

Equity and the Statistics

Looking at Data to Drive Decisions for
Equity

Data as a Tool

- Data is benign, it is neither good nor evil but the way it is articulated can create a sense of good or evil. One of the biggest challenges in using data is the mistrust with which people view data. As Bracey (2007) comments:
When I served as director of research and evaluation for a school system, I noticed some people, notably some principals, tended to avoid me. I soon realized why: They were the district's insecure principals and I was the guy with the data. I could make them look bad. It didn't occur to them that data could make them look good, too. (p. 1)
- Creighton (2007) stated that: "Too many of our school leaders make decisions based on "informed intuition." Meaningful information can be gained only from a proper analysis of data" (p. 11).

Using the Data

- ◉ What Data do we have?
- ◉ What is that data telling us?
- ◉ What more data do we require?
- ◉ How does that data change practice?

The Research

- ✓ **The Japanese eat very little fat and suffer fewer heart attacks than do the British or Americans.**
- ✓ **The Mexicans eat a lot of fat and suffer fewer heart attacks than do the British or Americans.**
- ✓ **The Japanese drink very little red wine and suffer fewer heart attacks than do the British or Americans.**
- ✓ **The Italians drink excessive amounts of red wine and suffer fewer heart attacks than do the British or Americans.**
- ✓ **The Germans drink a lot of beer and eat lots of sausages and fats and suffer fewer heart attacks than do the British and Americans.**

Conclusion

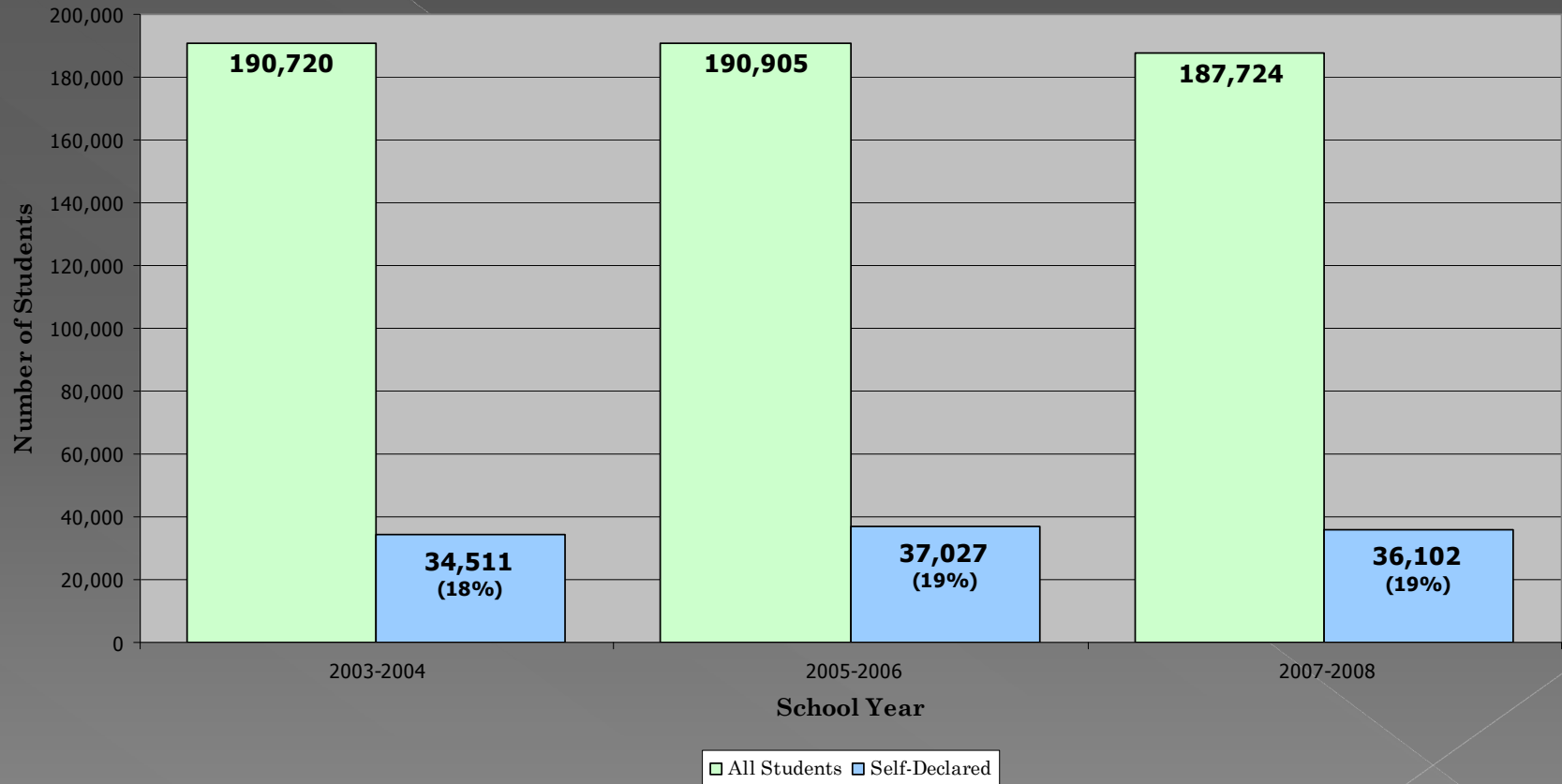
Eat and drink what you like.

