

# Interpretive Discussion of Mission's EDI Change Maps

Change maps for Mission are based on the results and comparisons of Wave 1 & Wave 2 EDI assessments of kindergarten children in  
School District #75

# Mapping Early Child Development

- Involves mapping child development, socio-economic characteristics and community assets of communities.
- The EDI (Early Development Instrument) is the child development portion of the mapping project.
- Measuring children's readiness for school is important because it reflects children's early development and it can predict their performance later in life.

# The 5 Domains of the EDI

- The EDI has 5 scales that are derived from the domains of ECD recognized in the Convention on the Rights of the Child.
  - Physical Health and Well-Being
  - Social Competence
  - Emotional Maturity
  - Language and Cognitive Development
  - Communication Skills and General Knowledge

# Mapping Child Development

- Teachers complete a checklist for each child that measure's a child's development in the 5 domains.
- The data from each assessment is then 'cleaned-up' and aggregated at the school, neighbourhood, and school district (site) level.
- We work with the neighbourhood and district level data – Mission has 7 distinct neighbourhoods.

# Mapping Child Development...

- The aggregated neighbourhood and site data is partitioned into quintiles and is measured against the provincial normative data set accumulated over cycle 1 and cycle 2.
- Average and vulnerability cut-offs have been established based on the range of EDI scores provincially (HELP) – and nationally (Offord).
- Vulnerability or ‘at risk’ is defined as the lowest 10% of the last quintile (bottom 20%).

# Mapping Child Development...

- Mission is one of only a few districts in the province that has improved its averages and decreased its vulnerabilities in many domains for many neighbourhoods
  - Provincially, Mission (SD #75) has moved up 1 quintile to now rank amongst average districts.
  - In many neighbourhoods these average scores have increased by over .5 and vulnerabilities have decreased by over 10%.
  - These figures equate to ‘considerable change’ and are of ‘extreme interest’.

# Mapping Child Development...

- Even with this great news vulnerabilities have increased in 2 neighbourhoods – marginally in Silverhill and moderately in Hatzic.
- Oddly, both these neighbourhoods ranked very well in cycle1.

# Deciphering the Maps!

- The maps show the most urbanized neighbourhoods and a small portion of the two rural neighbourhoods.
- These neighbourhoods are colour coded to the legend that represents cycle 1/2 average scores and % of children deemed vulnerable.
- The colours of the neighbourhoods are ranked at the provincial norms. Dark green is the upper most quintile (falls within highest scores or % most ready for school entry) and dark red is the bottom most quintile (falls within the lowest scores or % least ready for school entry – with the bottom 10% being vulnerable or at risk) .

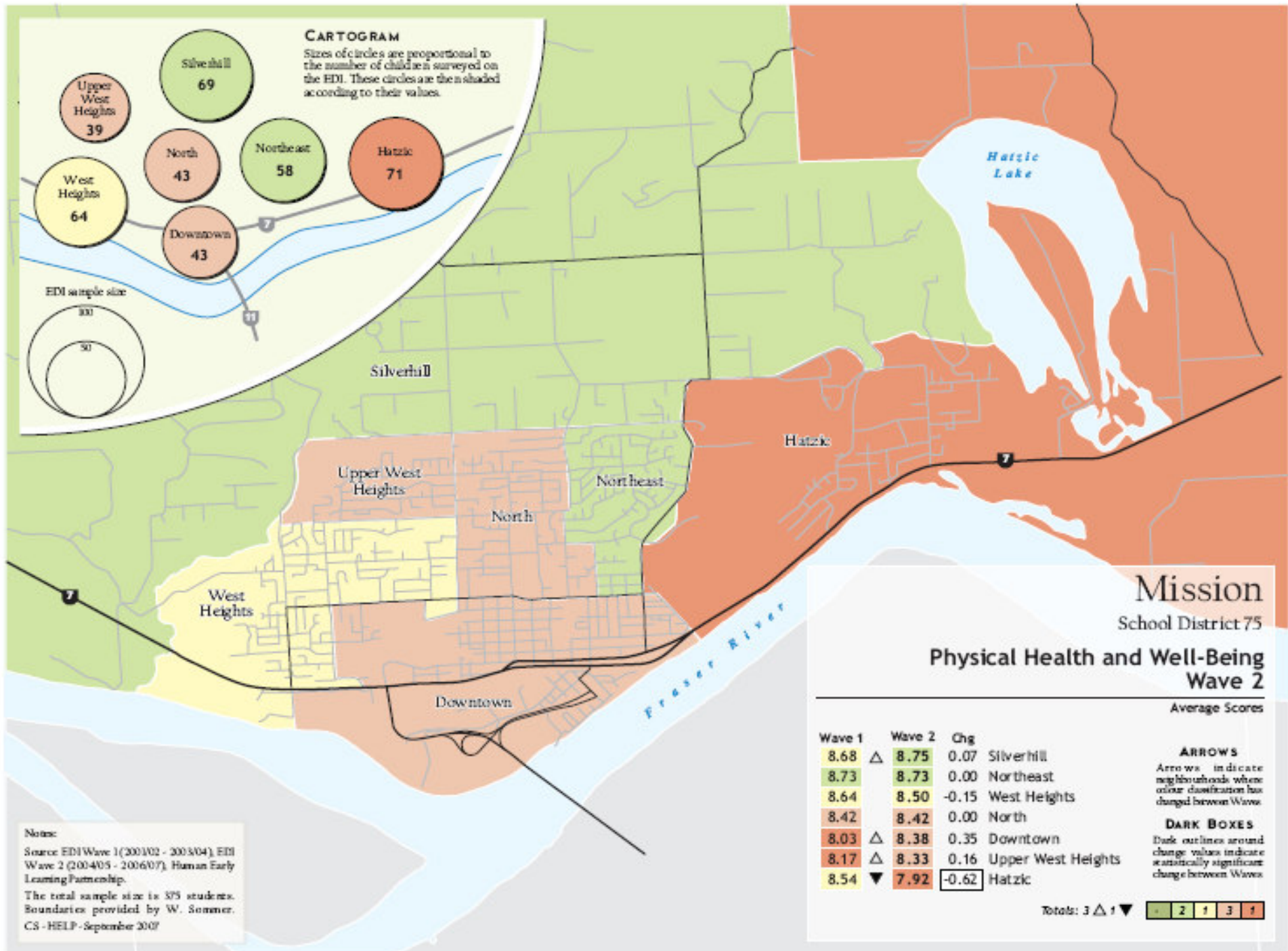


# Deciphering the Maps!

- For average scores we are looking for the average between cycles to increase and the range between neighbourhoods to decrease.
- For vulnerabilities we are looking for the % vulnerable to decrease and the range between neighbourhoods to decrease.

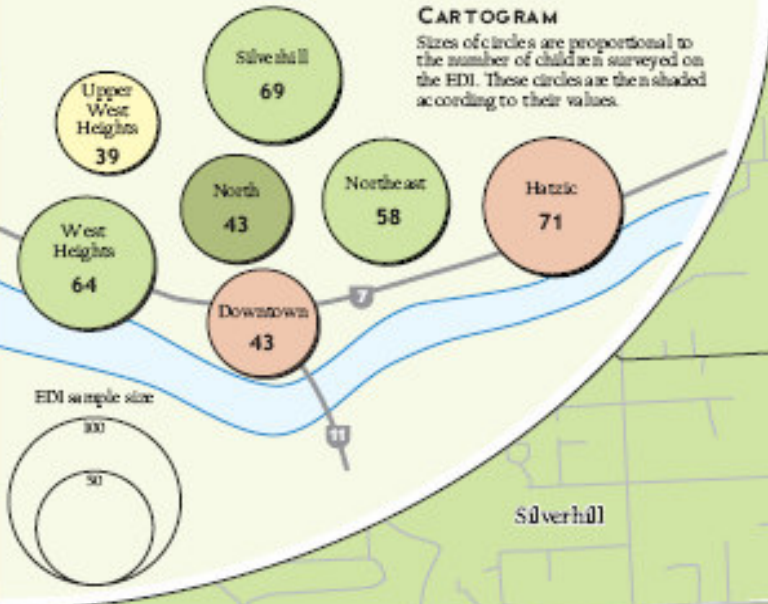
# Physical Health & Well-Being

- Measures fine and gross motor development; levels of energy; daily preparedness for school (tired, late, hungry); washroom independence; and established handedness.
- Some community factors that may impact this domain are: access to formalized recreation services; food security; and access to safe, outdoor play spaces.

