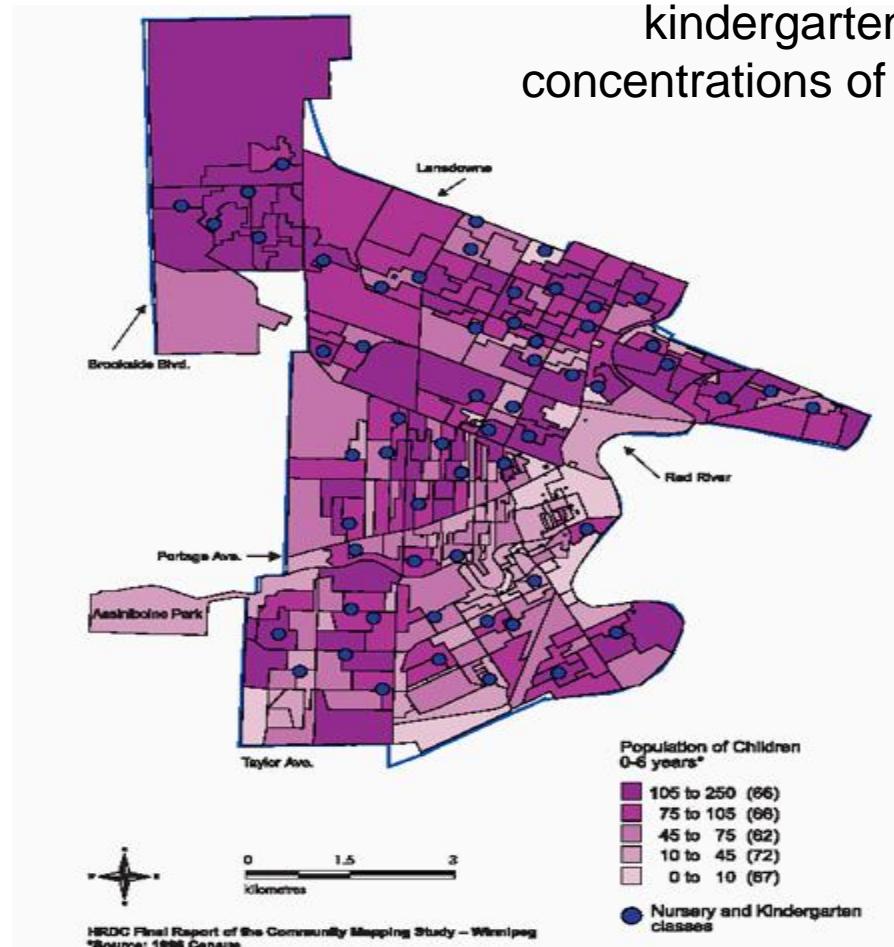


Source: NLSCY 1998-99

# Results are useful for policy from the first cycle

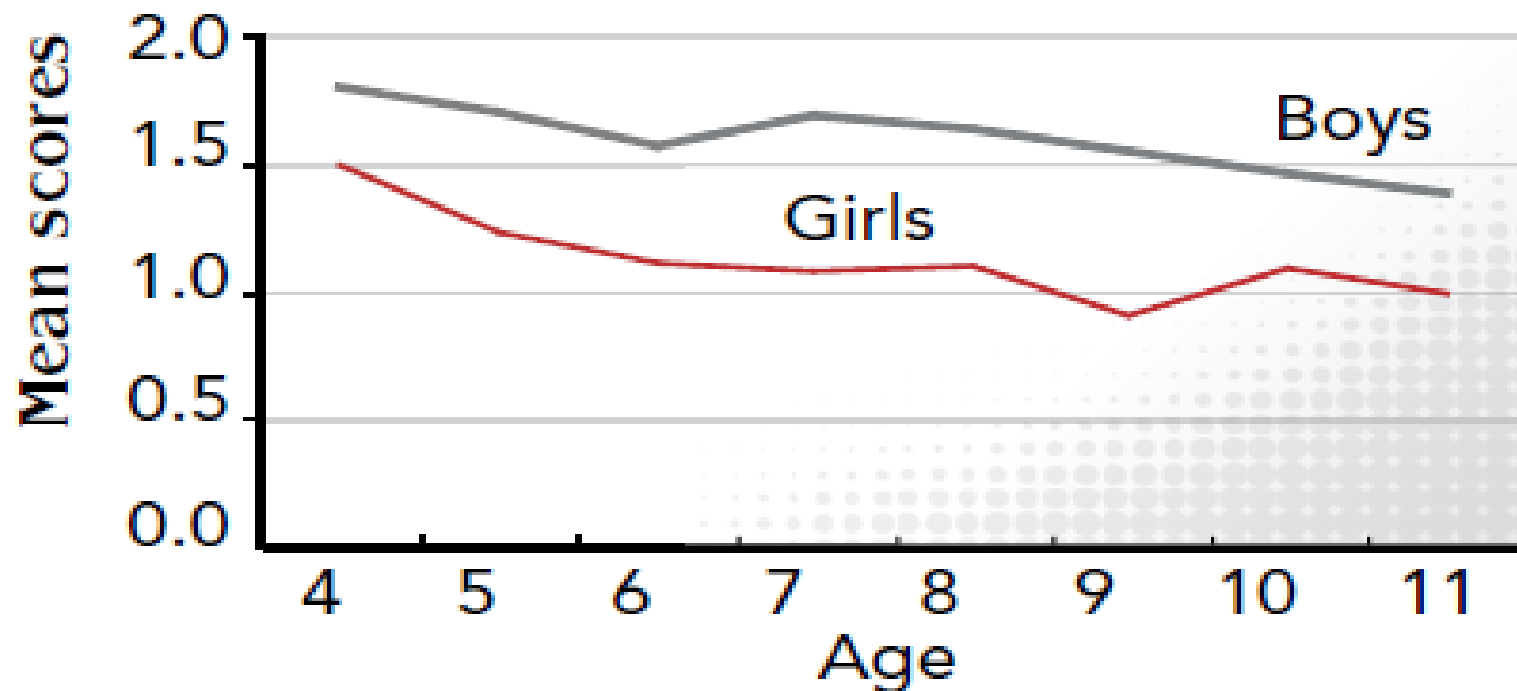
## Distribution of services in relation to location of children

Distribution of nurseries and kindergartens in relation to concentrations of children in Winnipeg



Results are useful for policy from the first cycle  
Establish growth or decline in mean scores for negative or positive outcomes