**Apparently speaking English is what
kills you!**

Scott Tunison – Presentation at Principals' Short Course July 2008

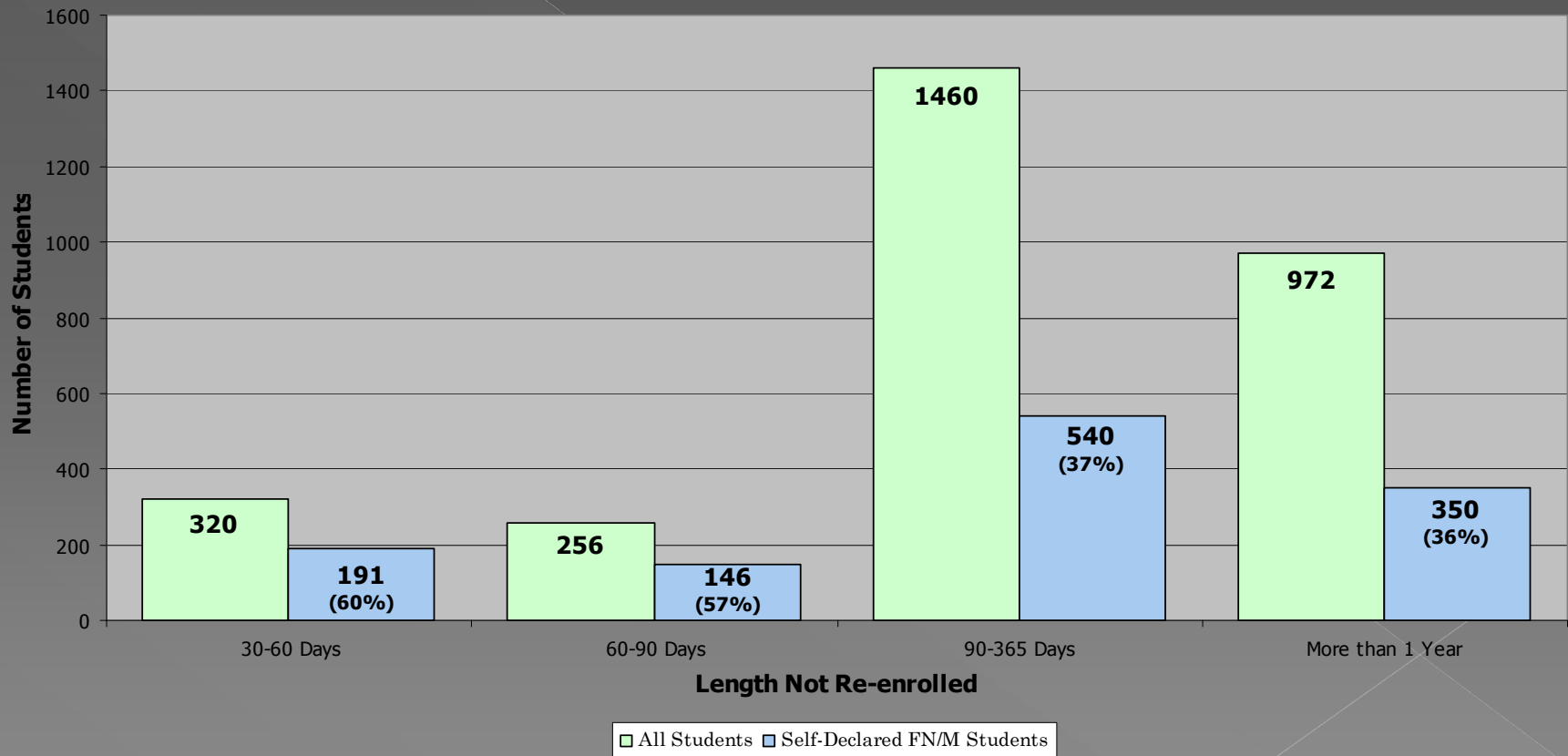
The Saskatchewan Picture

Figure 1: Saskatchewan Student Enrolment Total and Self-Declared, 2003-2008



The Saskatchewan Picture