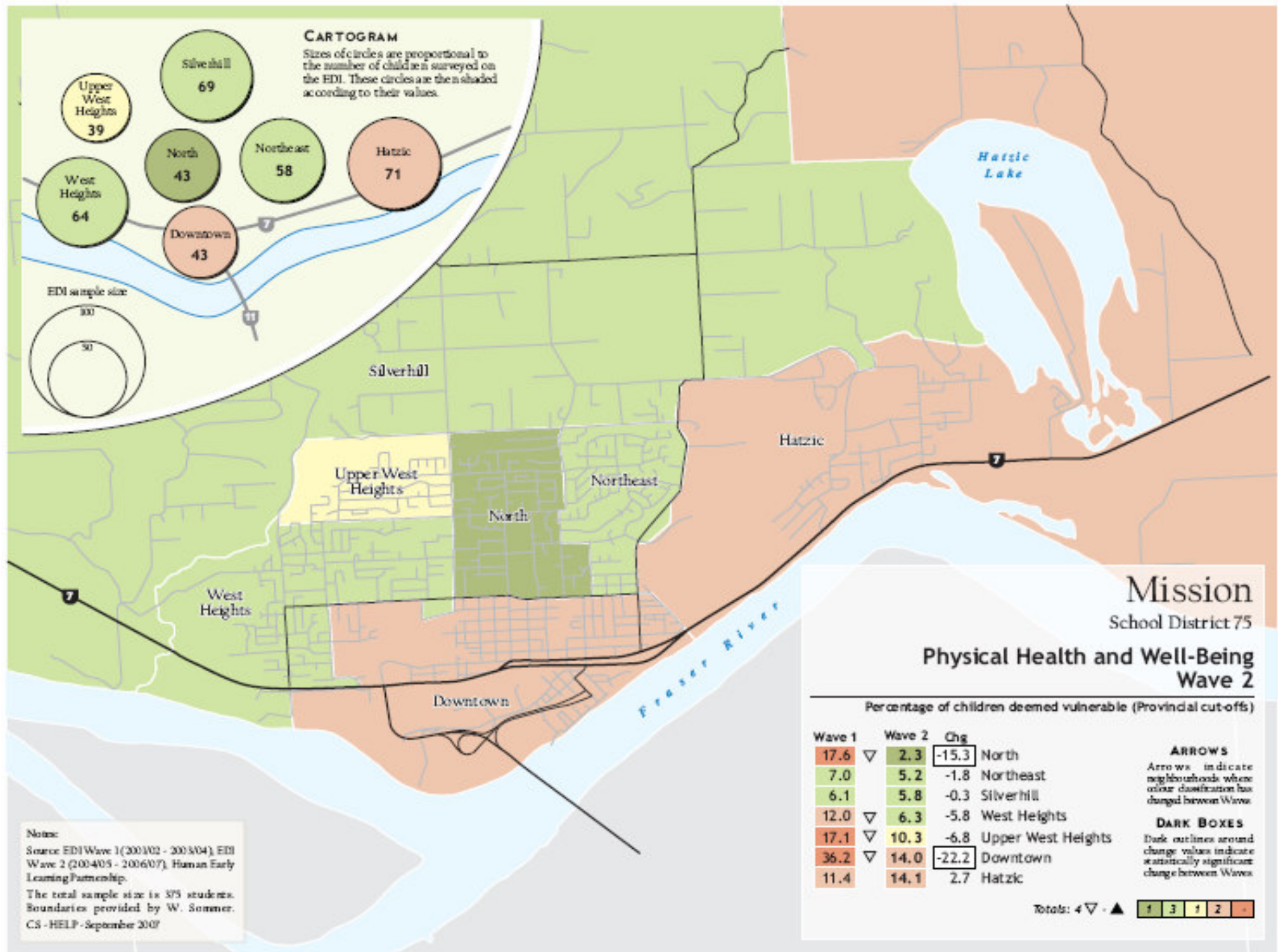
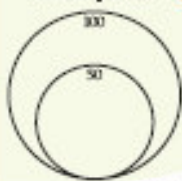


### CARTOGRAM

Sizes of circles are proportional to the number of children surveyed on the EDI. These circles are then shaded according to their values.



EDI sample size



## Mission School District 75 Physical Health and Well-Being Wave 2

Percentage of children deemed vulnerable (Provincial cut-offs)

Wave 1	Wave 2	Chg	Neighborhood
17.6	2.3	-15.3	North
7.0	5.2	-1.8	Northeast
6.1	5.8	-0.3	Silverhill
12.0	6.3	-5.8	West Heights
17.1	10.3	-6.8	Upper West Heights
36.2	14.0	-22.2	Downtown
11.4	14.1	2.7	Hatzic

**ARROWS**  
Arrows indicate neighborhoods where color classification has changed between Waves.

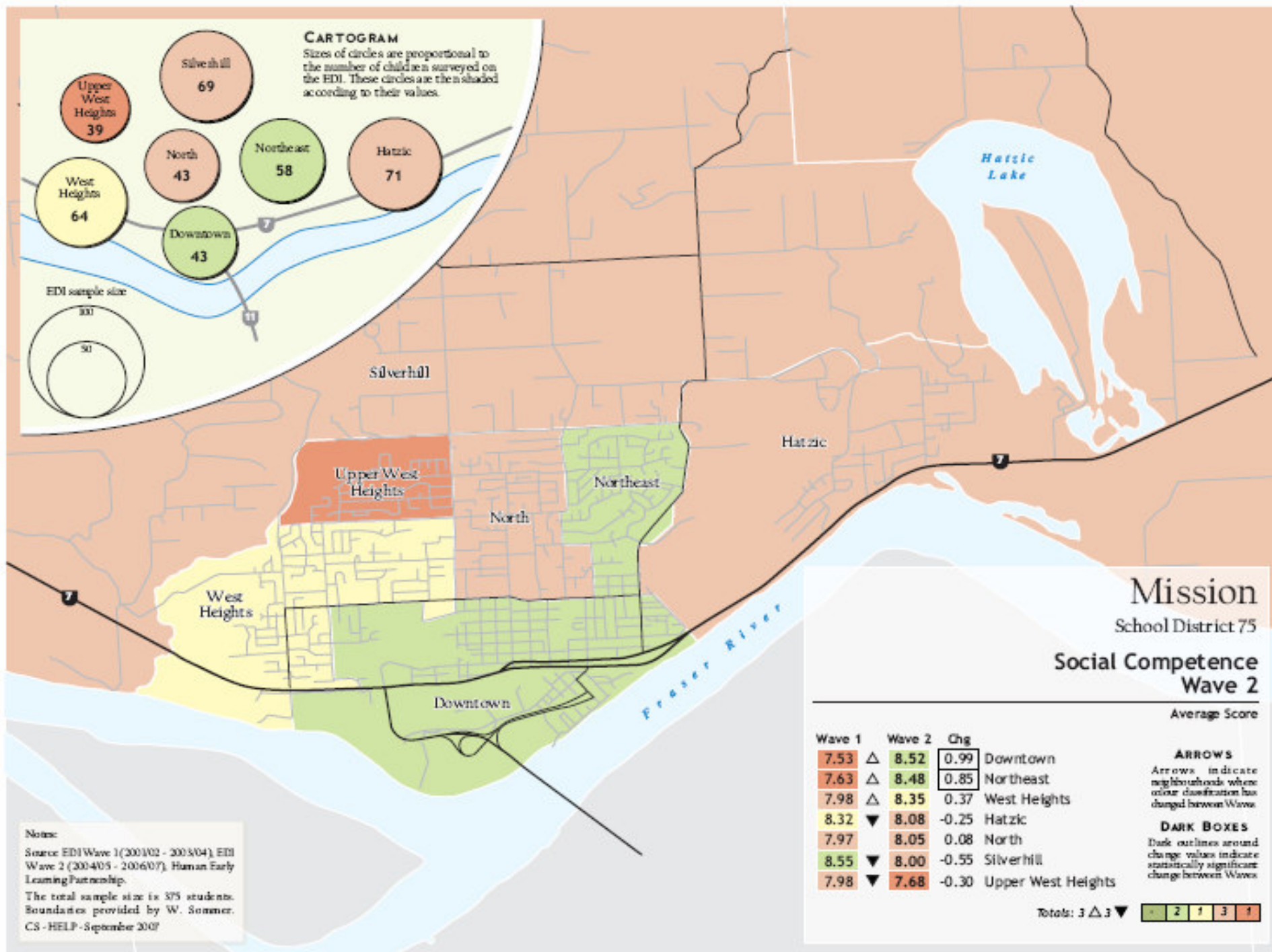
**DARK BOXES**  
Dark outlines around change values indicate statistically significant change between Waves.