### Mean physical aggression scores of boys and girls ages 4 to 11 years

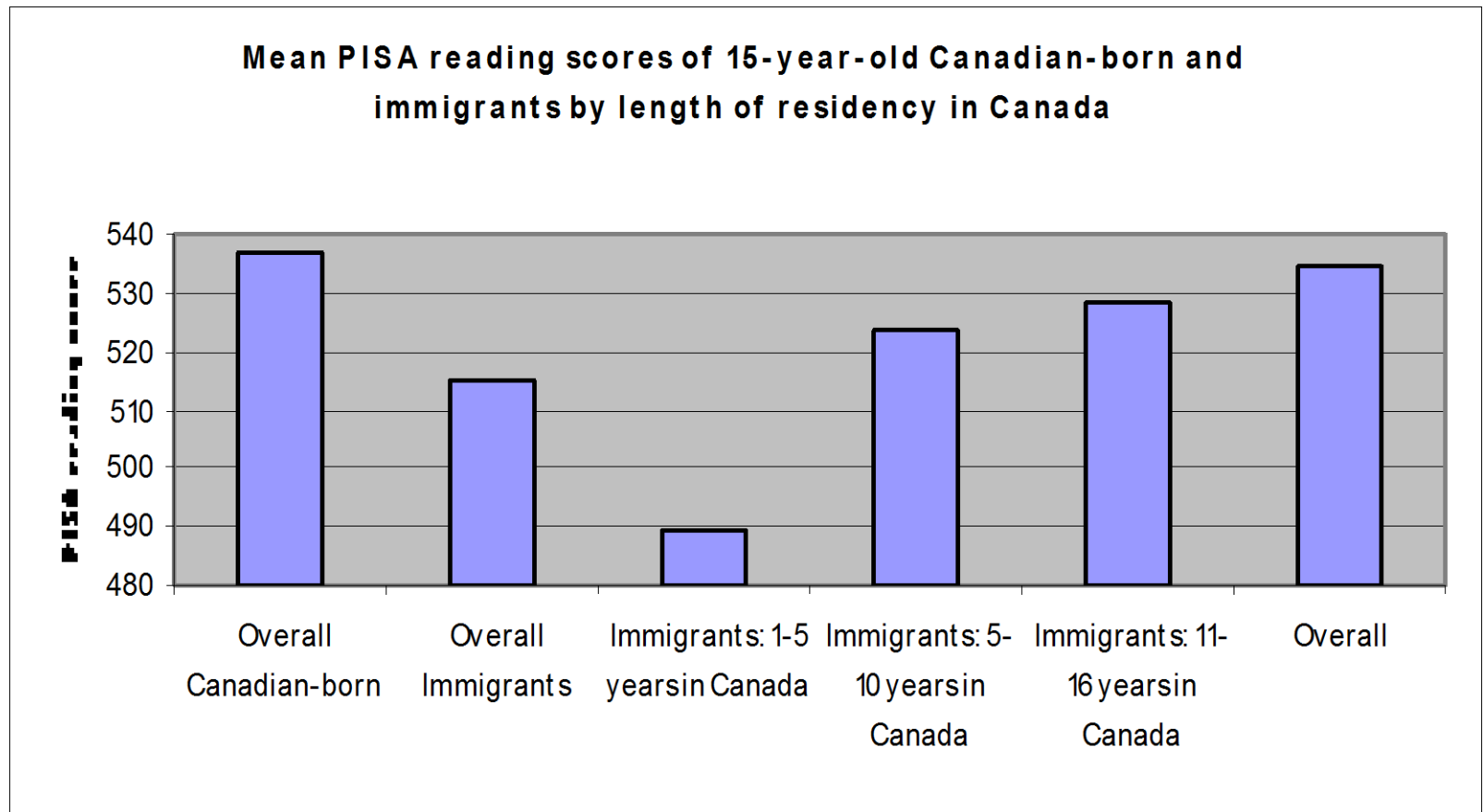


Source: NLSCY



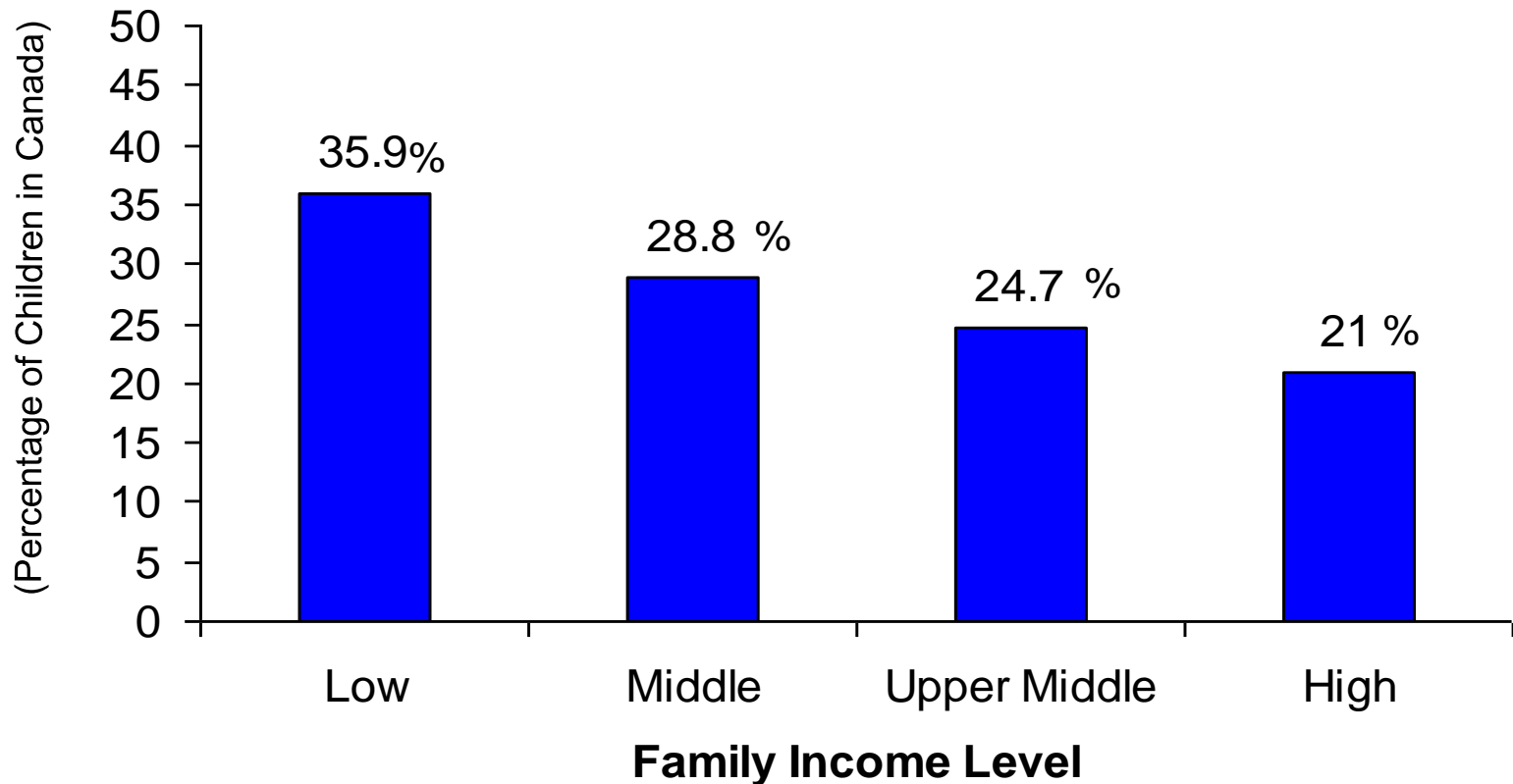
# Results are useful for policy from the first cycle

The effect of time can be constructed synthetically with outcome data showing greater integration of immigrants occurs between 5 and 10 years in Canada



## Results are useful for policy from the first cycle

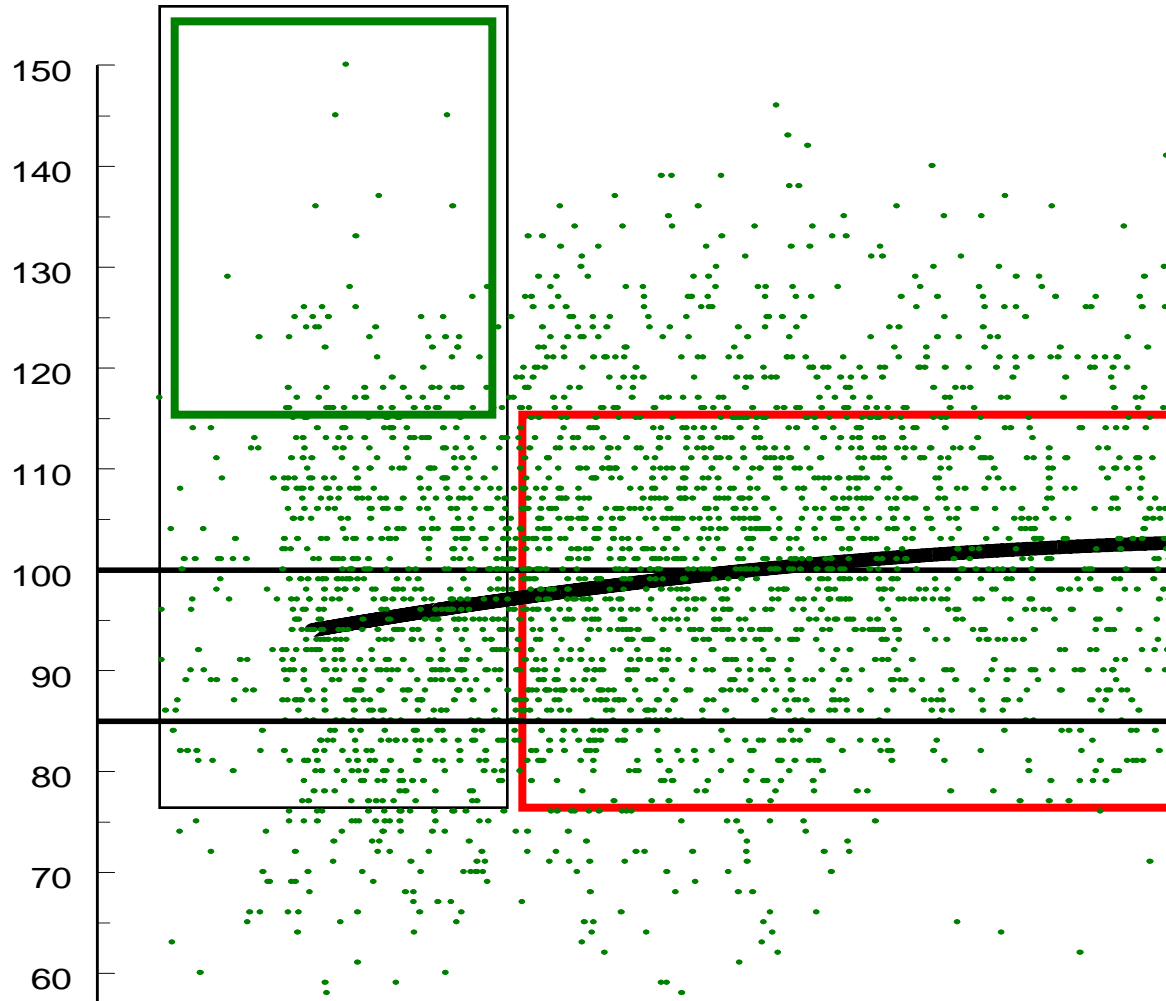
Though the probabilities of children having a learning or a behaviour problem was higher among low income children, there were more children in all the other income groups combined suggesting the value of targeting outcomes, not income