**Figure 2:
Students Not Re-enrolled For More Than 30 Days, December 2007**



The Saskatchewan Picture

Figure 3: Provincial and Self-Declared Average Marks for the 2006-07 School Year

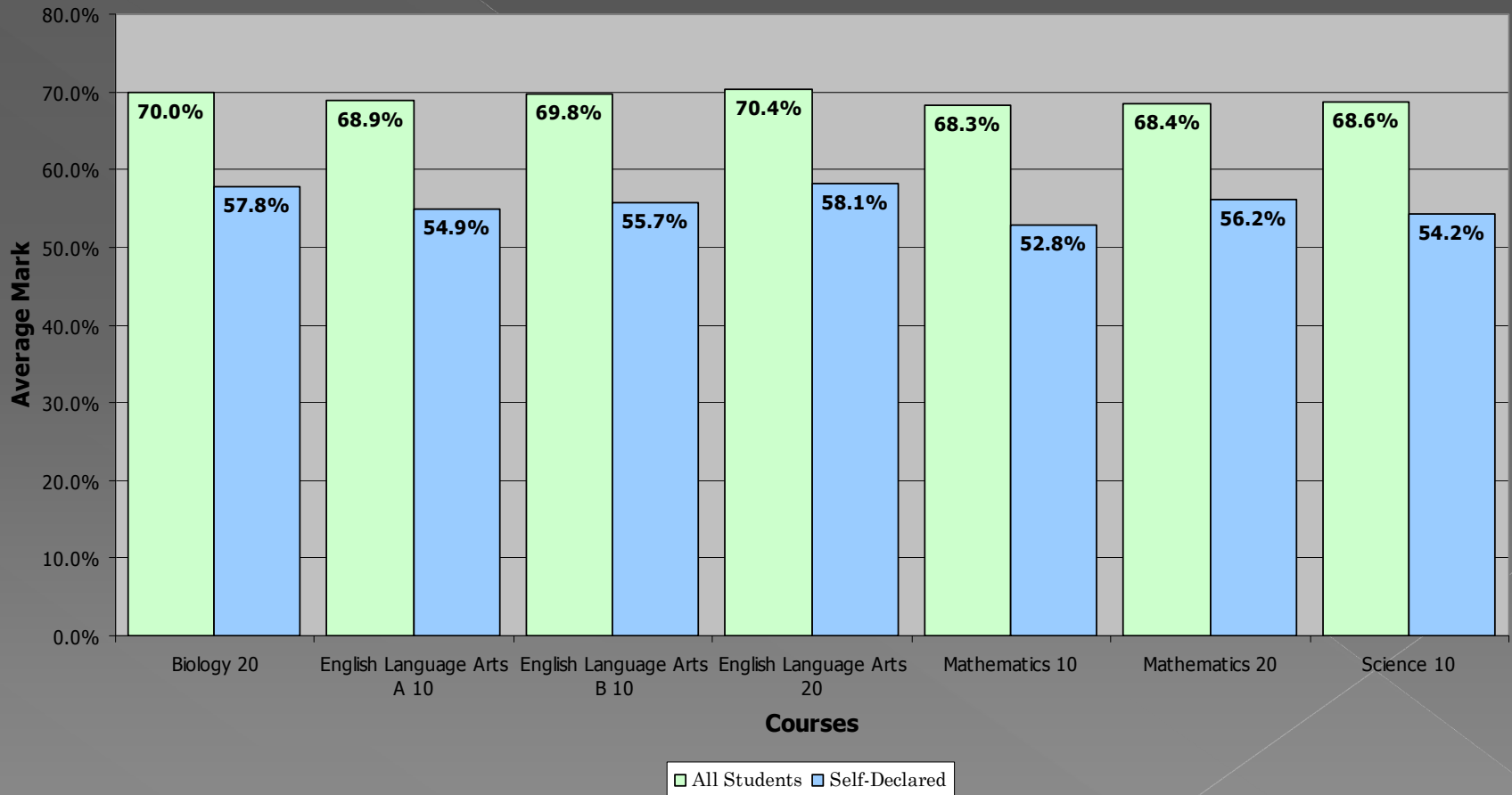
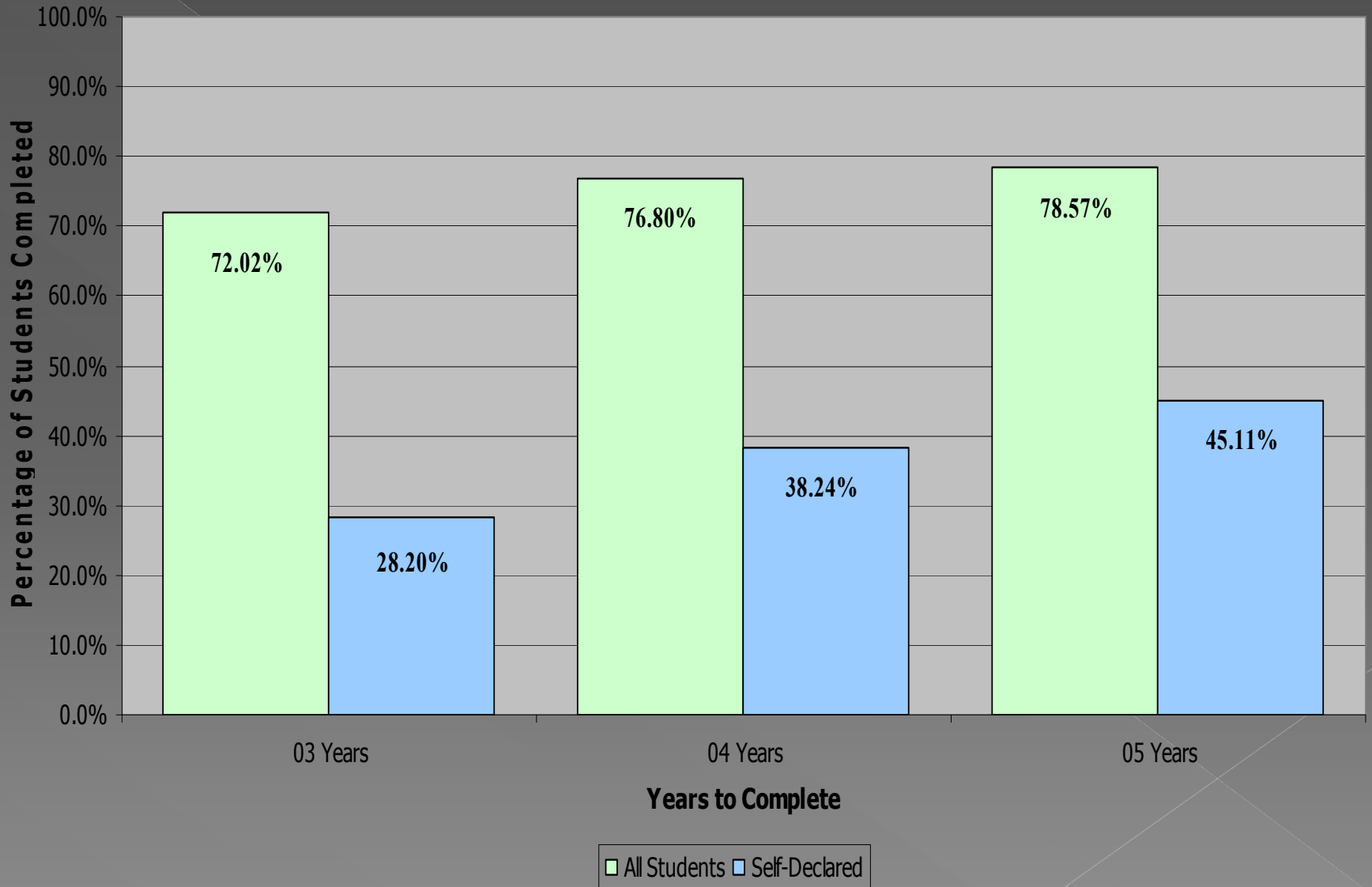
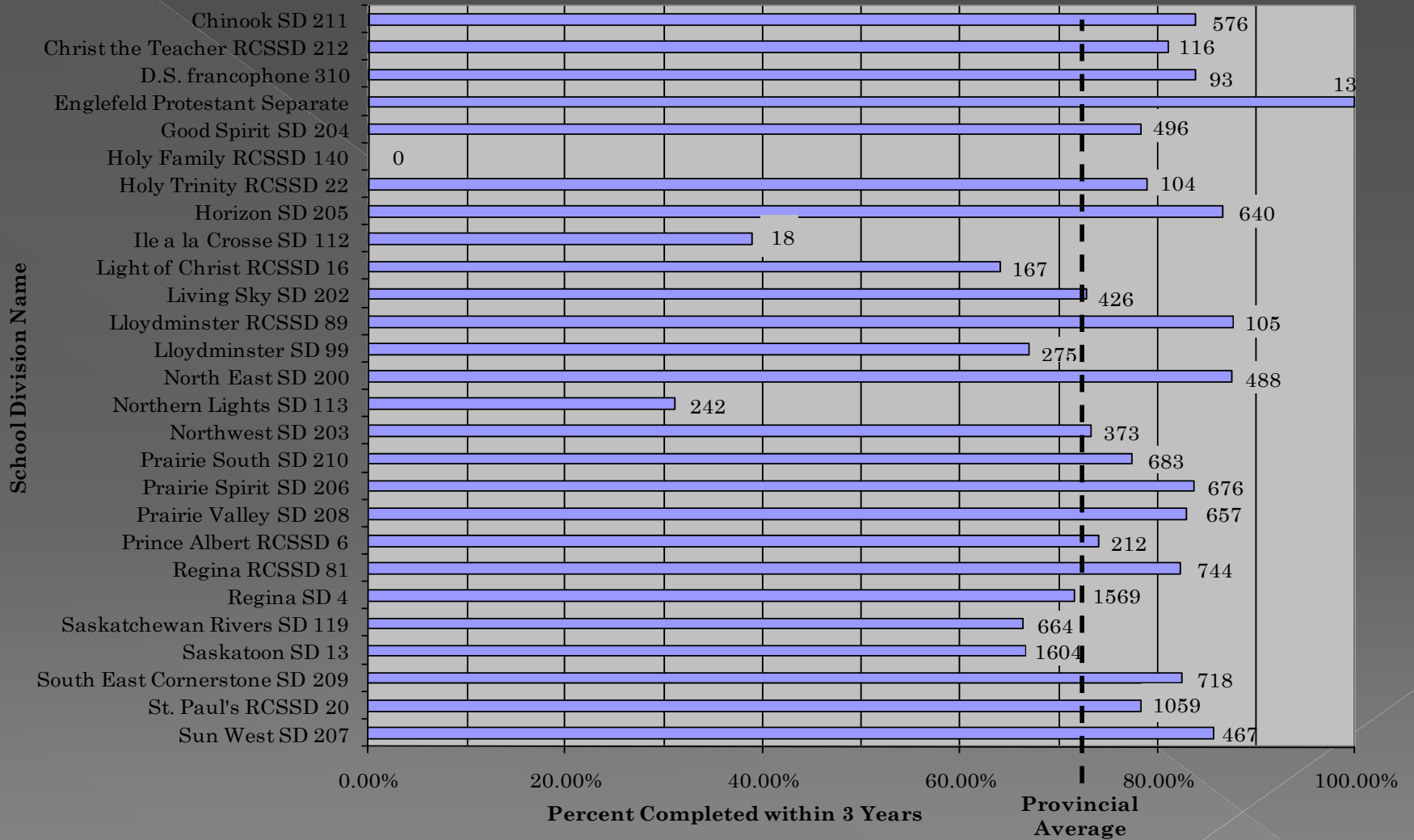


