**Early Development Instrument-
a population-based measure for
communities**

Results for 2008/2009

Thunder Bay- Superior North Region

Brass Bell Family Resource Centre
Dorion, Ontario

BestStart
Helping Children Grow

**Location of Best Start Hubs and Satellites
in the Thunder Bay - Superior North Region**

BestStart
Helping Children Grow

⭐ Hubs

Geraldton
Manitouwadge
Nipigon

⭐ Satellites

Armstrong
Beardmore
Dorion
Longlac- NorWest
Marathon
Nakina
Red Rock
Schreiber
Terrace Bay

Ontario

How the EDI is Collected

In Ontario, the EDI is implemented in all communities in Ontario over a three-year period. Every community is expected to participate in the EDI project at least once every three years. The project is funded by the Ministry of Children and Youth Services.

From 2004 to 2006, the EDI project was completed in all but two Ontario communities. Across the province, EDIs were completed for over 120,000 Senior Kindergarten children.

The Offord Centre for Child Studies works with people in each community to implement the EDI. Senior Kindergarten teachers complete the EDI using their knowledge and observations of each child in their classroom. Code numbers are assigned to each EDI so children's identity remains confidential.

The Offord Centre receives completed EDI's from teachers and puts all the information together in a file for analysis.

The information is used by the government and local communities to monitor early development of children in Ontario and to help make decisions about programs and services for young children and families.

What the EDI measures

The Early Development Instrument (EDI) measures children's readiness for school in five different areas, called domains. EDI scores for each domain range from 0 - 10 where 10 indicates higher school readiness.

Physical Health and Well-Being: Children are healthy, independent, rested and ready to participate at school each day.

Social Competence: Children play and get along with others, share, and show self-confidence.

Emotional Maturity: Children are able to concentrate on tasks, help others, show patience, and are not often aggressive or angry.

Language and Cognitive Development: Children are interested in reading and writing, can count and recognize numbers and shapes.

Communication Skills and General Knowledge: Children can tell a story, and communicate with children and adults.

The EDI is a 'population-based' measure which means in is not used to label or identify individual children with specific problems. Instead the EDI provides information about groups of children in a specific community, neighbourhood or group.

The EDI is a measure of early development. It reflects children's early experiences in the home and community. It is not a measure of school or teacher performance.

Examples of SK Teacher Survey Questions:

Physical Health & Well Being-

Would you say that this child is independent in washroom habits most of the time?

Social Competence-

Would you say that this child shows self confidence?

Emotional Maturity-

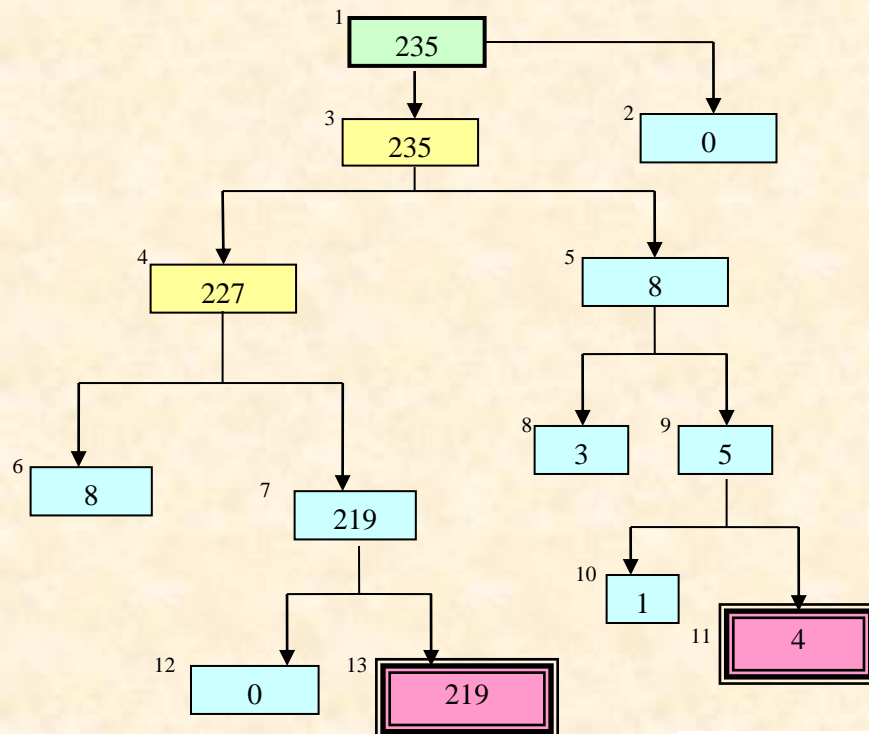Would you say that this child offers to help other Children who have difficulty with a task?

Language & Cognitive Development-

Would you say that this child is able to count to 20?

Communication Skills & General Knowledge-
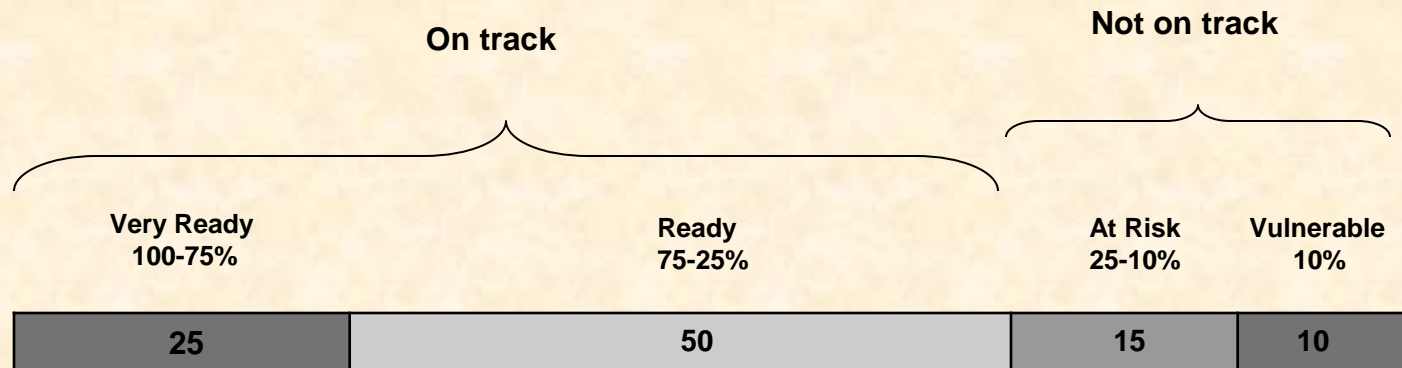
How would you rate this child's ability to tell a story?

1: Total questionnaires received and scanned.
2: Questionnaires missing/incorrect JK/SK assignation.
3: Questionnaires with non-missing/correct JK/SK assignation.
4 : Questionnaires with correct JK/SK assignation and no Special Needs.
5: Questionnaires labeled as Special Needs or missing Special Needs.
6: Questionnaires missing more than one domain.
7: Questionnaires missing one or less domain.
8: Questionnaires missing SN assignation.
9 : Questionnaires labelle as Special Needs.
10: Special Needs Children with non-valid EDI.
11: Questionnaires valid for analyses in reports for children with Special Needs.
12: Questionnaires for children not in class more than one month
13: Questionnaires valid for analyses in reports for children without Special Needs.