NLSCY, cycle 1

# Results are useful for policy from the first cycle

Use of outcomes reduces over-targeting or mis-targeting, since reliance on income for targeting shows poor policy success at population level in evaluations



Children with high outcomes who don't need help but benefit when policies target by low income

Children with low outcomes who need help but do not benefit when policies target by low income

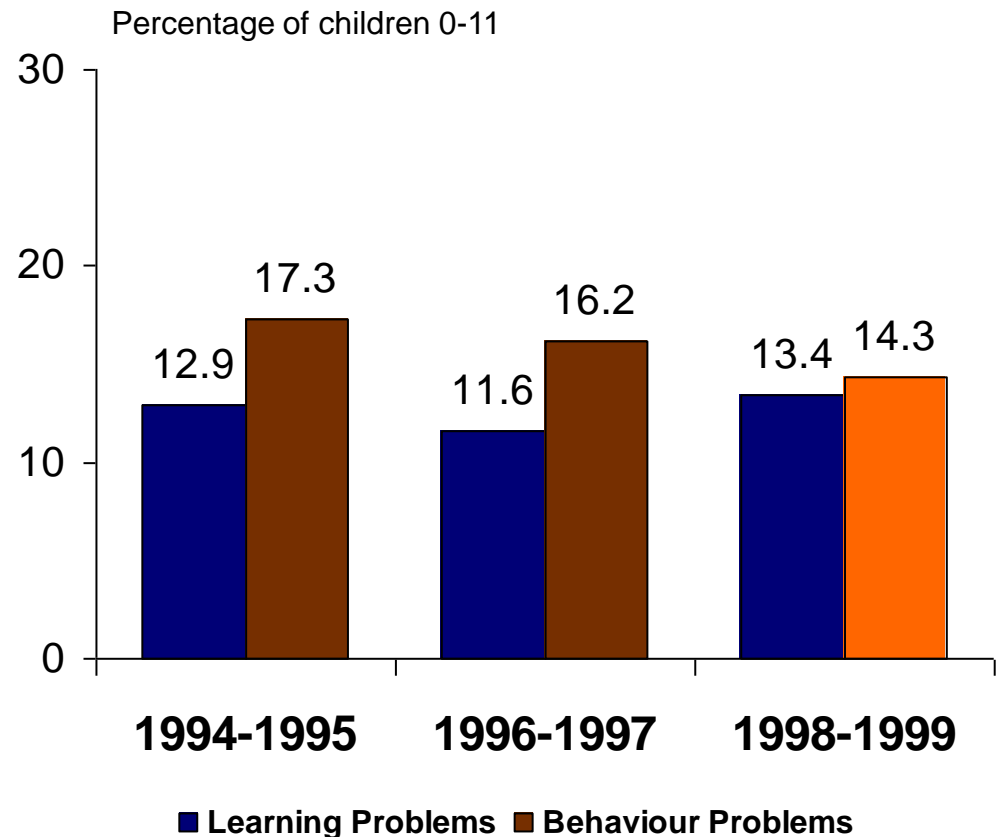
NLSCY, 1994

# Value for policy increases as data flows from further cycles

## Identify risk markers for the right early interventions before problems are full-blown

Behaviour problems were more prevalent than learning problems

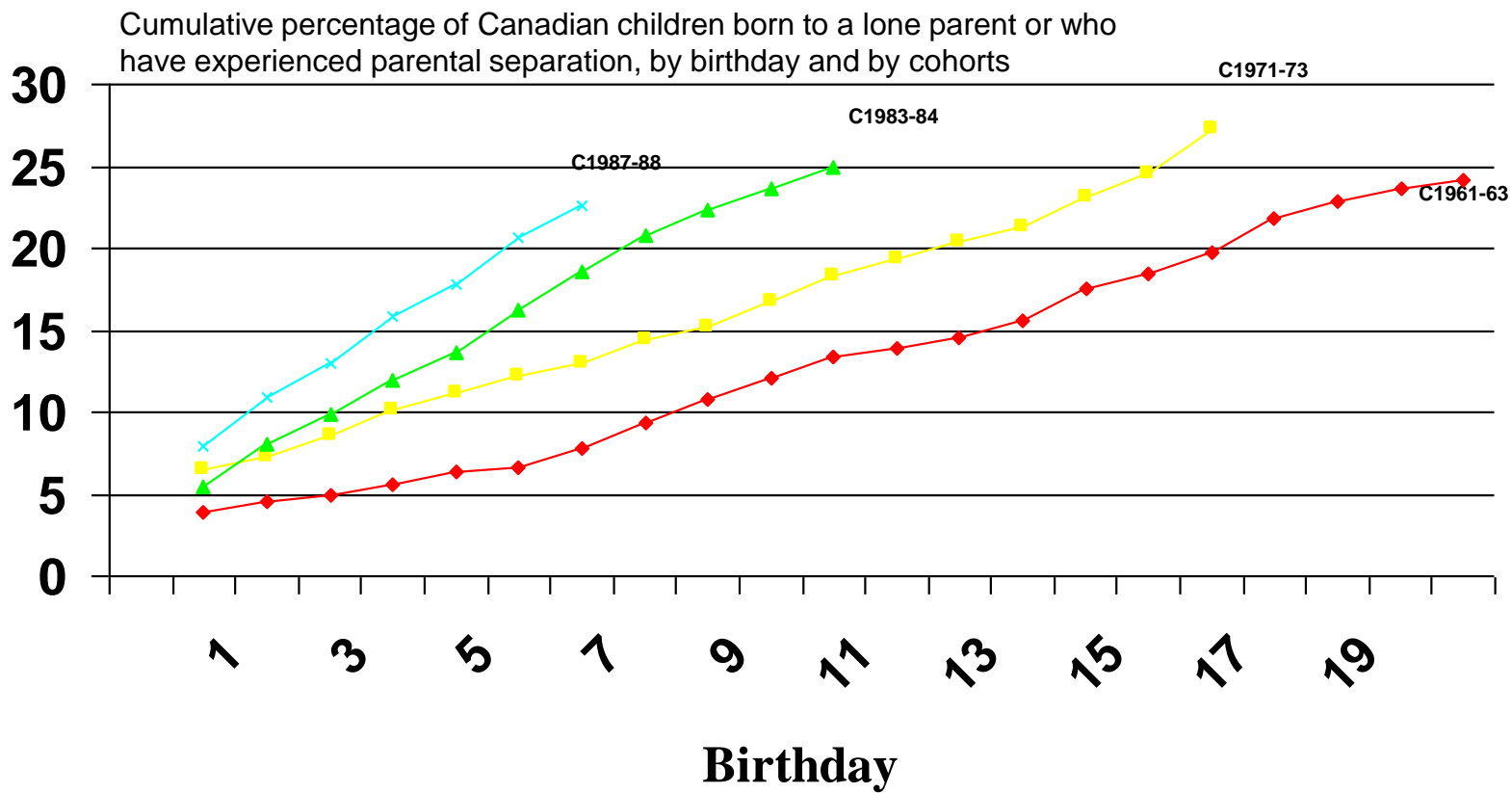
- More children have behaviour problems than learning problems. Such problems can be better handled in the family and the community rather than school.
- Only 1.9% of children had both a learning and a behavioural problem.
- About 25% or 1 million children had either a learning problem or a behaviour problem