Figure 4: Persistence of Saskatchewan Students Completing Grade 12 by Years After Starting Grade 10 in the 2002-03 School Year

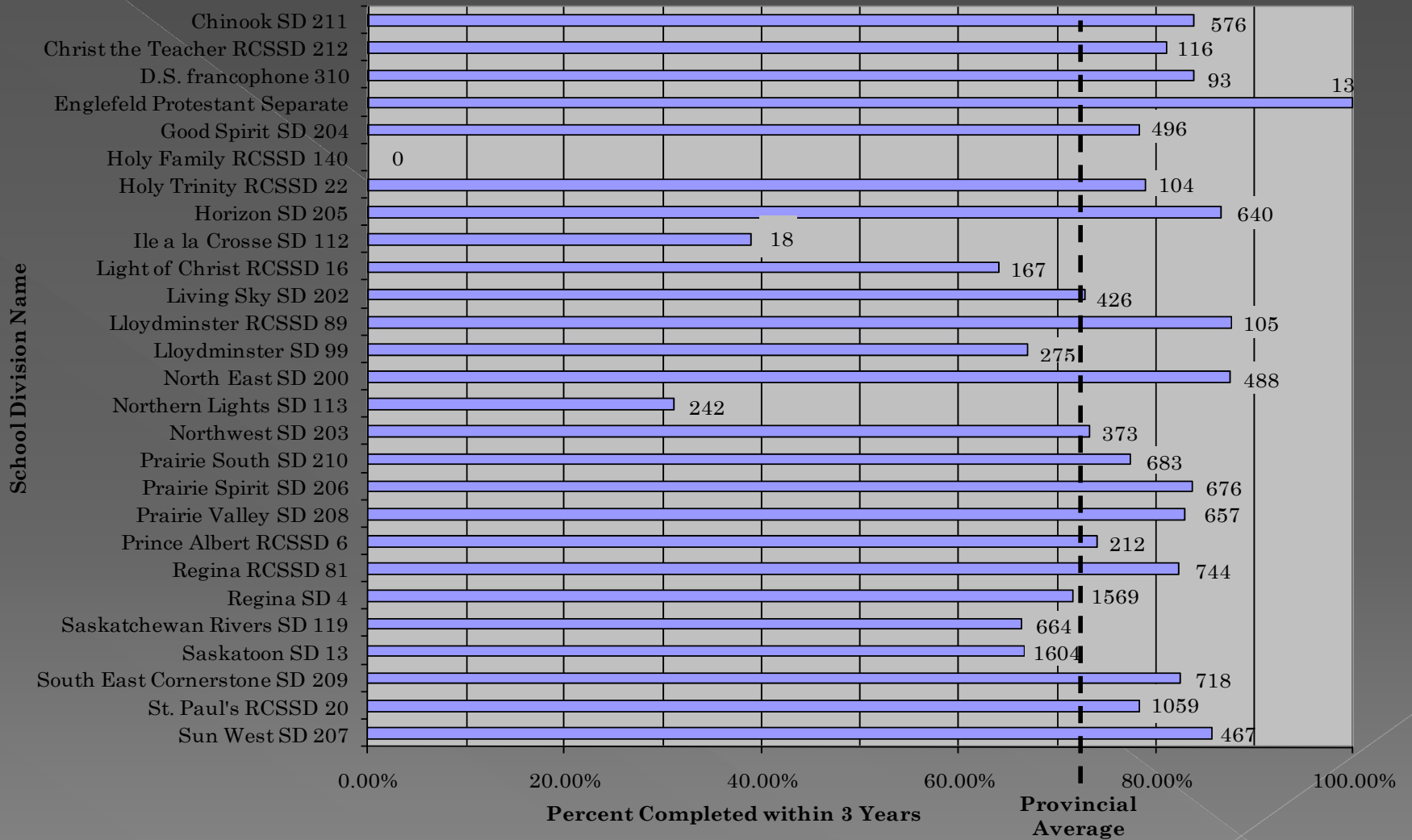


**Figure 5 - Persistence to Complete within 3 Years by School Division (2004/05 to 2006/07)
 Percentage of Grade 10 Cohort that Graduate**



Provincial Average - includes publicly funded schools, First Nation schools, and Independent schools. (Cohort = 14,543)

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					Self Declared Status Composition 2007-2008				
Grade	2006-2007		2007-2008		Inuit	Métis	Non-Status Indian	Treaty/ Registered Indian	Total
	All Students	Self Declared FN/M	All Students	Self Declared FN/M					
Pre K 3	280	45	243	65	0	7	3	55	65
Pre K 4	3105	954	3095	1013	2	126	23	862	1013
K	12282	1890	11934	1747	3	366	81	1297	1747
1	12625	2279	12944	2152	2	469	76	1605	2152
2	12692	2280	12515	2121	3	447	124	1547	2121
3	12650	2361	12790	2241	1	539	139	1562	2241
4	12749	2421	12858	2431	3	534	211	1683	2431
5	13309	2566	12981	2432	7	565	215	1645	2432
6	13392	2631	13528	2627	4	575	221	1827	2627
7	14082	2833	13827	2762	5	651	220	1886	2762
8	14337	2810	14225	2829	4	669	223	1933	2829
9	15352	3181	15357	3259	7	778	287	2187	3259
10	17648	4287	17452	4320	11	1048	331	2930	4320
11	16032	2886	15266	2609	5	703	225	1676	2609
12	20919	3774	19415	3694	11	896	492	2295	3694
Total	191454	37198	188430	36302	68	8373	2871	24990	36302

