

Teacher

Supply / Demand

Province of New Brunswick

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Introduction

To the Department of Education, Province of New Brunswick:

At your request, we have prepared projections of teacher supply and demand for the province of New Brunswick for the school years 2000/2001 to 2012/2013. Principals, vice principals and non-teaching professionals are also included in the projections. We are pleased to present the results of these projections.

The purpose of these projections is to provide the Department of Education with information with respect to the required number of teachers and the expected number of new teachers in the public school system, by school district and subject area over the next 12 years.

The methods and assumptions used in the projections are described in Appendix A.

The projections are based on data received from the Department of Education including the teachers employed in the public school system as at June 2001 and projections of the student population to 2012. A summary of the teacher population at June 2001 is provided in Appendix B. A summary of the student population projections is provided in Appendix C.

Respectfully submitted,

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Section 1 – Results

The results of the projections are as follows:

Anglophone Districts

	School Year 2000-2001		School Year 2004-2005	
	Surplus/ Deficiency of Teachers	Surplus/ Deficiency of Supply Teachers	Surplus/ Deficiency of Teachers	Surplus/ Deficiency of Supply Teachers
Art Teachers	0.0	-11.5	-10.1	-14.2
Elementary Teachers (K-5 English)	0.0	-48.9	-41.8	-129.9
Elementary Teachers (K-5 Immersion)	0.0	-13.9	7.7	-17.4
Elementary Teachers (6-8 English)	0.0	-16.9	-34.9	-66.4
Elementary Teachers (6-8 Immersion)	0.0	-7.3	-6.9	-25.4
French (Second Language)	0.0	-29.1	-10.3	-46.5
Language Arts Teachers	0.0	148.0	-3.3	39.9
Math Teachers	0.0	-26.4	-38.7	-33.9
Music Teachers	0.0	-10.2	-6.2	-14.2
Physical Education Teachers	0.0	13.1	-3.6	-3.4
Resource Teachers	0.0	-36.8	-27.3	-39.9
Science Teachers	0.0	39.1	-2.6	1.8
Technology Teachers	0.0	0.8	-12.3	-24.7
Subtotal	0.0	0.0	-190.3	-374.2
Non-Teaching Professionals	0.0	N/A	-30.8	N/A
Principals	0.0	N/A	-51.5	N/A
Vice Principals	0.0	N/A	-28.0	N/A
Subtotal	0.0	N/A	-110.3	N/A
Grand Total	0.0	0.0	-300.6	-374.2
Available New Teachers from Universities	0.0		1,069.8	

Section 1 – Results (cont'd)

Anglophone Districts

	School Year 2008-2009		School Year 2012-2013	
	Surplus/ Deficiency of Teachers	Surplus/ Deficiency of Supply Teachers	Surplus/ Deficiency of Teachers	Surplus/ Deficiency of Supply Teachers
Art Teachers	-18.5	-13.2	-25.2	-11.9
Elementary Teachers (K-5 English)	-182.2	-153.3	-333.3	-154.8
Elementary Teachers (K-5 Immersion)	-11.9	-21.1	-51.5	-32.3
Elementary Teachers (6-8 English)	-91.0	-63.5	-113.9	-55.2
Elementary Teachers (6-8 Immersion)	-16.7	-23.5	-19.4	-21.4
French (Second Language)	-37.0	-45.2	-63.5	-41.6
Language Arts Teachers	-48.4	-14.1	-58.4	-31.0
Math Teachers	-69.2	-32.5	-80.3	-29.0
Music Teachers	-10.9	-13.1	-21.5	-12.0
Physical Education Teachers	-9.5	-11.4	-18.2	-11.1
Resource Teachers	-71.2	-36.9	-105.3	-33.4
Science Teachers	-16.8	-12.6	-19.8	-15.0
Technology Teachers	-36.9	-27.3	-45.8	-24.3
Subtotal	-620.2	-467.7	-956.1	-473.0
Non-Teaching Professionals	-63.2	N/A	-78.6	N/A
Principals	-79.2	N/A	-103.9	N/A
Vice Principals	-52.0	N/A	-63.2	N/A
Subtotal	-194.4	N/A	-245.7	N/A
Grand Total	-814.6	-467.7	-1,201.8	-473.0
Available New Teachers from Universities	2,058.1		2,969.6	

