

# Breaking Down the Interaction Effect between Sex and Neighbourhood Socioeconomic Status in Early Child Development across Canada

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# Disclosure Statement

I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.

# BACKGROUND

Kindergarten aged boys have worse outcomes across developmental domains

This gap is wider among children in low socioeconomic status neighbourhoods

Less is known about this relationship in the sub-domains of development



# EARLY SCHOOLING: THE HANDICAP OF BEING POOR AND MALE (ENTWISLE, ALEXANDER & OLSON 2007)

Boys had lower reading scores, but only observable

- After grade 6
- Among children on the meal-subsidy program

Largely due to teacher and parent expectations



# CANADIAN NEIGHBOURHOODS AND EARLY CHILD DEVELOPMENT ( CanNECD ) STUDY

Individual child development data at kindergarten

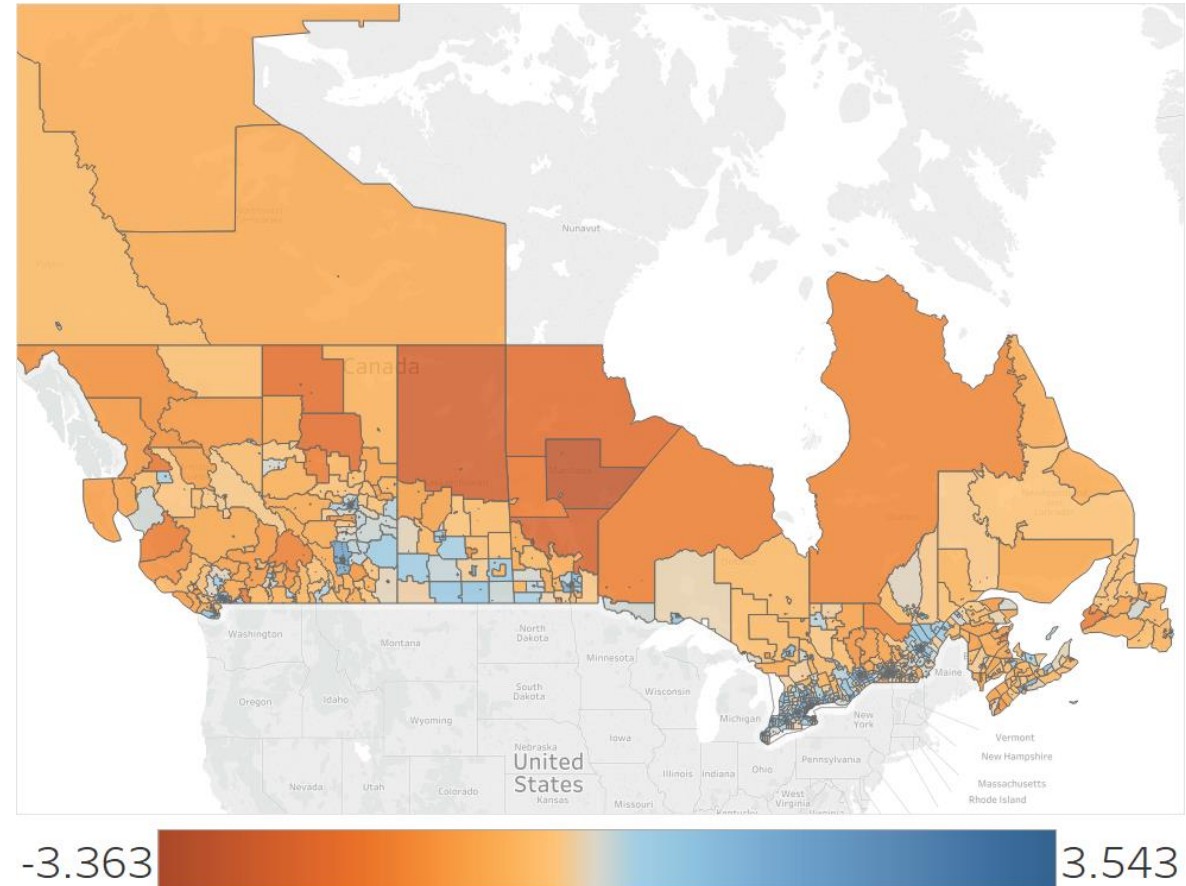
- Early Development Instrument (EDI) from 2010
- Population-level data from 10 provinces, 2 territories (N=316,086)

