Neighbourhood effects on 9-year-old children's behavioural outcomes

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Outline

- **Why consider ‘neighbourhood effects’?**
- **Previous research**
- **Issues in defining ‘neighbourhood’**
- **Description of *Growing Up in Ireland (GUI)* data**
- **Preliminary results**

Why consider 'neighbourhood effects'

- **Increasing recognition that the neighbourhood within which children live can have an impact on child outcomes**

- **Bronfenbrenner 'social-ecological theory'**

- **Policy relevance – target interventions**

Some findings about 'neighbourhood effects'

- **Xue et al (2005) – children in low-SES neighbourhoods more likely to have mental health problems**

- **Grow et al (2010) - obesity most common in children living in low-SES neighbourhoods**

- **McCulloch & Joshi (2001) – neighbourhood deprivation related to lower test scores**

How ‘neighbourhood’ impacts on outcomes

- **Both compositional and contextual characteristics**
  - Compositional – characteristics of residents and collective social functioning (SES, Residential instability, ethnicity)
  - Contextual– material infrastructure, availability and access to resources and services

Issues in defining 'neighbourhood'

- **Boundaries**
  - Meaningful boundaries
  - Modifiable Areal Unit Problem
  - On the edges

Description of *Growing Up in Ireland (GUI)* data

- **GUI Child Cohort Wave 1 – 8,500 nine-year-old children**
- **Linked to Small Area Population Statistics (SAPS) – compositional characteristics**
- **Parent and nine-year-old child's perceptions of the neighbourhood in which they live – contextual characteristics**
- **Multiple measures of family SES**
- **Numerous child outcomes – health, educational, socio-emotional domains**

Compositional ‘n’hood’ characteristics - SAPS

- **‘Neighbourhood’ defined as Electoral District (ED)**
- **Neighbourhood SES**
  - % unemployed
  - % lower social class
  - % low education
- **Neighbourhood Residential Instability**
  - % not living at same address one year before Census
  - % of population not owner occupiers

Contextual characteristics - perceptions of ‘n’hood’