Section 1 – Results (cont'd)

Francophone Districts

	School Year 2000-2001		School Year 2004-2005	
	Surplus/ Deficiency of Teachers	Surplus/ Deficiency of Supply Teachers	Surplus/ Deficiency of Teachers	Surplus/ Deficiency of Supply Teachers
Art Teachers	0.0	-1.4	0.6	-2.4
Elementary Teachers	0.0	-31.0	-32.8	-128.0
English (Second Language)	0.0	6.7	-5.1	-0.2
Language Arts Teachers	0.0	34.4	-1.2	9.6
Math Teachers	0.0	-12.5	-6.8	-16.6
Music Teachers	0.0	-5.9	-0.9	-6.5
Physical Education Teachers	0.0	17.3	-0.7	8.9
Resource Teachers	0.0	-8.6	-0.7	-13.1
Science Teachers	0.0	6.4	-3.5	-3.4
Technology Teachers	0.0	-5.4	-5.6	-10.2
Subtotal	0.0	0.0	-56.7	-161.9
Non-Teaching Professionals	0.0	N/A	-7.8	N/A
Principals	0.0	N/A	-24.4	N/A
Vice Principals	0.0	N/A	-6.9	N/A
Subtotal	0.0	N/A	-39.1	N/A
Grand Total	0.0	0.0	-95.8	-161.9
Available New Teachers from Universities	0.0		302.2	

Section 1 – Results (cont'd)

Francophone Districts

	School Year 2008-2009		School Year 2012-2013	
	Surplus/ Deficiency of Teachers	Surplus/ Deficiency of Supply Teachers	Surplus/ Deficiency of Teachers	Surplus/ Deficiency of Supply Teachers
Art Teachers	0.0	-2.7	0.2	-2.2
Elementary Teachers	-115.1	-135.0	-172.6	-134.5
English (Second Language)	-7.0	-3.4	-8.0	-2.7
Language Arts Teachers	-10.6	-1.2	-16.5	-4.3
Math Teachers	-15.9	-15.4	-20.6	-13.6
Music Teachers	-2.1	-6.4	-6.7	-6.6
Physical Education Teachers	-4.0	-0.6	-8.4	-5.2
Resource Teachers	-6.9	-14.7	-15.2	-15.5
Science Teachers	-5.7	-7.6	-6.1	-6.6
Technology Teachers	-23.3	-13.6	-27.7	-12.0
Subtotal	-190.6	-200.6	-281.6	-203.2
Non-Teaching Professionals	-13.6	N/A	-17.1	N/A
Principals	-33.0	N/A	-37.1	N/A
Vice Principals	-11.4	N/A	-14.0	N/A
Subtotal	-58.0	N/A	-68.2	N/A
Grand Total	-248.6	-200.6	-349.8	-203.2
Available New Teachers from Universities	611.0		895.8	

Section 2 – Sensitivity of Results to Changes in Assumptions

The results presented in Section 1 are based on a single set of assumptions as described in Appendix A. To give an indication of the results to changes in assumptions, supply and demand statistics were also determined assuming 70% of new university graduates enter the teaching profession (versus 80%) and that teachers currently in the system retire one year earlier than their earliest unreduced retirement date from the pension plan (age plus service equal 85 versus 87). A summary of the results on these bases follows:

Supply of New Graduates

	80% Enter Profession	70% Enter Profession
Anglophone Districts		
2004 – 2005	1,069.8	936.1
2008 – 2009	2,058.1	1,800.8
2012 – 2013	2,969.6	2,598.4
Francophone Districts		
2004 – 2005	302.2	264.4
2008 – 2009	611.0	534.6
2012 – 2013	895.8	783.8

Demand for Teachers (both permanent and supply)

	Retirement at Age + Service = 87	Retirement at Age + Service = 85
Anglophone Districts		
2004 – 2005	674.8	886.6
2008 – 2009	1,282.3	1,424.8
2012 – 2013	1,674.8	1,793.1
Francophone Districts		
2004 – 2005	257.7	334.4
2008 – 2009	449.2	493.0
2012 – 2013	553.0	591.9

Section 3 – Conclusions

Based on the assumptions used in the projection model, as described in Appendix A, there is expected to be sufficient graduates from New Brunswick universities to meet the demand requirements for new teachers. It will be important to encourage university students to specialize in the subject areas with the most need and, if possible, encourage teachers to certain geographic areas.

