

# **Some Challenges to Constructing the Evidence Base for Universal Children's Programs**

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Based on:

Michael Baker, "Universal Early Childhood Interventions: What is the Evidence Base?", *Canadian Journal of Economics*, 44(4) 2011, 1069-1105

**Evidence on the impact of universal programs is relatively scarce. Many studies are observational. The results in many areas do not offer clear guidance.**

## Studies investigating the impact of public universal childcare programs

Country	Outcome	Outcome At Age	Finding
<i>Canada</i> - Baker et al. (2008)	Behaviour	2-4 years	Negative effect
<i>Canada</i> - Lefebvre et al. (2008)	Cognitive-PPVT	4-5 years	Negative effect
<i>Canada</i> - Kottelenberg and Lehrer (2011)	Behaviour	2-4 years	Negative effect at mean Positive effect for low income children
<i>Denmark</i> - Gupta and Simonson (2010)	Non Cognitive	7 years	No effect for Preschool Negative effect of family daycare for low income males
<i>Norway</i> - Black et al. (2011)	Junior high academic performance	Grade 10	Positive effect: no effect on use of care so impact may be due to additional income
<i>Norway</i> -Havnes and Mogstad (2009 & 2011)	Educational attainment, earnings	30-40 years	Positive effect for low income children, negative for high income children

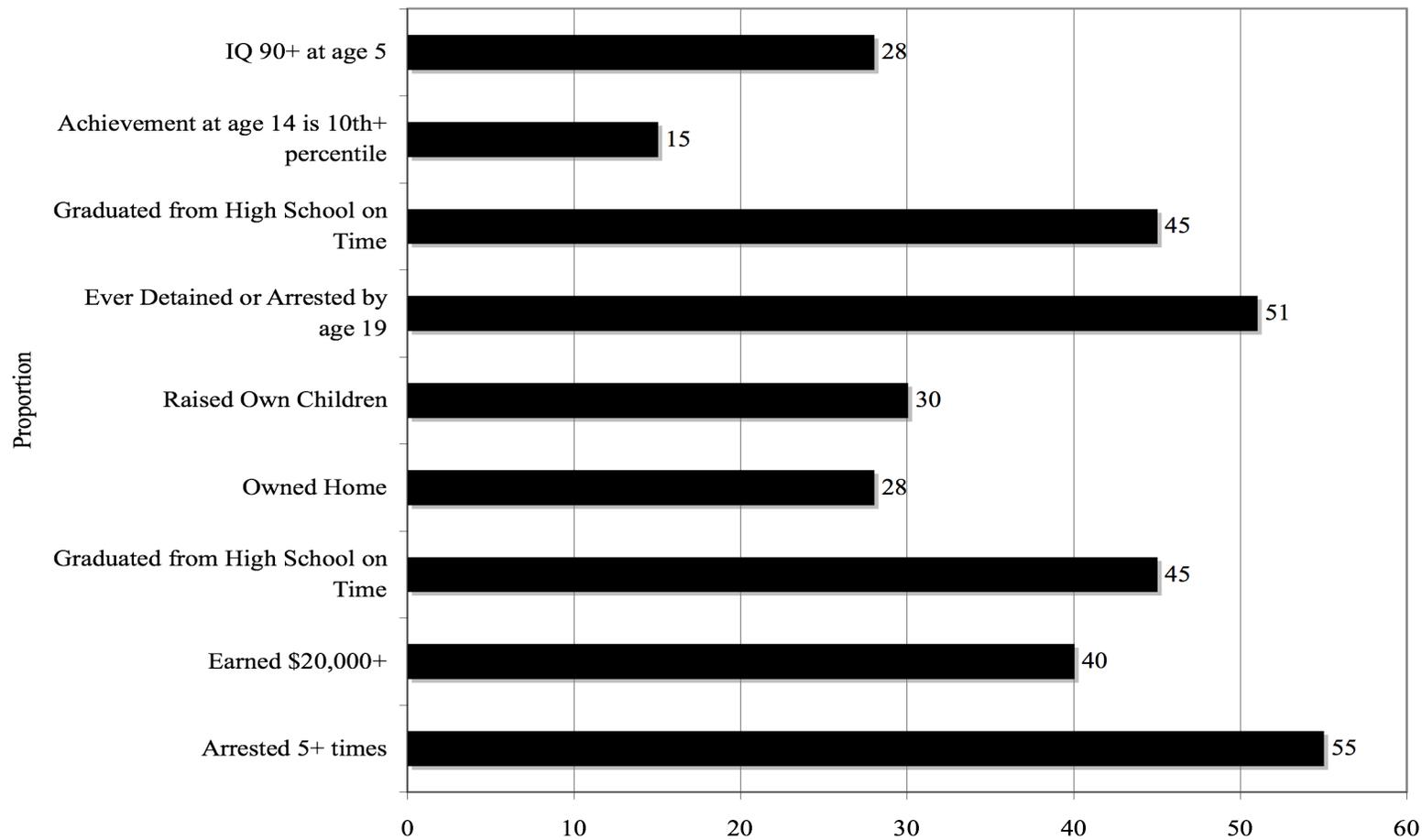
Evidence for maternity leave programs and universal preschool programs presents similar issues.

