

INVESTING IN CHILDREN: LET'S NOT FORGET NON- COGNITIVE DEVELOPMENT

CEA Panel on Investing in Children, Antigonish,
June 2017

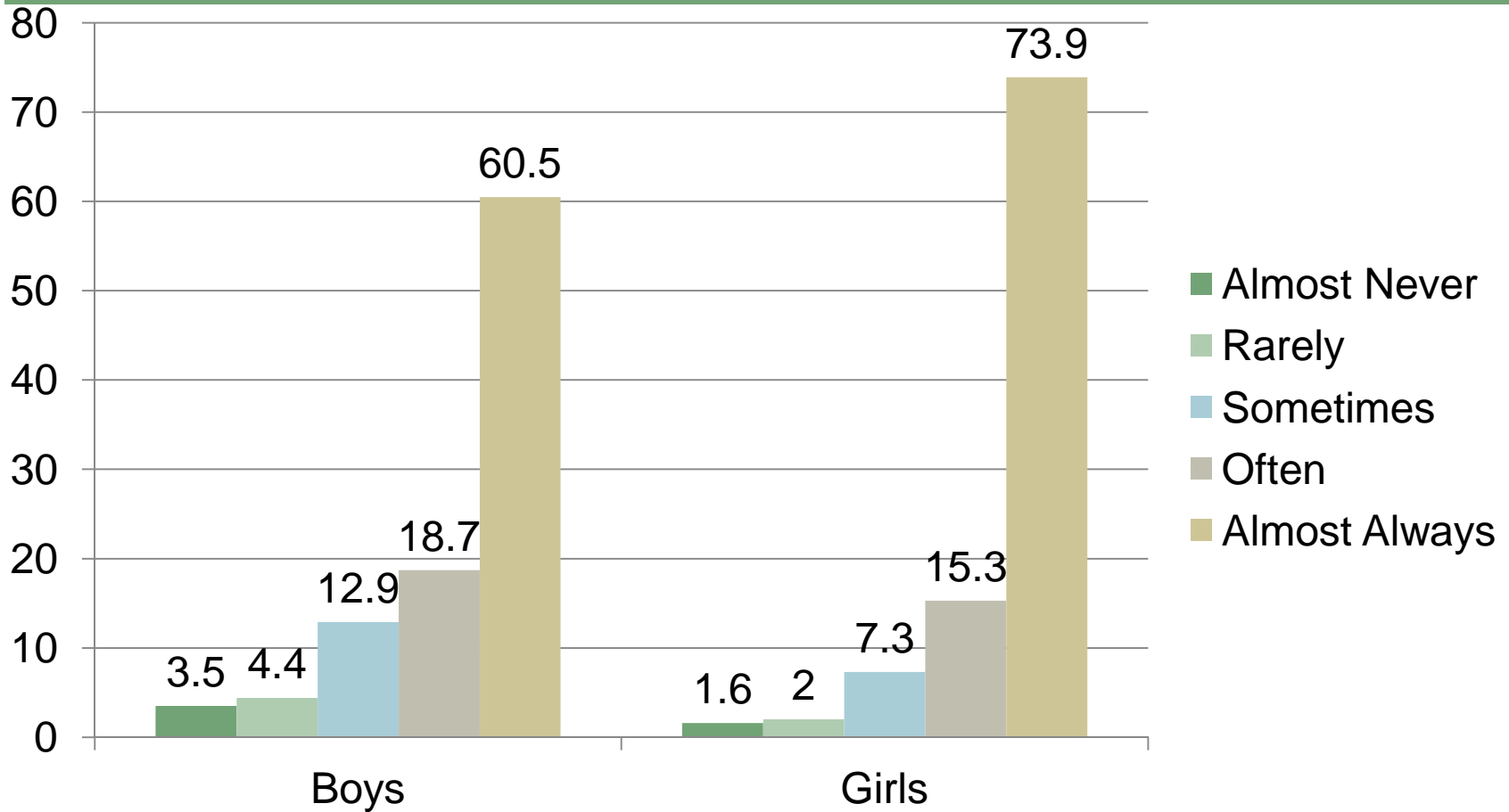
- Discussion based around joint research with Kelly Chen and Nicole Fortin
- Analysis using NLSCY data carried out in Atlantic Research Data Centre