If the number of available teachers from universities is lower than assumed in the projection model, there is the potential for teacher shortages in the short term, with the impact greater in the francophone districts.

As with any projection model, it is important to update the model at regular intervals. Actual experience will inevitably deviate from the model. If the deviations become material, a new projection should be performed.

Appendix A – Projection Methods and Assumptions

The projections model for teacher supply and demand has three components:

- Supply / Demand for Permanent Teachers

- Supply / Demand for Supply Teachers

- Supply of Education Graduates from Universities

Supply / Demand for Permanent Teachers

In June 2001, the Department of Education surveyed all schools in the province of New Brunswick asking each school to confirm the teachers teaching at the school, the subjects taught by each teacher and the percentage of the full time equivalent (FTE) each subject was taught. The employment of each teacher was projected forward, with an assumed attrition rate and an assumed date of retirement from teaching.

Student populations were projected into the future by grade level and school district. The Province's projection model was used for this component. A teacher-student ratio was determined as at June 2001 for each subject taught, grade level and school district.

The number of teachers required in a school district for each grade level and subject area in any year of the projection period is then determined as the number of teachers required to maintain the student-teacher ratio for that school district, grade level and subject area at its 2001 level. If there is a deficiency in the number of teachers required compared to the number of teachers available, supply teachers are used to fill the vacancies. Any deficiencies remaining after all supply teachers have been allocated are filled with new university graduates.

Appendix A – Projection Methods and Assumptions (*cont'd*)

Supply / Demand for Supply Teachers

The Department of Education provided data on available supply teachers by school district and primary subject taught. This information was cross-referenced with the permanent teacher data to ensure that no teacher was included in both categories. The supply teachers who were not currently filling a permanent position were considered available to fill a position if one became available. As with the permanent teachers, the employment of each supply teacher was projected forward with an assumed attrition rate and an assumed date of retirement from teaching.

A teacher-supply teacher ratio was determined at June 2001 for each school district. For the purpose of determining this ratio, principals, vice-principals, and non-teaching professionals were excluded from the number of teachers as they are not replaced by supply teachers.

The number of supply teachers required in a school district and subject area is the number of supply teachers required to maintain the teacher-supply teacher ratio for each school district at its 2001 level. Any deficiencies in the number of required supply teachers are filled with the new university graduates.

Supply of Education Graduates from Universities

The universities in New Brunswick offering education programs provided estimates of the number of graduates from their programs over the projection period. An assumption is made as to the proportion of graduates who will enter the teaching profession in New Brunswick.

Appendix A – Projection Methods and Assumptions (*cont'd*)

An assumption is also made as to their attrition rate once they enter the profession. This is the only assumed method for entering the teaching profession.

Assumptions

The following assumptions are used in the projections:

Retirement Date:	End of school year when age plus service equals 87 points or age 65 (earliest unreduced retirement date from pension plan)
Attrition Rate:	2% per annum
New Graduates Who Enter the Profession:	80% of graduates

Appendix B - Summary of Teacher Population 2000 / 2001

The following table provides the number of teachers considered filling permanent positions at June 2001:

Subject	Anglophone Districts	Francophone Districts
Art	102.7	21.8
Elementary (K – 5 English)	1,414.5	n/a
Elementary (K – 5 Immersion)	373.6	n/a
Elementary (6 – 8 English)	492.9	n/a
Elementary (6 – 8 Immersion)	210.4	n/a
Elementary (French Districts)	n/a	1,183.2
Second Language	346.4	63.1
Language Arts	463.1	209.9
Math	233.3	111.4
Music	114.4	50.7
Physical Education	133.1	97.4
Resource	292.5	137.4
Science	193.2	91.1
Technology	176.4	101.3
Non-teaching Professionals	176.5	58.9
Principals	184.6	87.0
Vice Principals	121.6	50.0
Total	5,029.2	2,263.2