In many cases there are additional questions of whether any impacts persist.

**As an alternative, the evidence base for targeted programs is not a great substitute.**

*The populations of targeted programs can bear little resemblance to the populations of universal programs.*

# Outcomes of the Perry Preschool Program control group



Source: Berrueta-Clement (1984) and Schweinhart (2004)

*Targeted programs provide relatively expensive and potentially quite differentiated education/care.*

### *Perry Preschool*

- Program cost per child of \$17,759 (2006 USD) Heckman et al. (2010).
- Children aged 3 and 4 received a 2.5 hours per day pre school program delivered 8 months per year for up to two years.
- There were 4 teachers for every 20-25 students.
- Parents received weekly home visits of 1.5 hours and participated in monthly group meeting facilitated by program staff

### *Abecedarian project*

- Program cost per child of \$13,900 (2002 USD).
- Teacher/child ratio's of 1:3 for infants and toddlers and 1:6 for older children (up to age 5)
- Medical and nutritional services also provided

### *Ontario Full Day JK/SK*

- Instructional component of JK-GR3 funded at \$5523.59 per child (2011)
- Funding across system for all purposes is \$10,730 per child
- Classrooms of 26 students on average with one teacher and one ECE

### *BC Full Day SK*

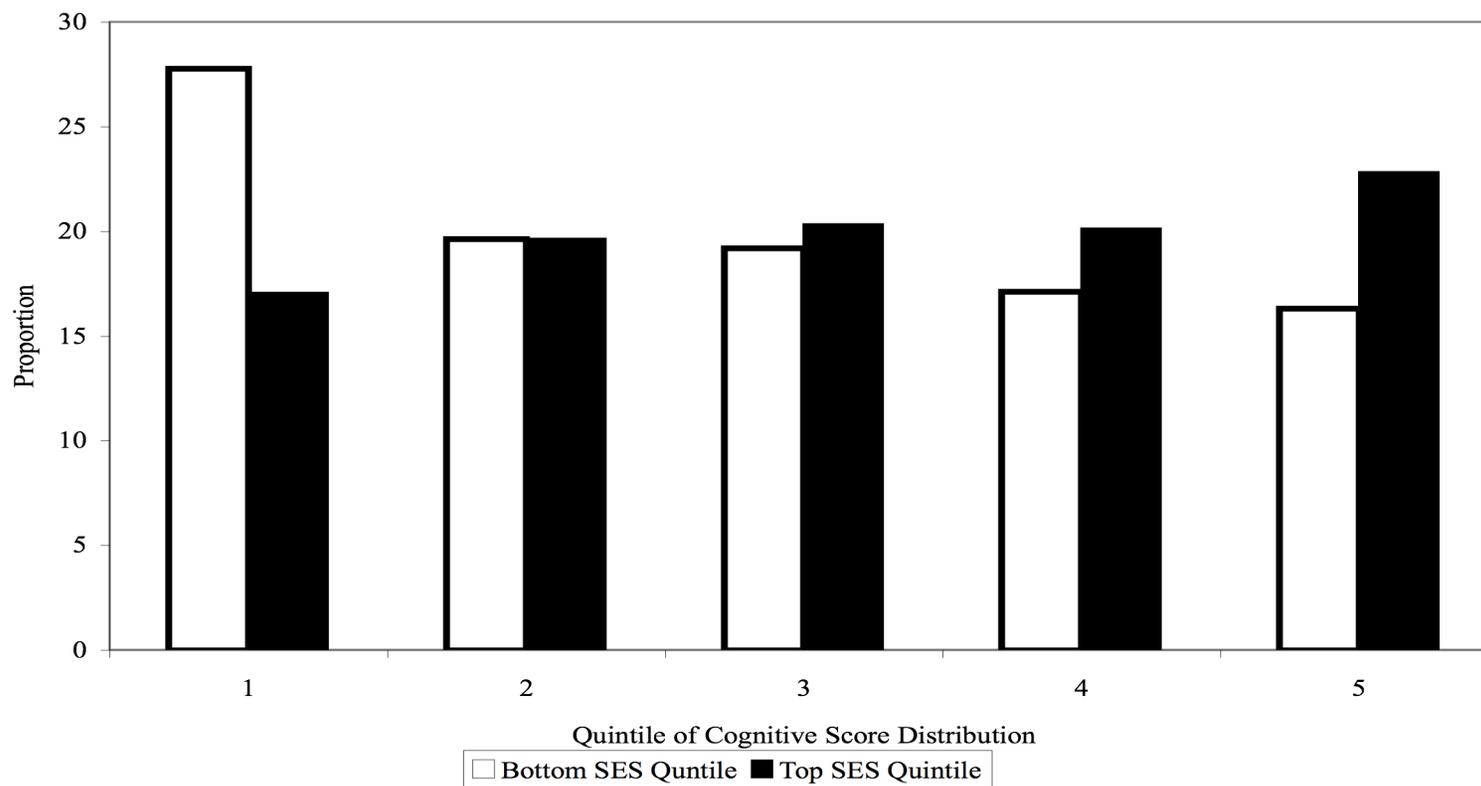
- Funding across system for all purposes is \$8357 per child (2010/11)
- Kindergarten classes capped at 22 students with one teacher.