# Value for policy increases as data flows from further cycles

## Life events as the child grows can impact the trajectory of children's outcomes

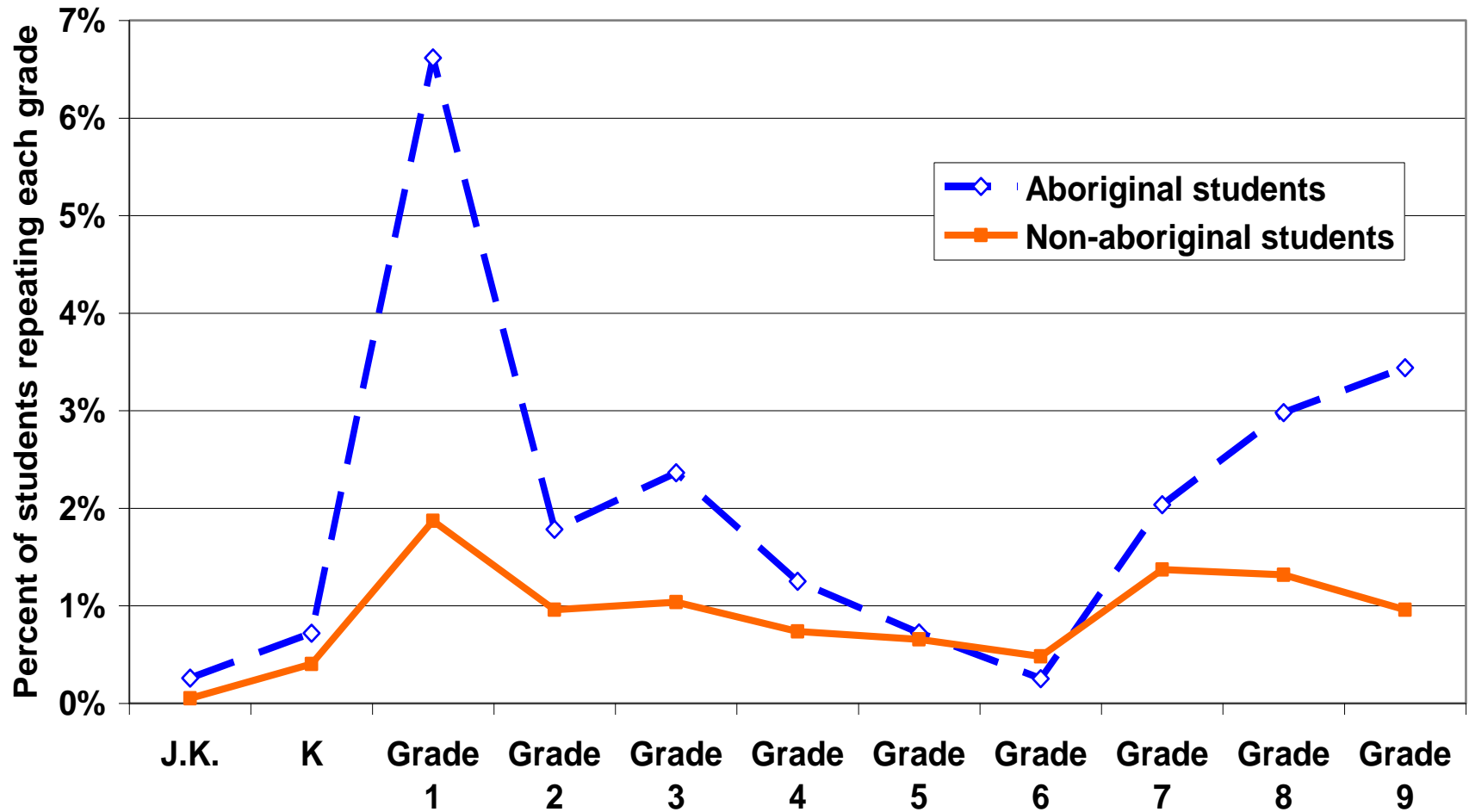
More children experience the divorce of their parents before their fifth birthday



# Value for policy increases as data flows from further cycles

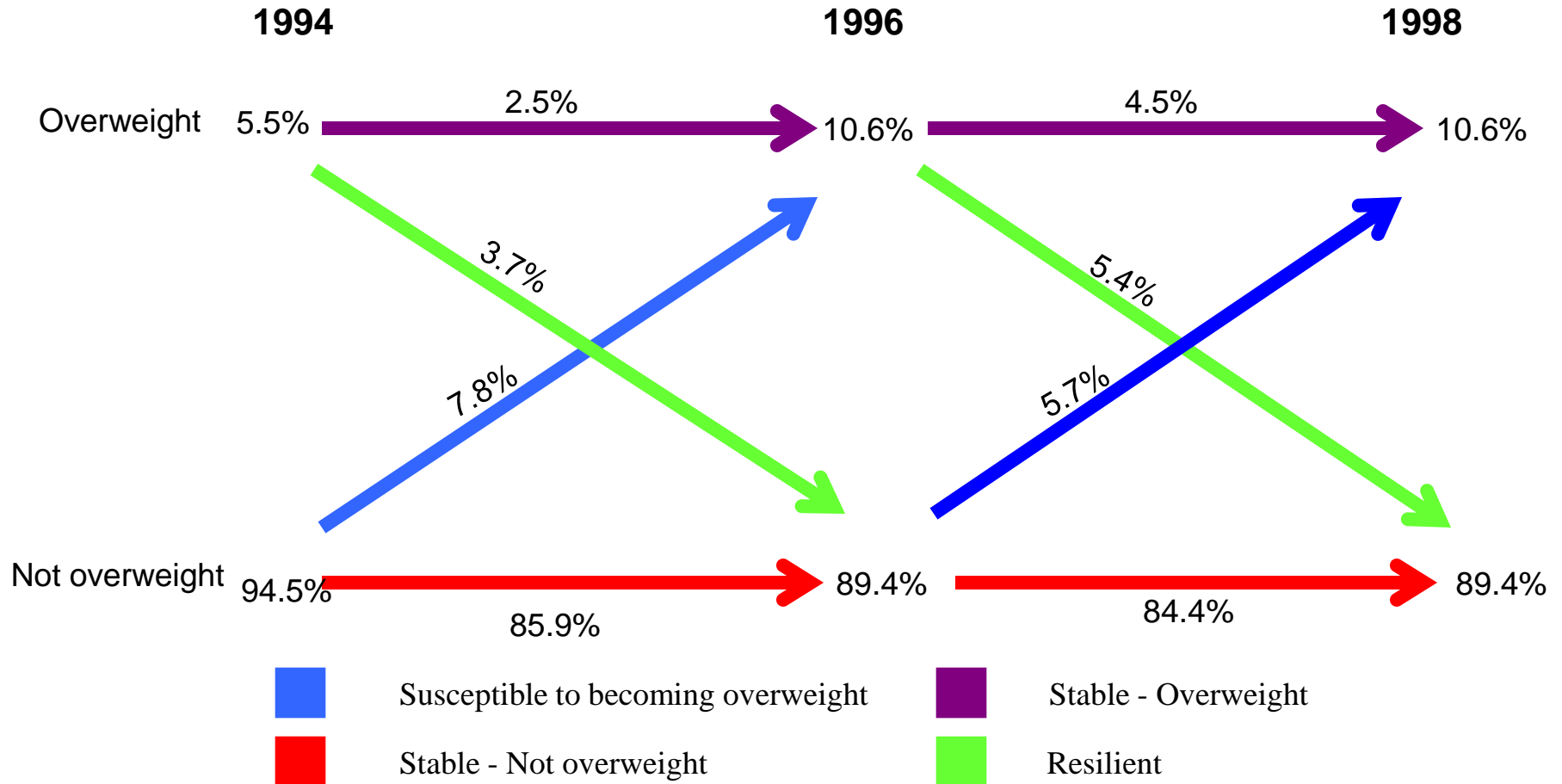
## Concentration of population groups among less desirable trajectories

Grade repetition among aboriginal and non-aboriginal students during school years



# Value for policy increases as data flows from further cycles

Persistence, flows to and from desired outcomes can be tracked for preventive and corrective interventions



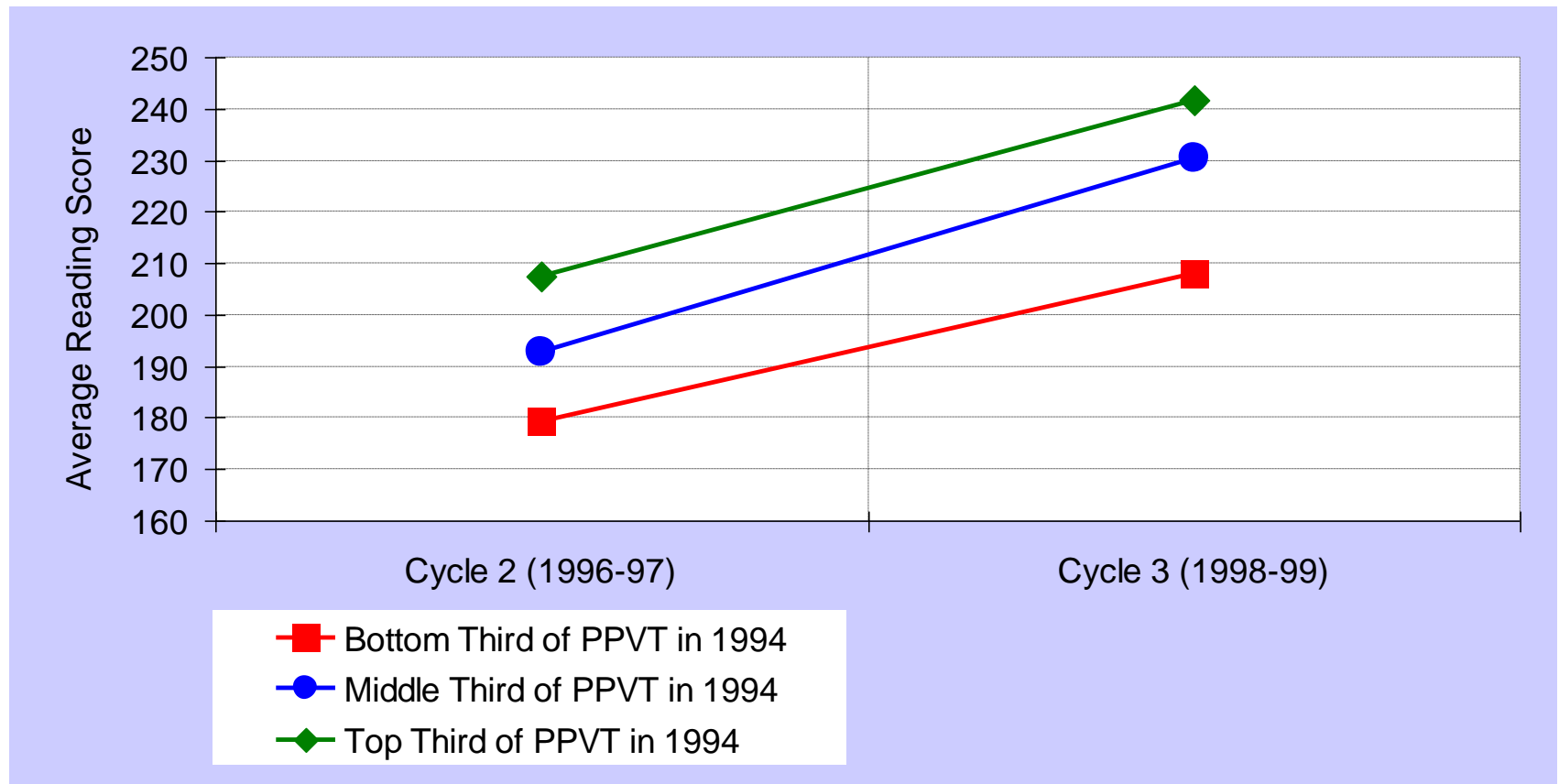
NLSCY Unweighted Estimates. Based on children who were 10-11 years in cycle 1