Custom geographic neighbourhoods aimed at child experiences

- 2,058 neighbourhoods across Canada

Socioeconomic data at neighbourhood-level

- Canadian Census (2006) and Tax-Filer (2005) databases





EARLY DEVELOPMENT INSTRUMENT



Physical Health and Well-Being



Social Competence



Emotional Maturity



Language and Cognitive Development



Communication Skills and General Knowledge

Physical Readiness for the School Day

Overall Social Competence

Prosocial and Helping Behaviour

Basic Literacy

Communication Skills and General Knowledge

Physical Independence

Responsibility and Respect

Anxious and Fearful Behaviour

Interest in Literacy/Numeracy

Gross & Fine Motor Skills

Approaches to Learning

Aggressive Behaviour

Advanced Literacy

Readiness to Explore New Things

Hyperactive and Inattentive Behaviour

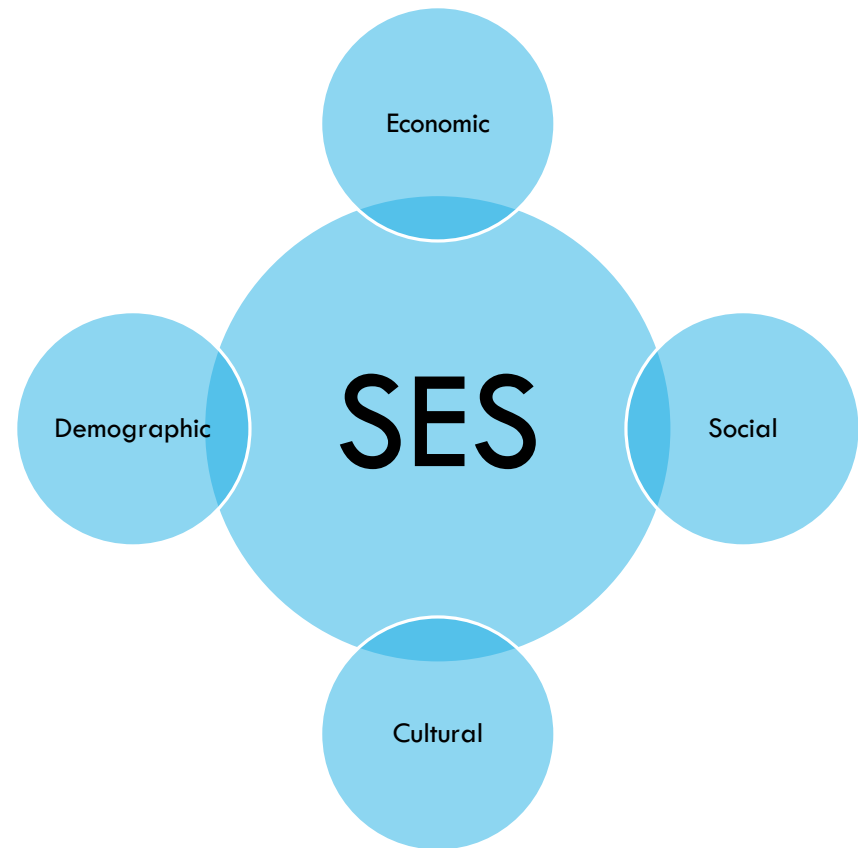
Basic Numeracy

# HOW TO MEASURE SOCIOECONOMIC STATUS (SES)?

Narrowed large number of SES variables into an index to compare neighbourhoods