Appendix B - Summary of Teacher Population 2000 / 2001 (cont'd)

The following table provides the number of supply teachers available to fill permanent positions at June 2001:

Subject	Anglophone Districts	Francophone Districts
Art	3	2
Elementary	285	158
Second Language	24	17
Language Arts	215	68
Math	8	6
Music	6	3
Physical Education	34	33
Resource	7	13
Science	67	21
Technology	29	11
Total	678	332

Appendix C – Summary of Student Population Projections

The student population projection was prepared by the Department of Education based on New Brunswick census information.

The student population for selected years in the projection period is shown below:

Anglophone Districts				
	School Year 2000 – 2001	School Year 2004 – 2005	School Year 2008 – 2009	School Year 2012 - 2013
K - 5 English	30,193	26,865	23,717	22,138
K - 5 Immersion	7,957	6,907	6,076	5,841
6 - 8 English	12,491	12,150	10,880	9,448
6 - 8 Immersion	7,369	7,180	6,411	5,567
9 - 12 English	21,207	20,847	19,904	17,780
9 - 12 Immersion	7,338	7,168	6,847	6,101
Total	86,555	81,117	73,835	66,875

Francophone Districts				
	School Year 2000 – 2001	School Year 2004 – 2005	School Year 2008 – 2009	School Year 2012 - 2013
K – 8	25,399	22,988	20,296	18,570
9 – 12	12,988	11,666	10,598	9,388
Total	38,387	34,654	30,894	27,958
Grand Total	124,942	115,771	104,729	94,833

Appendix D – Summary of Education Graduates from Universities

New Brunswick universities which offer education programs have provided an estimate of new graduates to 2006. The number of new graduates from 2007 to the end of the projection period is assumed to be equal to the number of graduates in 2006. Graduates from Université de Moncton are available to meet demand of the francophone districts and graduates from University of New Brunswick, Saint Thomas University, and Atlantic Baptist University are available to meet demand in the anglophone school districts.

New graduates are assumed as follows:

	2001	2002+
Université de Moncton	67	107
University of New Brunswick	278	250
Saint Thomas University	60	65
Atlantic Baptist University	5	30

Appendix E – Detailed Results by School District

Teacher/Supply Teacher Shortages prior to Hiring New Graduates

Anglophone Districts

	2000/2001 School Year									
	2	6	8	10	14	15	16	17	18	total
Art Teachers	-1.5	-1.7	-0.7	-0.7	-1.6	-0.4	-0.8	-2.2	-1.9	-11.5
Elementary (K-5 English)	-6.6	-4.8	-5.8	-2.3	-6.7	-4.5	-0.8	-8.2	-9.2	-48.9
Elementary (K-5 Immersion)	-3.5	-1.2	-0.8	-0.2	-1.0	-2.0	-0.1	-1.8	-3.3	-13.9
Elementary (6-8 English)	-2.6	-0.8	-1.7	-0.8	-3.3	-1.7	-0.4	-2.2	-3.4	-16.9
Elementary (6-8 Immersion)	-1.6	-0.7	-0.8	-0.2	-0.6	-0.4	-0.1	-1.3	-1.6	-7.3
French (Second Language)	-2.7	-5.2	-1.6	-2.6	-6.0	-0.8	-3.8	-1.8	-4.6	-29.1
Language Art Teachers	13.0	22.2	14.7	6.9	25.6	4.9	9.2	22.5	29.0	148.0
Math Teachers	-1.8	-4.9	-2.0	-1.5	-5.0	-1.6	-0.5	-4.1	-5.0	-26.4
Music Teachers	-1.1	-2.7	-1.0	-0.8	-1.4	0.4	-1.1	-0.1	-2.4	-10.2
Physical Education Teachers	1.1	0.1	3.2	-1.2	0.8	3.6	0.1	1.9	3.5	13.1
Resources Teachers	-2.0	-4.0	-4.9	-2.4	-4.3	-1.5	-2.6	-5.2	-9.9	-36.8
Science Teachers	7.6	3.0	0.8	7.3	3.2	1.6	3.3	2.2	10.1	39.1
Technology Teachers	1.7	0.7	0.6	-1.5	0.3	2.4	-2.4	0.3	-1.3	0.8
Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non Teaching Professionals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Principals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vice Principals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grand Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Appendix E – Detailed Results by School District (*cont'd*)