- **‘Neighbourhood’ defined as ‘local area’ or ‘around here’**

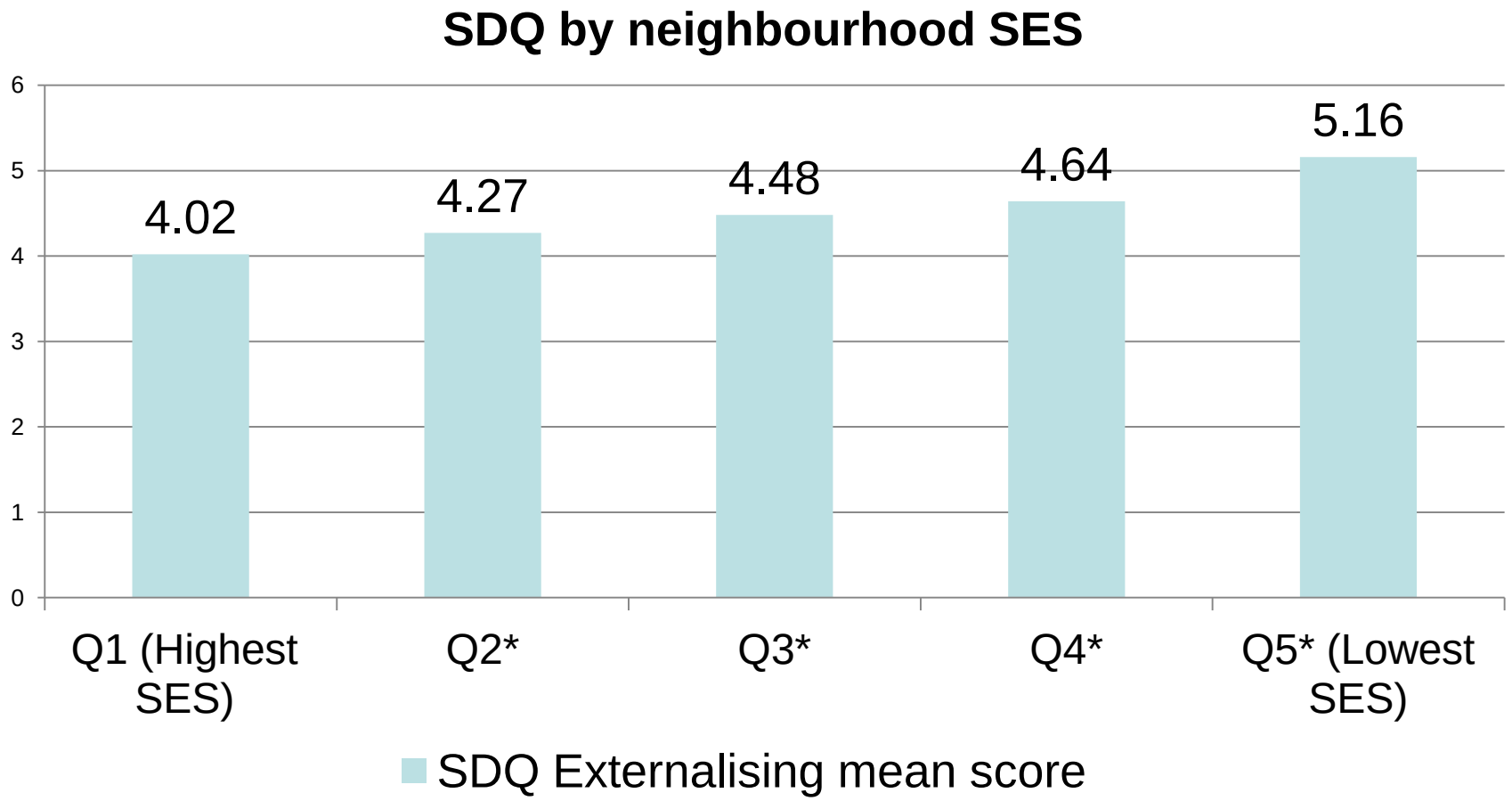
- **Parent and child perceptions of:**
  - Physical condition of the neighbourhood
  - Safety of the neighbourhood
  - Service availability