Totals: 4 ▽ ▲ 1 3 1 2 0

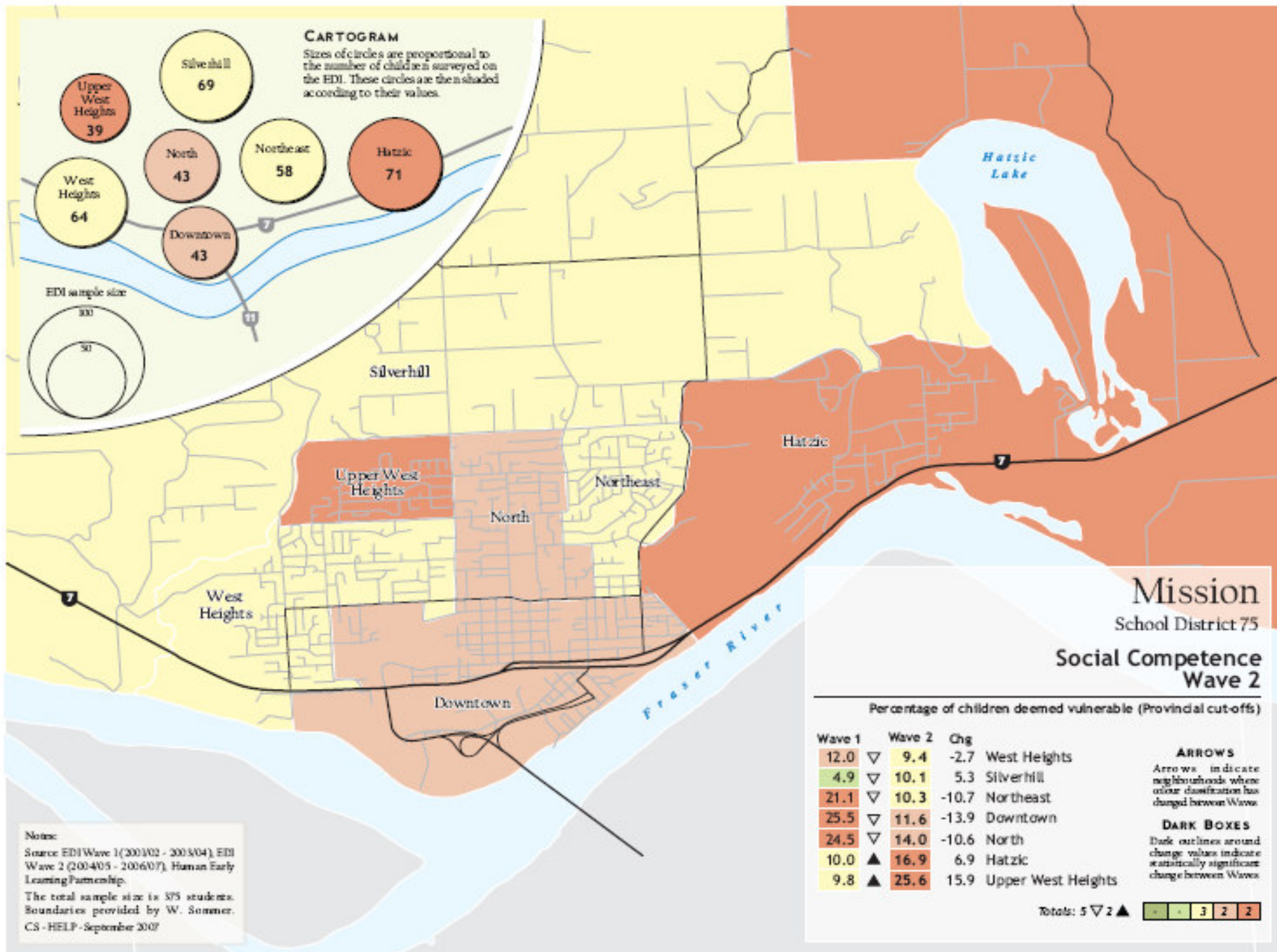
**Notes:**  
Source: EDI Wave 1 (2003/02 - 2003/04), EDI Wave 2 (2004/05 - 2006/07), Human Early Learning Partnership.  
The total sample size is 375 students.  
Boundaries provided by W. Sommer.  
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# Social Competence

- Measures being cooperative and respectful to others (children and adults); able to work within the school environment; socially appropriate in behaviour during school activities; and self-control/self-confidence.
- Some community factors that may impact this domain are: access to quality child care and structured community programs; parent education programs; and neighbourhood cohesion with localized access to services.



Notes:  
 Source: EDI Wave 1 (2003/02 - 2003/04), EDI Wave 2 (2004/05 - 2006/07), Human Early Learning Partnership.  
 The total sample size is 375 students.  
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**Notes:**  
 Source: EDI Wave 1 (2003/02 - 2003/04), EDI Wave 2 (2004/05 - 2006/07), Human Early Learning Partnership.  
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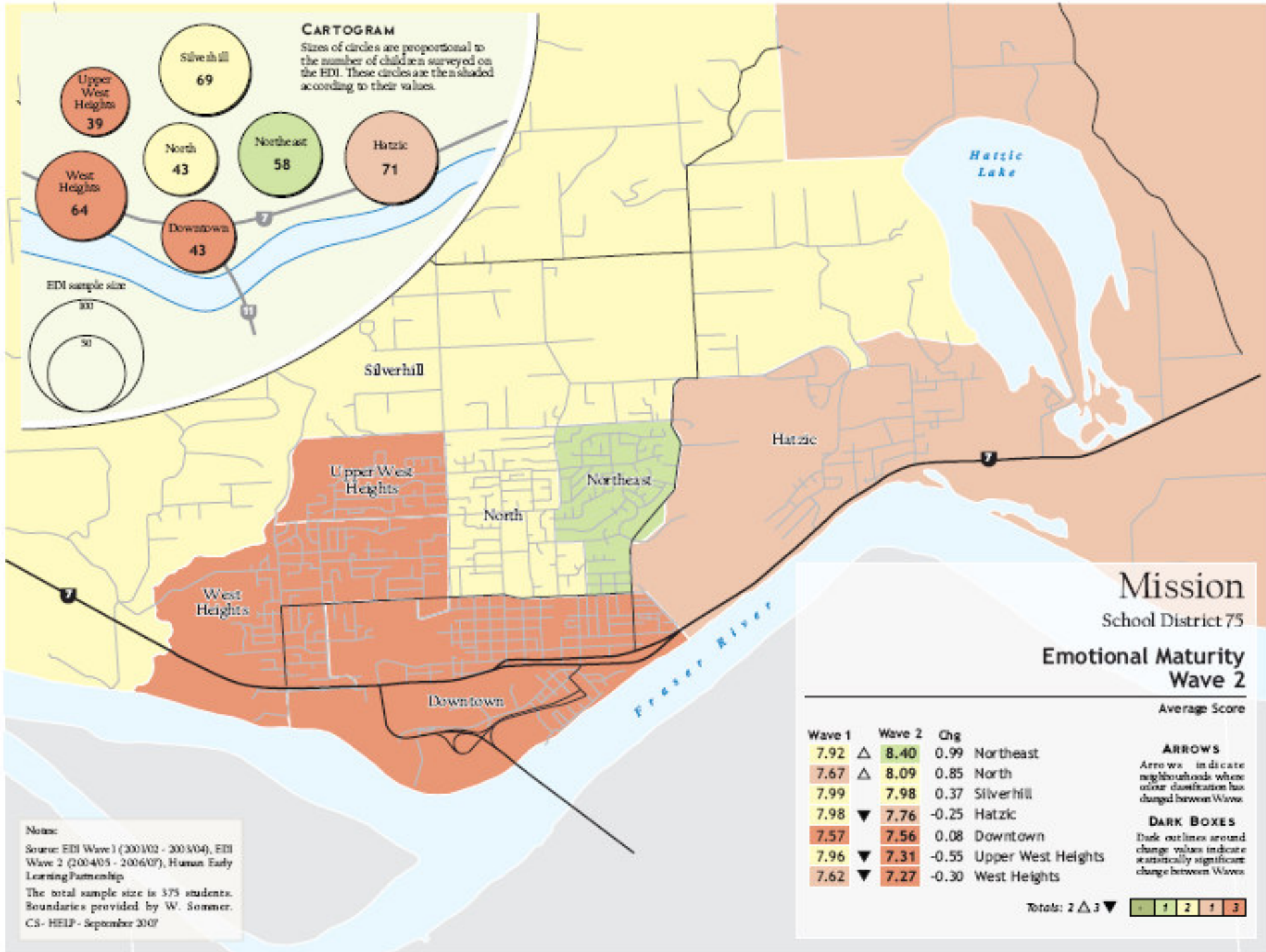
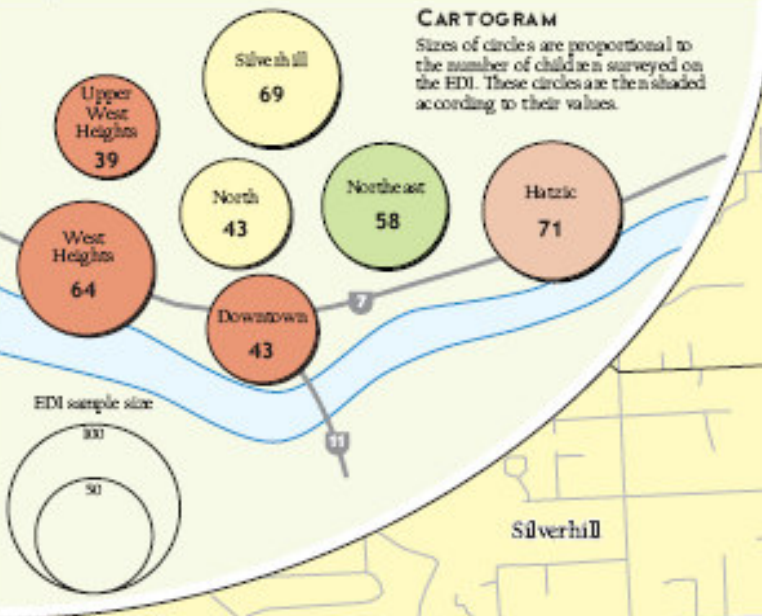
# Emotional Maturity

