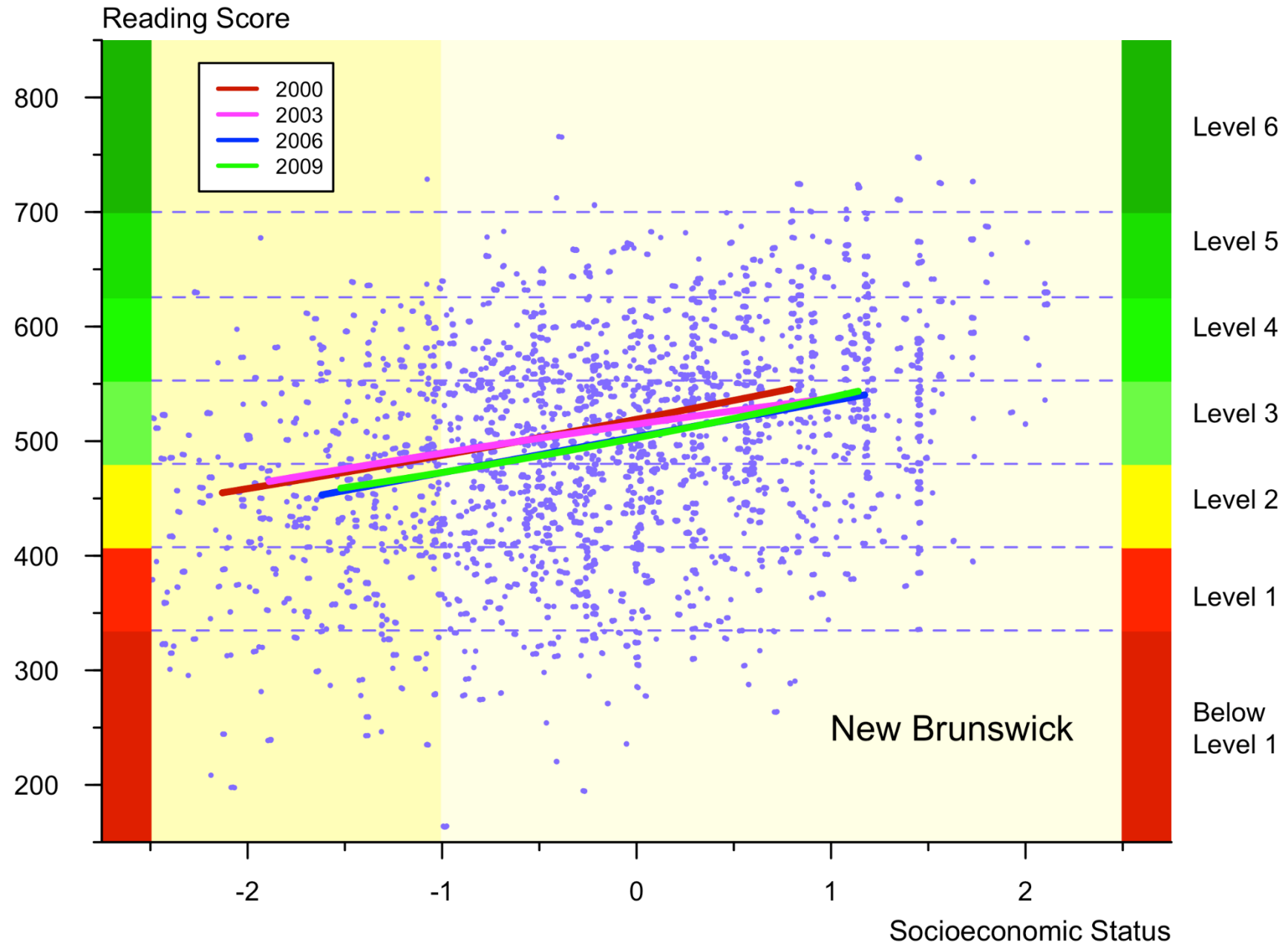
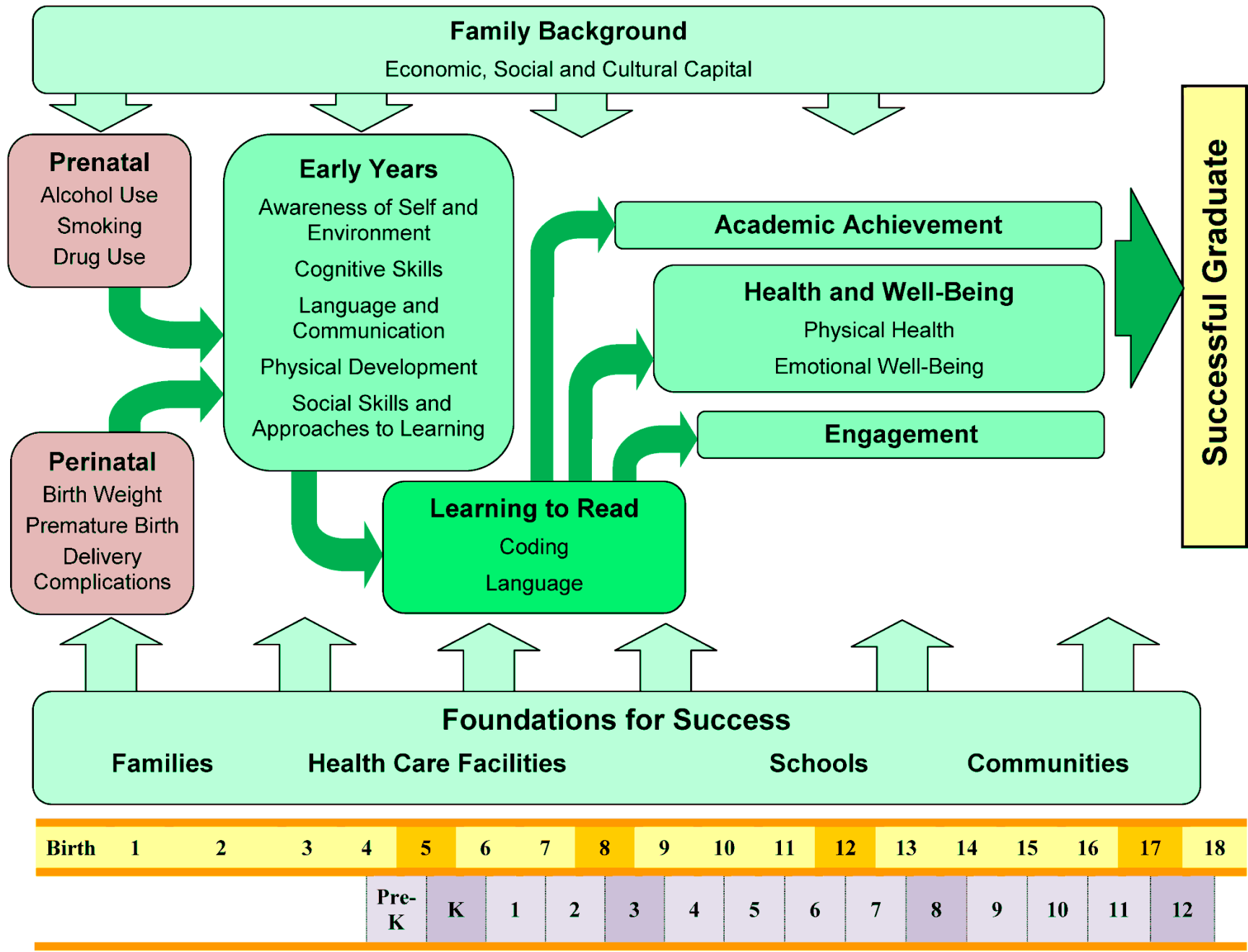