**More children are gaining weight than losing weight**

# Value for policy increases as data flows from further cycles

Though policies and programs resulted in equal learning gains, the differences in outcomes continued to persist. Trajectories can show if results are durable and equitable

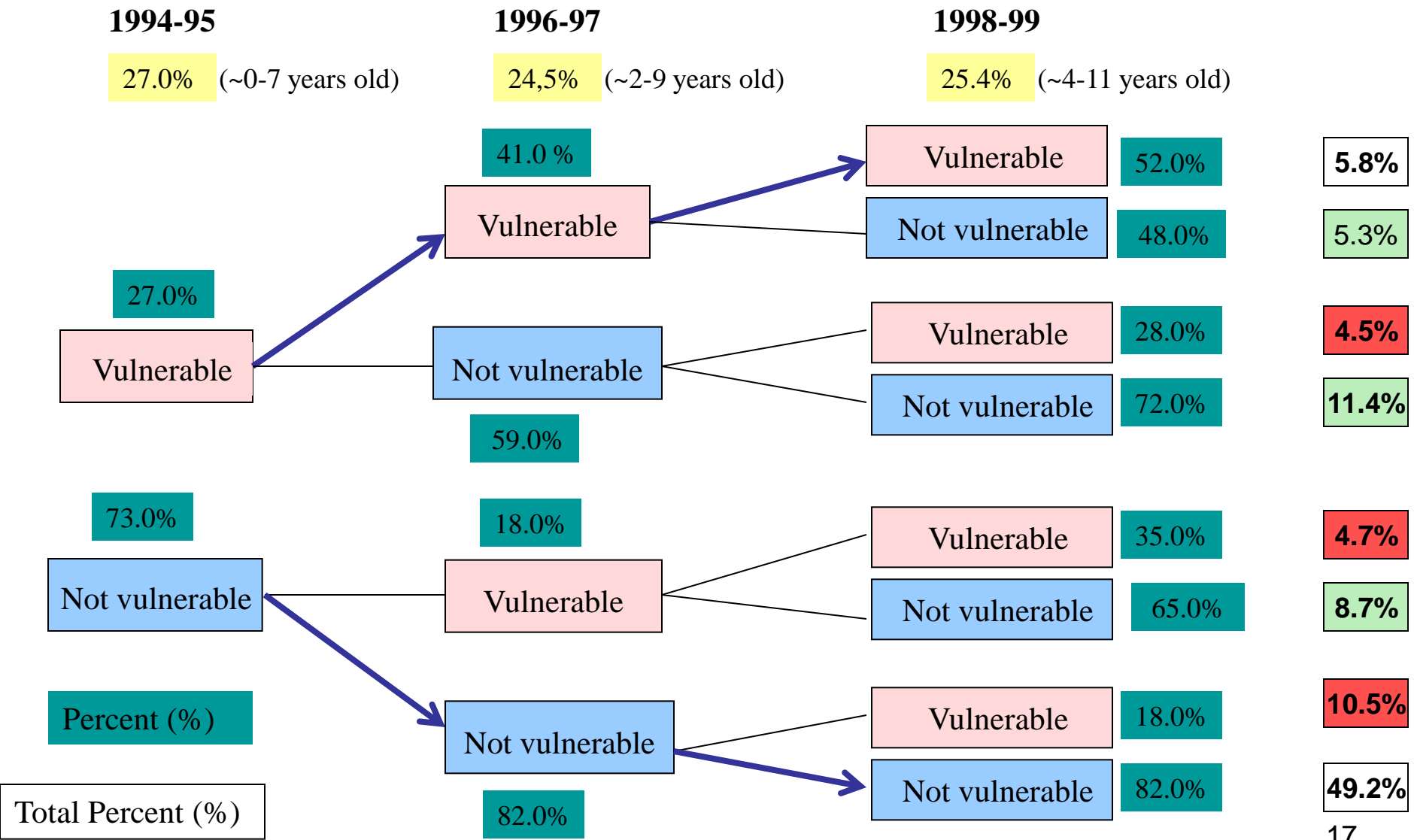
Average Reading Scores in Cycles 2 and 3 by the Parts of the PPVT Distribution in 1994  
(5-year Olds)





# Value for policy increases as data flows from further cycles

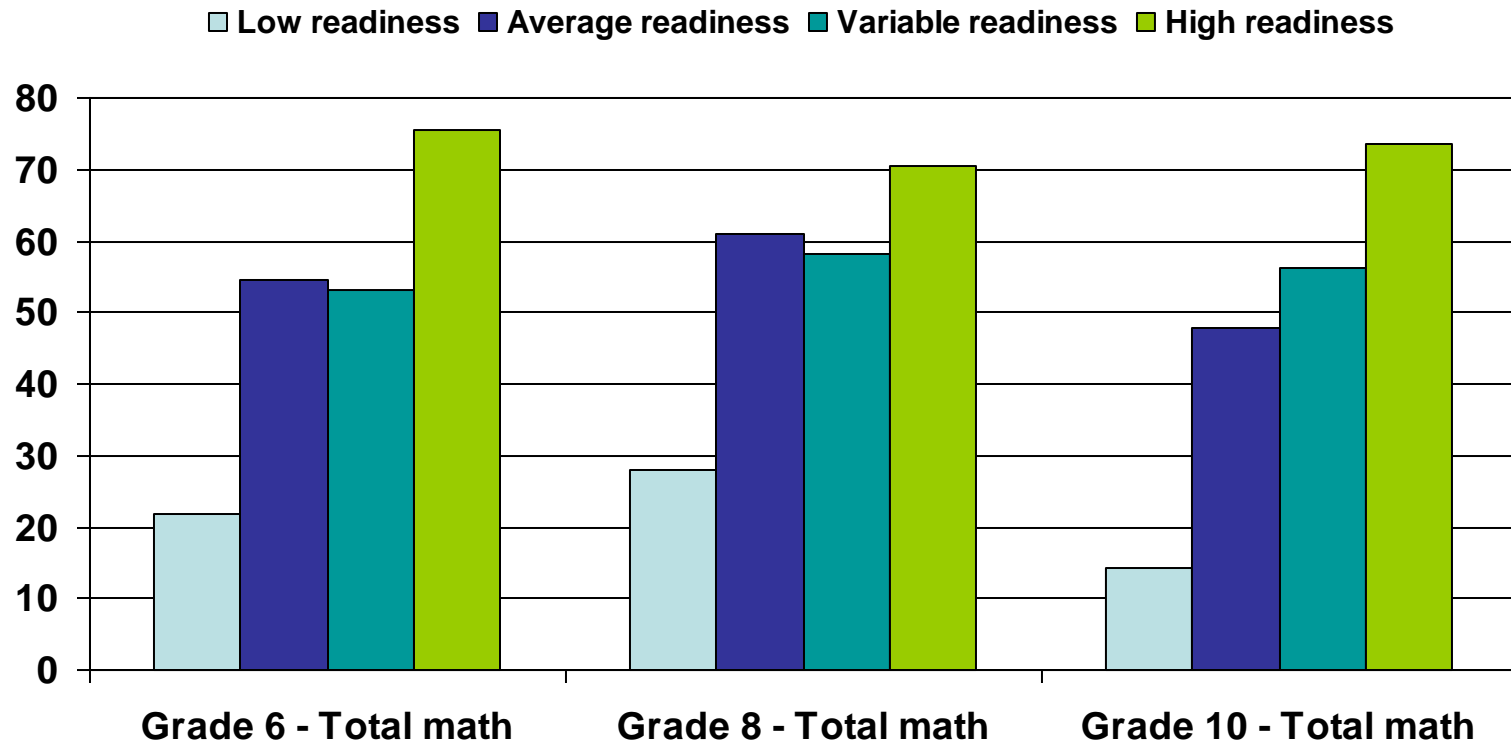
Identify common trajectories of development and degree of natural resilience