Number of students analyzed in reports

Total number used in Special Needs Report

To put our SK student numbers into perspective…

Location	Number of SK Students
Thunder Bay Superior North	**235**
Thunder Bay & District	1,356
Peel	13,698
Toronto	20,256
GTA	50,000 plus
Province of Ontario	124,000
EDI Children Worldwide last 10 years	750,000

EDI Scores

The EDI average scores for each developmental area – Physical Health and Well-Being, Social Competence, Emotional Maturity, Language and Cognitive Development, and Communication Skills and General Knowledge – are divided into categories representing the highest scores to the lowest scores in the community.

On track		Not on track	
Very Ready 100-75%	**Ready** 75-25%	**At Risk** 25-10%	**Vulnerable** 10%
25	50	15	10

On track (Very Ready)
The total group of children who score in the best 25% of the site's distribution and will handle the transition to school with little effort.
On track (Ready)
The total group of children who score between the 75th and 25th percentile's of the site's distribution and will adapt to school well.
Not on track (At risk)
The total group of children who score between the lowest 10th and 25th percentile of the site's distribution and will adapt to school with support.
Not on track (Vulnerable)
The total group of children who score below the lowest 10th percentile of the site's distribution, are at risk and will have problems in their ability to adapt to school.

Thunder Bay Superior North EDI results 2008/2009

Descriptive Statistics
The EDI was completed for 219 non-special needs SK students in Thunder Bay - Superior North
The table below illustrates the descriptive statistics of this Thunder Bay - Superior North cohort.

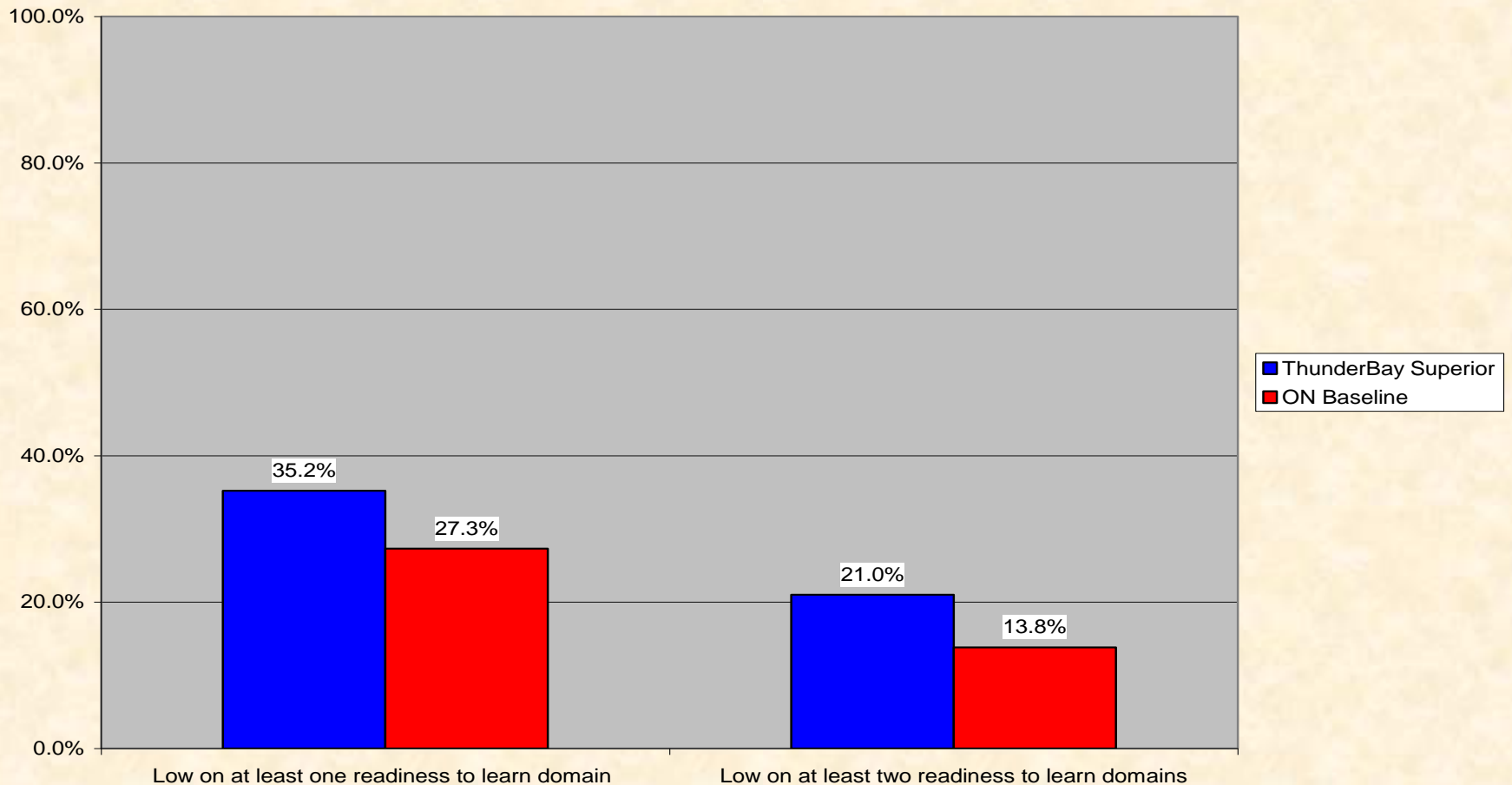| Domains	Items	Min-Max	Mean Score	Standard Deviation	Percentile Boundaries Scores			
					100-75% Very Ready	75-25% Ready	25-10% At Risk	10% Vulnerable, Highest Need
Physical Health and Well-Being (PH & WB)	13	4.62-10.00	8.44	1.39	10.00	8.46	7.69	6.54
Social Competence (SC)	26	2.31-10.00	7.92	2.00	9.62	8.85	6.54	4.81
Emotional Maturity (EM)	30	0.83-10.00	7.67	1.81	9.00	8.17	6.71	4.97
Language and Cognitive Development (L & CD)	26	2.31-10.00	8.82	1.48	9.62	9.60	8.08	6.92
Communication Skills and General Knowledge (CS & GK)	8	0.00-10.00	7.40	2.53	10.00	8.13	5.63	4.38

The theoretical range or score range of each domain is 0 to 10.