- **Involvement in community**

Outcome variable

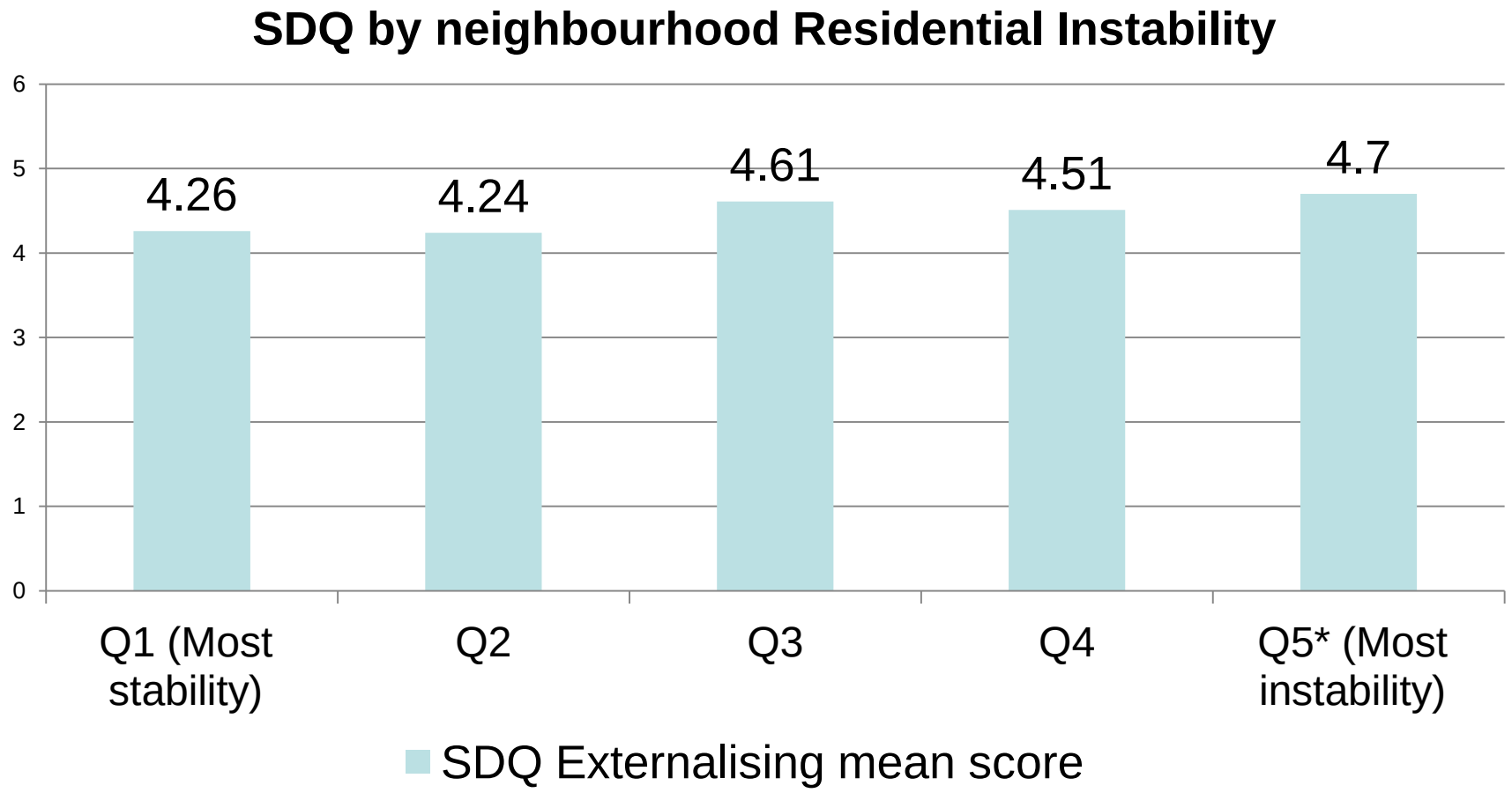
- **Child's behaviour as measured by the Strength and Difficulties Questionnaire**
- **Parent report**
- **Externalising behaviours – conduct problems & hyperactivity/inattention**
- **Continuous score – higher score indicates more difficulties**

Descriptive analysis



**Significantly different to Quintile 1 at the 0.05 level*

Descriptive analysis



**Significantly different to Quintile 1 at the 0.05 level*

Family, Parent and Child characteristics

- **Family:**
  - Income
  - One-parent family
  - Family size
  - Employment status
  - Social class
  - Housing tenure
  - Household location
  - Deprivation
- **Parent:**
  - PCG education
  - Born abroad
  - PCG age
  - Invol voluntary group
  - Parenting style
  - Depression
- **Child:**
  - Gender
  - Chronic illness
  - SEN
  - ALE

Multilevel Analysis Strategy

- **Two-level multilevel model**
- **Takes account of clustering within neighbourhoods**
- **Partitions the variance explained by neighbourhood and individual level effects**