Aligning Data for School Success

*J. Douglas Willms
University of New Brunswick
and
The Learning Bar Inc.*







Educational Prosperity

Educational Prosperity is an assessment framework for monitoring children's developmental outcomes and the key factors that drive these outcomes, as children develop from conception to adolescence.

The outcomes, called **Prosperity Outcomes**, are indicators of children thriving at each stage of development.

The factors that support healthy childhood development are the **Foundations for Success**. They represent the capacity of a society to develop young peoples' literacy skills and well-being.

Metrics for Success: SIX KEY STAGES

Success accumulates in four ways:

Biological Embedding

Foundations for Success

Cumulative Effects

Selection



PRE-NATAL



EARLY DEVELOPMENT
Ages 0 - 2



PRE-PRIMARY
Ages 3 - 5



EARLY PRIMARY
Ages 6 - 9



LATE PRIMARY & LOWER SECONDARY
Ages 10 - 15



UPPER SECONDARY
Ages 16 - 18

Prosperity Outcomes

- Healthy pregnancy
- Safe delivery

- Physical development
- Language development
- Cognitive development

- Awareness of self and environment
- Physical development
- Language development
- Cognitive development
- Social skills and approaches to learning

- Reading literacy
- Numeracy
- Health and well-being
- Engagement

- Academic achievement
- Educational attainment
- Health and well-being
- Engagement

- Ethical citizenship
- Leadership skills
- Health and well-being
- Communication skills

Foundations for Success



Family Factors

- Nutrition
- Toxin exposure
- Mother's physical and emotional health

- Breast-feeding and nutrition
- Mother's physical and emotional health
- Parenting skills
- Intra-family relations

- Parenting skills
- Intra-family relations

- Parenting skills
- Intra-family relations

- Parenting skills
- Intra-family relations

- Parenting skills
- Intra-family relations



Institutional Factors

- HEALTH-CARE FACILITY:
- Pre-natal care
 - Primary health-care

- HEALTH-CARE FACILITY:
- Post-natal care
 - Primary health-care

- PRE-SCHOOL:
- Child-centered
 - Goal-oriented
 - Opportunity to socialize

- SCHOOL:
- Inclusive context
 - Explicit teaching in code and language skills
 - Learning time
 - Material resources

- SCHOOL:
- Inclusive context
 - Quality instruction
 - Learning time
 - Material resources

- SCHOOL:
- Inclusive context
 - Quality instruction
 - Opportunity to learn career and life skills