The graph below indicates the mean scores achieved by Thunder Bay - Superior North 2008/2009 cohort in comparison with the
Ontario Baseline (113,000 EDI results for all regions in Ontario during a three year cycle)
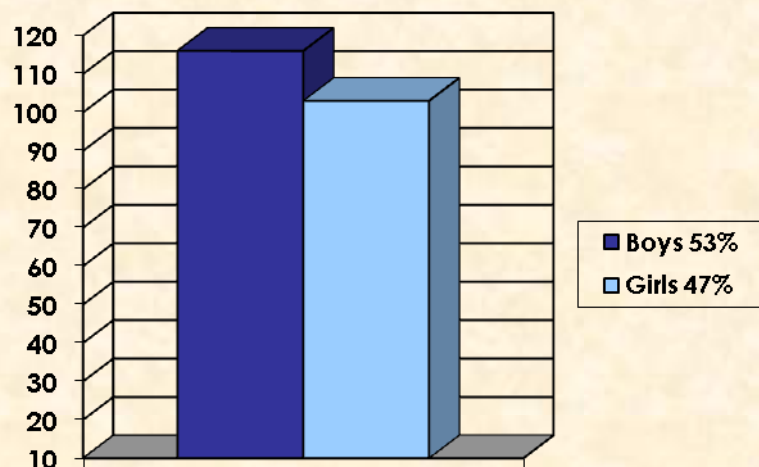
Comparison of Means
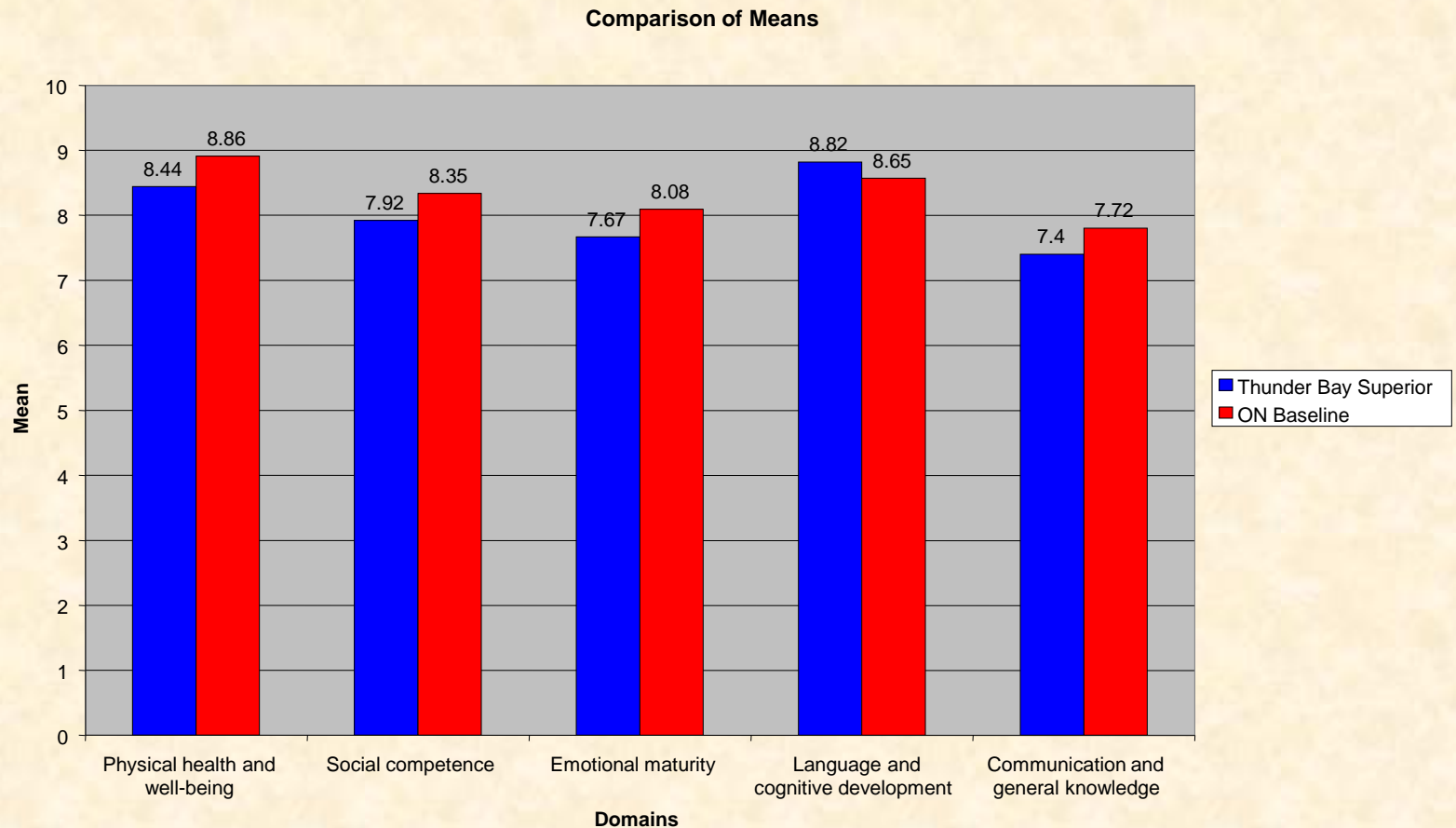
The graph below illustrates Thunder Bay- Superior North 2008/2009 results for low on
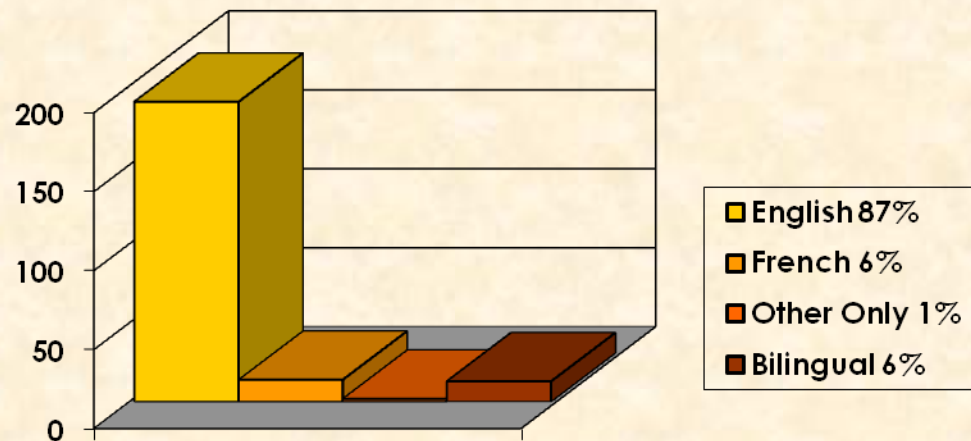one and two domains compared to the
Ontario Baseline cohort
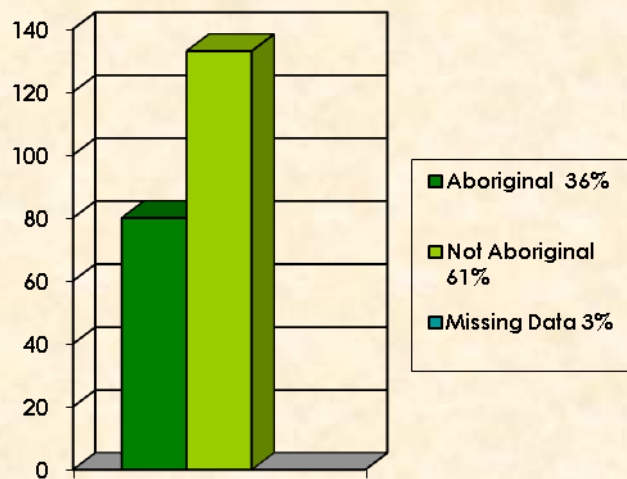
Percentage of Vulnerable Children

- ThunderBay Superior
- ON Baseline

35.2%

27.3%

21.0%

13.8%

100.0%

80.0%

60.0%

40.0%

20.0%

0.0%

Low on at least one readiness to learn domain

Low on at least two readiness to learn domains

2008/2009 Descriptive Data Report for Thunder Bay Superior North EDI Statistics for 219 Non- Special Needs SK Students