Model specification

Null model

+

Neighbourhood SES

+

Perceptions of neighbourhood

+

Family characteristics

+

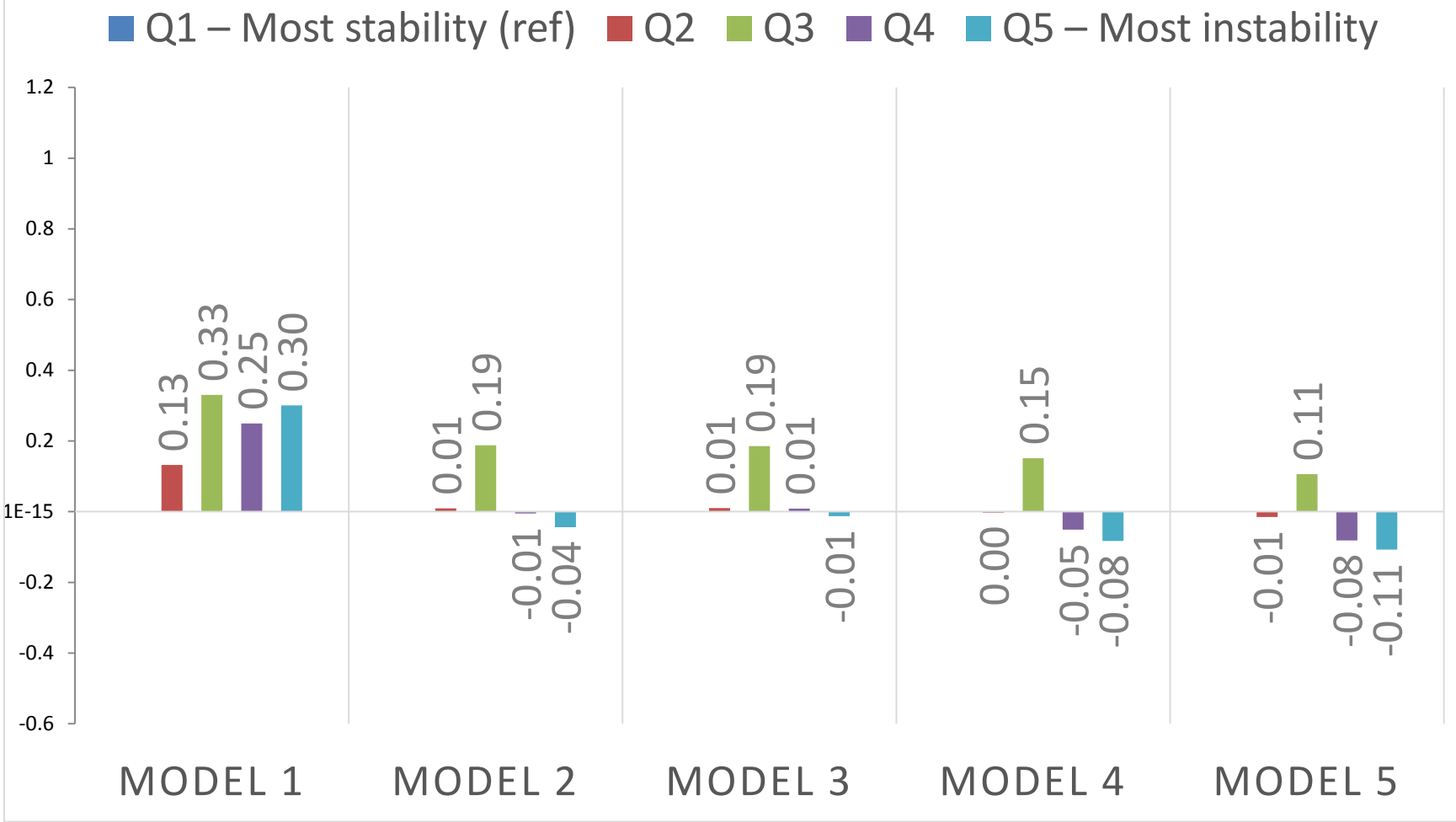
Parent characteristics

+

