

Appendix 1: Projected number of classrooms needed and class sizes for each option using assumption set 1.

Data source: October 2006 count and birth data projections by town.

Assumptions:

- no school choice, within or out of district. We used this assumption so we could break up students by town; school choice would have to be taken into account on top of these numbers.
- no splitting of towns. All students from one town go to the same school in these models.

Class size models:

- Foundation size: This model uses the state’s funding formula to determine class size. The funding formula assumes 22 students per classroom; we tried to approach this average using a maximum class size of 25. We assumed no mixed grades at any school except Heath, since Heath was designed with mixed grades in mind.
- Ed sizes. The Interim Education Subcommittee recommended that grades K-1 have classes around 13 (maximum 15), grades 2-4 have classes around 18 (maximum 20), and grades 5-6 have classes around 22 (maximum 24). We considered the Education Subcommittee’s recommended class sizes both with and without mixed-grade classes.

We determined the number of classrooms available at each school by counting the number of full sizes classrooms and subtracting one each for art and music at each school, as well as one classroom for preschool at BSE, Heath and CCS. See Appendix ?? Each case that requires more classrooms than are available is in bold.

Option 1.3: K-8 at the elementary schools. Chart includes number of classrooms needed of classrooms available using foundation numbers; average class size. We note that for Hawlemont, birth rates might not be a good predictor of incoming kindergarten class size; the 2006-7 kindergarten class was projected to have 12 students but actually has 20. For this reason we did not project the K-8 model beyond 2008-9.

Year	BSE	SA	CCS	Heath	Hawlemont	Rowe
2007-8	16 of 22;17.8	11 of 14;17.5	9 of 11;16	4 of 7; 16	10 of 8	5 of 7
2008-9	15 of 22;18.9	11 of 14;17.9	9 of 11;15.9	4 of 7;13.8	9 of 8	5 of 7

In the four within-district schools, class sizes range from 8 to 25.

Option 2.1: Regional elementary at BSE. This model only works if 6th grade is moved to the middle school and foundation numbers (class size up to 25). The following chart shows the number of classrooms needed for each year using different class sizes.

Year	Foundation sizes K-6	Foundation sizes K-5	Ed sizes K-6 no mix grade	Ed sizes K-5 no mix grade	Ed sizes K-6 mixed grade	Ed sizes K-5 mixed grade
2007-8	24 of 22	21 of 22	29 of 22	26 of 22	27 of 22	25 of 22
2008-9	24 of 22	21 of 22	28 of 22	25 of 22	27 of 22	24 of 22

2009-2010	24 of 22	20 of 22	27 of 22	23 of 22	27 of 22	24 of 22
2010-2011	23 of 22	20 of 22	26 of 22	20 of 22	24 of 22	23 of 22

Note that this option will work **ONLY** using foundation class sizes for grades K-5.

The class sizes for this option are projected to be as follows:

2007-8: 21 classrooms needed K-5

3 Kindergartens 17 students each

4 1st, 19-20 students

4 2nd, 19-20 students

3 3rd, 22-23 students

4 4th, 21-22 students

3 5th, 23 students

(3 6th, 24 students)

2008-9: 21 classrooms needed K-5

3 Kindergartens 22-23 students each

3 1st, 17 students

4 2nd, 19-20 students

4 3rd, 19-20 students

3 4th, 22-23 students

4 5th, 21-22 students

(3 6th, 23 students)

2009-10: 20 classrooms needed K-5

3 Kindergartens 19-20 students each

3 1st, 22-23 students

3 2nd, 17 students

4 3rd, 19-20 students

4 4th, 19-20 students

3 5th, 22-23 students

(4 6th, 21-22 students)

2010-11: 20 classrooms needed. Note: if preschool was relocated, K-6 could fit at BSE this year.

2 Kindergartens 23 students each

3 1st, 19-20 students

3 2nd, 22-23 students

3 3rd, 17 students

4 4th, 19-20 students

4 5th, 19-20 students

(3 6th, 22-23 students)

Consolidation models (Option 3.1).

Projections for 2007-8: These include average and range of class size, as well as number of students in each school (school size).

1a. Sanderson (Ashfield + Plainfield) and BSE (Buckland + Shelburne + Colrain + Heath)

School	Class Size Model	Number of classrooms	Average class size	Range class sizes : school size
SA	Foundation size	8 of 14	18.1	13-25 : 145
SA	Ed sizes, no mix grade	9 of 14	16.1	12-21
SA	Ed sizes, mixed grade	9 of 14		
BSE	Foundation size	18 of 22	19.7	17-25 : 355
BSE	Ed sizes, no mix grade	22 of 22	16.1	12-18
BSE	Ed sizes, mixed grade	20 of 22		

1b. Sanderson (Ashfield + Plainfield + Buckland) and BSE (Shelburne + Colrain + Heath)

School	Class Size Model	Number of classrooms	Average class size	Range class sizes : school size
SA	Foundation size	14 of 14	18	13-22 : 256
SA	Ed sizes, no mix grade	16 of 14	15.1	13-18
SA	Ed sizes, mixed grade	14 of 14		
BSE	Foundation size	13 of 22	18.8	16-25 : 244
BSE	Ed sizes, no mix grade	16 of 22	15	11-19
BSE	Ed sizes, mixed grade	14 of 22		