Gender chart: Boys 53%, Girls 47%

First Language chart: English 87%, French 6%, Other Only 1%, Bilingual 6%

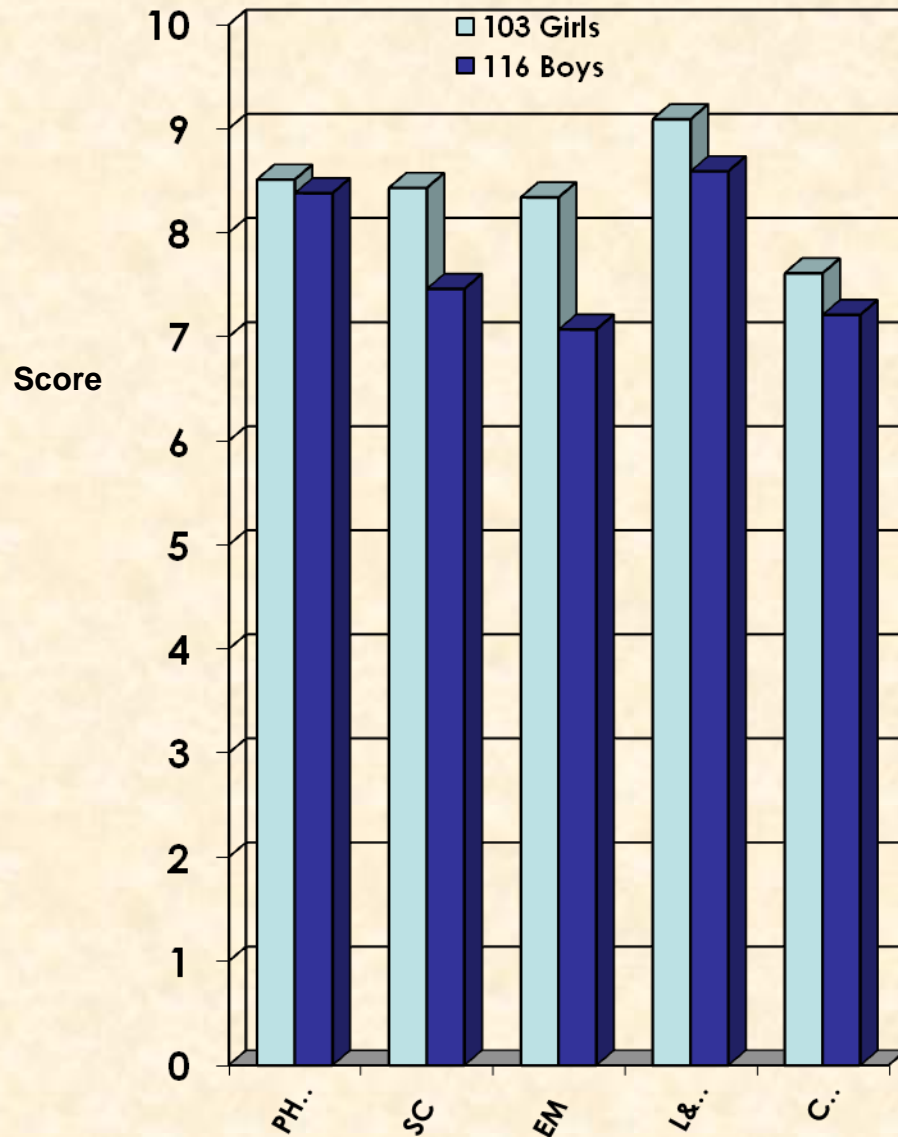Aboriginal Status chart: Aboriginal 36%, Not Aboriginal 61%, Missing Data 3%

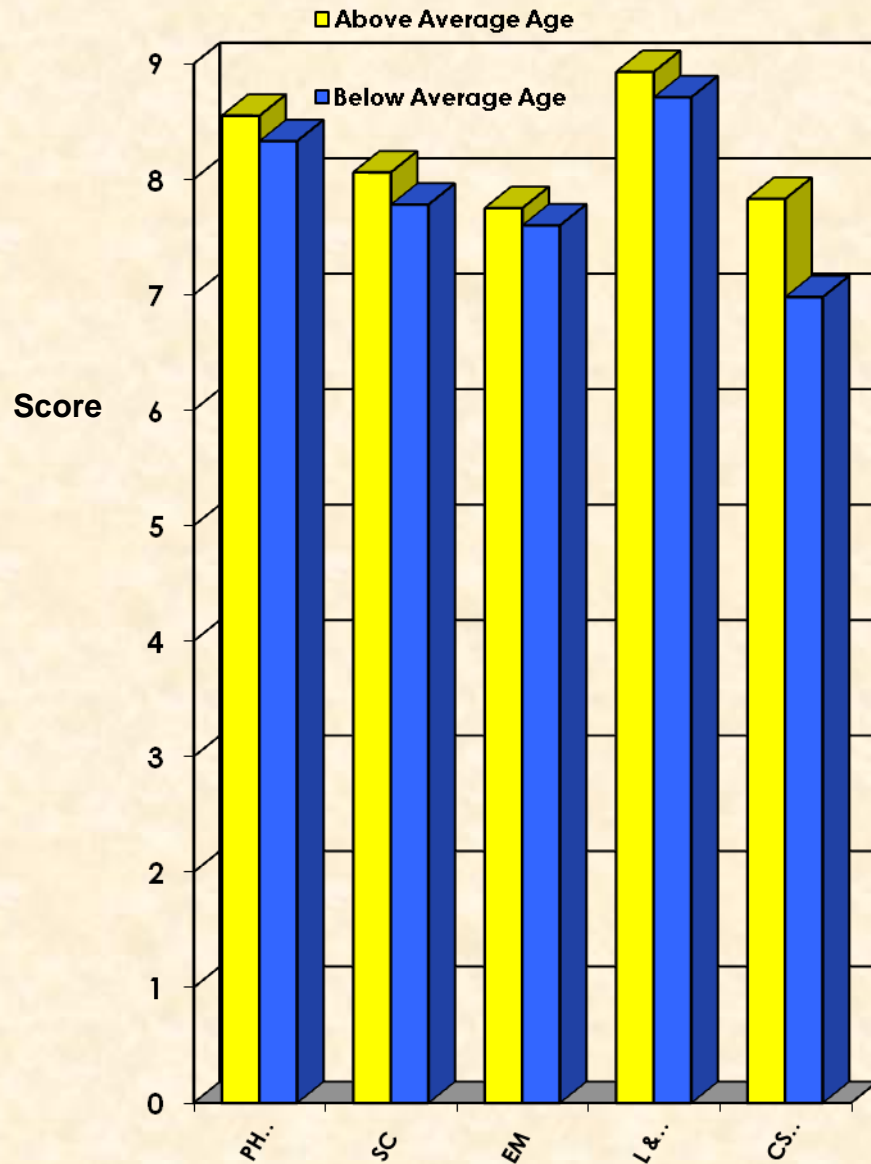**Average age of children is 5.67 years**