Community Factors

- Social capital
- Resources

- Social capital
- Resources

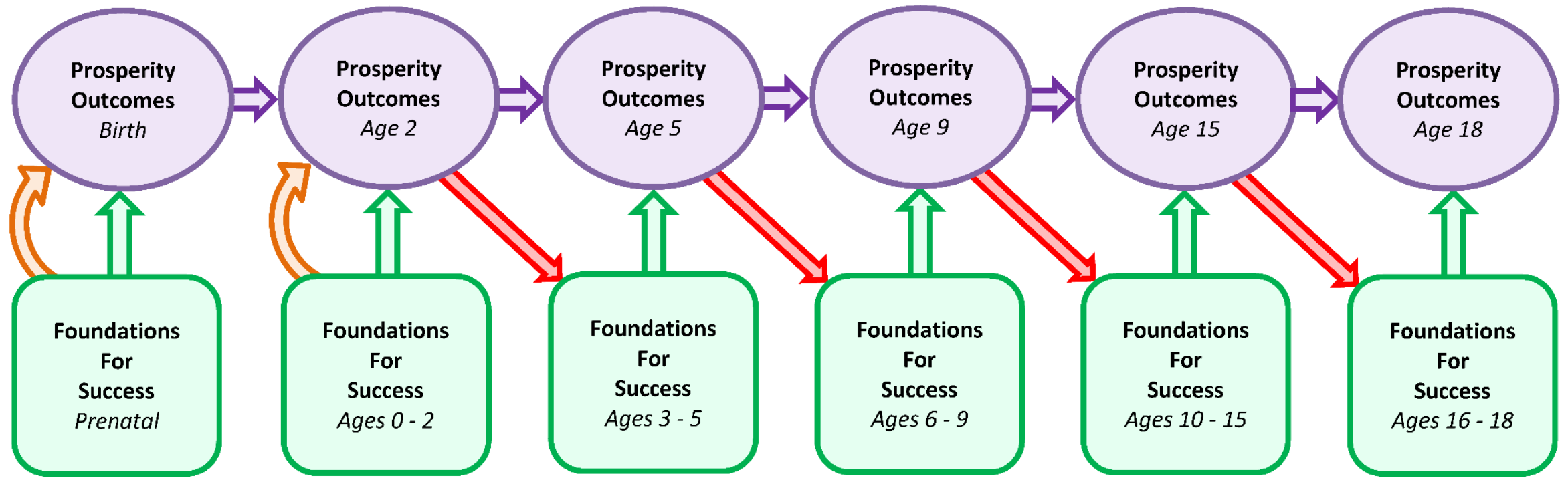
- Social capital
- Resources

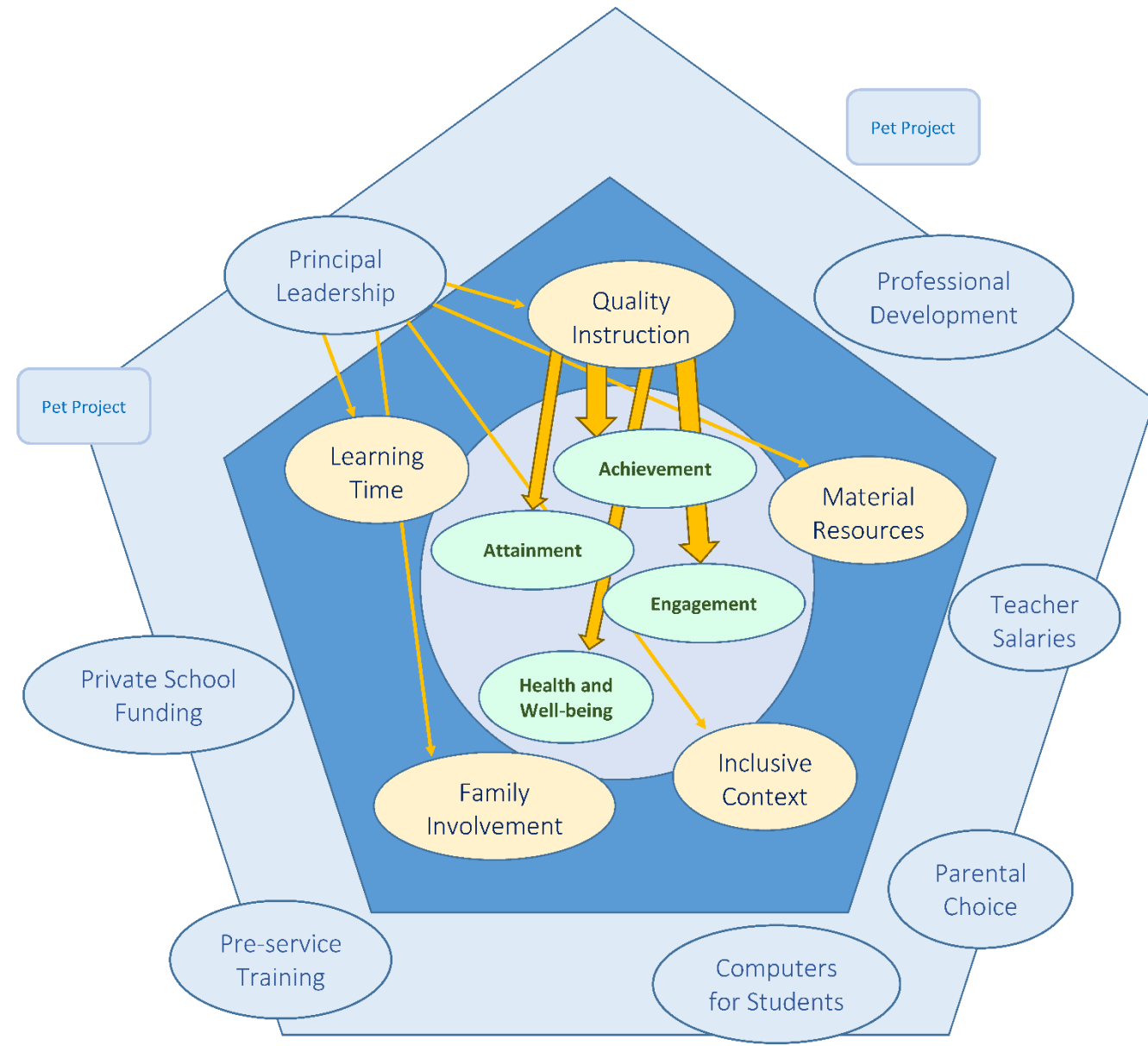
- Social capital
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- Social capital
- Resources