**Teacher/Supply Teacher Shortages prior to
Hiring New Graduates**

Anglophone Districts

	2004/2005 School Year									
	2	6	8	10	14	15	16	17	18	Total
Art Teachers	-6.2	-2.7	-2.3	-0.9	-3.0	-0.3	-2.8	-3.1	-3.0	-24.3
Elementary (K-5 English)	-26.3	-15.2	-29.3	-2.2	-24.9	-19.7	-27.2	-5.6	-21.3	-171.7
Elementary (K-5 Immersion)	-7.8	0.6	3.8	1.3	-2.4	-6.5	0.0	0.9	0.4	-9.7
Elementary (6-8 English)	-20.0	-9.7	-10.5	-4.0	-17.5	-4.3	-10.8	-5.6	-18.9	-101.3
Elementary (6-8 Immersion)	-9.4	-3.4	-1.7	-0.3	-3.1	-0.8	-1.7	-3.7	-8.2	-32.3
French (Second Language)	-6.8	-6.6	-5.3	-3.0	-9.9	-2.0	-7.4	-5.7	-10.1	-56.8
Language Art Teachers	-12.1	10.9	-6.1	1.0	14.6	2.0	-2.2	12.7	15.8	36.6
Math Teachers	-12.8	-8.9	-12.5	-2.4	-9.8	-2.0	-4.4	-7.7	-12.1	-72.6
Music Teachers	-2.0	-3.5	-1.7	-1.1	-3.3	-0.2	-1.5	-0.4	-6.7	-20.4
Physical Education Teachers	-2.0	-0.2	0.1	-3.6	-3.7	3.4	-1.5	0.1	0.4	-7.0
Resources Teachers	-9.9	-6.7	-11.7	-2.0	-9.5	-2.4	-5.5	-5.0	-14.5	-67.2
Science Teachers	-4.0	1.7	-5.3	4.9	0.1	0.9	0.4	-3.7	4.2	-0.8
Technology Teachers	-1.7	-3.3	-6.7	-2.8	-1.6	-1.3	-6.3	-3.5	-9.8	-37.0
Subtotal	-121.0	-47.0	-89.2	-15.1	-74.0	-33.2	-70.9	-30.3	-83.8	-564.5
Non Teaching Professionals	-5.6	-2.2	-5.4	-2.7	-2.0	-2.6	-3.8	-1.2	-5.3	-30.8
Principals	-7.9	-4.7	-10.1	-1.7	-5.9	-3.0	-4.8	-6.4	-7.0	-51.5
Vice Principals	-7.9	-4.0	-4.2	-0.6	-1.5	-1.6	-1.7	-0.9	-5.6	-28.0
Subtotal	-21.4	-10.9	-19.7	-5.0	-9.4	-7.2	-10.3	-8.5	-17.9	-110.3
Grand Total	-142.4	-57.9	-108.9	-20.1	-83.4	-40.4	-81.2	-38.8	-101.7	-674.8

Appendix E – Detailed Results by School District (*cont'd*)