Thunder Bay- Superior North 2008/2009

Girls scoring higher than boys is a consistent trend across Ontario and Canada.
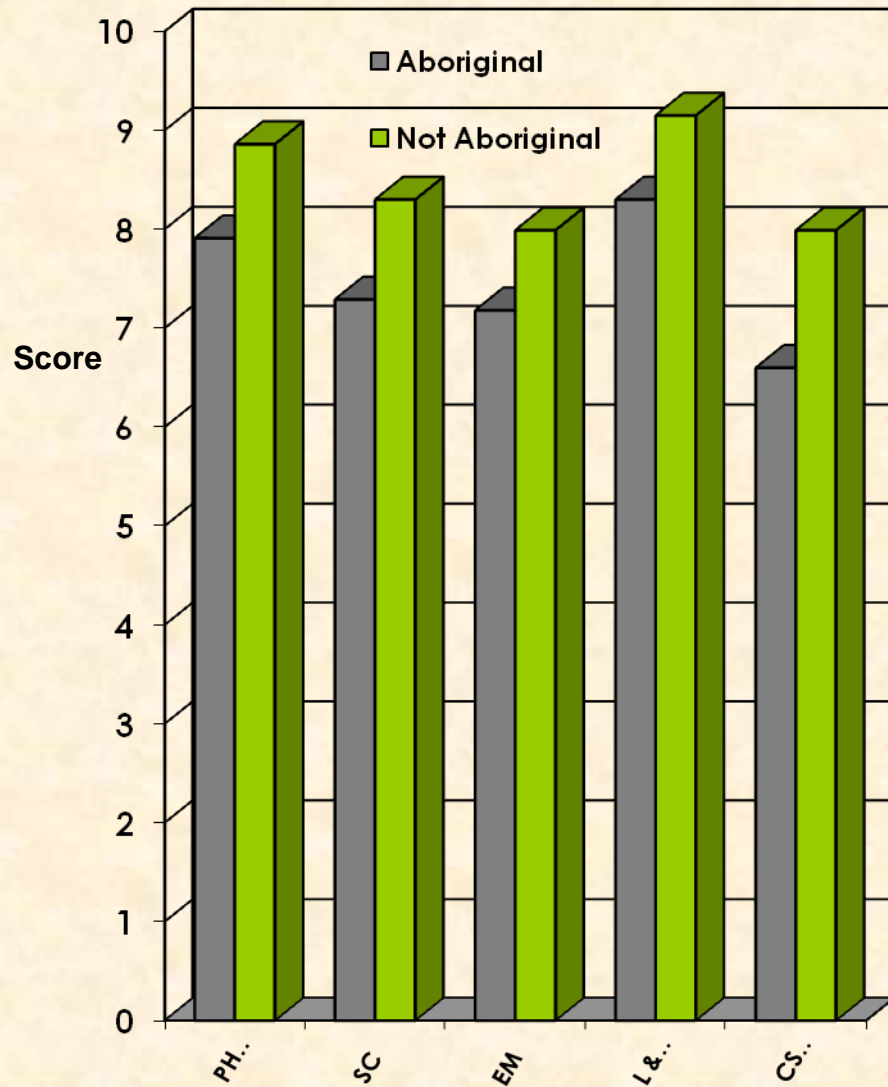
Thunder Bay- Superior North 2008/2009

Score

Legend:
- ■ Above Average Age
- ■ Below Average Age

X-axis categories: PH.., SC, EM, L&.., CS..

Average age is 5.67 years, the older the child the better the score which is a common finding.

Thunder Bay- Superior North 2008/2009

Score

- Aboriginal
- Not Aboriginal

PH.. SC EM L &.. CS..
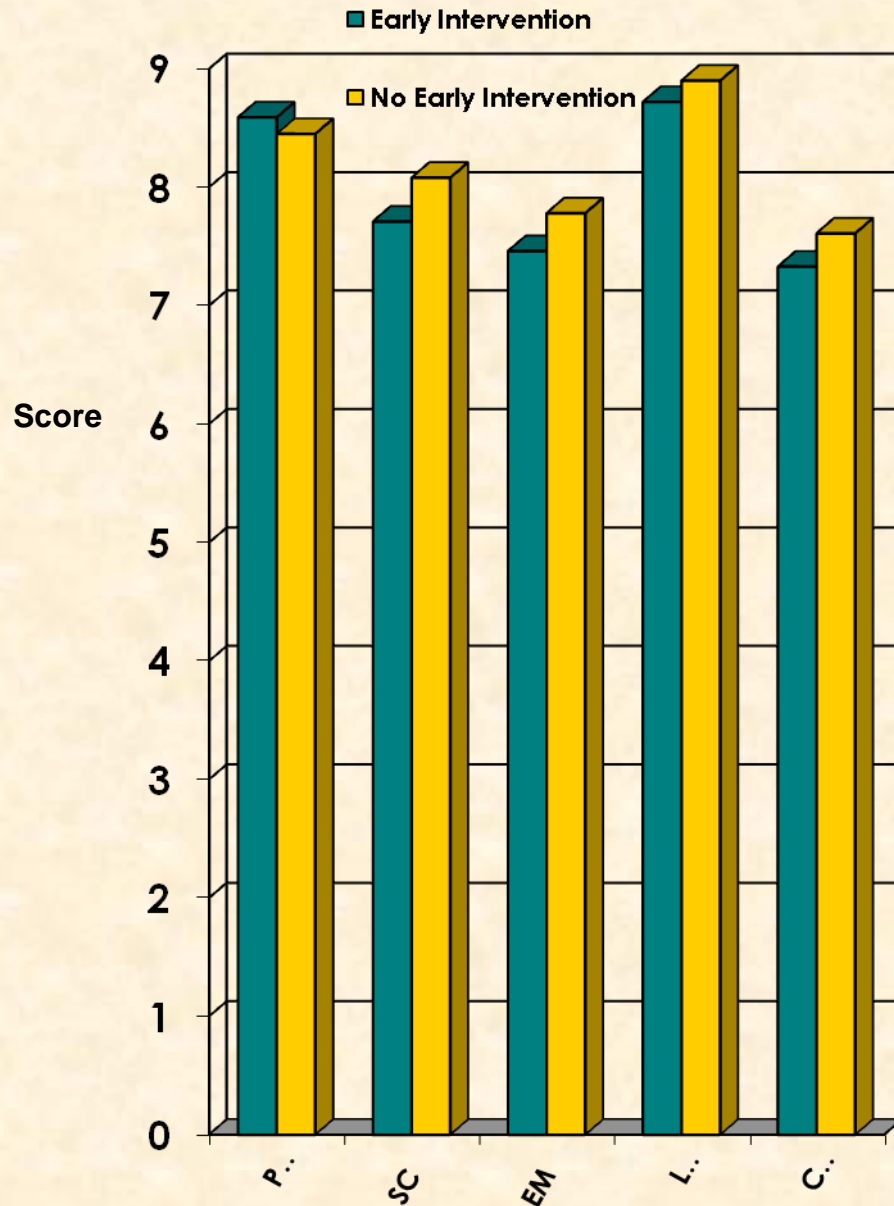

Pic River Elementary School

Heron Bay

Aboriginal student scoring both nationally and provincially, tend to be lower than non-aboriginal.

There are consistent disparities for aboriginal children versus non-aboriginal children and their respective EDI performance (Janus, 2002) and (McTurk et al. 2008).

Early Intervention Programs include: speech/language therapy, parent attended a parenting program, a Head Start program, a School's Cool program etc.

This chart gives us a gauge as to how effective early intervention is, i.e. without it would their score results be less positive?

"Later attempts at intervention require significantly more energy, time, and money." (Gaskin, 2009)
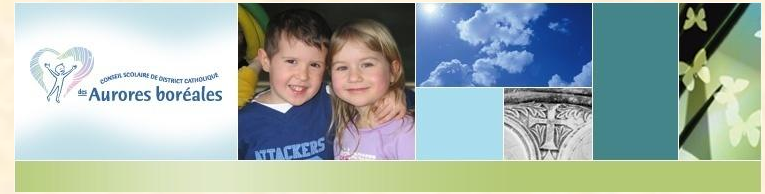
Thunder Bay- Superior North 2008/2009