### *Quebec Child Care Program*

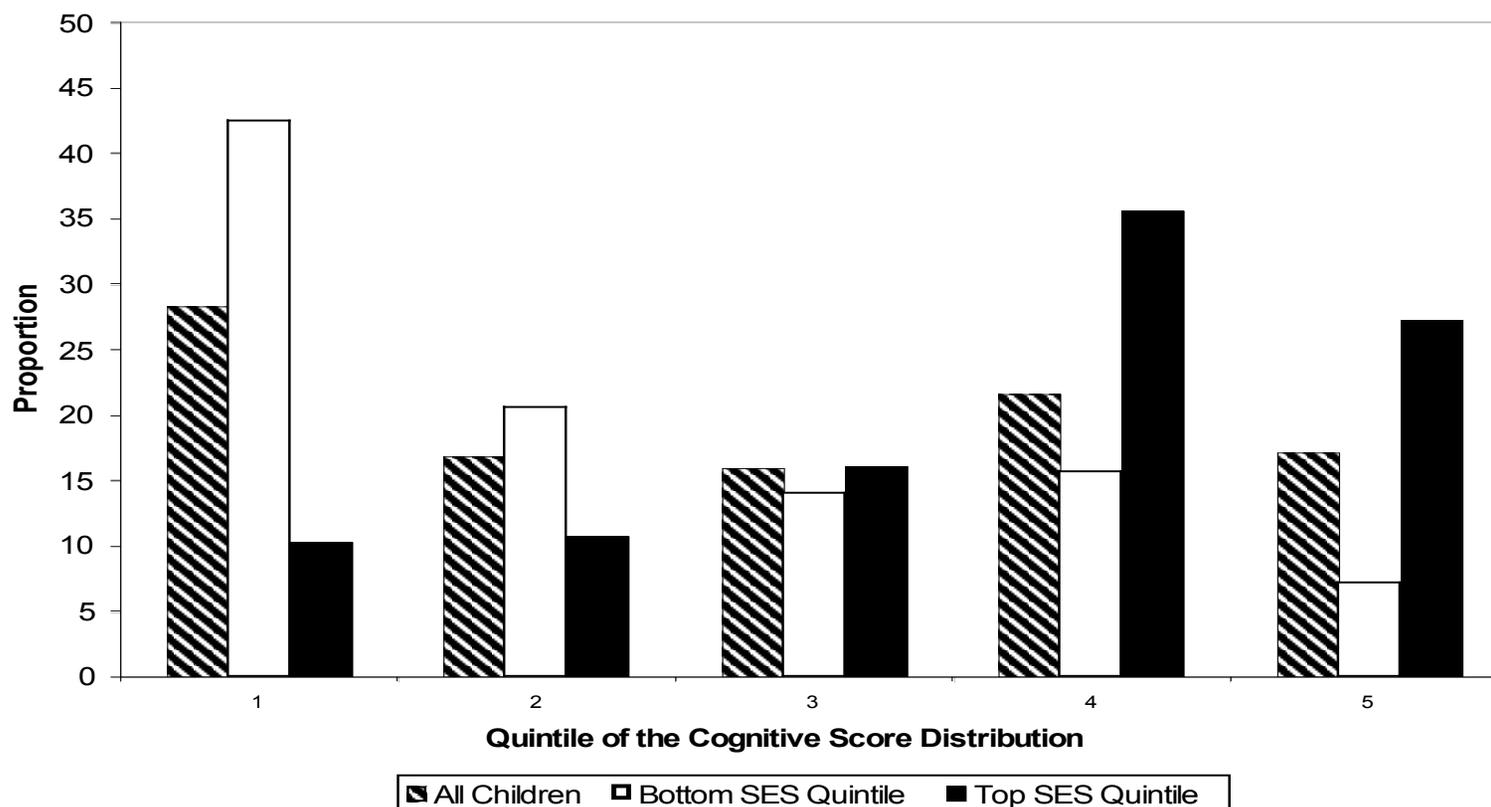
- Public subsidy per available childcare space was \$9000 in 2009/10.
- Caregiver/child ratios vary by provider type and child age. For centre based care ratios ranges from 1:5 (0-17 months) to 1:20 (5+years). For family childcare the ratio is 1:6.

**While there is evidence that children at risk are not exclusively from low SES families, the developmental trajectories of at risk children who are more advantaged are not well documented.**