**Teacher/Supply Teacher Shortages prior to
Hiring New Graduates**

Anglophone Districts

	2008/2009 School Year									
	2	6	8	10	14	15	16	17	18	total
Art Teachers	-7.1	-2.6	-2.3	-0.8	-5.0	-1.2	-4.3	-3.4	-5.0	-31.7
Elementary (K-5 English)	-52.7	-37.6	-69.9	-17.3	-32.2	-31.2	-37.2	-13.1	-44.3	-335.5
Elementary (K-5 Immersion)	-16.6	-0.4	2.8	1.5	-2.4	-11.8	-1.0	0.6	-5.7	-33.0
Elementary (6-8 English)	-33.9	-14.1	-20.0	-9.5	-22.1	-8.9	-14.2	-8.4	-23.4	-154.5
Elementary (6-8 Immersion)	-14.2	-4.1	-1.4	-0.1	-4.2	-0.6	-3.9	-3.7	-8.0	-40.2
French (Second Language)	-14.5	-7.9	-5.3	-2.8	-11.8	-4.8	-11.4	-6.6	-17.1	-82.2
Language Art Teachers	-37.7	-0.9	-15.0	-0.6	1.4	-4.2	-13.7	5.6	2.6	-62.5
Math Teachers	-18.0	-10.6	-15.2	-2.5	-14.8	-5.4	-11.5	-8.3	-15.4	-101.7
Music Teachers	-2.9	-3.3	-2.5	-0.9	-4.0	-0.1	-1.4	-0.5	-8.4	-24.0
Physical Education Teachers	-5.8	-1.2	-1.3	-3.7	-5.0	0.8	-2.4	-0.7	-1.6	-20.9
Resources Teachers	-16.3	-8.5	-20.8	-5.2	-12.4	-3.6	-10.0	-8.3	-23.0	-108.1
Science Teachers	-12.7	-0.7	-6.3	4.0	-4.4	-1.3	-4.4	-4.3	0.7	-29.4
Technology Teachers	-3.1	-7.8	-6.3	-3.5	-4.2	-4.6	-12.4	-6.4	-15.9	-64.2
Subtotal	-235.5	-99.7	-163.5	-41.4	-121.1	-76.9	-127.8	-57.5	-164.5	-1,087.9
Non Teaching Professionals	-11.9	-4.2	-12.8	-2.6	-7.5	-5.0	-5.2	-4.6	-9.4	-63.2
Principals	-15.2	-9.1	-17.2	-2.6	-8.9	-3.1	-6.2	-5.9	-11.0	-79.2
Vice Principals	-15.8	-6.2	-7.7	-1.2	-4.9	-2.1	-4.1	-2.8	-7.2	-52.0
Subtotal	-42.9	-19.5	-37.7	-6.4	-21.3	-10.2	-15.5	-13.3	-27.6	-194.4
Grand Total	-278.4	-119.2	-201.2	-47.8	-142.4	-87.1	-143.3	-70.8	-192.1	-1,282.3

Appendix E – Detailed Results by School District (cont'd)