2,358 variables narrowed to 10

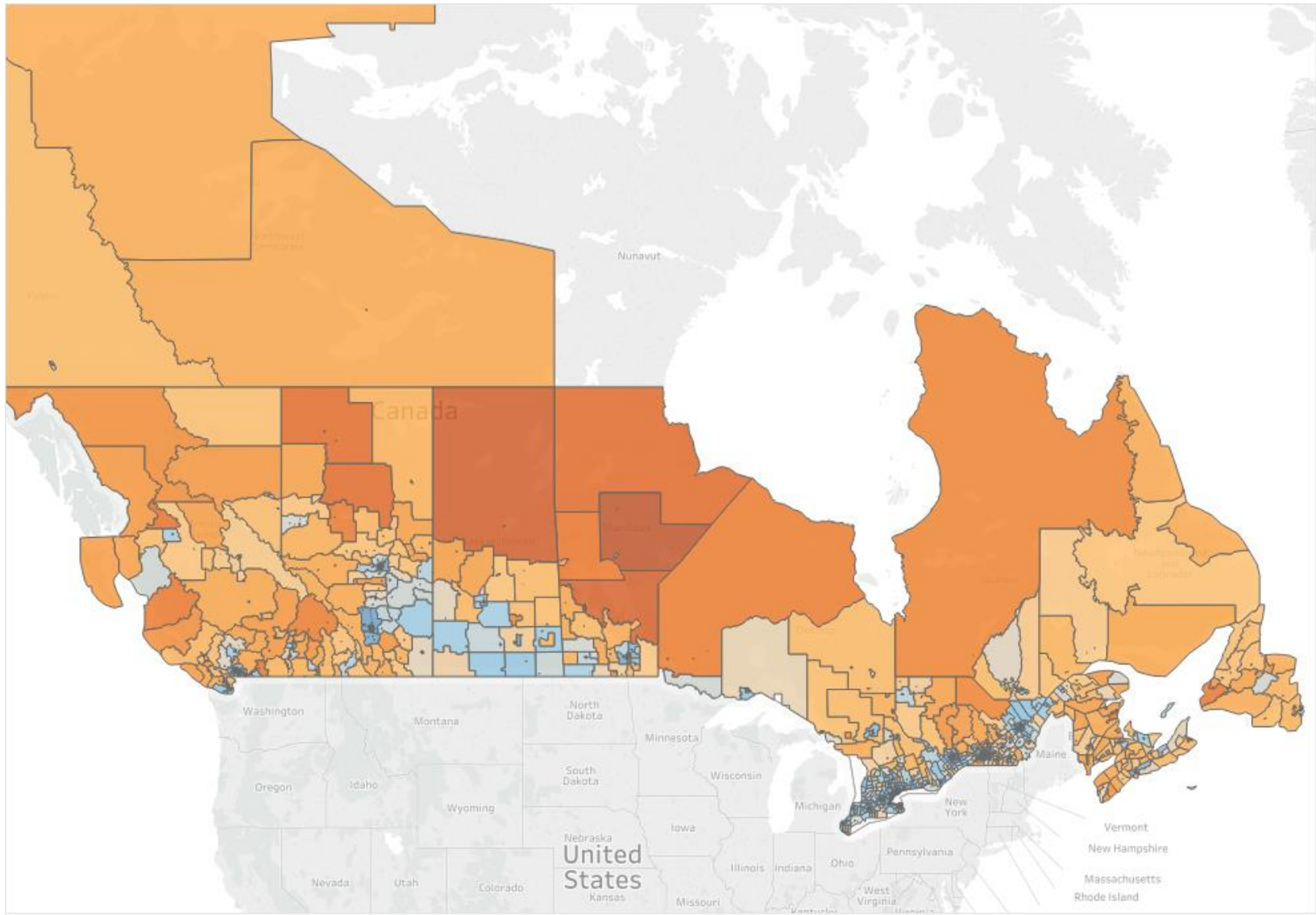
- Variables grouped into themes
- One variable chosen per theme
- Themes eliminated based on explanatory power over EDI



# SES INDEX

Marital Status	Percent separated or divorced
Education	Percent of those 25 to 64 with no high school diploma
Language/Immigration	Percent whose home language is a non-official language
Residential Stability	Percent of individuals, non-migrant movers in the past year
High Income	Percent at or exceeding twice the median provincial income, families with children under 6
Poverty	Percent below Low Income Measure, lone parents with children under 6
Dues	Percent deducting dues, families with children under 6
Social Capital	Percent families declaring charitable donations, families with children under 6
Wealth	Percent families with investment income or capital gains, families with children under 6
Income Inequality	GINI coefficient quintiles (income inequality), lone female parents with children under 6