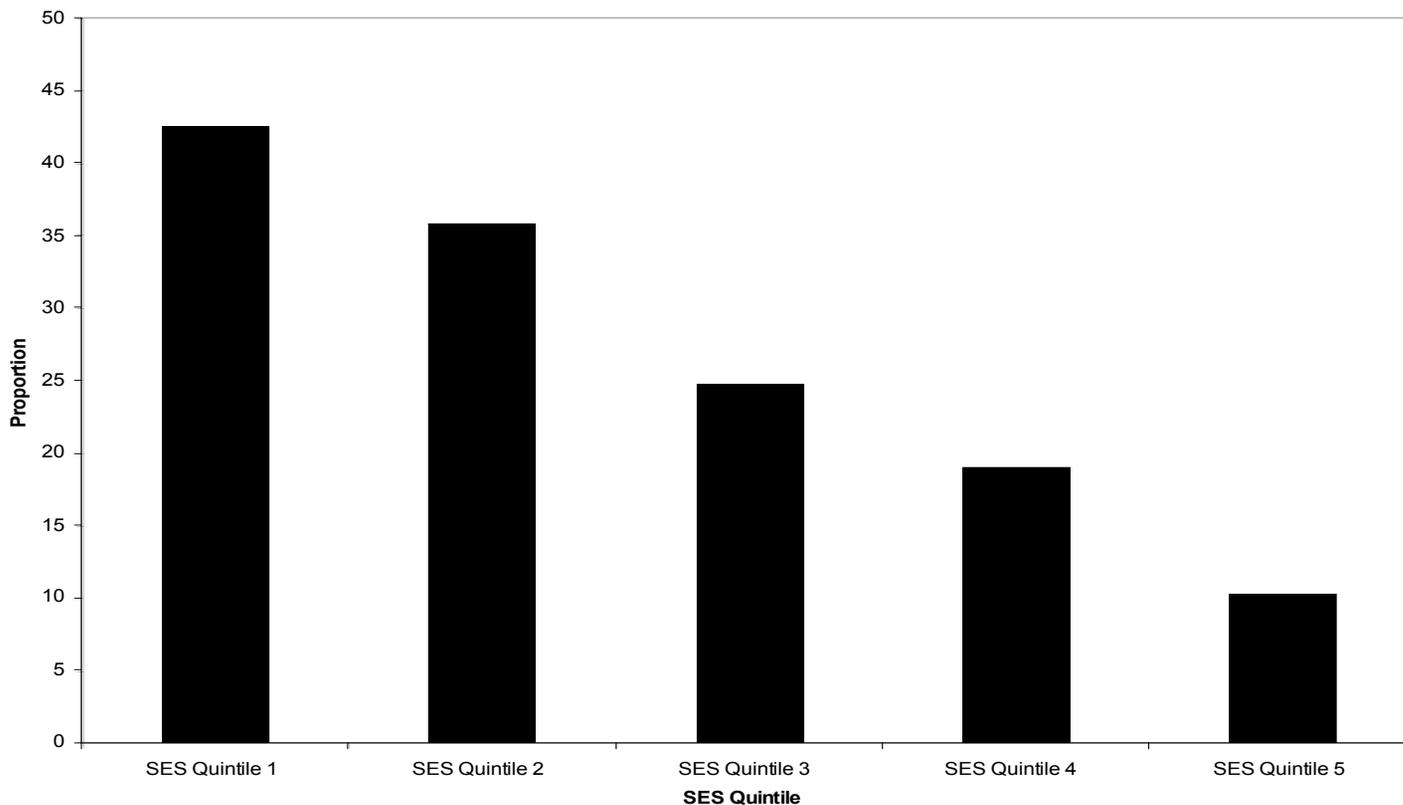
## The distribution of cognitive scores for children aged 0-5 from the top and bottom quintiles of family SES