**Teacher/Supply Teacher Shortages prior to
Hiring New Graduates**

Anglophone Districts

	2012/2013 School Year									
	2	6	8	10	14	15	16	17	18	total
Art Teachers	-8.5	-3.5	-4.3	-0.6	-5.0	-1.8	-4.2	-3.6	-5.6	-37.1
Elementary (K-5 English)	-78.5	-62.4	-92.4	-26.9	-52.4	-35.3	-44.4	-24.0	-71.8	-488.1
Elementary (K-5 Immersion)	-34.8	-7.0	-1.0	0.1	-3.8	-14.4	-2.4	-0.9	-19.6	-83.8
Elementary (6-8 English)	-37.4	-12.3	-19.8	-10.3	-22.3	-11.1	-18.1	-10.2	-27.6	-169.1
Elementary (6-8 Immersion)	-13.2	-4.0	-3.4	0.3	-3.8	-1.9	-3.9	-2.7	-8.2	-40.8
French (Second Language)	-20.3	-9.6	-8.1	-6.1	-14.0	-7.3	-12.9	-6.6	-20.2	-105.1
Language Art Teachers	-42.0	-7.1	-13.5	-1.7	-8.8	-6.9	-15.4	4.9	1.1	-89.4
Math Teachers	-20.2	-13.4	-15.2	-3.2	-15.0	-6.7	-11.4	-8.2	-16.0	-109.3
Music Teachers	-6.4	-4.5	-5.0	-0.9	-3.8	-0.9	-3.2	-0.3	-8.5	-33.5
Physical Education Teachers	-10.9	-0.9	-3.6	-4.2	-5.0	0.6	-2.5	-1.4	-1.4	-29.3
Resources Teachers	-21.4	-12.8	-23.6	-9.1	-15.2	-6.1	-11.2	-9.7	-29.6	-138.7
Science Teachers	-11.2	-2.6	-6.8	4.1	-6.1	-2.8	-4.2	-3.4	-1.8	-34.8
Technology Teachers	-2.9	-10.5	-7.3	-3.2	-5.9	-5.9	-13.7	-6.2	-14.5	-70.1
Subtotal	-307.7	-150.6	-204.0	-61.7	-161.1	-100.5	-147.5	-72.3	-223.7	-1,429.1
Non Teaching Professionals	-17.2	-6.0	-14.1	-3.6	-9.0	-5.9	-7.0	-5.2	-10.6	-78.6
Principals	-19.7	-12.6	-20.4	-3.9	-12.3	-6.2	-8.7	-6.0	-14.1	-103.9
Vice Principals	-17.6	-6.7	-9.3	-1.8	-5.1	-2.7	-5.8	-3.6	-10.6	-63.2
Subtotal	-54.5	-25.3	-43.8	-9.3	-26.4	-14.8	-21.5	-14.8	-35.3	-245.7
Grand Total	-362.2	-175.9	-247.8	-71.0	-187.5	-115.3	-169.0	-87.1	-259.0	-1,674.8

Appendix E – Detailed Results by School District (*cont'd*)

**Teacher/Supply Teacher Shortages prior to
Hiring New Graduates**

Francophone Districts

	2000/2001 School Year					
	1	3	5	9	11	total
Art Teachers	-0.1	-0.6	0.7	-1.0	-0.4	-1.4
Elementary Teachers	-11.7	-13.4	-5.4	2.1	-2.6	-31.0
English (Second Language)	5.6	3.1	1.0	-2.2	-0.8	6.7
Language Art Teachers	2.8	17.9	3.8	8.1	1.8	34.4
Math Teachers	-3.8	-2.9	-0.7	-5.7	0.6	-12.5
Music Teachers	-0.9	-0.3	-0.6	-3.5	-0.6	-5.9
Physical Education Teachers	9.0	-0.8	-0.5	4.9	4.7	17.3
Resources Teachers	-2.4	-2.3	-0.7	-2.5	-0.7	-8.6
Science Teachers	3.2	0.8	2.7	1.1	-1.4	6.4
Technology Teachers	-1.7	-1.5	-0.3	-1.3	-0.6	-5.4
Subtotal	0.0	0.0	0.0	0.0	0.0	0.0
Non Teaching Professionals	0.0	0.0	0.0	0.0	0.0	0.0
Principals	0.0	0.0	0.0	0.0	0.0	0.0
Vice Principals	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal	0.0	0.0	0.0	0.0	0.0	0.0
Grant Total	0.0	0.0	0.0	0.0	0.0	0.0

Appendix E – Detailed Results by School District (*cont'd*)

**Teacher/Supply Teacher Shortages prior to
Hiring New Graduates**

Francophone Districts

	2004/ 2005 School Year					
	1	3	5	9	11	Total
Art Teachers	-0.4	-0.3	-0.2	-0.6	-0.3	-1.8
Elementary Teachers	-18.5	-46.1	-32.0	-40.1	-24.1	-160.8
English (Second Language)	4.1	0.1	-2.2	-2.8	-4.5	-5.3
Language Art Teachers	-5.8	10.7	1.8	5.8	-4.1	8.4
Math Teachers	-7.9	-4.3	-1.9	-5.7	-3.6	-23.4
Music Teachers	-2.0	-0.1	-0.4	-4.4	-0.5	-7.4
Physical Education Teachers	7.4	-4.8	-0.9	4.0	2.5	8.2
Resources Teachers	-2.1	-6.6	-0.8	-3.3	-1.0	-13.8
Science Teachers	-0.9	0.0	-0.3	-0.9	-4.8	-6.9
Technology Teachers	-7.3	-2.4	-2.2	-1.5	-2.4	-15.8
Subtotal	-33.4	-53.8	-39.1	-49.5	-42.8	-218.6
Non Teaching Professionals	-0.5	-2.0	-1.8	-1.3	-2.2	-7.8
Principals	-3.2	-9.2	-4.2	-1.8	-6.0	-24.4
Vice Principals	-0.2	-3.1	-0.6	-2.4	-0.6	-6.9
Subtotal	-3.9	-14.3	-6.6	-5.5	-8.8	-39.1
Grand Total	-37.3	-68.1	-45.7	-55.0	-51.6	-257.7