- Measures pro-social behaviour (helping, tolerance, empathy) as opposed to aggressive behaviour (anxiety, hyperactivity, inattention, impulsiveness); and informal, peer-to-peer interaction – as opposed to the more structured interaction measured on the social competence scale.
- Some community factors that may impact this domain are: access to diverse environments (i.e. mixed housing developments that allow children to interact with others from a variety of socio-economic and cultural backgrounds); access to quality child care; and informal opportunities to interact with peers.



**CARTOGRAM**

Sizes of circles are proportional to the number of children surveyed on the EDI. These circles are then shaded according to their values.



**Mission**

School District 75

**Emotional Maturity Wave 2**

Average Score

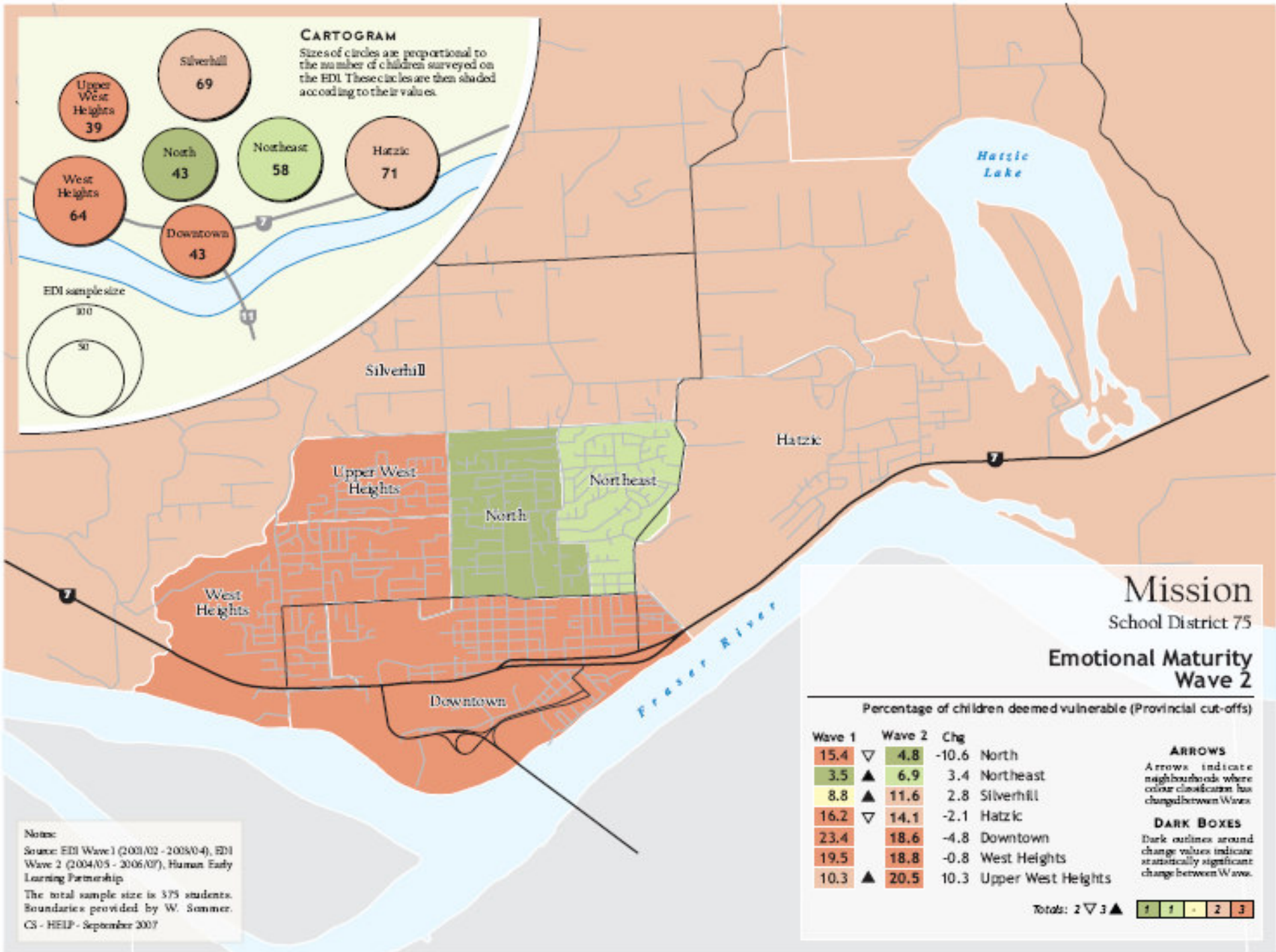
Wave 1	Wave 2	Chg	Neighborhood
7.92	8.40	0.99	Northeast
7.67	8.09	0.85	North
7.99	7.98	0.37	Silverhill
7.98	7.76	-0.25	Hatzic
7.57	7.56	0.08	Downtown
7.96	7.31	-0.55	Upper West Heights
7.62	7.27	-0.30	West Heights

**ARROWS**  
Arrows indicate neighborhoods whose score classification has changed between Waves.

**DARK BOXES**  
Dark outlines around change values indicate statistically significant change between Waves.

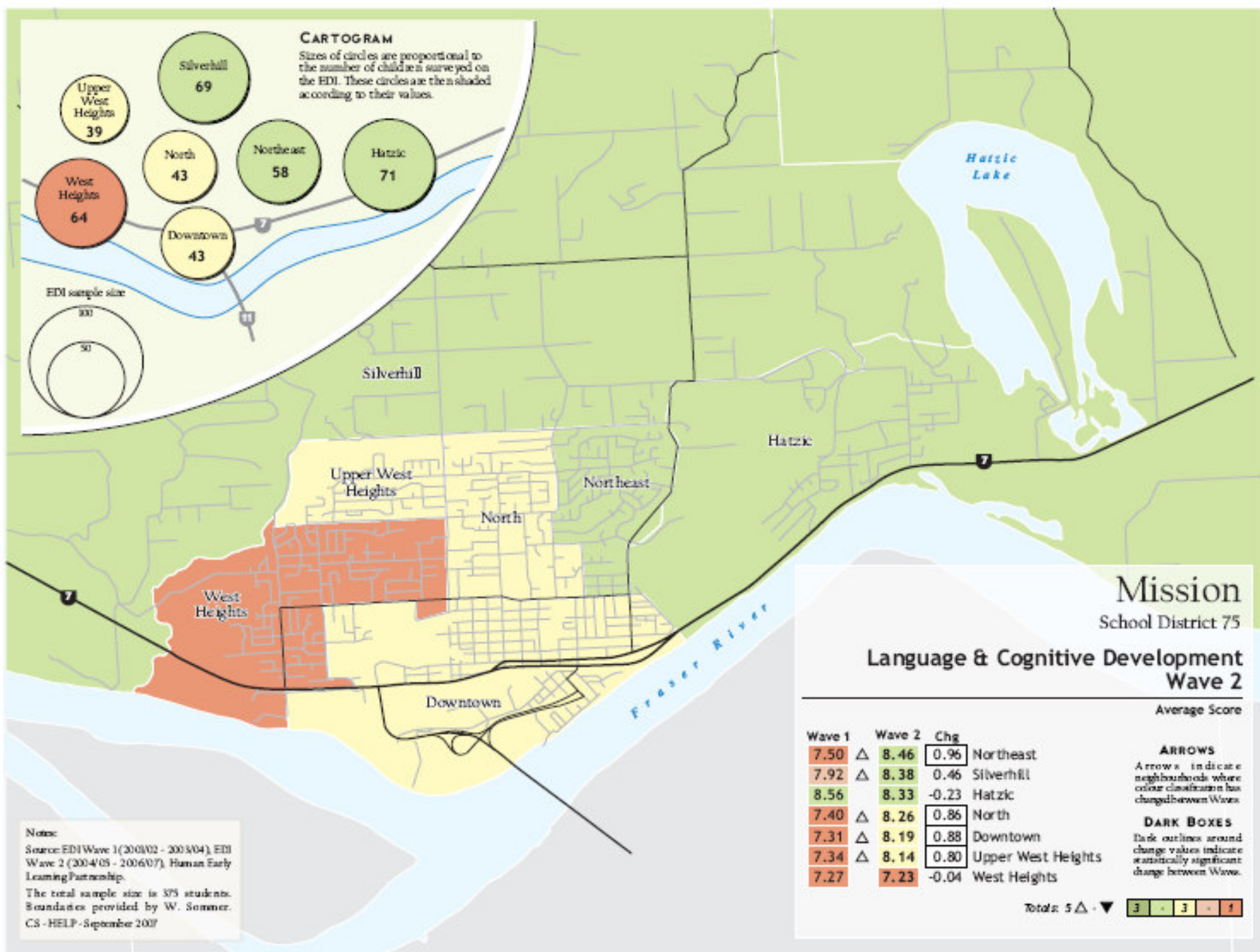
Totals: 2  $\Delta$  3  $\nabla$  1 2 1 3