# Long run longitudinal surveys show persistent problems and durability of policy impacts

Policies can prevent deterioration, maintain development or raise performance over time

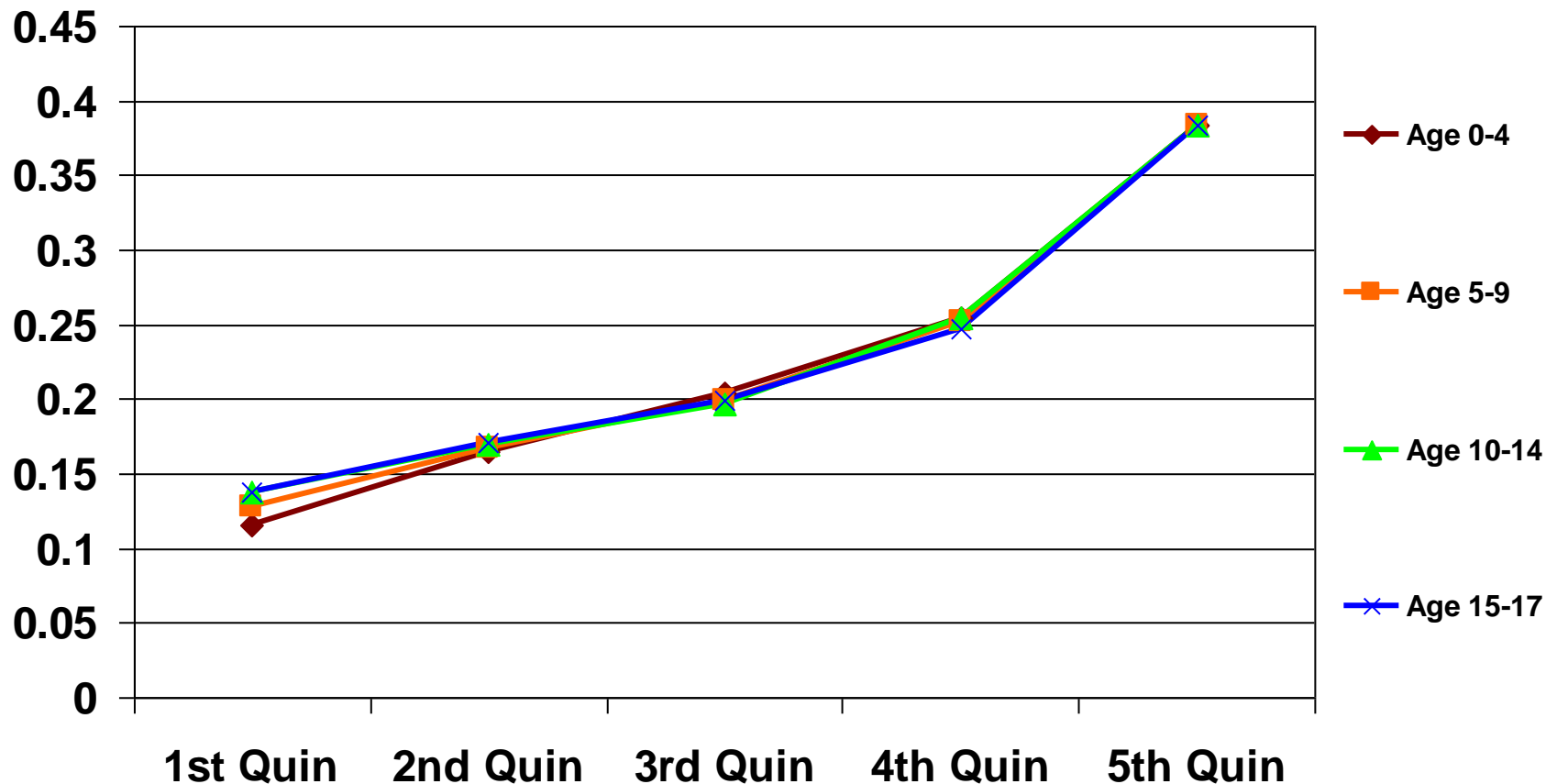
Mean Mathematics Score by Readiness Group Assessed in Kindergarten



# Long run longitudinal surveys show persistent problems and durability of policy impacts

Identify the impact (or not) of disadvantage at different stages of development

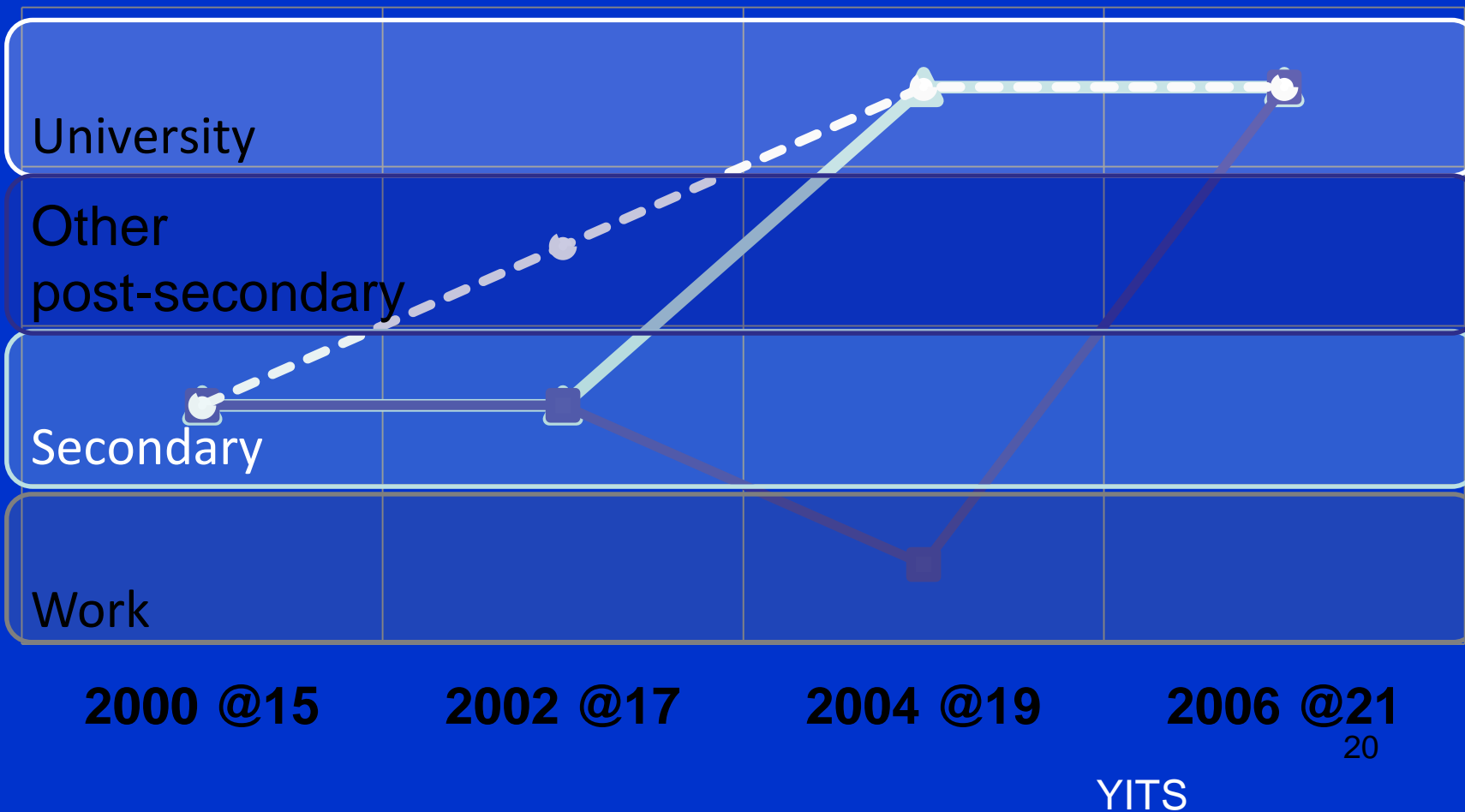
University participation rates at age 19 by parental income at various age intervals