- Social capital
- Resources

Educational Prosperity identifies four ways that success accumulates



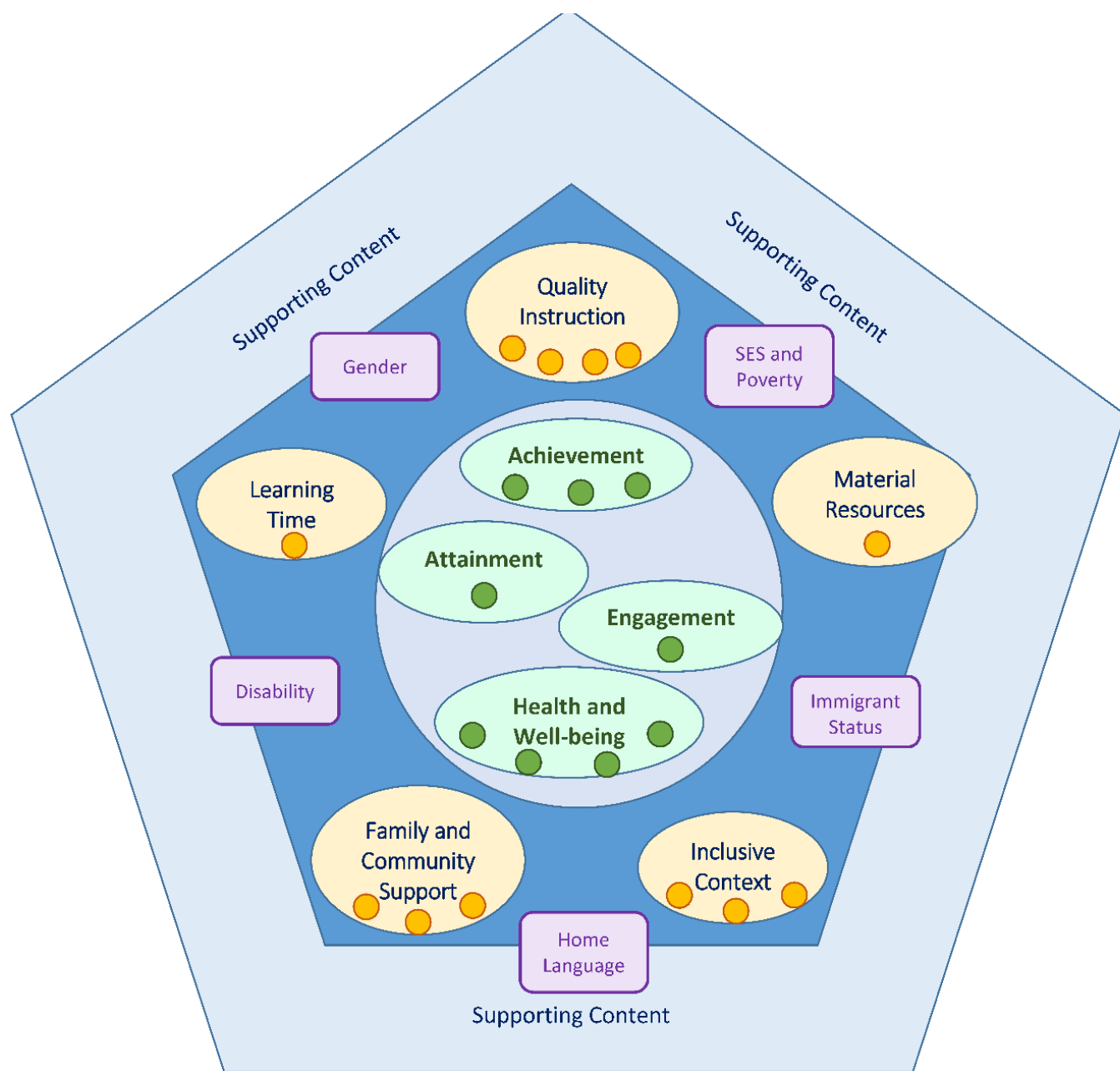


Foundation of Success factors are:

Potent (strong effects on outcomes)

Pervasive (effect a range of outcomes)

Proximal (a direct effect on the outcomes)