Motivation

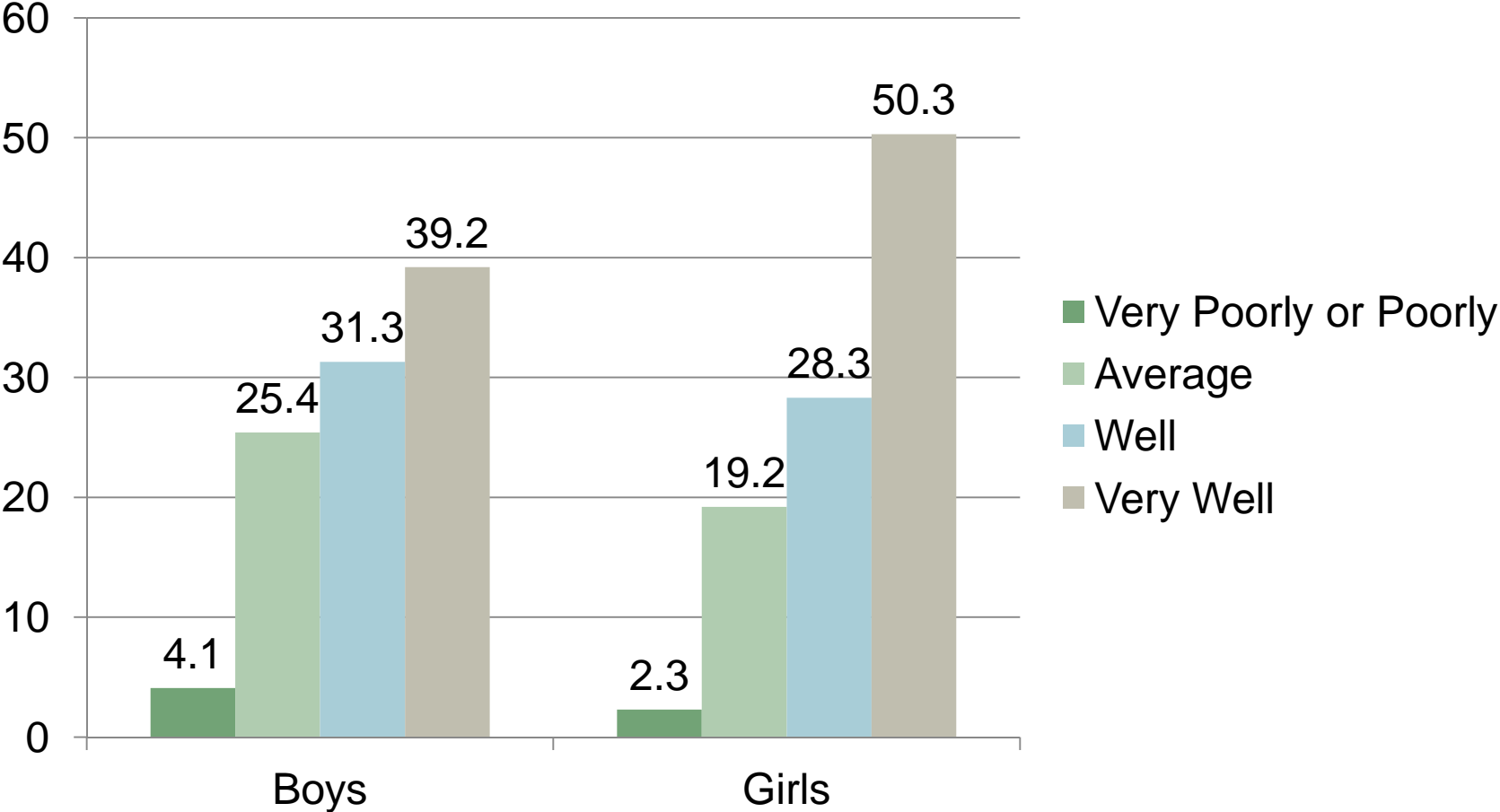
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- Girls' higher academic achievement has now surpassed boys' (Fortin et al., 2012; Gurian, 2009; Sax, 2007)
- Maybe part of the explanation for boys' lagging academic motivation and achievement may originate in the early years at school
- Child development is a cumulative process, thus early life experiences critical(e.g., Cunha and Heckman, 2009; Currie, 2011; Conti and Heckman, 2012)
- Cognitive and non-cognitive skills complementary (child who can sit still better able to learn to read)