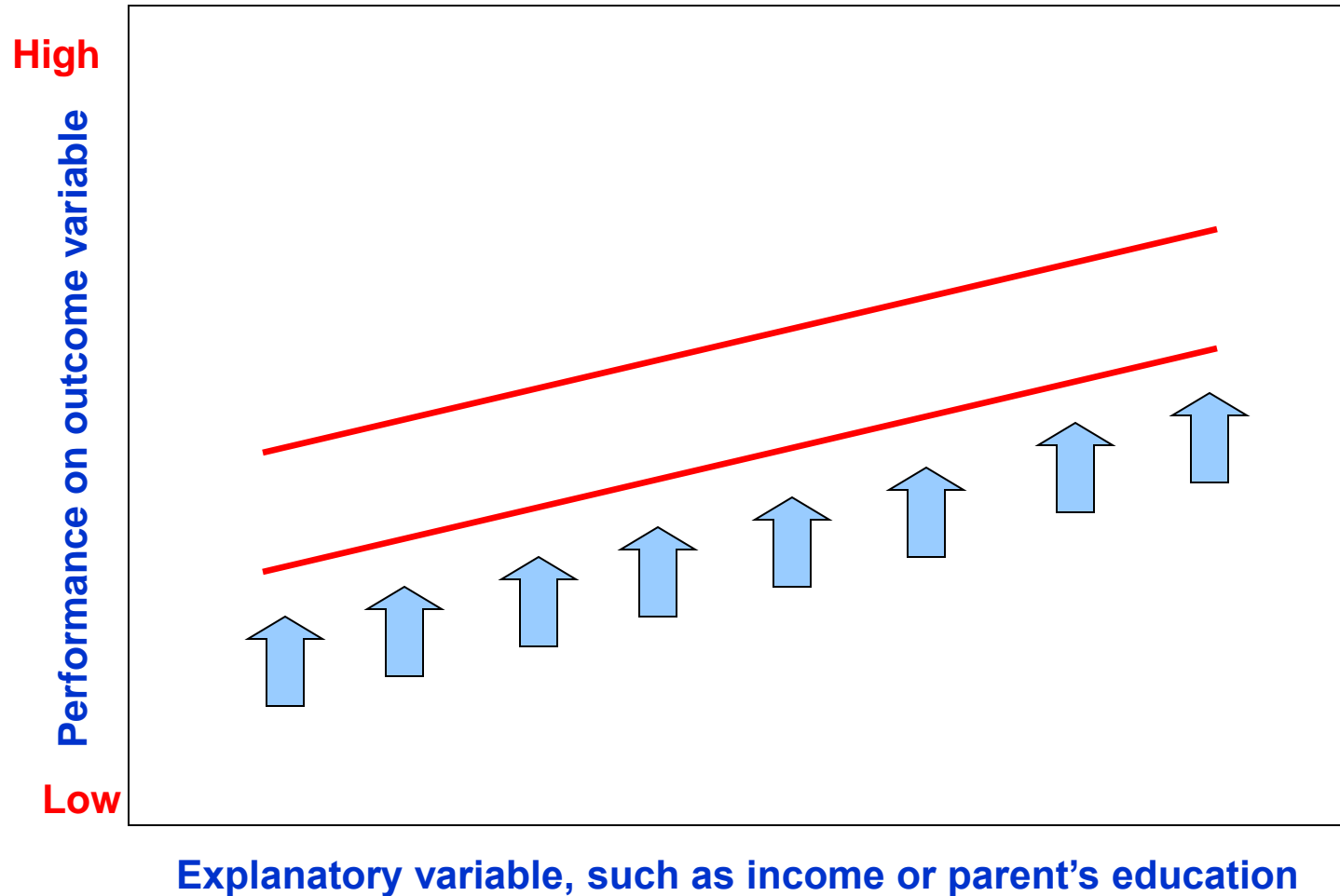
# Long run longitudinal surveys show persistent problems and durability of policy impacts

The probabilities of each trajectory, the factors associated with each and the key decision points for resilience can be determined

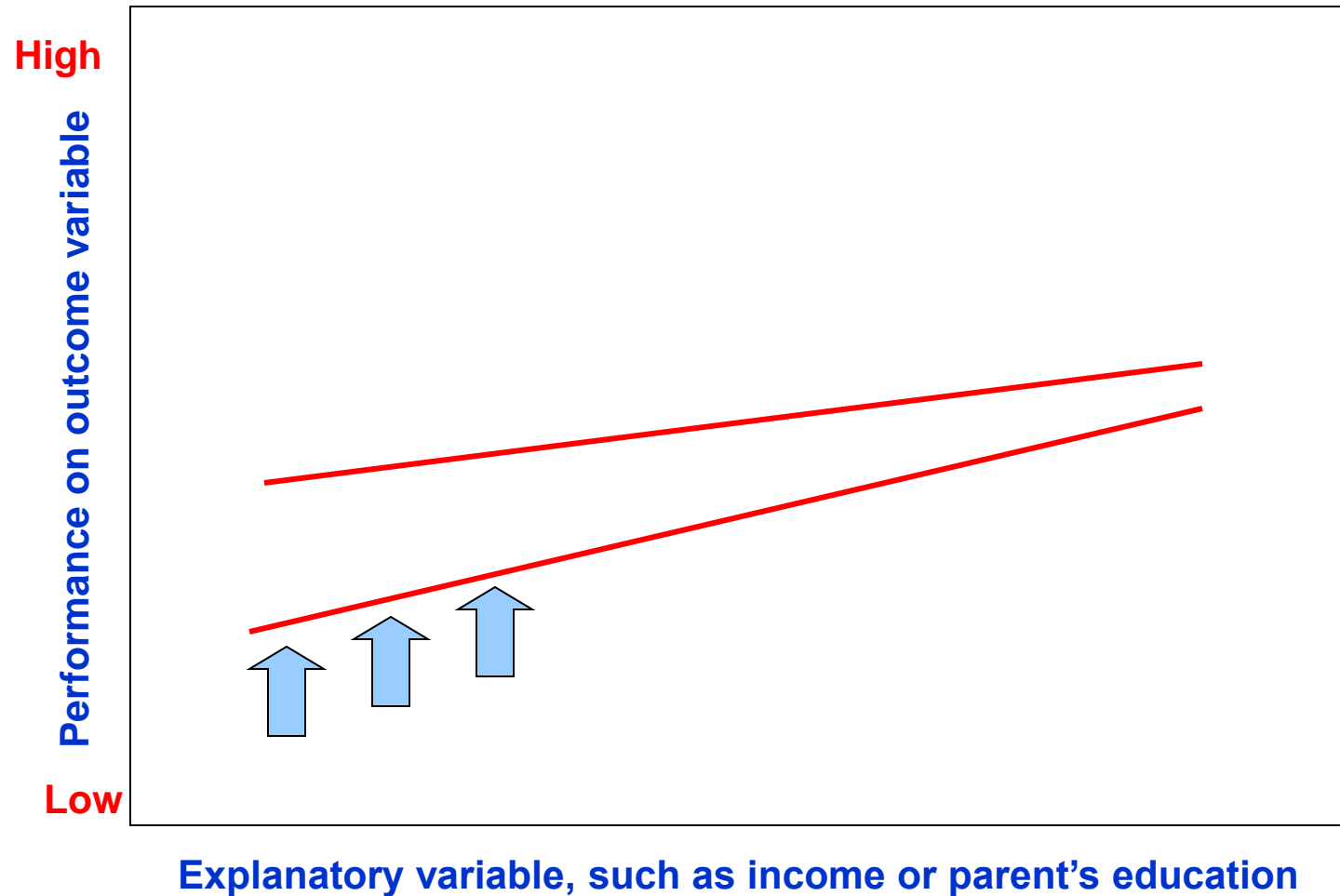
73% 597 (8)    10% 561 (17)    6% 623 (15)    8% other paths



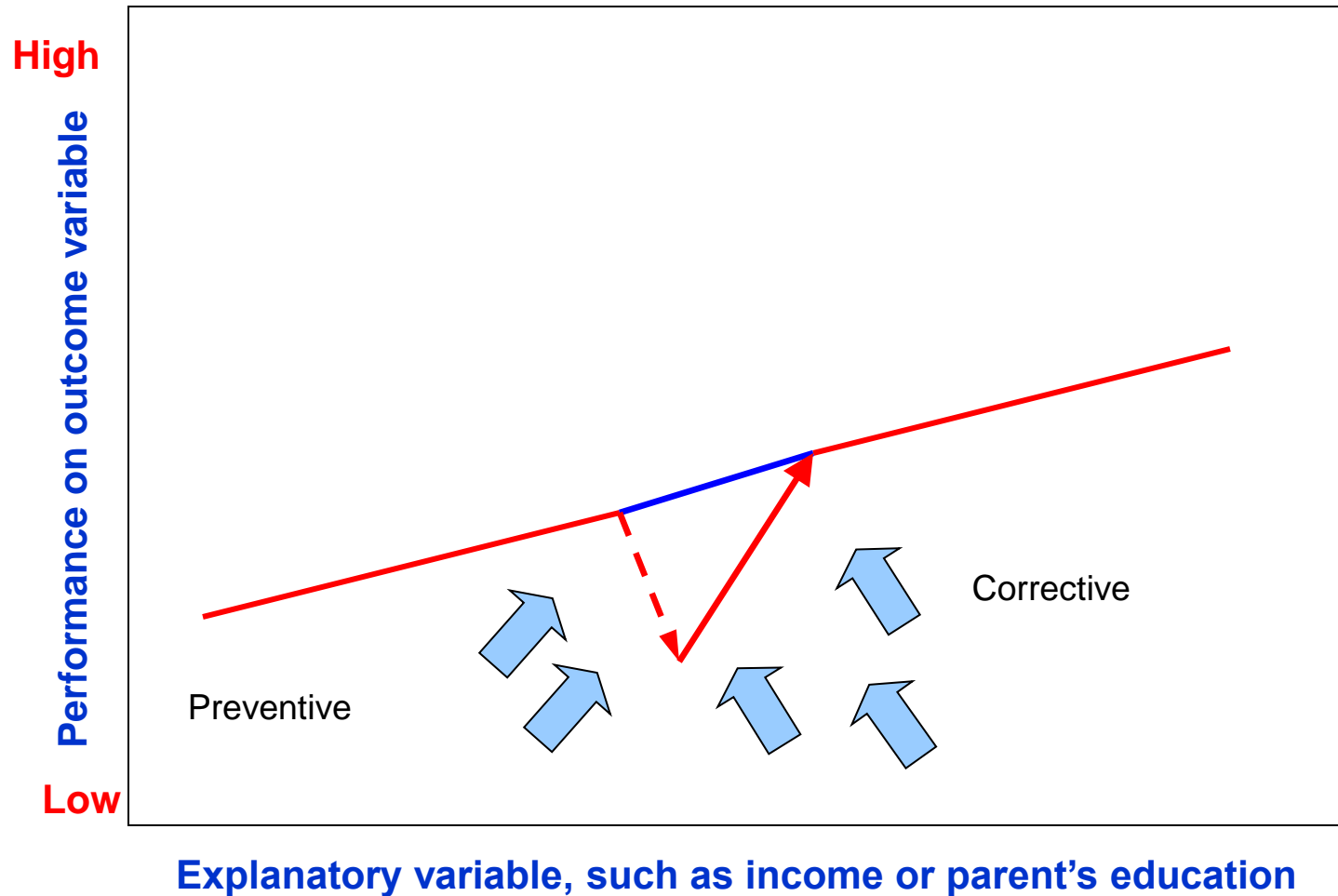
# Universal policies work to improve the outcomes of all children but may have differential effects