Appendix E – Detailed Results by School District (*cont'd*)

**Teacher/Supply Teacher Shortages prior to
Hiring New Graduates**

Francophone Districts

	2008/2009 School Year					
	1	3	5	9	11	Total
Art Teachers	-1.7	-0.3	0.0	-0.6	-0.1	-2.7
Elementary Teachers	-22.7	-53.1	-51.6	-81.0	-41.7	-250.1
English (Second Language)	0.6	0.0	-2.0	-4.4	-4.6	-10.4
Language Art Teachers	-14.7	10.8	-2.2	1.9	-7.6	-11.8
Math Teachers	-9.8	-5.0	-1.8	-11.0	-3.7	-31.3
Music Teachers	-3.3	0.3	-0.2	-4.3	-1.0	-8.5
Physical Education Teachers	2.6	-6.2	-1.9	1.2	-0.3	-4.6
Resources Teachers	-3.8	-9.5	-0.6	-4.3	-3.4	-21.6
Science Teachers	-3.7	1.2	-1.2	-2.7	-6.9	-13.3
Technology Teachers	-9.1	-5.9	-3.9	-10.3	-7.7	-36.9
Subtotal	-65.6	-67.7	-65.4	-115.5	-77.0	-391.2
Non Teaching Professionals	-3.5	-2.2	-2.3	-2.4	-3.2	-13.6
Principals	-3.7	-9.7	-5.3	-7.0	-7.3	-33.0
Vice Principals	-1.5	-2.6	-0.6	-3.6	-3.1	-11.4
Subtotal	-8.7	-14.5	-8.2	-13.0	-13.6	-58.0
Grand Total	-74.3	-82.2	-73.6	-128.5	-90.6	-449.2

Appendix E – Detailed Results by School District (*cont'd*)

Teacher/Supply Teacher Shortages prior to Hiring New Graduates

Francophone Districts

Subjects	2012/2013 School Year					
	1	3	5	9	11	Total
Art Teachers	-1.4	-0.2	0.1	-0.4	-0.1	-2.0
Elementary Teachers	-31.8	-71.2	-60.4	-86.0	-57.7	-307.1
English (Second Language)	0.4	0.5	-1.4	-5.1	-5.1	-10.7
Language Art Teachers	-13.6	9.4	-4.8	-1.1	-10.7	-20.8
Math Teachers	-9.8	-3.7	-3.9	-13.0	-3.8	-34.2
Music Teachers	-3.9	-1.2	-1.1	-5.9	-1.2	-13.3
Physical Education Teachers	1.9	-7.9	-2.3	-2.4	-2.9	-13.6
Resources Teachers	-3.2	-10.6	-3.0	-6.7	-7.2	-30.7
Science Teachers	-3.6	1.1	-1.7	-2.5	-6.0	-12.7
Technology Teachers	-9.4	-5.3	-4.9	-11.2	-8.9	-39.7
Subtotal	-74.4	-89.1	-83.4	-134.3	-103.6	-484.8
Non Teaching Professionals	-3.4	-3.4	-2.6	-4.5	-3.2	-17.1
Principals	-4.8	-10.1	-6.7	-7.5	-8.0	-37.1
Vice Principals	-2.6	-2.4	-1.2	-4.2	-3.6	-14.0
Subtotal	-10.8	-15.9	-10.5	-16.2	-14.8	-68.2
Grand Total	-85.2	-105.0	-93.9	-150.5	-118.4	-553.0

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