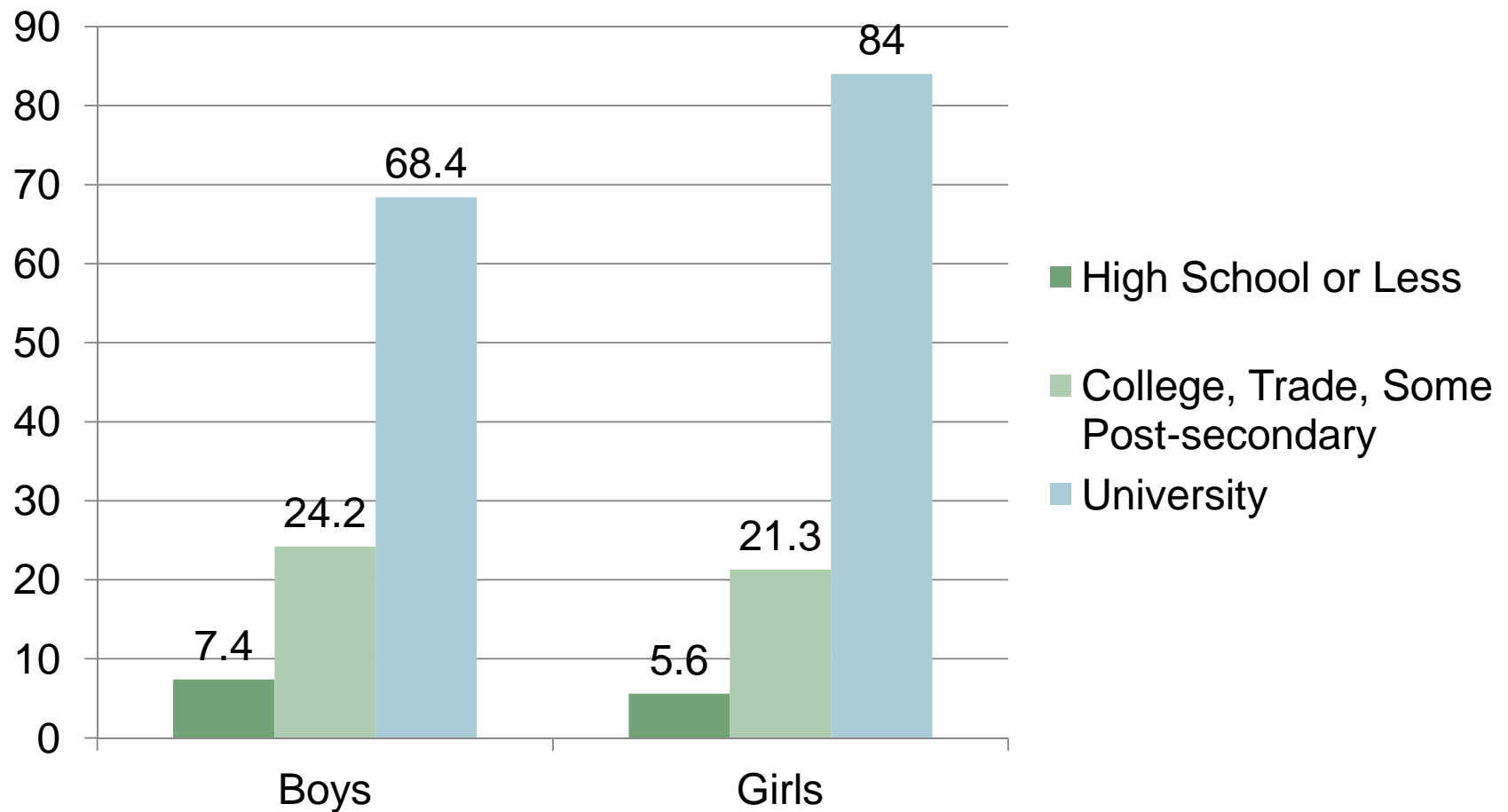
How Often Does Child Look Forward to Going to School? (Parent --Child 6 to 11)