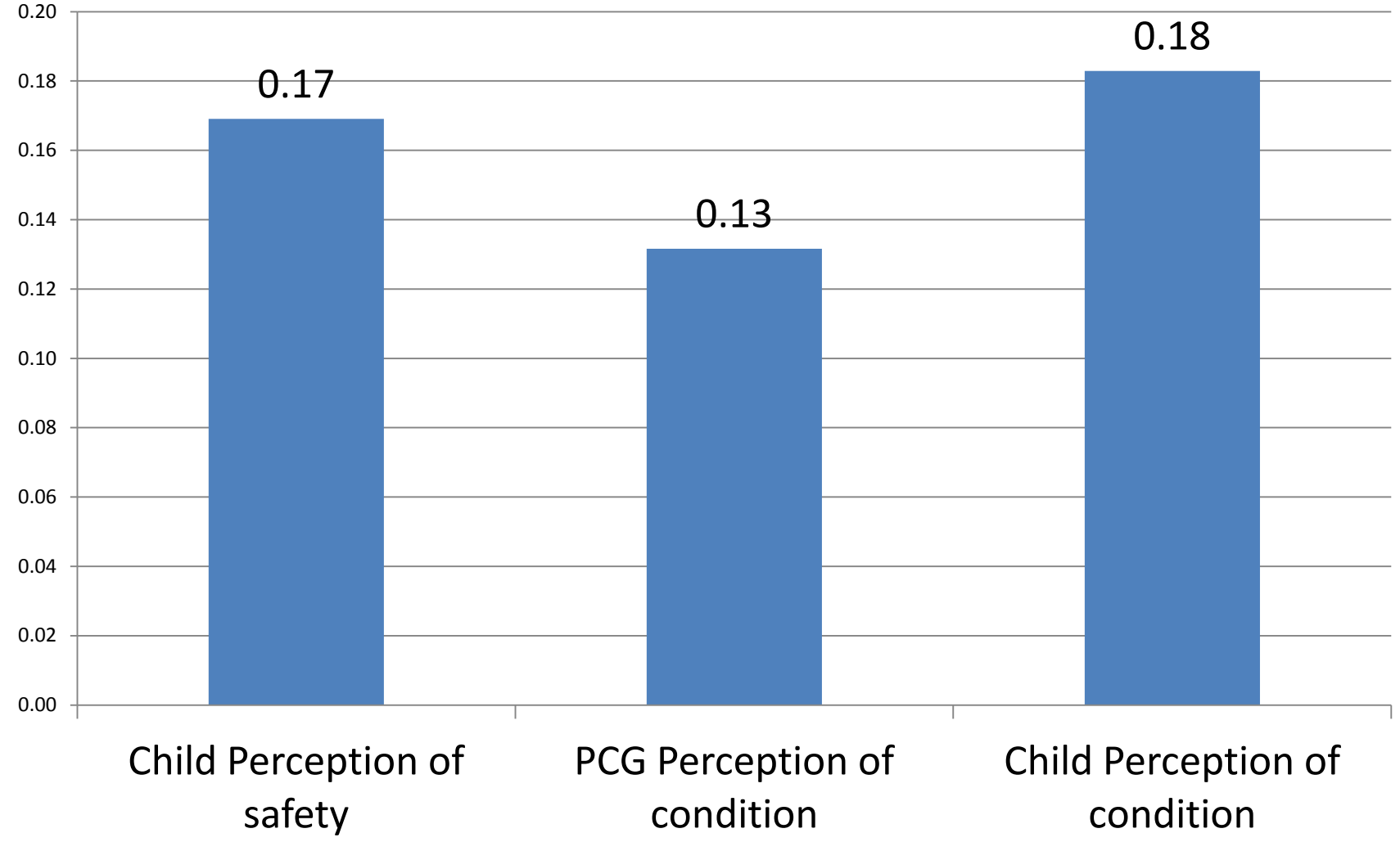
Child characteristics

Externalising by SES

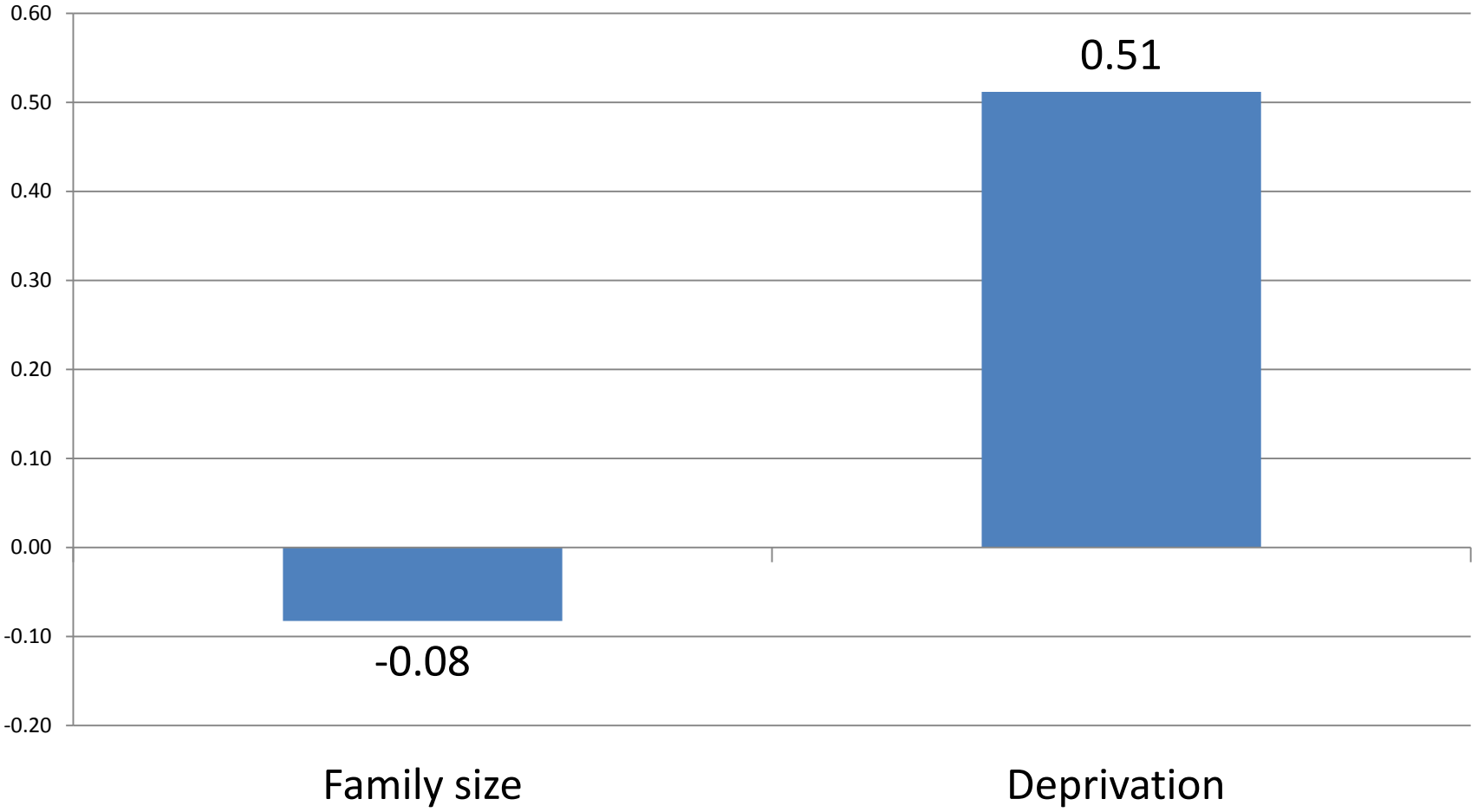
Externalising by RI



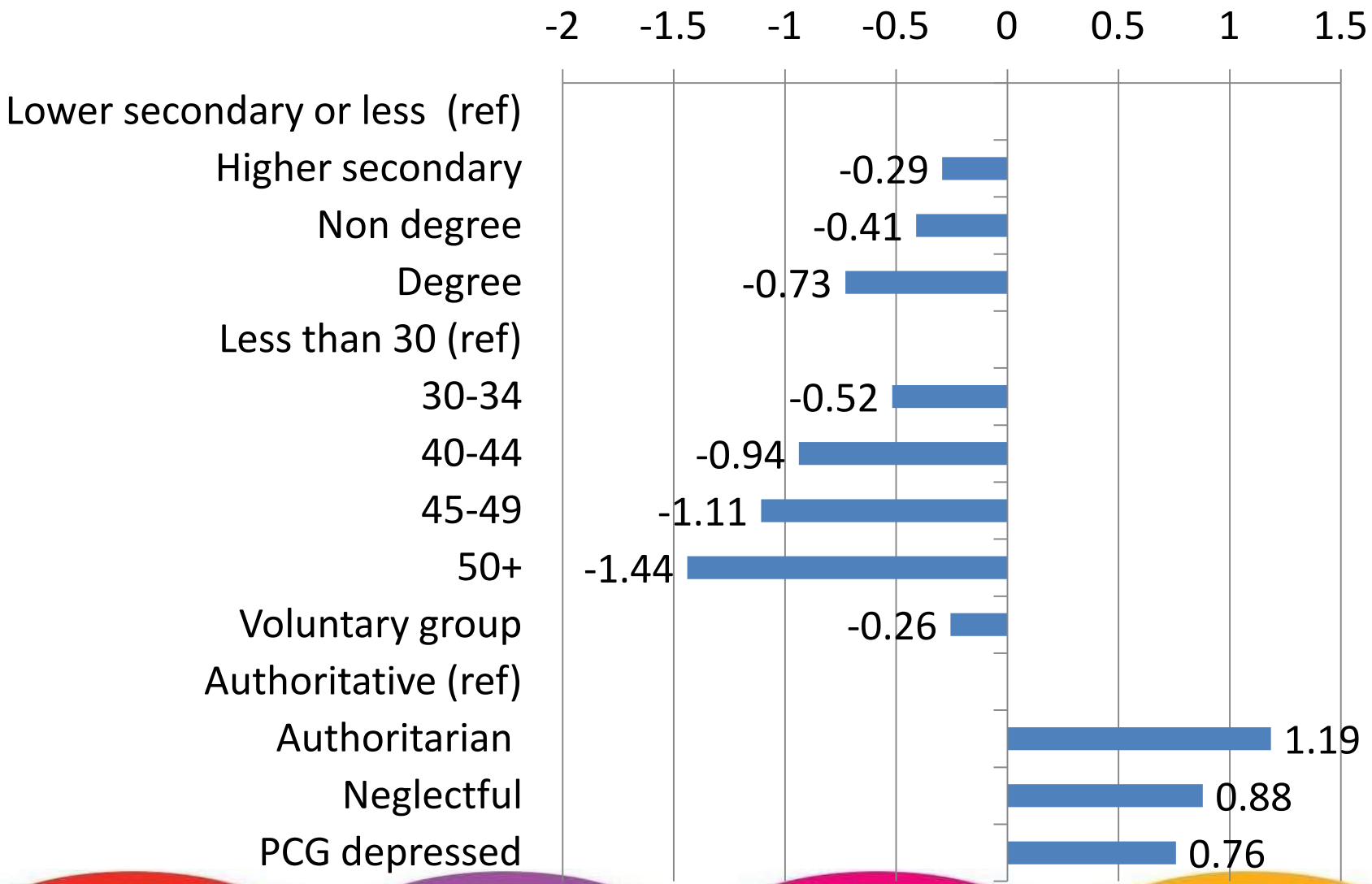
N’hood perceptions