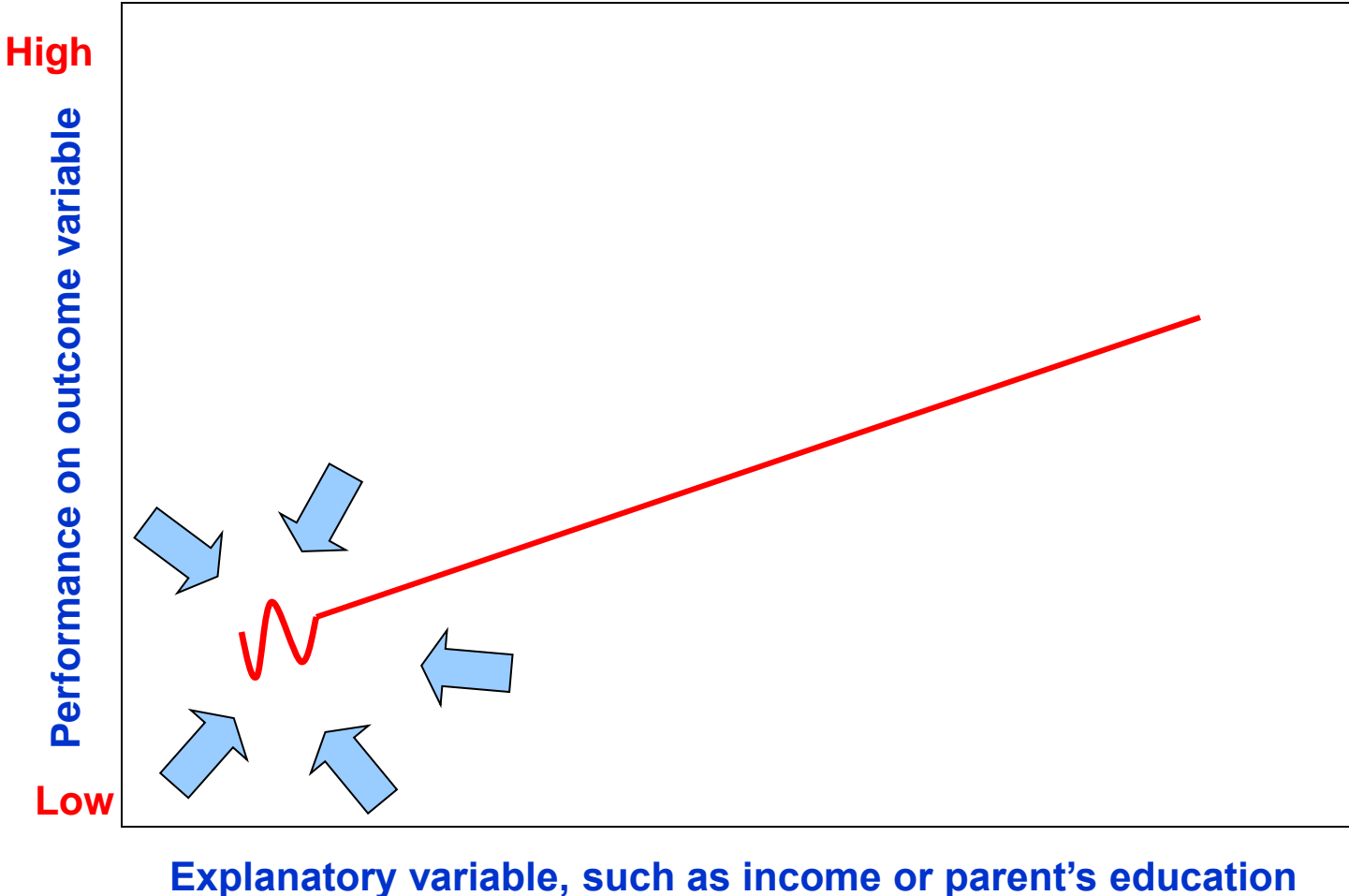
Low performers are more diverse. Policies targeting low performers by outcome can make outcomes more equitable but may not raise overall performance



# Preventive policies and corrective compensatory policies to support developmental outcomes of children



Multiple disadvantage can result in persistent low performance requiring comprehensive sustained policies





**Policy Package for the National Children’s Agenda in Canada (summary)  
Federal government expenditures. (Provincial expenditures not shown)**

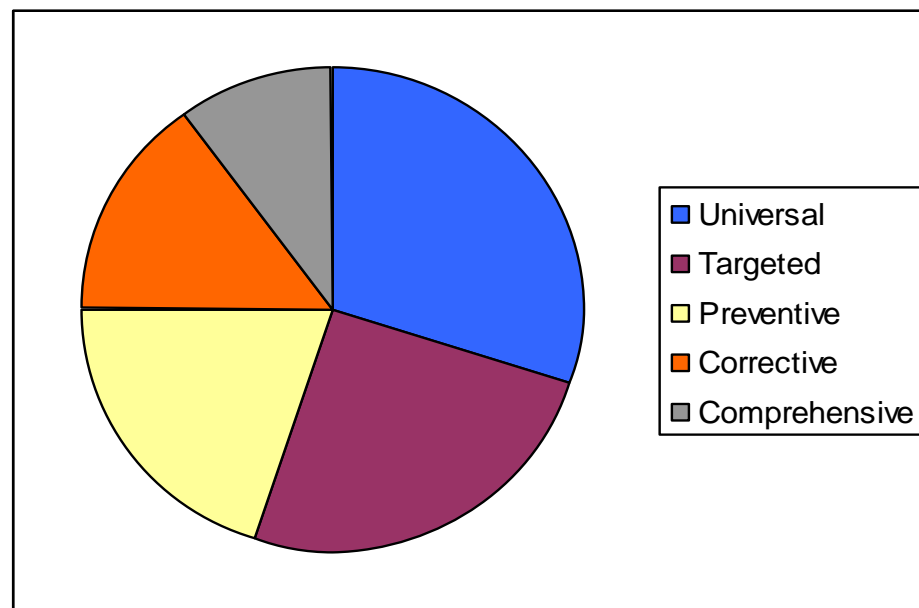
<b>Initiative</b>	<b>Date</b>	<b>Expenditure</b>
• National Long. Survey of children and youth	1992	\$ 8 million a year
• National Children’s Agenda -Centres of excellence - Aboriginal Headstart	1997	\$ 20 million \$ 66 million (2003-04)
• Federal-provincial Early childhood agreement	2000	\$ 3.2 billion (2003-04)
• Enhanced Canada child tax benefit and National Child benefit	2000	\$ 9.86 billion (2009-10)
• Enhanced Maternity and Parental Benefits (10-35 wks, EI)	2000	\$ 2.6 billion (2007-08)
• Federal provincial Agreement on Early Childhood Learning and Care	2003	\$ 1.5 billion (over 5 years)
• Child Care Expense Deduction	2003	\$ 750 million (2009-10)
• Understanding Early Years 100 communities	2004	\$ 100 million (over 7 years)
• Canada Learning Bond (\$3000)	2004	\$ 98.4 million (up to Dec 08) <sub>25</sub>



Continued investment in Growing Up In Ireland will give you the solid evidence for the right mix of policies at the right time for the right children which can be evaluated based on the outcomes achieved



For a positive future for Irish children



To see all individuals as at promise rather than at risk is a fundamental shift that means facilitating rather than fixing, pointing to health rather than dysfunction, turning away from limiting labels and diagnosis to wholeness and well being.

*Dr. Jean Clinton*



Thank you!