How Well is Child doing at School Overall?



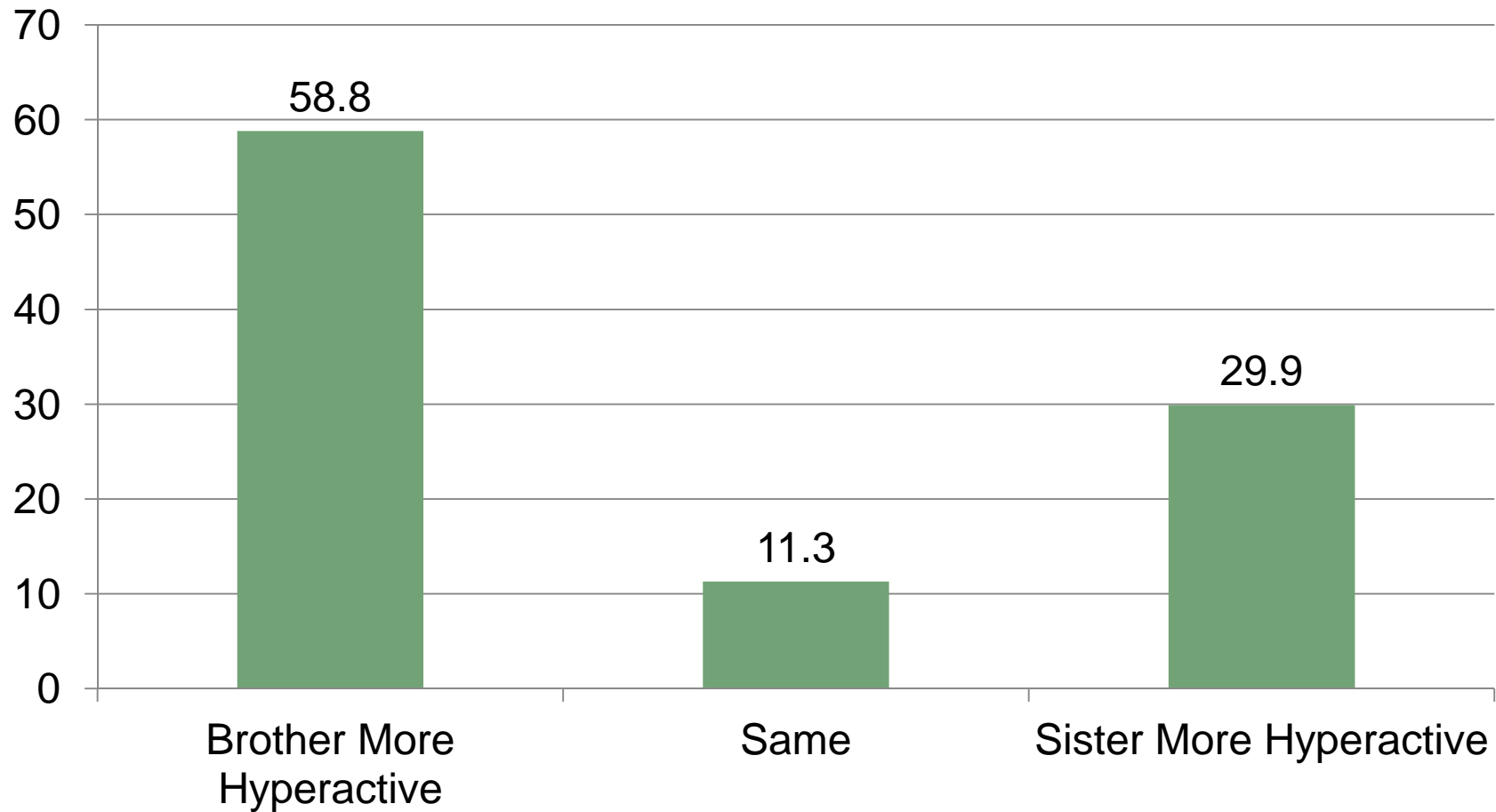
How far do you hope your child will go in school?