SDS Data - Jan 17, 2008

Ministry of Education

SDS Dec 2007

All Schools

Figure 8 - Persistence of All Students

Percent of Students Graduated

Grade 10 Start Year	3 Years	4 Years	5 Years	6 Years	7 Years	8+ Years	Total Graduated	Not Enrolled	Still Enrolled	Total Students
1996	71.85%	4.43%	1.39%	0.69%	0.44%	1.03%	79.83%	20.03%	0.14%	13400
1997	70.17%	4.89%	1.21%	0.60%	0.45%	0.99%	78.30%	21.50%	0.21%	13931
1998	72.11%	4.08%	1.31%	0.86%	0.45%	0.79%	79.61%	20.19%	0.21%	14232
1999	72.36%	3.98%	1.21%	0.90%	0.60%	0.51%	79.57%	20.17%	0.25%	14036
2000	71.62%	4.09%	1.45%	0.89%	0.53%	0.26%	78.84%	20.79%	0.36%	14112
2001	70.85%	4.54%	1.50%	0.84%	0.51%		78.23%	21.26%	0.48%	14199
2002	72.41%	4.21%	1.61%	0.73%			78.95%	20.09%	0.95%	13510
2003	73.17%	4.11%	1.58%				78.86%	19.41%	1.67%	13701
2004	73.35%	3.56%					76.91%	19.68%	3.38%	13788
2005	74.58%						74.58%	16.76%	8.62%	13475

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Figure 11: Grade 4 Reading - Percentage of Students Achieving *Proficient* Outcomes, 2007

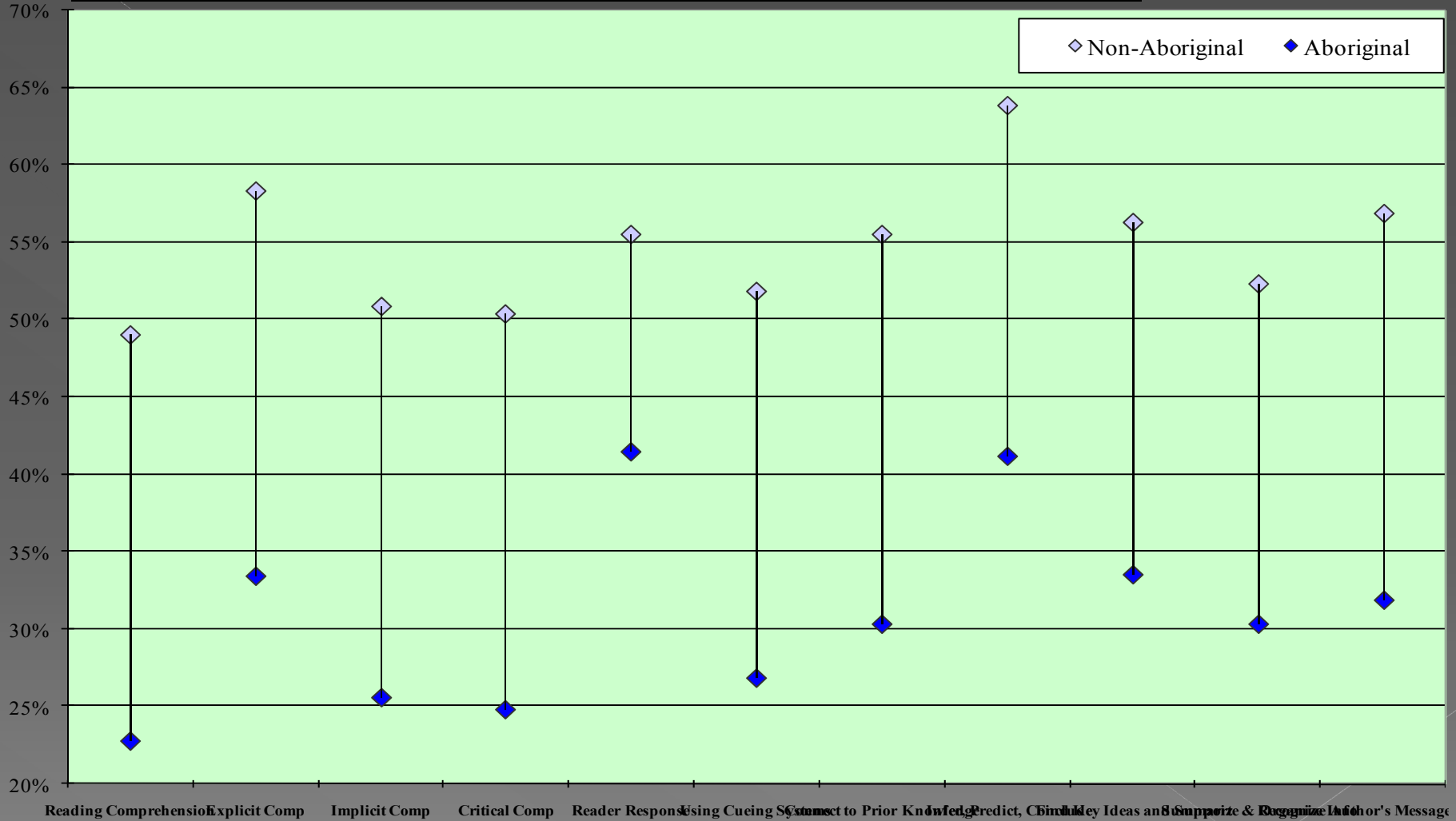


Figure 12: Grade 8 Mathematics - Percentage of Students Achieving *Adequate* Outcomes, 2007