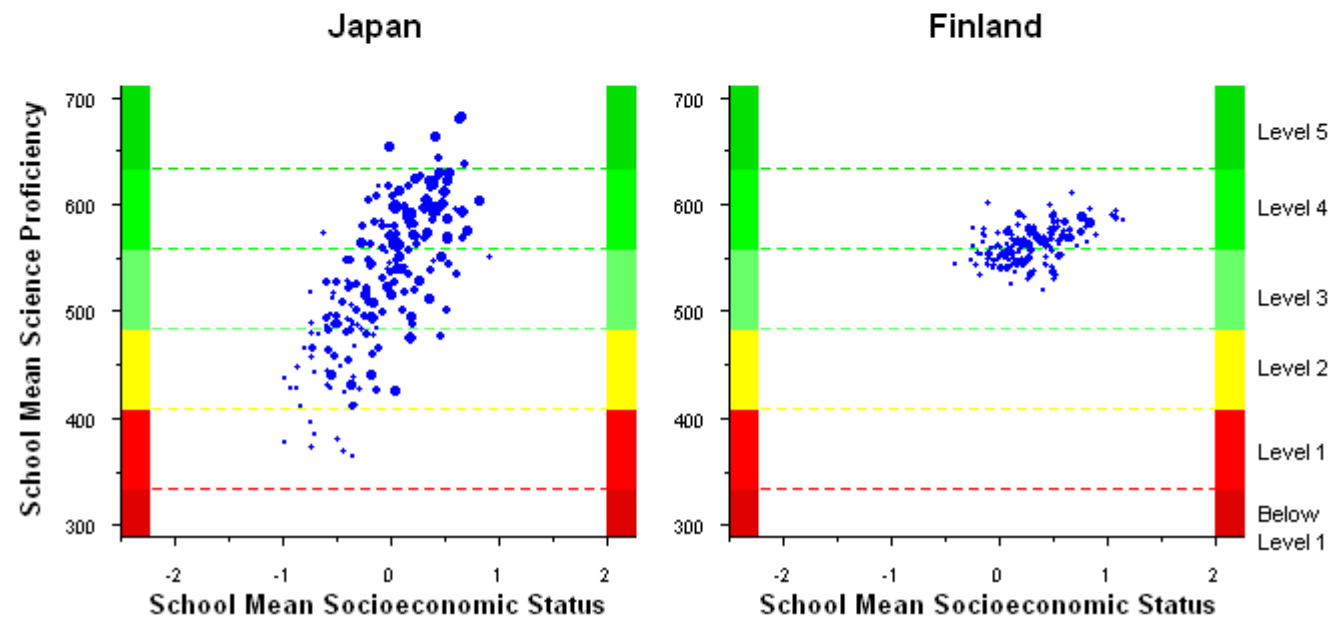
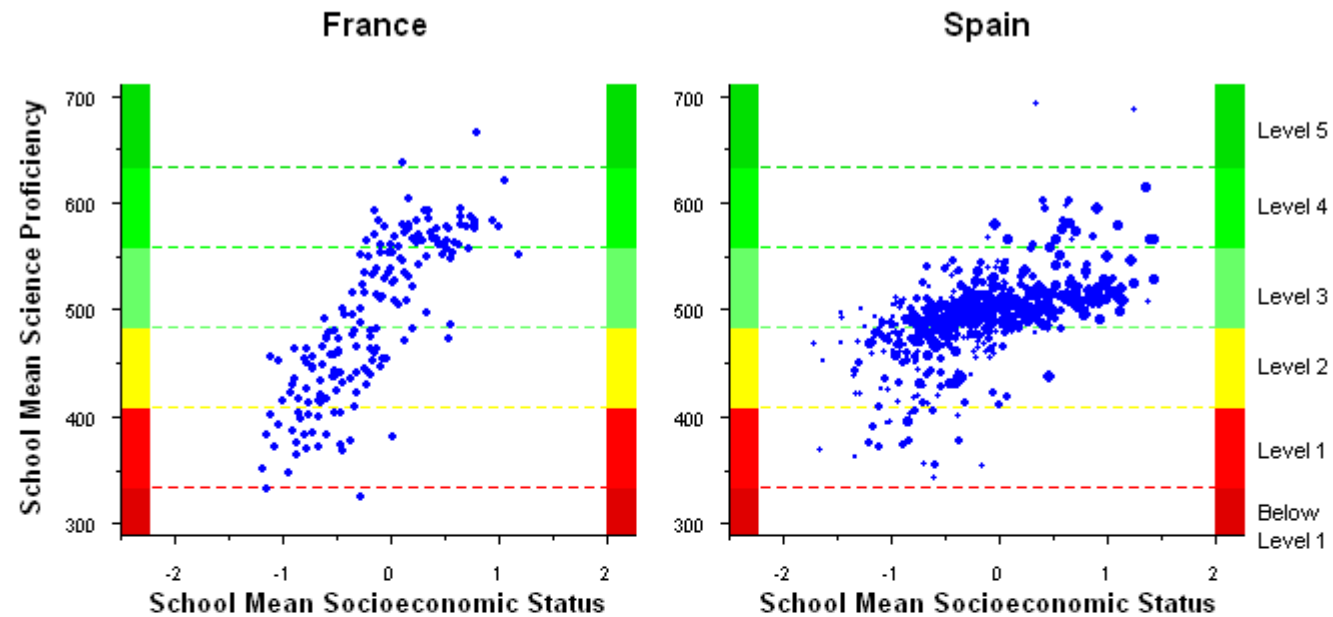
Educational Prosperity Model for PISA for Development

When students are successful at one stage of development, their life-course can be altered if they are selected into certain classes, school programs or schools.

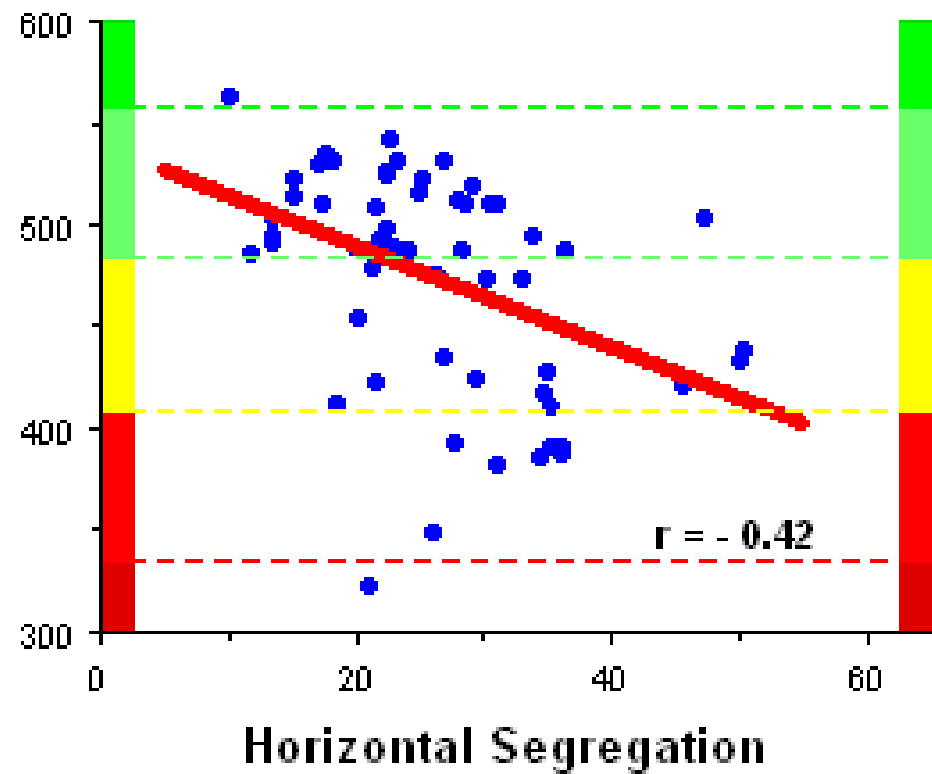
For example, children who have strong reading and language skills are more likely to be streamed into classes or school programs where they benefit from positive peer interactions, a higher quality of instruction, and other factors that enable them to develop their skills at a faster pace.