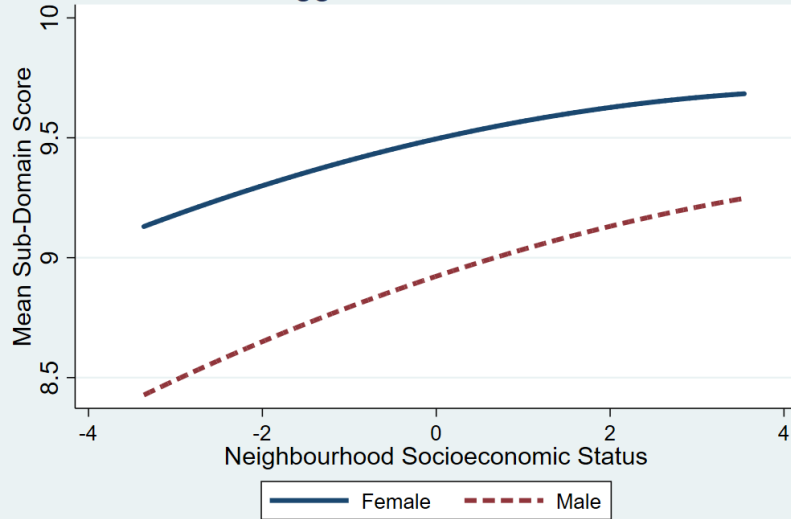
-3.363



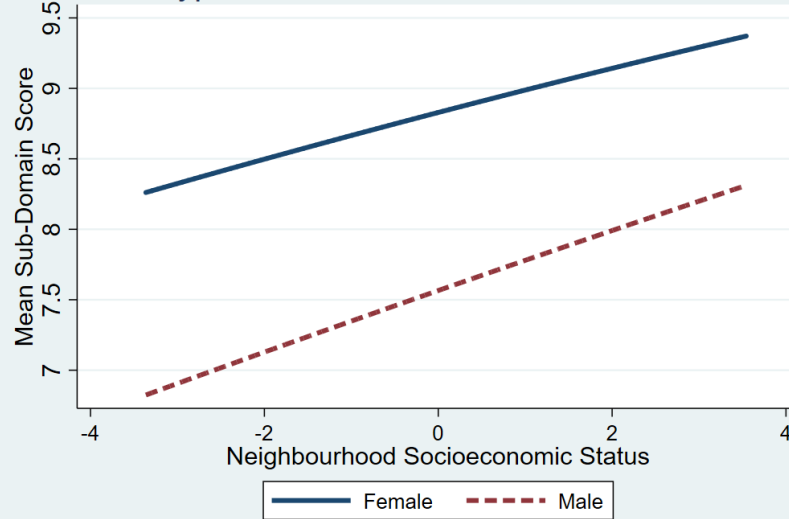
3.543

# INTERACTION OBSERVED

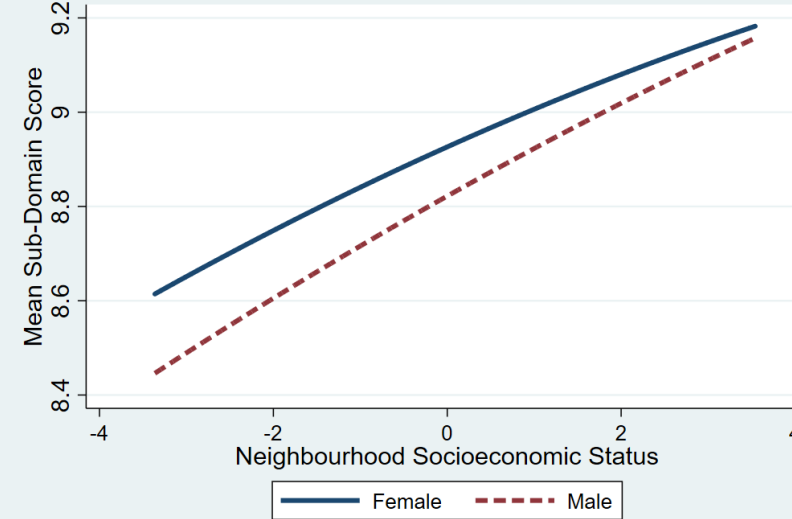
### Aggressive Behaviour



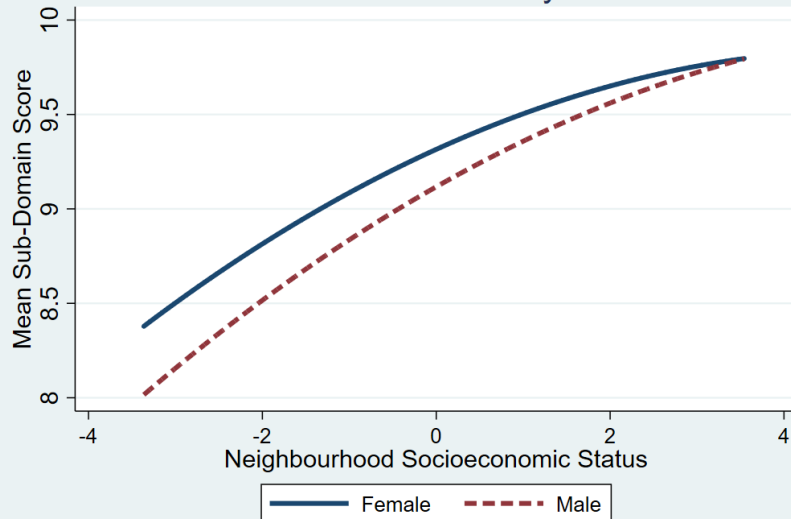
### Hyperactive and Inattentive Behaviour