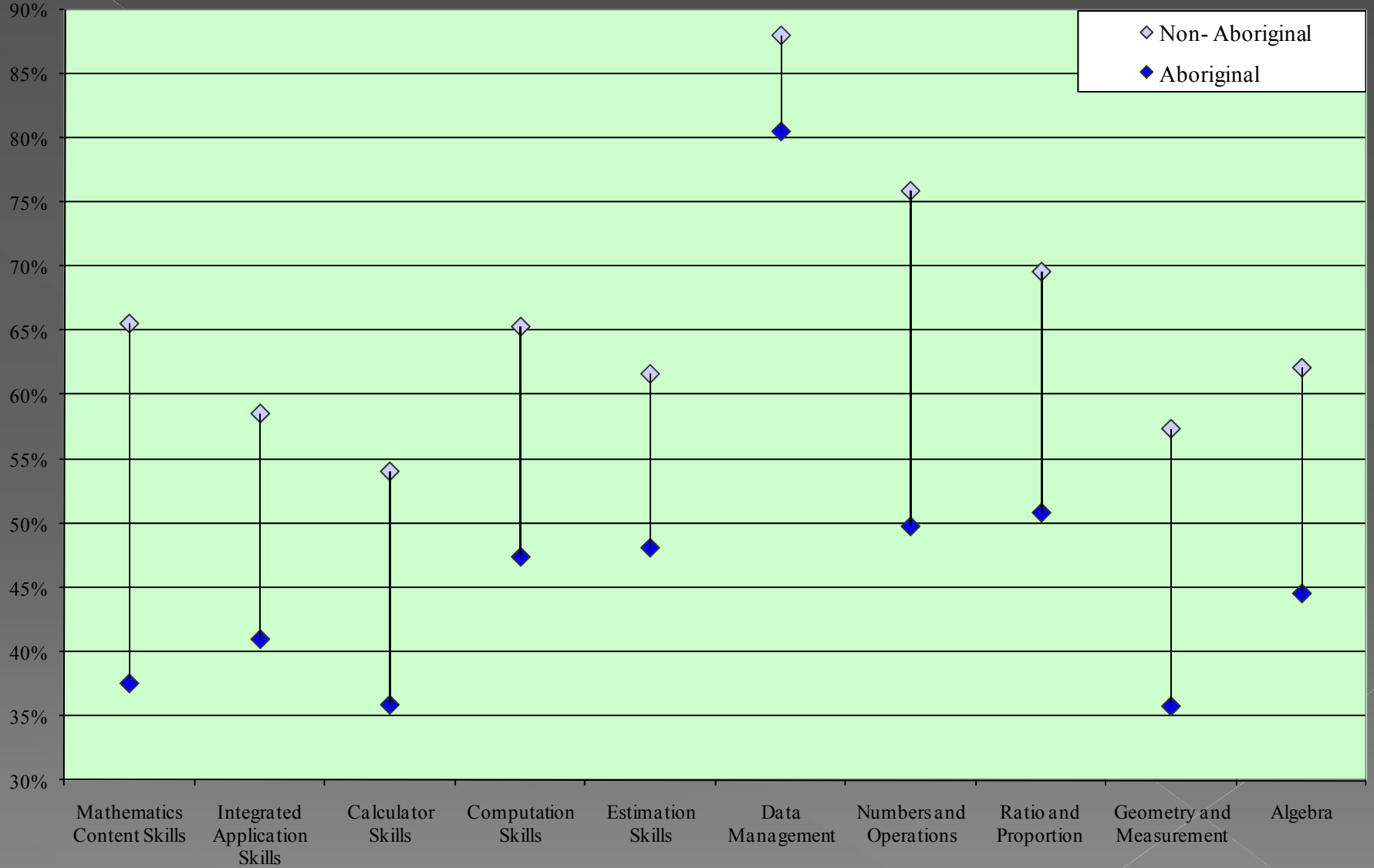


Figure 13: Opportunity to Learn Measures and the Percentage of Students Achieving Standards, 2007 Assessments

Opportunity to Learn - Grade 4 Reading

Percent Achieving Excellent Standard	Province	Male	Female	Aboriginal	Non-Aboriginal
Preparation and Commitment	31%	27%	36%	17%	34%
Knowledge and Use of Reading Strategies	33%	31%	35%	31%	34%
Home Support of Reading	41%	37%	45%	32%	43%
Percent Achieving Sufficient Standard					
Preparation and Commitment	87%	85%	89%	76%	90%
Knowledge and Use of Reading Strategies	71%	69%	73%	68%	72%
Home Support of Reading	82%	80%	84%	75%	84%

Opportunity to Learn - Grade 8 Mathematics

Percent Achieving Excellent Standard	Province	Male	Female	Aboriginal	Non-Aboriginal
Preparation and Commitment	18%	16%	20%	10%	20%
Persistence to Solve Difficult Problems	26%	23%	29%	18%	28%
Home Support of Learning	33%	30%	36%	25%	35%
Home Support of Math	34%	34%	34%	31%	35%
Percent Achieving Sufficient Standard					
Preparation and Commitment	58%	55%	62%	46%	62%
Persistence to Solve Difficult Problems	74%	71%	77%	65%	77%
Home Support of Learning	76%	75%	77%	68%	78%
Home Support of Math	68%	68%	68%	64%	69%

* Numbers in red (green) indicate that proportions were significantly lower (higher) than the provincial average

The Caswell Triangle

School-wide Interventions (Base)

- Inclusive Practices
- Differentiated Instruction
- Developing Independence
- Assistive Technology
- Assessment-based Early, On-going Intervention

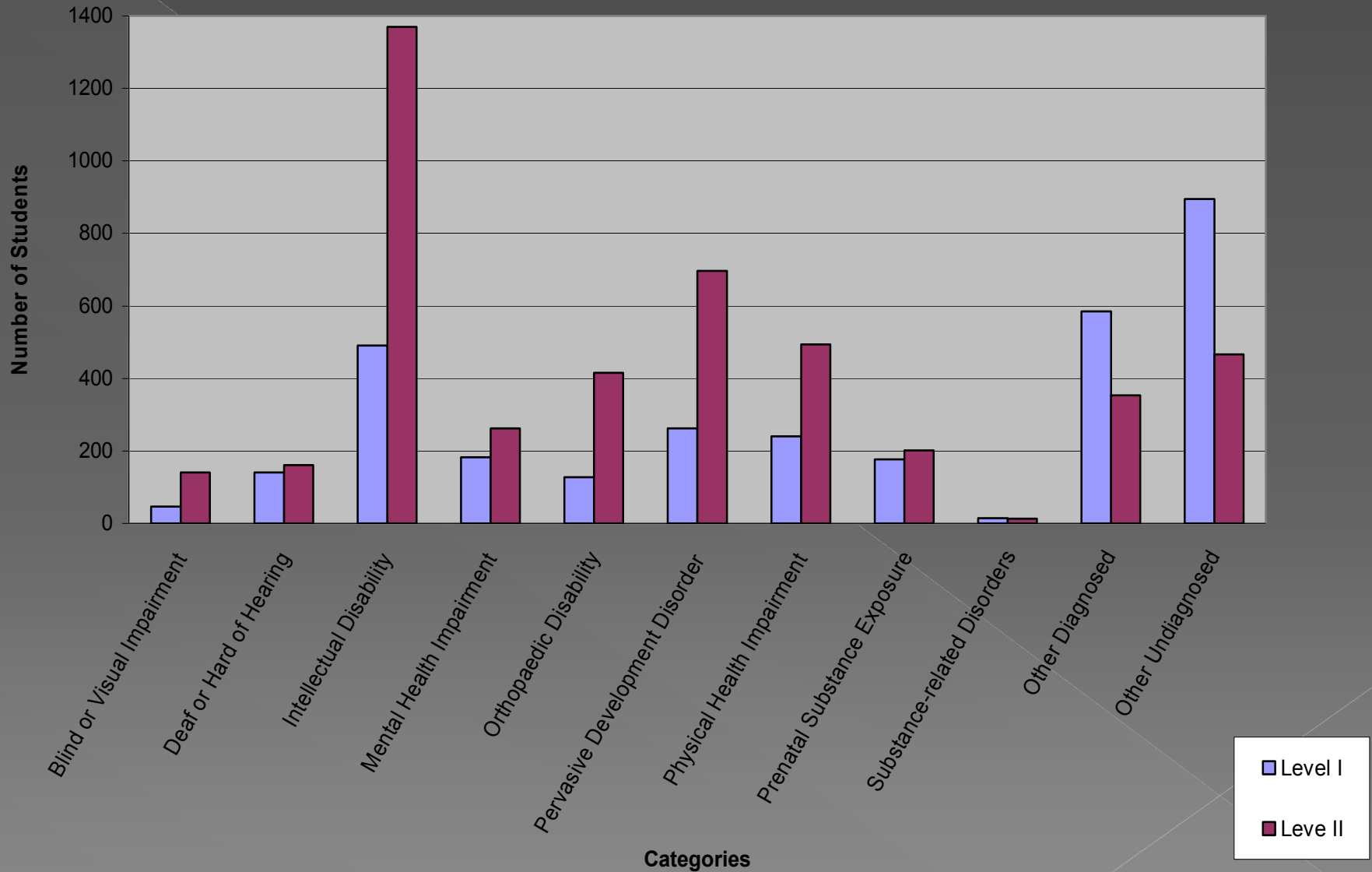
Targeted/Group Interventions (Diversity)