Score

Chart categories: PH.., SC, EM, L &.., CS..
Legend: Preschool, No Preschool
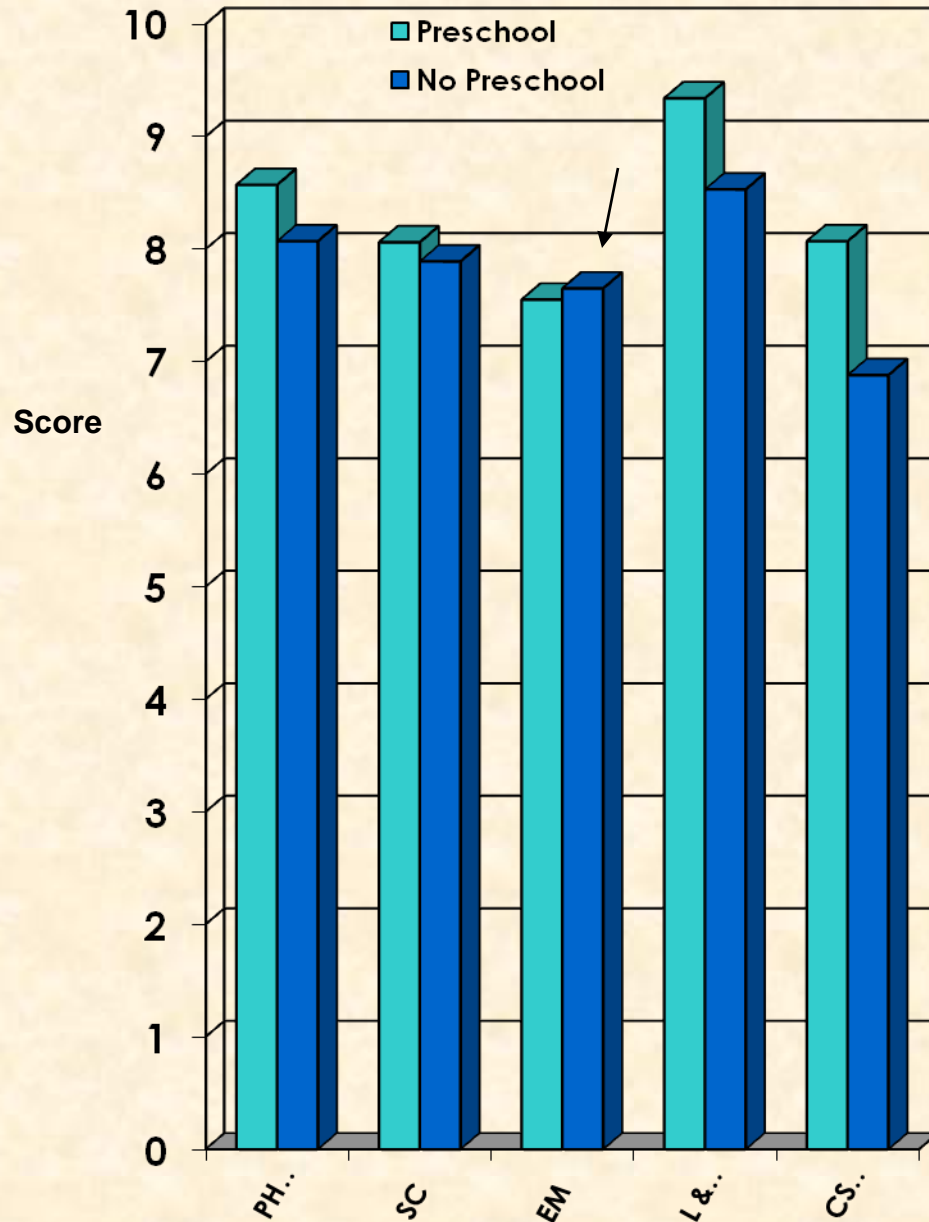
The trend of higher scores for children who have attended preschool is common nationally.

The exception in our case is emotional maturity, but only slightly.

Readiness to Learn at School

"… results indicate that readiness-to-learn levels at school entry seem to be better in neighbourhoods where there is community resources providing family and early childhood support."

**Magdalena Janus, McMaster University**

Thunder Bay- Superior North Number of Valid EDI Results

Location	2005-2006	2008-2009	Percent %	Decrease	Increase
Armstrong (Included in Thunder Bay Rural/Unorganized)	31	32	3.2		▲
Dorion/Nipigon/Red Rock/Pass Lake	49	32	34.7	▼	
Schreiber/Terrace Bay/Rossport	27	17	37.0	▼	
Marathon/Heron Bay/Mobert	32	62	93.8		▲
Manitouwadge	27	22	18.5	▼	
Geraldton/Beardmore/MacDiarmid	31	36	16.1		▲
Longlac/Long Lake 58/Ginoogaming	27	35	29.6		▲
Aroland/Nakina/Marten Falls	9	14	55.6		▲

EDI Results for Physical Health and Well Being

2005-2006

2008-2009
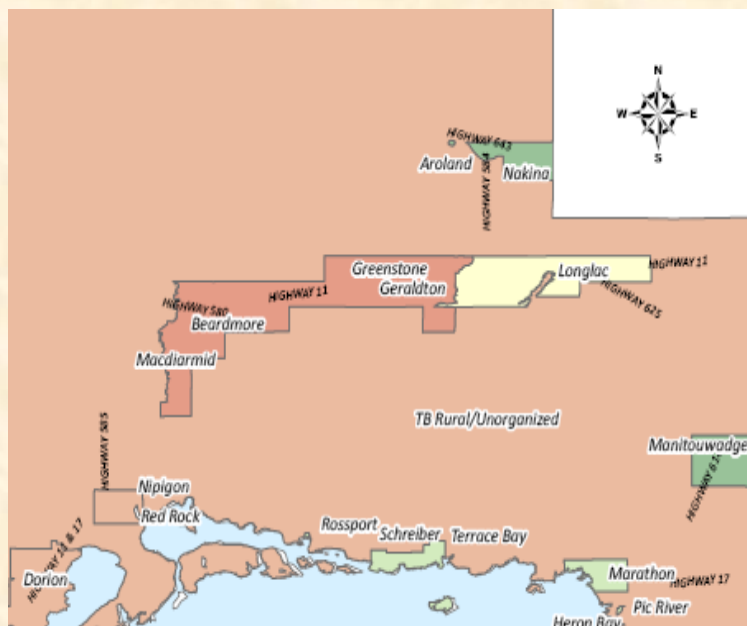
Location	2005 – 2006 Percent % Vulnerable	2008 – 2009 Percent % Vulnerable
Armstrong/TB Rural/Unorg	7.1	31.3 ⬆
Dorion/Nipigon/Red Rock/ Pass Lake	27.1	29.0
Schreiber/Terrace Bay/ Rossport	20.0	17.6 ⬇
Marathon/Heron Bay/ Mobert	11.8	16.4 ⬆
Manitouwadge	20.0	9.1 ⬇
Geraldton/Beardmore/ MacDiarmid	28.6	36.1 ⬆
Longlac/Long Lake 58/ Ginoogaming	32.3	20.6 ⬇
Aroland/Nakina/ Marten Falls	22.2	7.7 ⬇