2. CCS (Colrain + Heath) and BSE (Buckland + Shelburne + Ashfield + Plainfield)

School	Class Size Model	Number of classrooms	Average class size	Range class sizes : school size
CCS	Foundation size	9 of 11	18	13-24 : 162
CCS	Ed sizes, no mix grade	13 of 11	12.5	8-24
CCS	Ed sizes, mixed grade	10 of 11		
BSE	Foundation size	17 of 22	19.7	17-24 : 338
BSE	Ed sizes, no mix grade	20 of 22	16.9	11-24
BSE	Ed sizes, mixed grade	18 of 22		

3a. Heath and BSE (all other towns)

School	Class Size Model	Number of classrooms	Average class size	Range class sizes : school size
Heath	Foundation size	3 of 7.5	16.7	15-18 : 50
Heath	Ed sizes, no mix grade	4 of 7.5	12.5	8-18
Heath	Ed sizes, mixed grade	4 of 7.5	12.5	8-18
BSE	Foundation class size	21 of 22	21.6	20-23 : 450

BSE	Ed sizes, no mix grade	25 of 22	18	13-22
BSE	Ed sizes, mixed grade	25 of 22	18	13-22

3b. Heath (Heath + Colrain) and BSE (all other towns)

School	Class Size Model	Number of classrooms	Average class size	Range class sizes : school size
Heath	Foundation size	7.5 of 7.5	20.3	15-24 : 162
Heath	Ed sizes, no mix grade	12.5 of 7.5	12.5	8-18
Heath	Ed sizes, mixed grade	10 of 7.5		8-18
BSE	Foundation class size	21 of 22	19.7	17-24 : 338
BSE	Ed sizes, no mix grade	25 of 22	16.9	11-24
BSE	Ed sizes, mixed grade	25 of 22		

4. Heath and CCS (Colrain + Shelburne) and SA (Ashfield + Plainfield + Buckland)

School	Class Size Model	Number of classrooms	Average class size	Range class sizes : school size
Heath	Foundation size	3 of 7	16.7	15-18 : 50
Heath	Ed sizes, no mix grade	4 of 7	12.5	8-18
Heath	Ed sizes, mixed grade	4 of 7	12.5	8-18
CCS	Foundation class size	12 of 11	16.7	13-18 : 256
CCS	Ed sizes, no mix grade	14 of 11	14	8-18
CCS	Ed sizes, mixed grade	11 of 11		
SA	Foundation class size	14 of 14	18.3	13-22 : 194
SA	Ed sizes, no mix grade	17 of 14	15.1	13-19
SA	Ed sizes, mixed grade	14 of 14		

Projections for 2007-2010: Plan numbers are same as above. We repeat 2007-8 numbers for ease of comparison.

Plan #	Class Size Model	School	# classrooms 2007-08	# classrooms 2008-09	# classrooms 2009-10
1a.	Foundation size	SA	8 of 14	9 of 14	9 of 14
	Ed sizes, no mix grade	SA	9 of 14	10 of 14	12 of 14
	Ed sizes, mixed grade	SA	9 of 14	10 of 14	9 of 14
	Max class size 25	BSE	18 of 22	17 of 22	17 of 22
	Ed sizes, no mix grade	BSE	22 of 22	21 of 22	20 of 22
	Ed sizes, mixed grade	BSE	20 of 22	19 of 22	19 of 22
1b.	Max class size 25	SA	14 of 14	13 of 14	13 of 14
	Ed sizes, no mix grade	SA	17 of 14	16 of 14	16 of 14

	Ed sizes, mixed grade	SA	15 of 14	14 of 14	15 of 14
	Max class size 25	BSE	13 of 22	13 of 22	13 of 22
	Ed sizes, no mix grade	BSE	16 of 22	14 of 22	15 of 22
	Ed sizes, mixed grade	BSE	14 of 22	14 of 22	14 of 22
2	Max class size 25	CCS	9 of 11	9 of 11	8 of 11
	Ed sizes, no mix grade	CCS	13 of 11	13 of 11	11 of 11
	Ed sizes, mixed grade	CCS	10 of 11	9 of 11	9 of 11
	Max class size 25	BSE	17 of 22	18 of 22	18 of 22
	Ed sizes, no mix grade	BSE	20 of 22	21 of 22	20 of 22
	Ed sizes, mixed grade	BSE	18 of 22	20 of 22	19 of 22
3	Max class size 25	Heath	3 of 7	3 of 7	3 of 7
	Ed sizes, no mix grade	Heath	4 of 7	4 of 7	4 of 7
	Ed sizes, mixed grade	Heath	4 of 7	4 of 7	4 of 7
	Max class size 25	BSE	21 of 22	21 of 22	21 of 22
	Ed sizes, no mix grade	BSE	25 of 22	27 of 22	27 of 22
	Ed sizes, mixed grade	BSE	25 of 22	24 of 22	23 of 22
4	Max class size 25	Heath	3 of 7	3 of 7	3 of 7
	Ed sizes, no mix grade	Heath	4 of 7	4 of 7	4 of 7
	Ed sizes, mixed grade	Heath	4 of 7	4 of 7	4 of 7
	Max class size 25	CCS	12 of 11	11 of 11	11 of 11
	Ed sizes, no mix grade	CCS	14 of 11	14 of 11	13 of 11
	Ed sizes, mixed grade	CCS	11 of 11	10 of 11	11 of 11
	Max class size 25	SA	14 of 14	14 of 14	13 of 14
	Ed sizes, no mix grade	SA	17 of 14	17 of 14	17 of 14
	Ed sizes, mixed grade	SA	14 of 14	15 of 14	15 of 14