- Record of Adaptations
- Parental Engagement
- Multi-Disciplinary Team

Intensive Individual Interventions (Intensive Support)

- Assessed Areas of Needs
- Supports to Address Needs
- Priority Areas of Impact
- Personal Program Plan

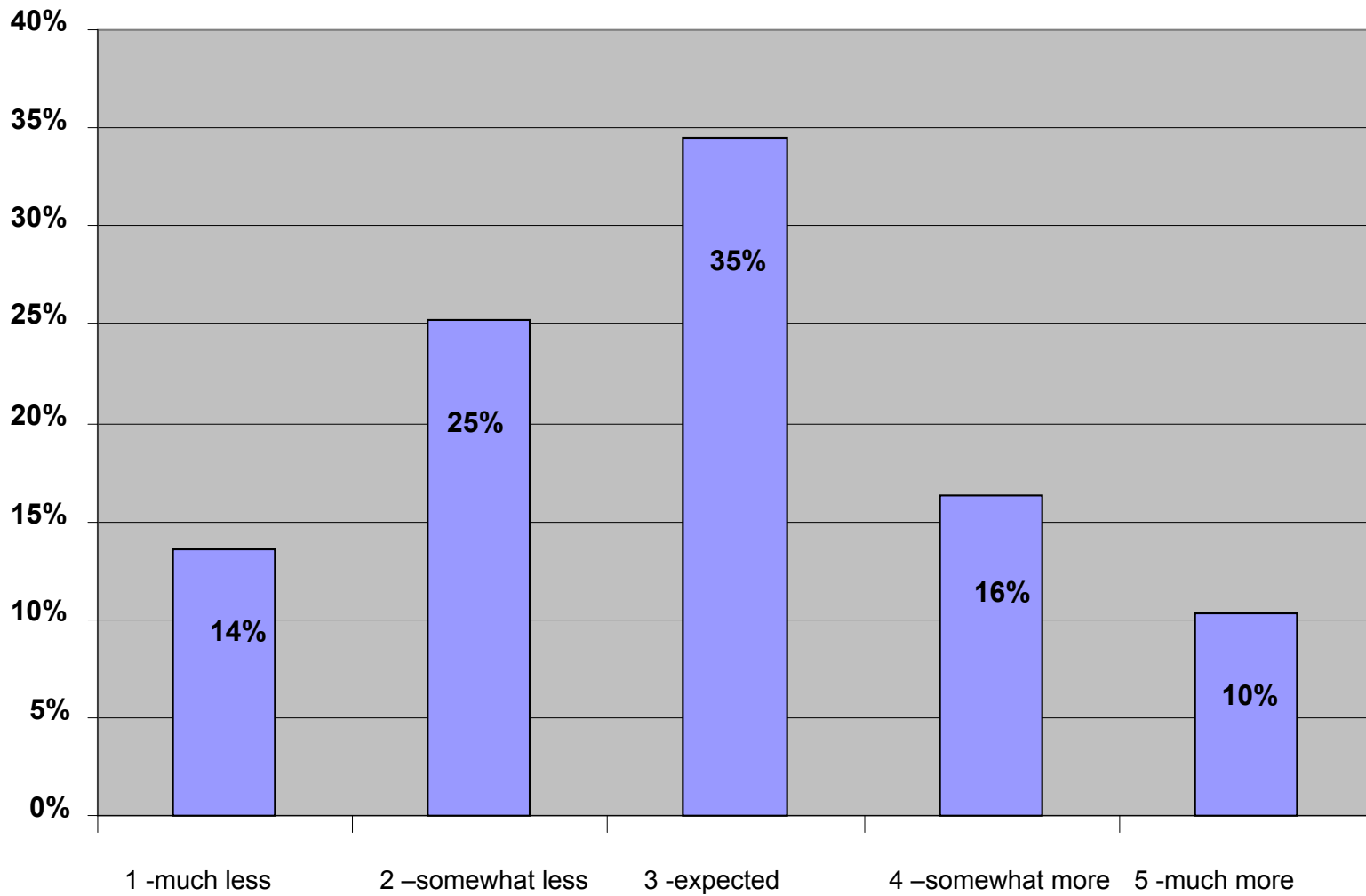
SASKATCHEWAN 2007-2008 Impact Assessment Prevalance Categories