**Notes:**  
Source: EDI Wave 1 (2003/02 - 2003/04), EDI Wave 2 (2004/05 - 2006/07), Human Early Learning Partnership  
The total sample size is 375 students. Boundaries provided by W. Sommer. CS - HELP - September 2007

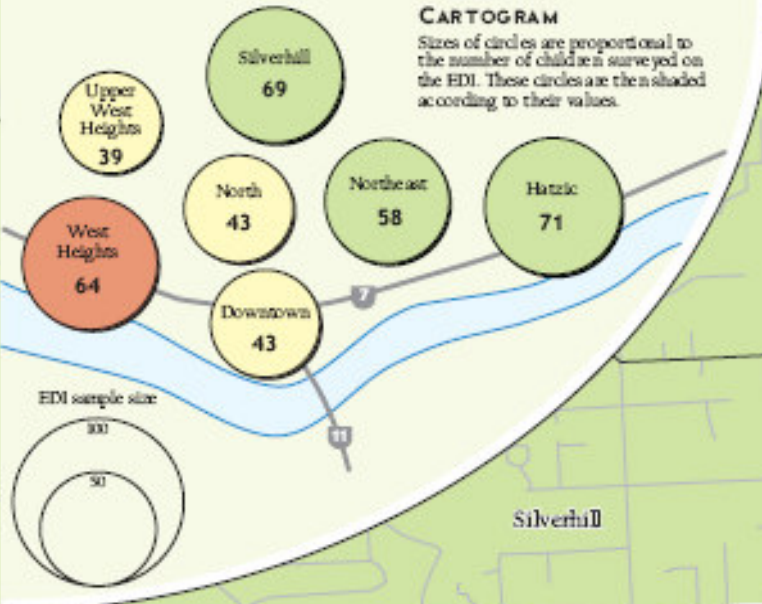


# Language and Cognitive Development

- Measures interest in books, reading, language-related activities (rhyming, group reading); literacy issues (ability to recognise letters, read and write simple words); interest in simple math related activities; and numeracy issues (ability to recognise and compare numbers, count, sort, etc.)
- Some community factors that may impact this domain are: literacy programs that include both young children and adults; accessible library services; and partnerships between early child development programs and the local school district.



**CARTOGRAM**  
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### Mission

School District 75

## Language & Cognitive Development

### Wave 2

Average Score

Wave 1	Wave 2	Chg	Neighborhood
7.50	8.46	0.96	Northeast
7.92	8.38	0.46	Silverhill
8.56	8.33	-0.23	Hatzic
7.40	8.26	0.86	North
7.31	8.19	0.88	Downtown
7.34	8.14	0.80	Upper West Heights
7.27	7.23	-0.04	West Heights

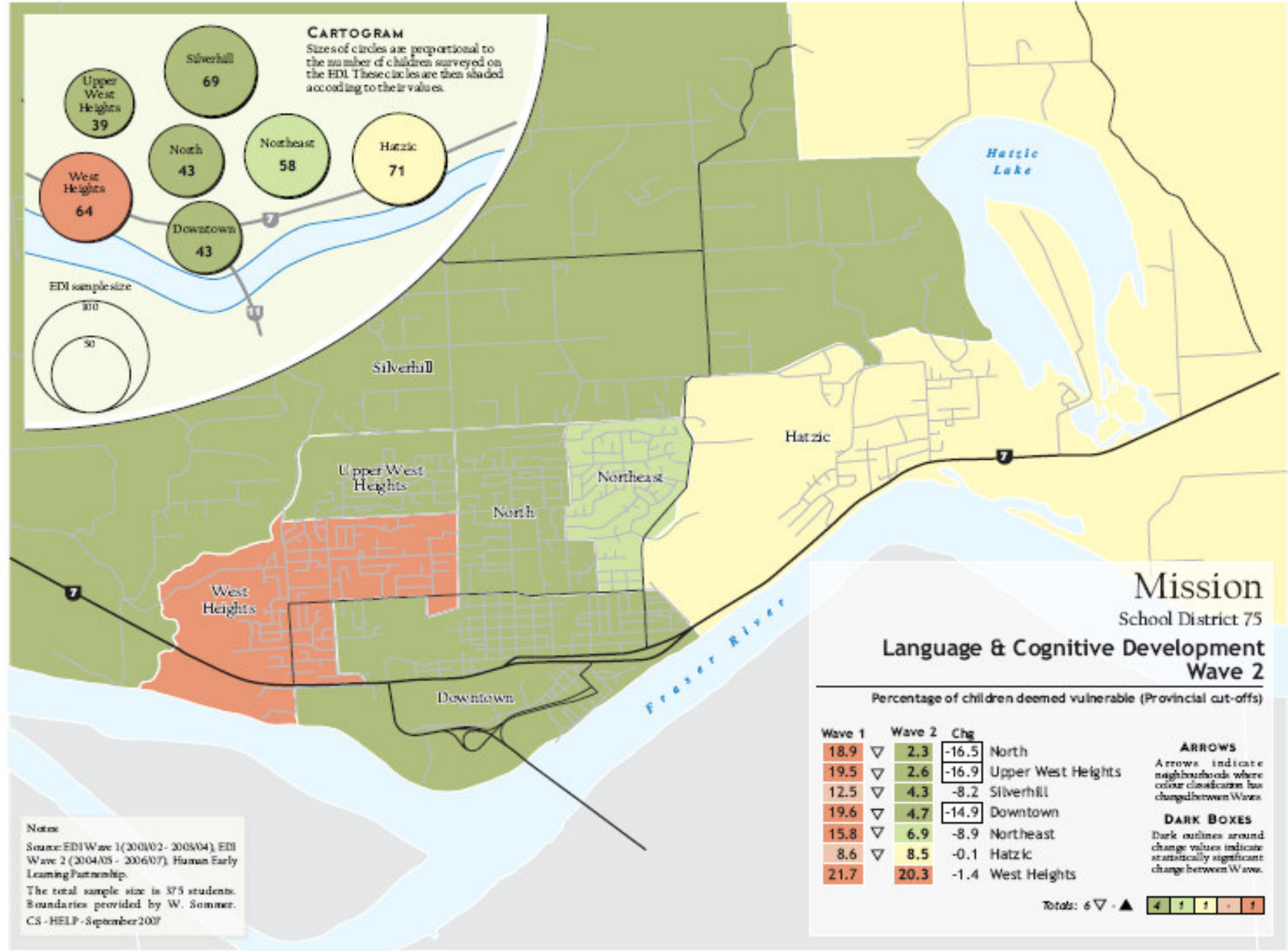
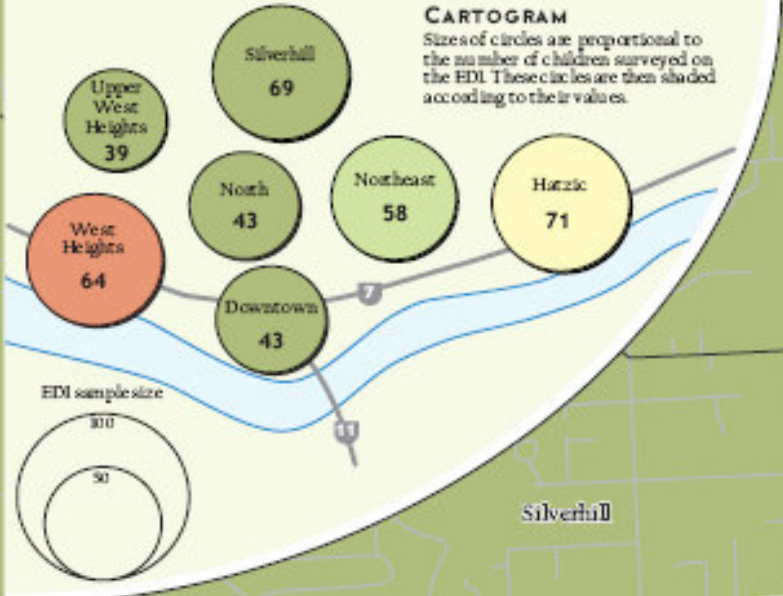
**ARROWS**  
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**DARK BOXES**  
 Dark outlines around change values indicate statistically significant change between Waves.