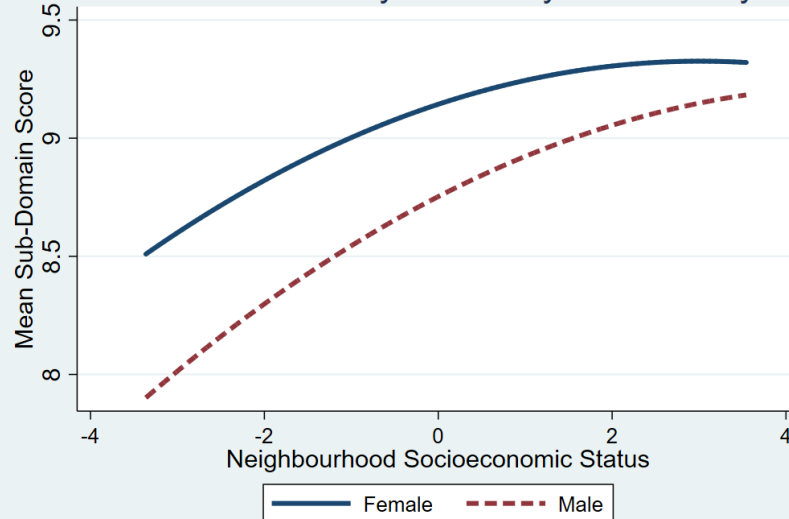
### Anxious and Fearful Behaviour



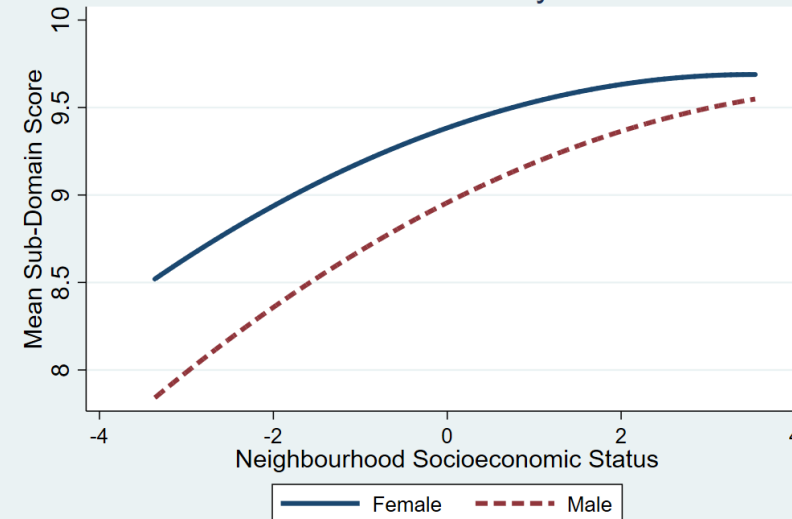
### Basic Numeracy



### Interest in Literacy/Numeracy and Memory

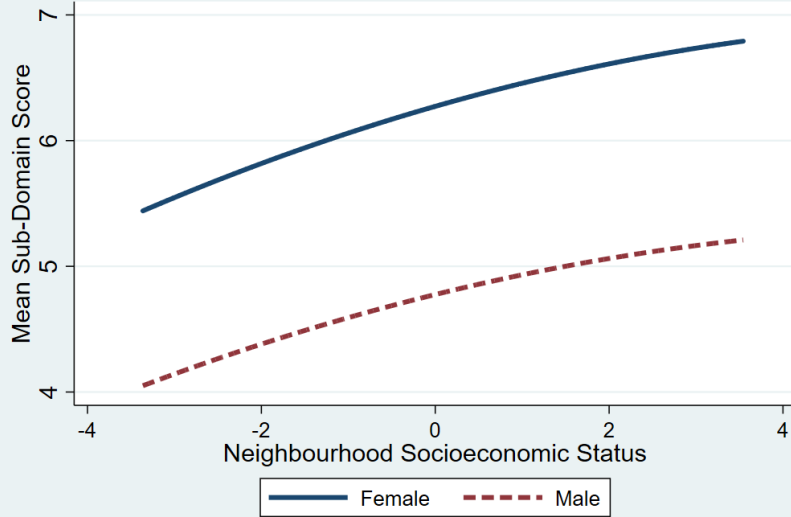


### Basic Literacy

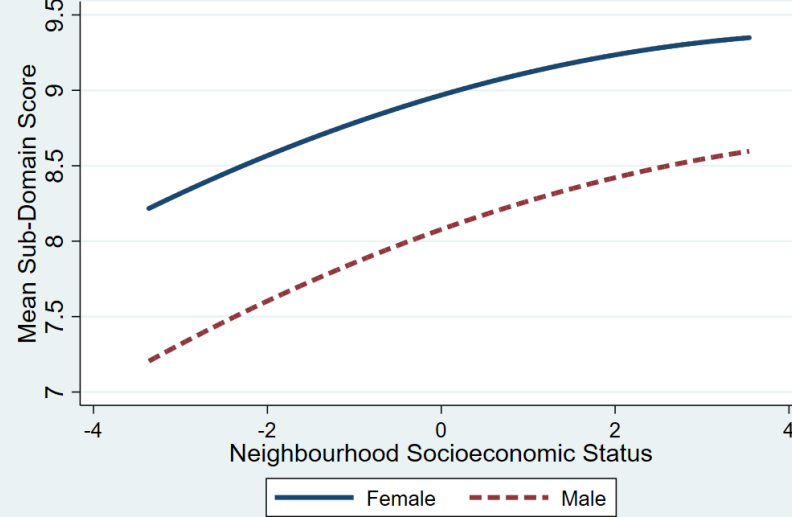


# NO INTERACTION OBSERVED

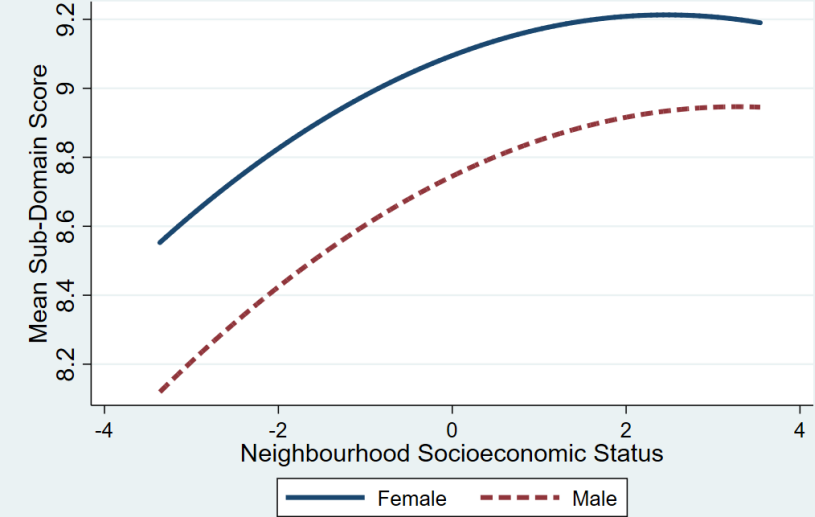