Children who experience learning difficulties at a particular stage are more likely to be streamed into lower ability classes and have less access to the factors that improve their skills.

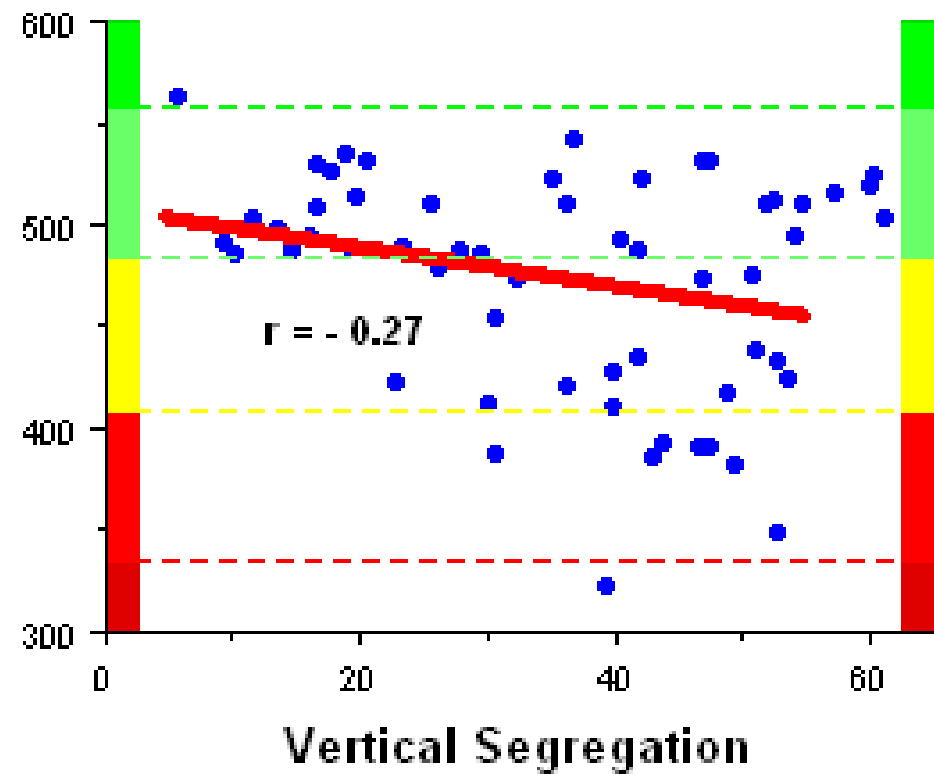




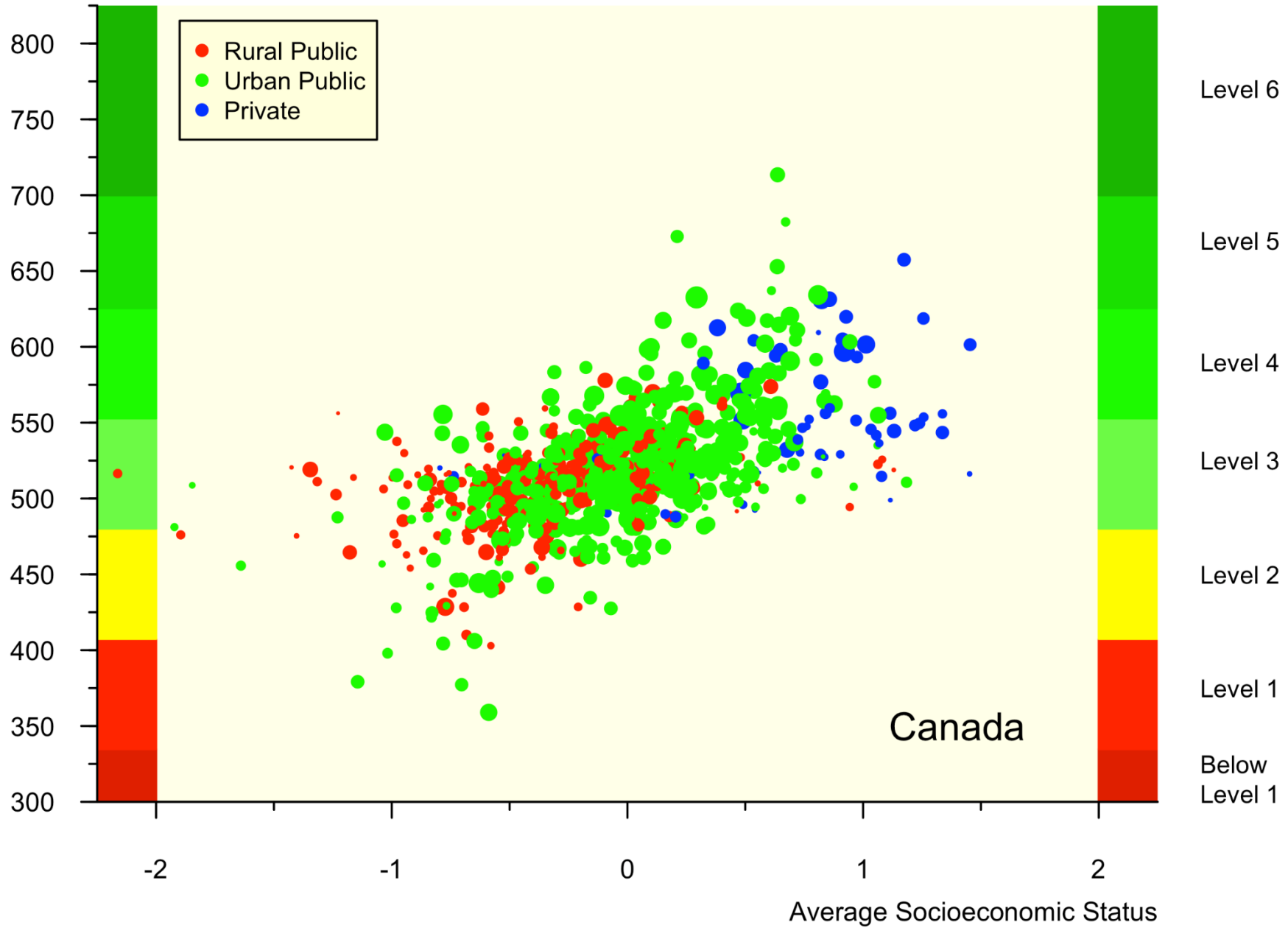
Country Mean Science Performance



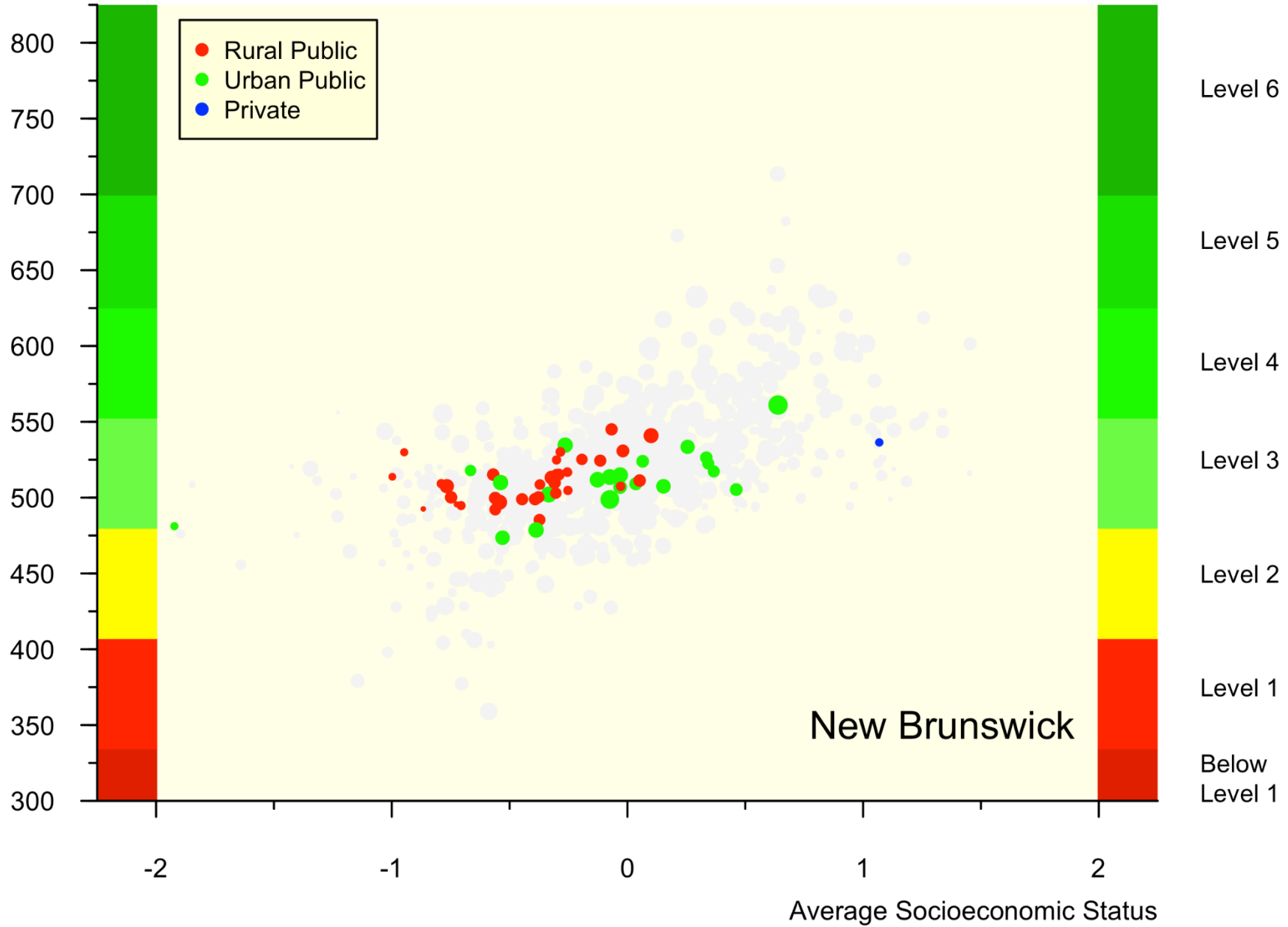
Country Mean Science Performance



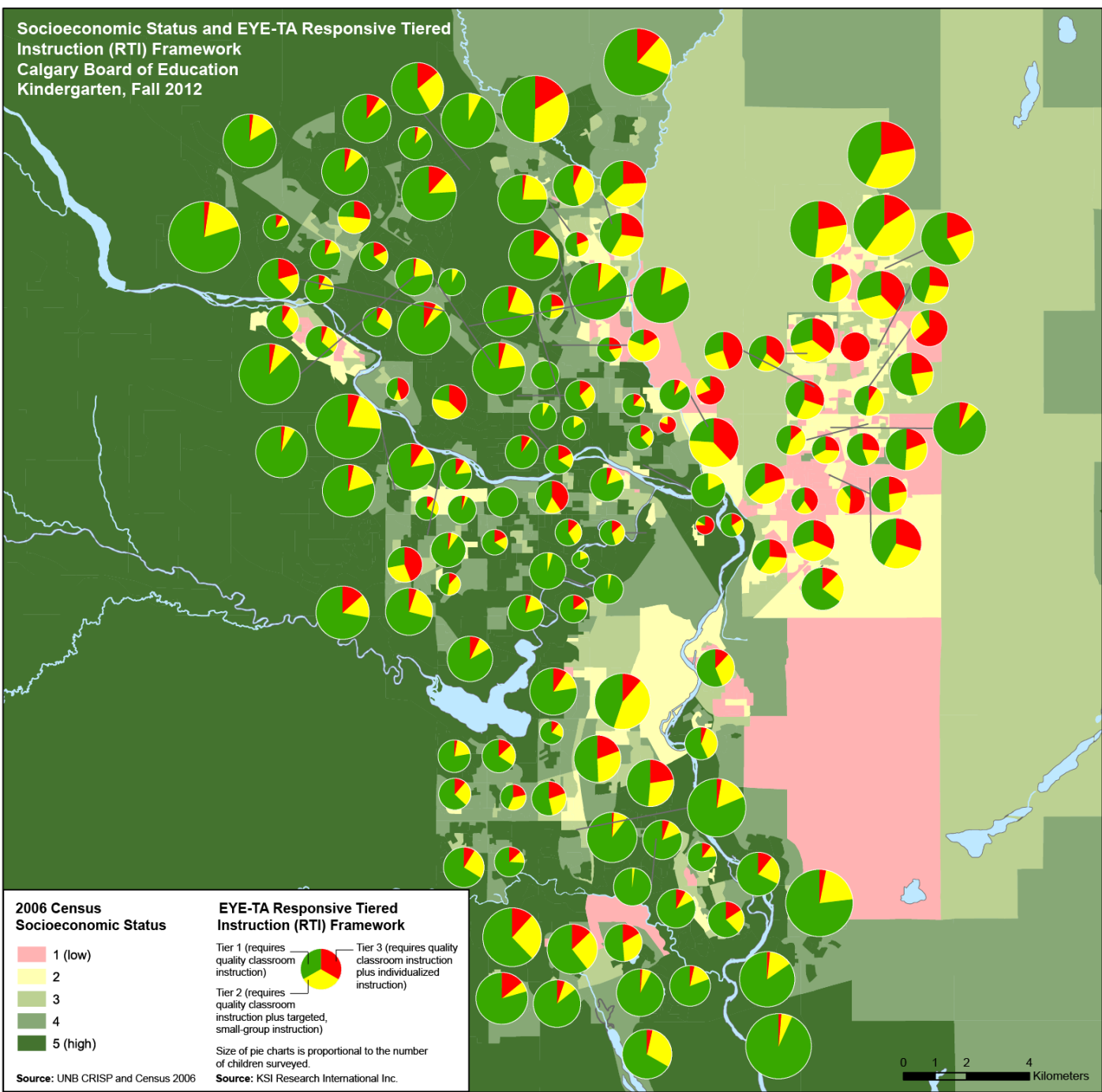
Average Reading Proficiency



Average Reading Proficiency



Socioeconomic Status and EYE-TA Responsive Tiered Instruction (RTI) Framework
 Calgary Board of Education
 Kindergarten, Fall 2012



2006 Census Socioeconomic Status

- 1 (low)
- 2
- 3
- 4
- 5 (high)

Source: UNB CRISP and Census 2006

EYE-TA Responsive Tiered Instruction (RTI) Framework

- Tier 1 (requires quality classroom instruction)
- Tier 2 (requires quality classroom instruction plus targeted, small-group instruction)
- Tier 3 (requires quality classroom instruction plus individualized instruction)

Size of pie charts is proportional to the number of children surveyed.

Source: KSI Research International Inc.

0 1 2 4 Kilometers



French Immersion

Five reliable research facts – universal is the sense that the findings are consistent across many cultures.