Totals: 5 3 3 1

**Notes:**  
 Source: EDI Wave 1 (2003/02 - 2003/04), EDI Wave 2 (2004/05 - 2006/07), Human Early Learning Partnership.  
 The total sample size is 575 students.  
 Boundaries provided by W. Sommer.  
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**CARTOGRAM**  
 Sizes of circles are proportional to the number of children surveyed on the EDL. These circles are then shaded according to their values.



**Notes**  
 Source: EDL Wave 1 (2001/02 - 2005/04), EDL Wave 2 (2004/05 - 2006/07), Human Early Learning Partnership.  
 The total sample size is 375 students.  
 Boundaries provided by W. Sommer.  
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## Mission

School District 75

### Language & Cognitive Development Wave 2

Percentage of children deemed vulnerable (Provincial cut-offs)

Wave 1	Wave 2	Chg	
18.9	2.3	-16.5	North
19.5	2.6	-16.9	Upper West Heights
12.5	4.3	-8.2	Silverhill
19.6	4.7	-14.9	Downtown
15.8	6.9	-8.9	Northeast
8.6	8.5	-0.1	Hatzic
21.7	20.3	-1.4	West Heights

**ARROWS**  
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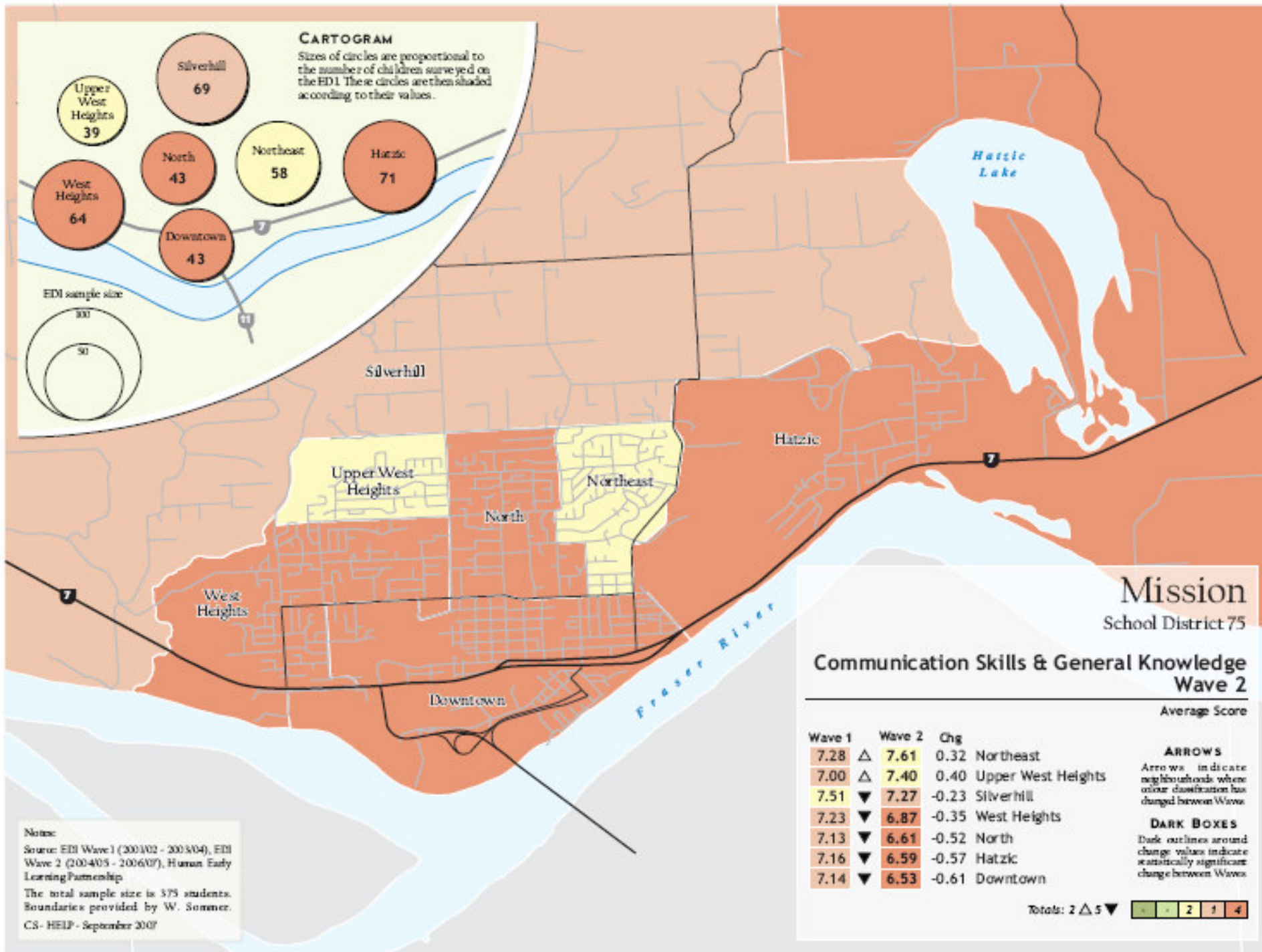
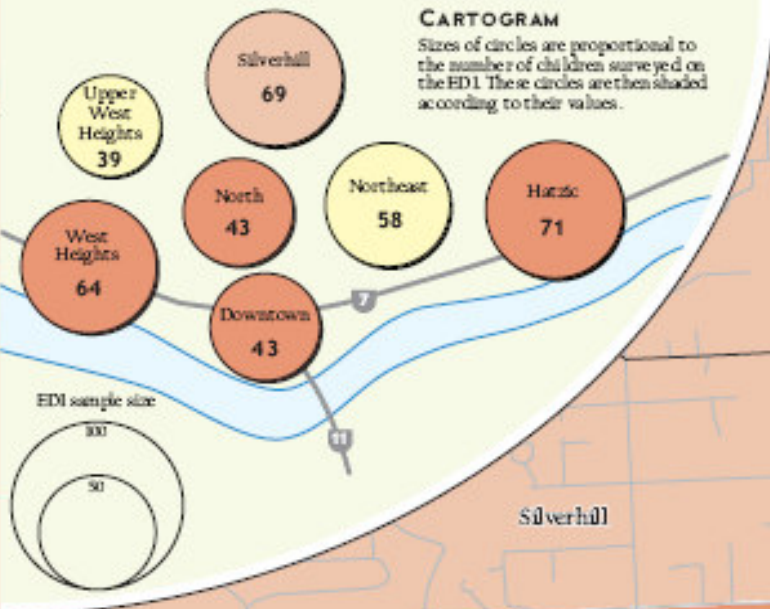
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# Communication Skills and General Knowledge

- Measures the ability to clearly communicate one's own needs and understand others; clear articulation; active participation in story-telling (not necessarily with good grammar and syntax); and interest in and general knowledge about the world.
- Some community factors that may impact this domain are: proportion of the population that speaks English as a second language; and access to rich oral language environments.

### CARTOGRAM

Sizes of circles are proportional to the number of children surveyed on the EDI. These circles are then shaded according to their values.