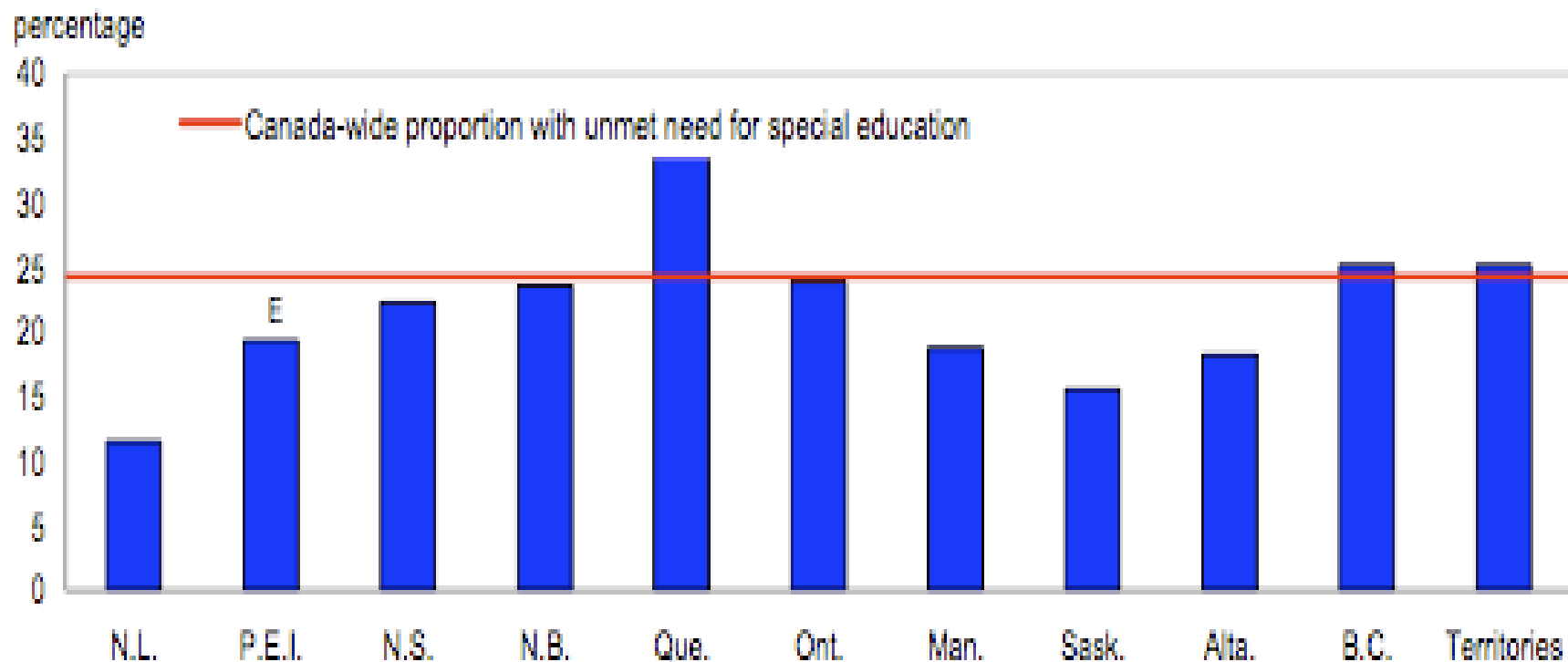
2007-2008 Saskatchewan Staffing Profile

<u>Position</u>	<u>Staff Numbers</u>
Classroom Teachers	9637
Education/Teacher Assistants	3603
Special Education Teachers	952
Counsellors	135
Speech Language Pathologists	98
Social Workers	72
Psychologists	65
Coordinators	46
Consultants	46
Superintendents of Student Services	20
Occupational Therapists	18
Physical Therapists	1
Other	162

Saskatchewan Student Outcome Rubrics
Level of Attainment
2007-2008



Proportion of children with disabilities aged 5 to 14 with unmet needs for special education, by province and territories, 2006

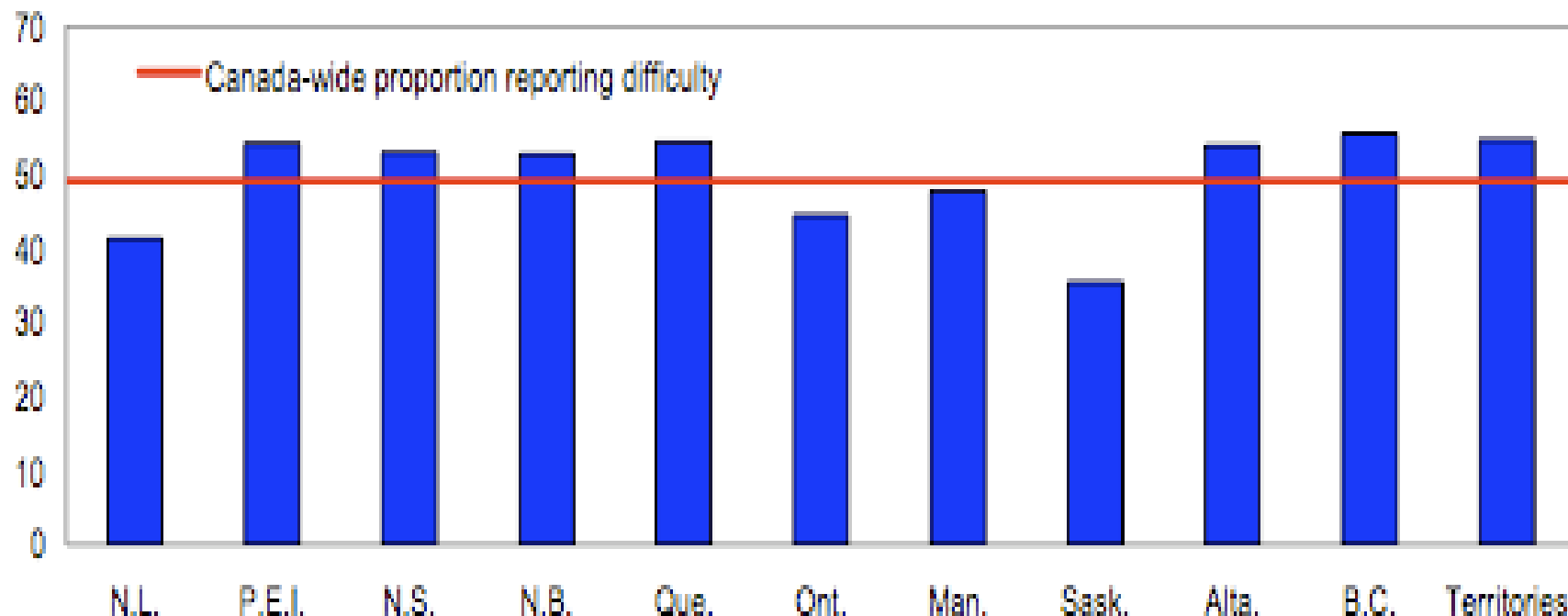


Note: coefficient of variation of estimate between 16.6% and 33.3%.

Source: Statistics Canada, Participation and Activity Limitation Survey, 2006.

Proportion of children with disabilities aged 5 to 14 whose parents reported difficulty obtaining special education, by province and territories, 2006

percentage



Source: Statistics Canada, *Participation and Activity Limitation Survey, 2006*.

Eliminating the gap...

- It is easy to state that we are going to eliminate the achievement gap for any cohort that may be achieving at lower levels than the majority however, as stated by Barton (2007) “An ambitious goal of eliminating achievement gaps in total knowledge requires an ambitious effort to deal with the conditions and experiences that contribute to creating those gaps” (p. 73).
- In other words, if we have identified the elimination of the gap as the goal we must provide the required resources and scrutiny to ensure that we understand why there is the gap to begin with. Only then will the investment move towards a long-term sustainable solution that is based in data and that focuses on improvement.

Questions...

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