### Prosocial and Helping Behaviour



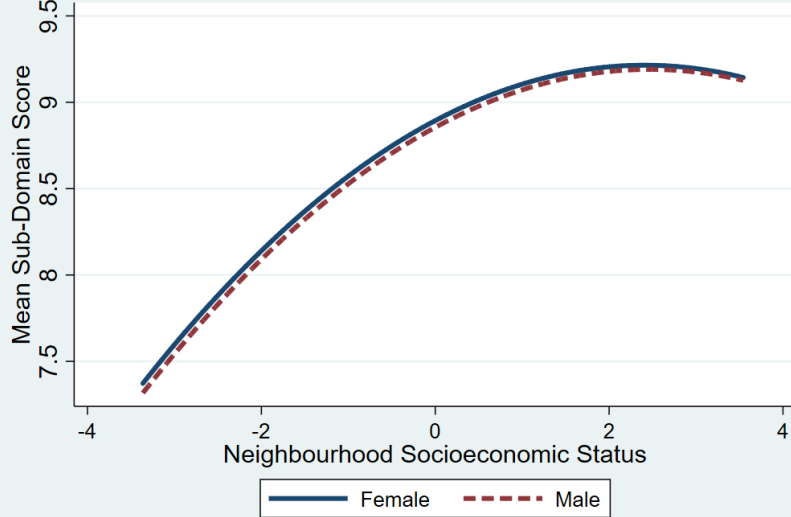
### Responsibility and Respect



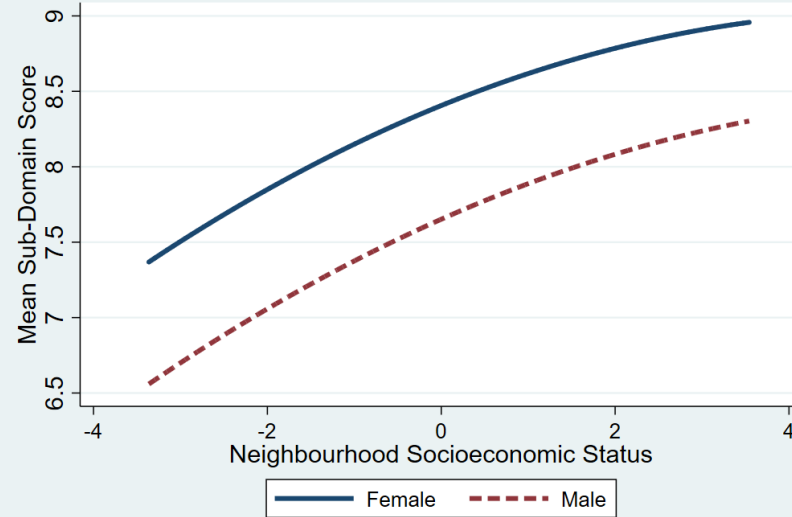
### Readiness to Explore New Things



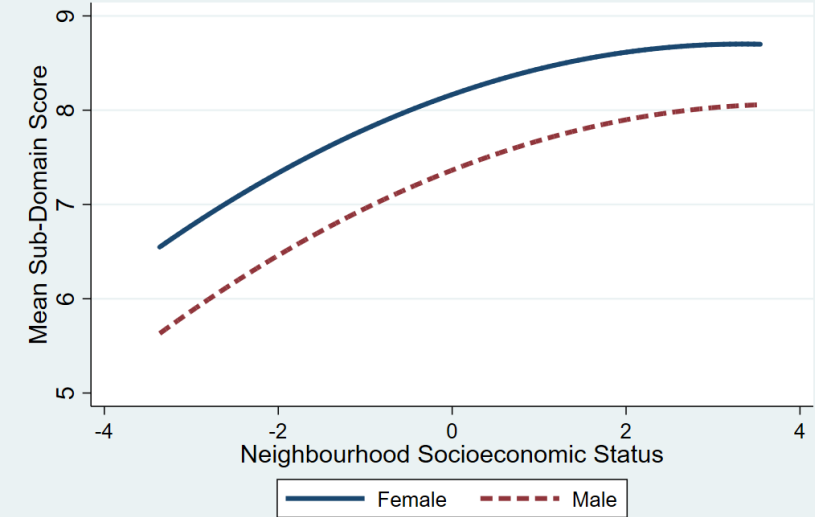
### Physical Readiness For School Day



### Gross and Fine Motor Skills



### Communication Skills and General Knowledge



# CONCLUSIONS

Evidence to support larger gap between boys and girls at low neighbourhood SES

- Across Canada, at kindergarten age

Primarily in Emotional Maturity, Language and Cognitive Development domains

Young boys' development particularly sensitive to socioeconomic disadvantage

# AFFILIATIONS/FUNDING



[edi.offordcentre.com](http://edi.offordcentre.com)



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