## Mission School District 75

### Communication Skills & General Knowledge Wave 2

Average Score

Wave 1	Wave 2	Chg	
7.28	▲ 7.61	0.32	Northeast
7.00	▲ 7.40	0.40	Upper West Heights
7.51	▼ 7.27	-0.23	Silverhill
7.23	▼ 6.87	-0.35	West Heights
7.13	▼ 6.61	-0.52	North
7.16	▼ 6.59	-0.57	Hatzic
7.14	▼ 6.53	-0.61	Downtown

#### ARROWS

Arrows indicate neighborhoods where score classification has changed between Waves.

#### DARK BOXES

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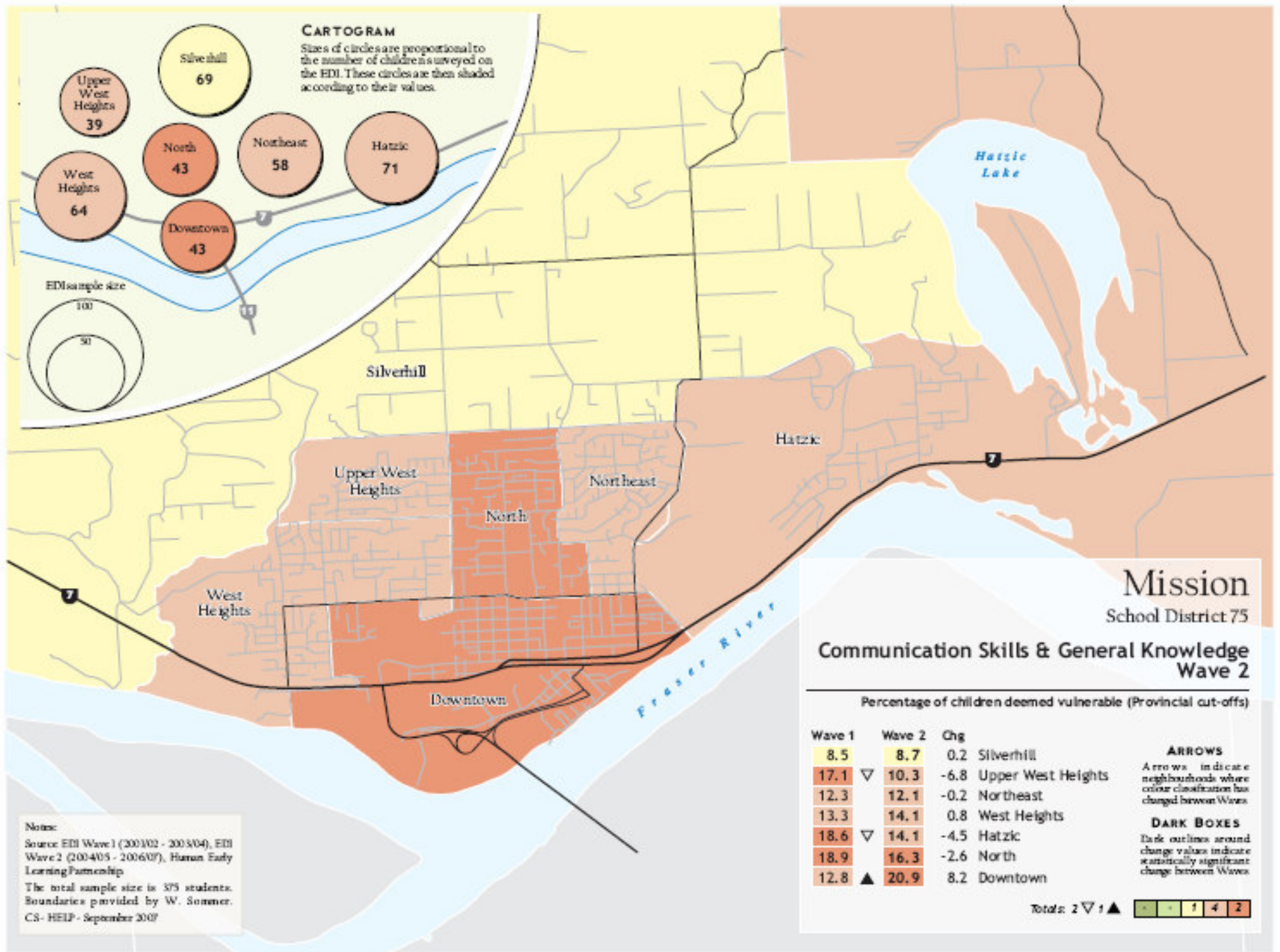
Totals: 2 ▲ 5 ▼ 2 1 4

#### Notes:

Source: EDI Wave 1 (2003/02 - 2003/04), EDI Wave 2 (2004/05 - 2006/07), Human Early Learning Partnership

The total sample size is 375 students. Boundaries provided by W. Sommer.

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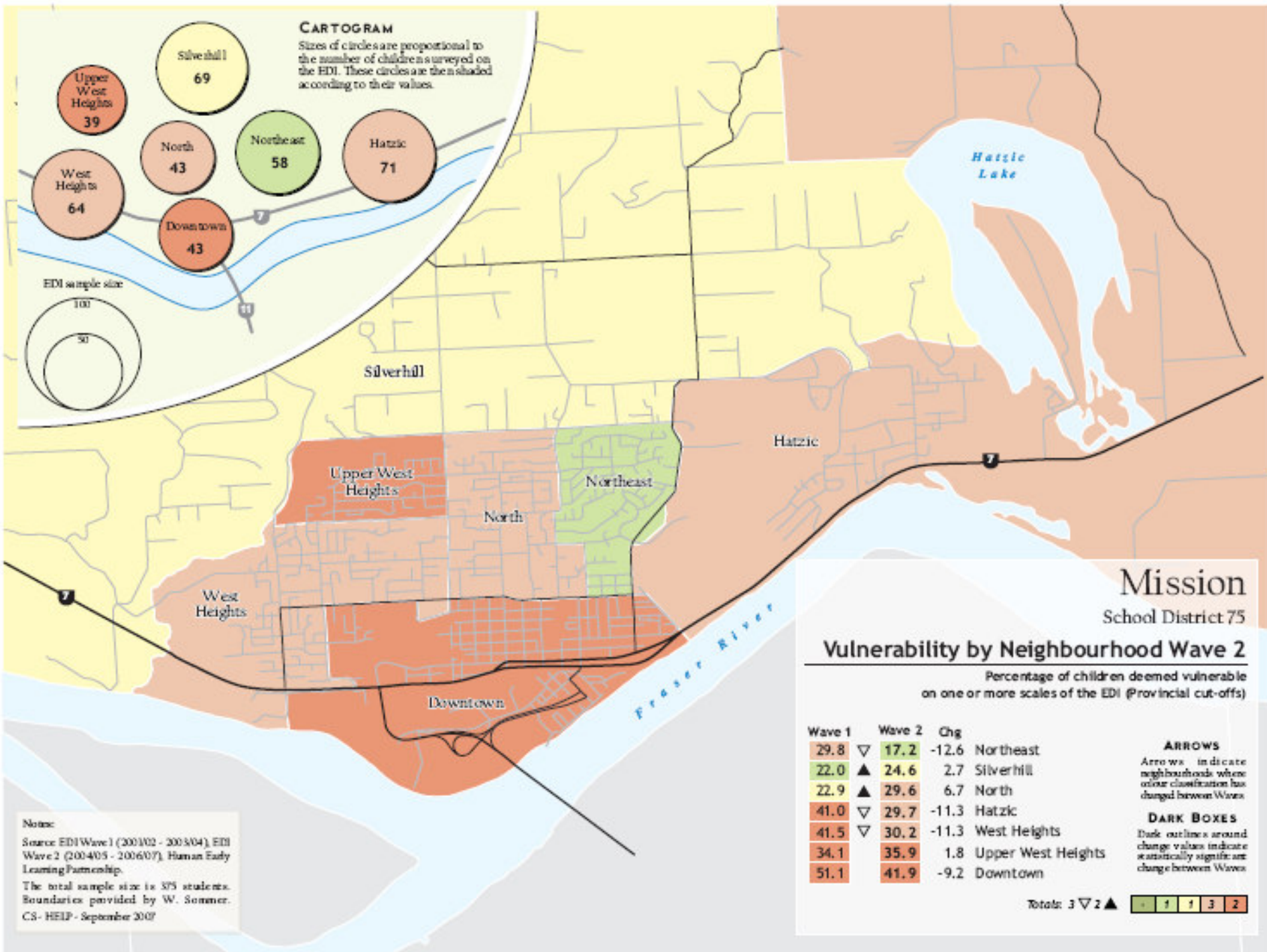
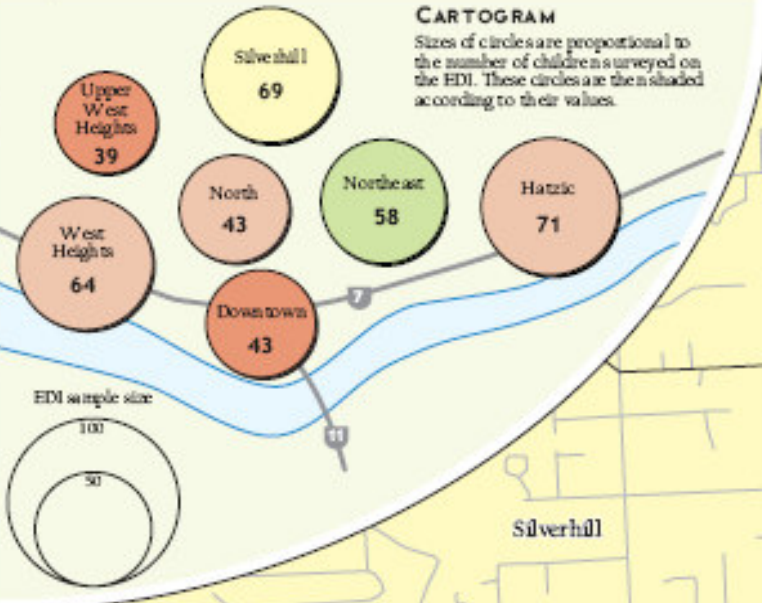