1. **Inclusive school systems have better performance in reading, mathematics, and science.** The evidence for this comes from several studies, including the large international studies such as PISA. Inclusive means a school system in which children are not streamed by gender, ability, socioeconomic background, ethnicity or whether or not they have a disability.

2. **The critical period for LTR is K – 2.** The vast majority of children who do not learn to read well by age 8 or 9 – about 90% in Canada and the US – are struggling readers through to high school. While many of these children become productive citizens, they tend to be at greater risk of mental health issues, dropping out of school, and ultimately being on the social welfare. They are also more prone to engaging in risky behaviours: excessive alcohol use, drug use, and early sexuality.

3. **Early is better:** The ideal is to start hearing the second language at birth, as then children can develop oral language skills comparable to children who have French as a first language. For all children, earlier is better – there is virtually no disagreement about this fact.

4. **'Time in'** is key: Progress in learning a new language is related to the number of hours dedicated to instruction in French and the time spent immersed in a francophone social context

5. **Children with low ability can learn 2 languages.** I have met two young women who had moderate intellectual disabilities who spoke 3 to 4 different languages. One was the keynote speaker for a conference on inclusion.

My vision: An *inclusive* education system in which *all* children receive instruction in a French from kindergarten thorough to at least grade 8, with at least half of the population taking further instruction through to grade 12.

Some realistic goals:

Job 1. 85% reaching the level of Appropriate or Above in reading proficiency in English at the end of Grade 2 (72 to 80)

Job 2. All children reaching at least the intermediate level in French.

Intermediate – comfortable in social situations (survival skills) .

Advanced = ready for the workplace.

75% achieving Basic Level of French by the end of grade 5, (< 10 to 42%)

75% Achieving Intermediate level of French by the end of Grade 8, and

40% achieving Advanced Level of French by the end of Grade 12. (only 4% currently)

Some Strategies

- Argue for a universal system in which all children are on a pathway to becoming bi-lingual.
- If we do have a dual-stream system:
 - Delay streaming as late as possible
 - Have two streams: French Immersion and STEM
- Use the current data from the EYE-DA to assess differences in the skills of students upon entry to Kindergarten and Grade 1. Ensure that the non-immersion classrooms are properly resourced with a good special needs funding formula.
- Ensure that we have regular assessment in English and French for all students.