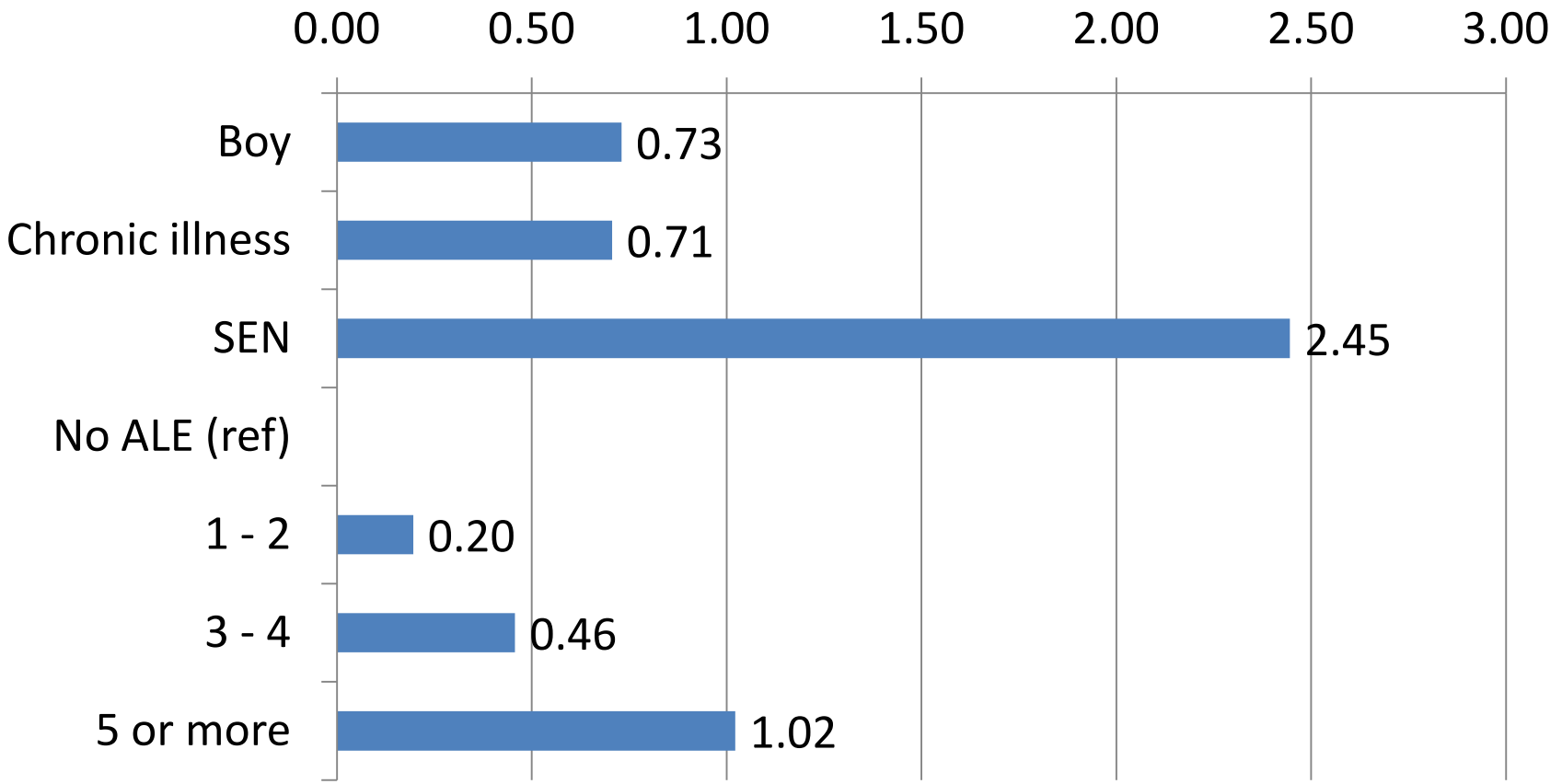
Family characteristics



Parent characteristics



Child characteristics



Summary

- Some variation at the neighbourhood level
- Initially appears to be neighbourhood SES effect
- Perceptions of neighbourhood are also strongly related to child behaviour
- Family, parent and child characteristics are stronger predictors of child behavioural outcomes and dilute the neighbourhood SES effect
- Possibly too young to be overly influenced by neighbourhood – still under parental control

Growing Up in Ireland
National Longitudinal Study of Children

Thank you

Comments / Questions?