EDI Results for Social Competence

2005-2006
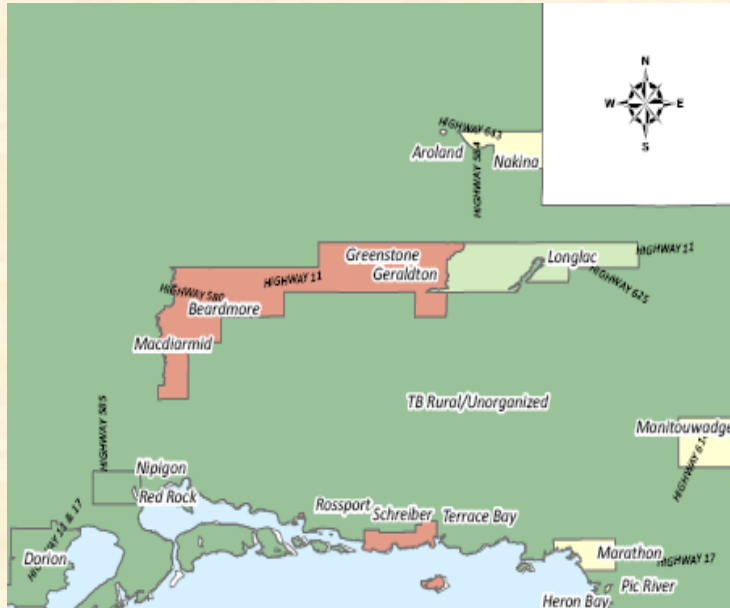
2008-2009
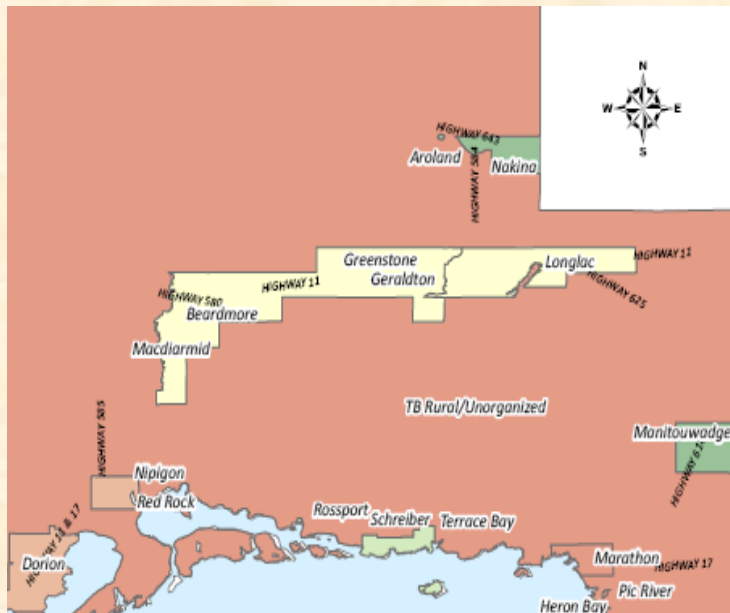
Location	2005 – 2006 Percent % Vulnerable	2008 – 2009 Percent % Vulnerable
Armstrong/TB Rural/Unorg	10.7	31.3 ⬆
Dorion/Nipigon/Red Rock/ Pass Lake	6.3	19.4 ⬆
Schreiber/Terrace Bay/ Rossport	16.0	5.9 ⬇
Marathon/Heron Bay/ Mobert	11.4	23.0 ⬆
Manitouwadge	12.0	4.5 ⬇
Geraldton/Beardmore/ MacDiarmid	20.0	8.3 ⬇
Longlac/Long Lake 58/ Ginoogaming	9.7	8.8
Aroland/Nakina/ Marten Falls	10.0	0.0 *

Note: * 0.0 zero % of children were deemed vulnerable on that domain
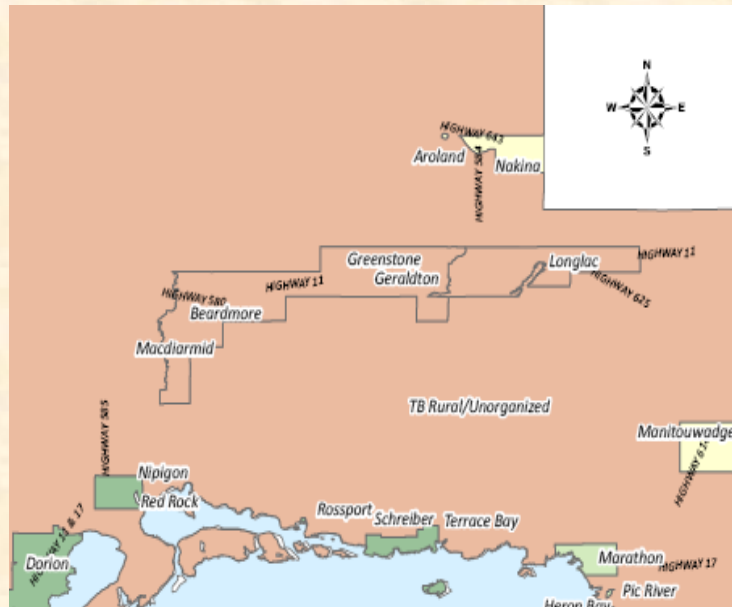
EDI Results for Emotional Maturity

2005-2006
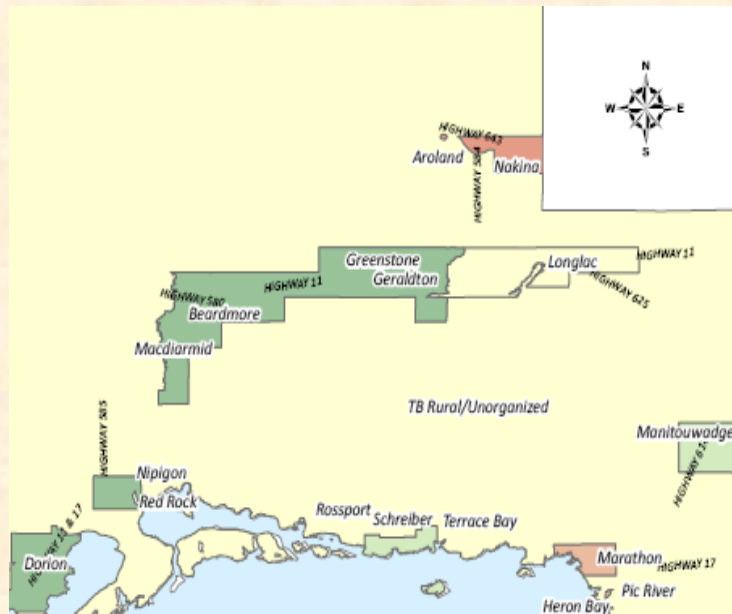
2008-2009

Location	2005 – 2006 Percent % Vulnerable	2008 – 2009 Percent % Vulnerable	
Armstrong/TB Rural/Unorg	25.0	37.5	⬆
Dorion/Nipigon/Red Rock/ Pass Lake	2.1	16.1	⬆
Schreiber/Terrace Bay/ Rossport	8.0	5.9	⬇
Marathon/Heron Bay/ Mobert	11.4	21.7	⬆
Manitouwadge	8.3	13.6	⬆
Geraldton/Beardmore/ MacDiarmid	11.4	16.7	⬆
Longlac/Long Lake 58/ Ginoogaming	12.9	17.6	⬆
Aroland/Nakina/ Marten Falls	20.0	0.0 *	

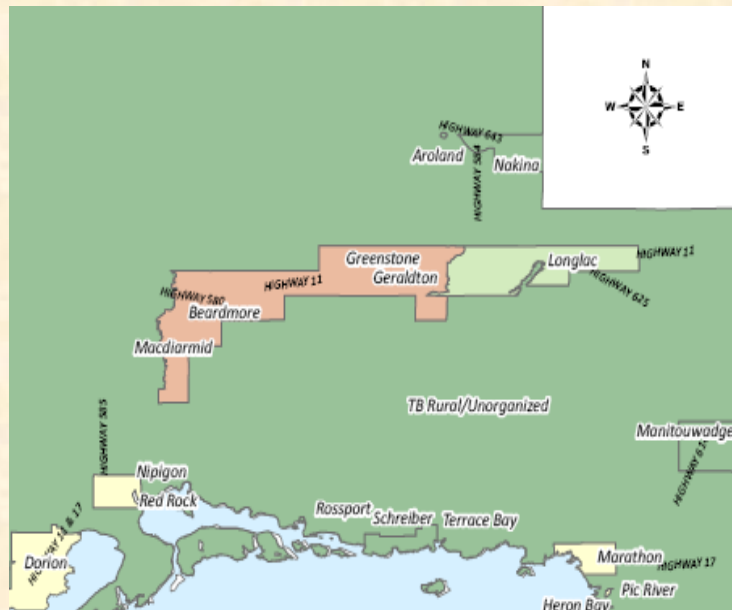Note: * 0.0 zero % of children were deemed vulnerable on that domain