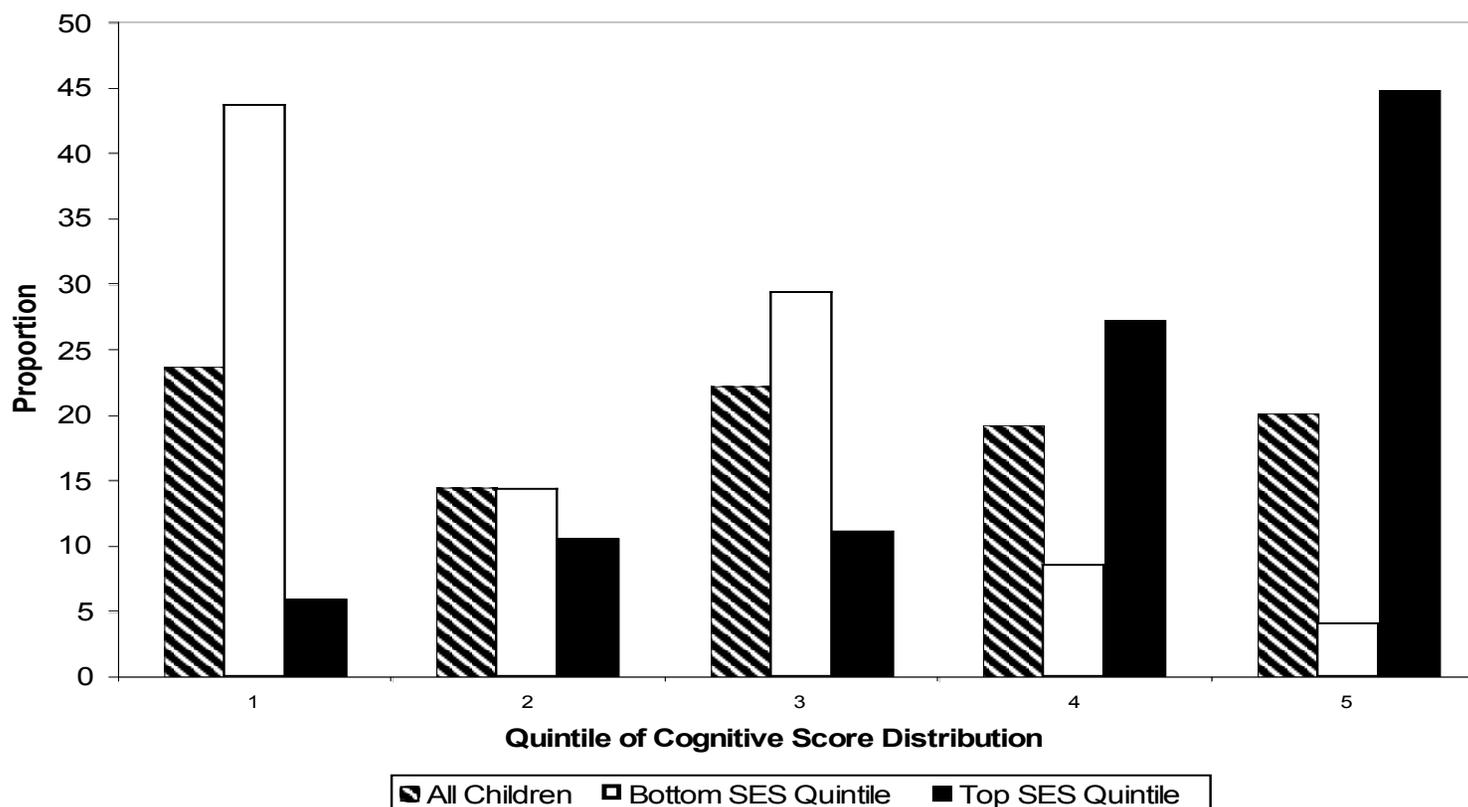
**Transition probabilities from the bottom quintile of the cognitive score distribution at ages 0-3 to the quintiles of the cognitive score distribution at ages 12-15, by quintile of family SES at ages 0-3**



**Transition probabilities from the bottom quintile of the cognitive score distribution at ages 0-3 to the bottom quintile of the cognitive score distribution at ages 12-15, by quintile of family SES at ages 0-3**



**Transition probabilities from the top quintile of the cognitive score distribution at ages 0-3 to the quintiles of the cognitive score distribution at ages 12-15, by quintile of family SES at ages 0-3**



## Summary

1. Existing evidence on the impact of universal ECE programs does not provide the clear guidance that the evidence for targeted programs provides.
2. The evidence from targeted programs may not provide a great basis for universal programs—different children, different programs.
3. The consequences of being at risk at young ages may vary significantly by family SES.
4. Because the majority of children in universal programs are “more advantaged”, we need more evidence on the incidence and persistence of their developmental challenges, and how these challenges respond to intervention.