# Neighbourhood Vulnerability on One or More Scales

- This is where Mission is ranked provincially against the normative data set.
- We have moved up one quintile from light red to yellow and are one of a few districts to improve overall.

**CARTOGRAM**

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**Mission**  
 School District 75  
**Vulnerability by Neighbourhood Wave 2**

Percentage of children deemed vulnerable on one or more scales of the EDI (Provincial cut-offs)

Wave 1	Wave 2	Chg	Neighbourhood
29.8	17.2	-12.6	Northeast
22.0	24.6	2.7	Silverhill
22.9	29.6	6.7	North
41.0	29.7	-11.3	Hatzic
41.5	30.2	-11.3	West Heights
34.1	35.9	1.8	Upper West Heights
51.1	41.9	-9.2	Downtown

**ARROWS**  
 Arrows indicate neighbourhoods where color classification has changed between Waves.

**DARK BOXES**  
 Dark outlines around change values indicate statistically significant change between Waves.

Totals: 3 ▽ 2 ▲

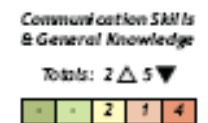
# Mission

School District 75

## Summary Table: Average Scores

	Number of Children Sampled			Physical Health and Well-Being			Social Competence			Emotional Maturity			Language and Cognitive Development			Communication Skills and General Knowledge			
	W1	W2	Chg	Wave 1	Wave 2	Change	Wave 1	Wave 2	Change	Wave 1	Wave 2	Change	Wave 1	Wave 2	Change	Wave 1	Wave 2	Change	
Northeast	57	58	+1	8.73	8.73	0.00	7.63	8.48	0.85	7.92	8.40	0.48	7.50	8.46	0.96	7.28	7.61	0.32	Northeast
Silverhill	82	69	-13	8.68	8.75	0.07	8.55	8.00	-0.55	7.99	7.98	-0.01	7.92	8.38	0.46	7.51	7.27	-0.23	Silverhill
Hatzic	70	71	+1	8.54	7.92	-0.62	8.32	8.08	-0.25	7.98	7.76	-0.22	8.56	8.33	-0.23	7.16	6.59	-0.57	Hatzic
West Heights	83	64	-19	8.64	8.50	-0.15	7.98	8.35	0.37	7.62	7.27	-0.35	7.27	7.23	-0.04	7.23	6.87	-0.35	West Heights
North	53	43	-10	8.42	8.42	0.00	7.97	8.05	0.08	7.67	8.09	0.43	7.40	8.26	0.86	7.13	6.61	-0.52	North
Upper West Heights	41	39	-2	8.17	8.33	0.16	7.98	7.68	-0.30	7.96	7.31	-0.65	7.34	8.14	0.80	7.00	7.40	0.40	Upper West Heights
Downtown	47	43	-4	8.03	8.38	0.35	7.53	8.52	0.99	7.57	7.56	-0.02	7.31	8.19	0.88	7.14	6.53	-0.61	Downtown

Dark outlines indicate neighbourhoods with statistically significant change between Waves.



Note: Data sorted by the percentage of children vulnerable on one or more scales (Wave 2), see next page.

Notes:

Source: EDI Wave 1 (2001/02 - 2003/04), EDI Wave 2 (2004/05 - 2006/07), Human Early Learning Partnership.

The total sample size is 375 students. Boundaries provided by W. Sommer.

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# Mission

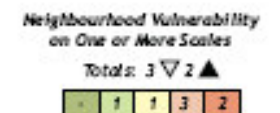
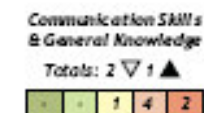
School District 75

## Summary Table: Percent Vulnerable

	Physical Health and Well-Being			Social Competence			Emotional Maturity			Language and Cognitive Development			Communication Skills and General Knowledge			Neighbourhood Vulnerability on One or More Scales			
	Wave 1	Wave 2	Change	Wave 1	Wave 2	Change	Wave 1	Wave 2	Change	Wave 1	Wave 2	Change	Wave 1	Wave 2	Change	Wave 1	Wave 2	Change	
Northeast	7.0	5.2	-1.8	21.1	10.3	-10.7	3.5	6.9	3.4	15.8	6.9	-8.9	12.3	12.1	-0.2	29.8	17.2	-12.6	Northeast
Silverhill	6.1	5.8	-0.3	4.9	10.1	5.3	8.8	11.6	2.8	12.5	4.3	-8.2	8.5	8.7	0.2	22.0	24.6	2.7	Silverhill
Hatzic	11.4	14.1	2.7	n/a	16.9	n/a	16.2	14.1	-2.1	8.6	8.5	-0.1	18.6	14.1	-4.5	22.9	29.6	6.7	Hatzic
West Heights	12.0	6.3	-5.8	12.0	9.4	-2.7	19.5	18.8	-0.8	21.7	20.3	-1.4	13.3	14.1	0.8	41.0	29.7	-11.3	West Heights
North	17.6	2.3	-15.3	24.5	14.0	-10.6	15.4	4.8	-10.6	18.9	2.3	-16.5	18.9	16.3	-2.6	41.5	30.2	-11.3	North
Upper West Heights	17.1	10.3	-6.8	n/a	25.6	n/a	10.3	20.5	10.3	19.5	2.6	-16.9	17.1	10.3	-6.8	34.1	35.9	1.8	Upper West Heights
Downtown	36.2	14.0	-22.2	25.5	11.6	-13.9	23.4	18.6	-4.8	19.6	4.7	-14.9	12.8	20.9	8.2	51.1	41.9	-9.2	Downtown

Dark outlines indicate neighbourhood with statistically significant change between Waves.

Sorted by



### Province-wide Vulnerability Cut-offs:

EDI Scale	Cut-off Value
Physical Health and Well-being	6.92
Social Competence	5.58
Emotional Maturity	5.83
Language and Cognitive Development	5.38
Communication and General Knowledge	3.89

### Notes:

Source: EDI Wave 1 (2001/02 - 2003/04), EDI Wave 2 (2004/05 - 2006/07), Human Early Learning Partnership.

The total sample size is 375 students. Boundaries provided by W. Sommer.

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# Implications for Community Planning

- These results can be used as one tool to guide planning for families but must be considered within the context of changing socio-economic conditions.
- Vulnerabilities exist in all neighbourhoods and across all domains – there is no one neighbourhood that has either the most or the least children vulnerable across each of the scales.
- Overall the results within Mission indicate considerable disparity or difference between neighbourhoods and domains of development, reflecting that children within the district have had disparate qualities of experience before school entry. These are the “differences that make a difference” to children’s futures. Often this disparity increases with increasing urbanization. Questions of affordable housing, transportation and equal access to services should be considered.

# Implications for Community Planning continued...

- Mission is in the mid range of vulnerability provincially and overall vulnerability decreased between Wave 1 and Wave 2.
- All domains of development had a decrease in vulnerability from Wave 1 to Wave 2.
- Although, Downtown had nearly 42% of children vulnerable, it had a decrease in vulnerability across all domains of development.

# Implications for Community Planning continued...

- All areas still had at least 15% of children within the vulnerable range.
- Both the highest proportion of vulnerability and the smallest decrease in vulnerability was on the Emotional Maturity domain.
- The lowest proportion of children vulnerable and the largest decrease in vulnerability was on the Language and Cognitive Development domain.