EDI Results for Language and Cognitive Development
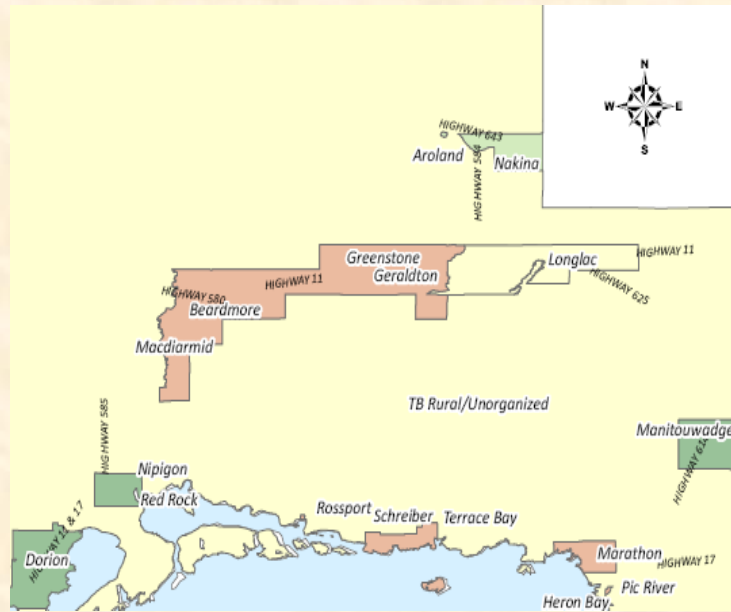

2005-2006

2008-2009

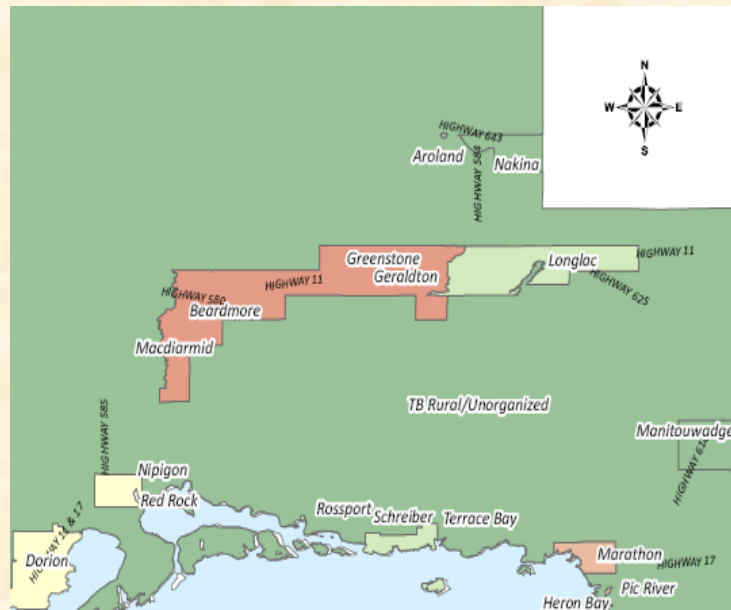| Location	2005 – 2006 Percent % Vulnerable	2008 – 2009 Percent % Vulnerable
Armstrong/TB Rural/Unorg	17.9	3.1 ⬇
Dorion/Nipigon/Red Rock/ Pass Lake	2.1	6.5 ⬆
Schreiber/Terrace Bay/ Rossport	0.0 *	0.0 *
Marathon/Heron Bay/ Mobert	8.6	6.6
Manitouwadge	8.0	4.5 ⬇
Geraldton/Beardmore/ MacDiarmid	11.4	8.3 ⬇
Longlac/Long Lake 58/ Ginoogaming	9.7	5.9 ⬇
Aroland/Nakina/ Marten Falls	10.0	0.0 *

Note: * 0.0 zero % of children were deemed vulnerable on that domain

EDI Results for Communication Skills and General Knowledge

2005-2006

2008-2009

Location	2005 – 2006 Percent % Vulnerable	2008 – 2009 Percent % Vulnerable
Armstrong/TB Rural/Unorg	17.9	9.4 ⬇
Dorion/Nipigon/Red Rock/ Pass Lake	6.3	12.9 ⬆
Schreiber/Terrace Bay/ Rossport	20.0	5.9 ⬇
Marathon/Heron Bay/ Mobert	17.1	14.8 ⬇
Manitouwadge	4.0	4.5
Geraldton/Beardmore/ MacDiarmid	20.0	25.0 ⬆
Longlac/Long Lake 58/ Ginoogaming	9.7	11.8
Aroland/Nakina/ Marten Falls	10.0	0.0 *

Note: * 0.0 zero % of children were deemed vulnerable on that domain

When interpreting the EDI results we have to ask ourselves the three letter word question, **Why?**

Why are they at the level they are?

Why did they decline?

Why did they increase?

And then make decisions about programs and services for young children and their families.

We want our children to be ready for school and eager participants in their education.

What to do with the EDI Results? Below are some ideas to consider:

• Target strategies to decrease the percentage of vulnerable children through: community awareness programs on nutrition, literacy; breakfast programs; cultural consultants for aboriginal communities; "play based" learning environments where the emphasis is on eagerness and excitement; target "Roots of Empathy" programs in JK and SK

• Provide quality child care

• Initiate parent/child programming such as are available at Best Start Hubs and Satellites and encourage young **boys** (and their fathers) to attend

• Provide preschool programs which have been shown to increase EDI results (Gaskin, 2009)

• Adjust school programs to meet the needs of incoming students

• Adjust the early childhood programs to help ensure children are ready for school (i.e. make for an easier transition)

- Initiate multiple layers of programming and support focused on families

- Align programs from birth to six years of age closely with the school system and their programming

- Provide **outreach programs** to neighbourhoods via- lending libraries, home visits, wellness fairs, screening clinics, orientation programs, nursery school, full day kindergarten, language centres, community service inventories

- Hold a brainstorming session with staff, teachers, and the community- Brass Bell can facilitate a workbook session on early learning strategies to come up with ideas on "what to do"

- Engage your municipal, provincial and federal politicians to attract revenues for investment and development

- Have provincial ministries at the same table in order to **link data** i.e. EDI to health to birth to EQAO to education (Manitoba currently has a health # linked to an EDI # linked to school graduation results); for example low birth weights combined with high medical care increases vulnerability on the EDI (Hertzman, 2009)

• create an "Information Utility" similar to any other utility such as Municipal Water or Hydro Utilities, only an Information Utility would hold and gather information data to be used for planning what resources are required and where e.g. overlap neighbourhoods where there are a disportionate number of single parents and match where early years programming would benefit them the most

Family stress can result from a lack of time parents spend with their children i.e. both parents working, lack of resources usually $ money, and the lack of community support through programs offered by facilities such as Best Start.

We need to enable family time and resources through longer paid parental leave and ensure community supports, including those in a school setting, are in place for child care and early learning.

Roots of Empathy in the Classroom

I would like to conclude with a quote from Dan Offord…

"I wonder how many vulnerable children the government can tolerate?"

We need to measure, keep score, assess performance, monitor, learn, adjust, and report publicly on what was or was not accomplished.

After programming has met the needs of the EDI data… *then we can celebrate our success!*

THANK YOU

QUESTIONS ?

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BestStart
Helping Children Grow