A role for hyperactivity?

- ADHD most commonly diagnosed behavioural problem among young children
- More hyperactive children may find it harder to be the “ideal student;” to fit in nicely with the social environment of the classroom
- They may find it harder to sit still and concentrate; get in trouble more, do less well, be less motivated

Inattentive/Hyperactivity Scores for Brothers Compared to Sisters (6 to 11)



Sibling Fixed Effects. Liking for School.

Boy	-0.339*** (0.027)	-0.331*** (0.027)	-0.253*** (0.027)
Hyperactivity Score			-0.051*** (0.005)
+Covariates		yes	Yes

Cycle Dummies included in all regressions. Covariates: Child's Age in Months, Child Health, 'Oldest Child' Dummy

Sibling Fixed Effects. Success at School.

Boy	-0.286*** (0.025)	-0.274*** (0.025)	-0.114*** (0.024)
Hyperactivity Score			-0.110*** (0.004)
+Covariates		yes	Yes

Cycle Dummies included in all regressions. Covariates: Child's Age in Months, Child Health, 'Oldest Child' Dummy

Sibling Fixed Effects. Parental Educational Hopes for Child.

Boy	-0.061*** (0.014)	-0.058*** (0.014)	-0.028** (0.014)
Hyperactivity Score			-0.021*** (0.003)
+Covariates		yes	Yes

Cycle Dummies included in all regressions. Covariates: Child's Age in Months, Child Health, 'Oldest Child' Dummy

Educational Outcomes at Age 14/15. OLS.

	Pmk- Reported Educational Success	Ever Repeated a Grade at School	Teen Educational Aspirations
I/H at 6/7	-0.073*** (0.007)	0.013*** (0.002)	-0.032*** (0.047)
Boy	-0.254*** (0.041)	0.014 (0.010)	-0.231*** (0.047)
N	4305	4300	3155

Educational Outcomes at Age 14/15. Sibling FE.

	Pmk- Reported Educational Success (1-5)	Ever Repeated a Grade at School	Teen Educational Aspirations (1-5)
Mean (St Dev)	4.065 (0.943)	(0.065) (.247)	3.838 (0.905)
I/H at 6/7	-0.066*** (0.007)	0.007*** (0.003)	-0.058*** (0.014)
Boy	-0.192*** (0.060)	0.006 (0.014)	-0.176** (0.060)
N	1626	1626	968

Policy?

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- Being young in class increases ADHD-like behaviours using both “difference in difference” and “regression discontinuity” designs with family fixed effects
- Children with highest levels of ADHD-like behaviours at age 2/3 have the hardest time being young in class
- Effects stronger for children from lower-income families

Policy Options?

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- Staggered school entry (twice per year?) and/or extra accommodation for relatively young children?
- Finland model (formal schooling starts at 7)
- More recess? More physical education?

Thanks!

Hyperactivity Index

- “How often would say this child”
 - “Can’t sit still or is restless?”
 - “Is easily distracted, has trouble sticking to any activity”
 - “Can’t concentrate, can’t pay attention for long?”
 - “Is impulsive, acts without thinking?”
 - “Has difficulty waiting for his turn in games or groups?”
 - “Cannot settle to anything for more than a few minutes”
 - “ Is inattentive?”

1= Never or not true; 2= Sometimes or somewhat true; 3= Often or very true

Boys and Girls Compared

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