

WAYLAND • PUBLIC • SCHOOLS
WAYLAND, MASSACHUSETTS

To: Wayland School Committee
 CC: Paul Stein, Superintendent of Schools
 From: Susan Bottan, School Business Administrator
 Date: October 13, 2016
 RE: 2016-2017 October 1 Enrollment Report

On October 1 of each year, Wayland Public Schools reports the total number of students enrolled by grade level to the Massachusetts Department of Elementary and Secondary Education as required. This information is used by the Commonwealth to calculate the district's Foundation Enrollment and Chapter 70 funding. In addition, October 1 enrollment is used by the district to project the next year's class sizes and identify trends in enrollment for subsequent years. The enrollment projections for the next year form the foundation upon which the district's budget is developed and the trends identified inform the district's multi-year budget forecast.

A three-year cohort survival ratio (CSR) is used to develop internal projections for the Wayland Public Schools. In addition, the Wayland Public Schools contracts with New England School Development Council (NESDEC) to conduct enrollment projections for the district based on October 1 actual enrollment. This year, NESDEC has been contracted to provide a school by school projection and Special Education Trend report. The results of NESDEC's forecasts will be reported when received.

The purpose of this report is to provide to the School Committee with a summary of 2016-17 October enrollment by grade, school and elementary class size as compared to the prior year's actual and current year's projected enrollment. This report will also summarize projections for the 2017-18 school year and forecasted trends for 2019 through 2021.

Actual Enrollment 2016-2017

Total enrollment in the Wayland Public Schools on October 1, 2016 was 2,655 students, 4 fewer students than were enrolled on October 1, 2015. FY17 enrollments by grade and school are illustrated in the table below:

ENROLLMENTS BY GRADE
October 1, 2016

GRADE	CLAYPIT HILL	HAPPY HOLLOW	LOKER	MIDDLE SCHOOL	HIGH SCHOOL	TOTAL
* Pre-K						100
K	90	58	36			184
1	84	58	41			183
2	83	66	42			191
3	87	59	38			184
4	101	73	53			227
5	96	73	48			217
6				208		208
7				198		198
8				232		232
9					214	214
10					205	205
11					220	220
12					192	192
TOTAL K-12	541	387	258	638	831	2,655
Oct. 1, 2015	521	391	263	644	840	2,659
DIFFERENCE	20	-4	-5	-6	-9	-4

* Pre-kindergarten numbers at TCW are for information only and are not included in totals.

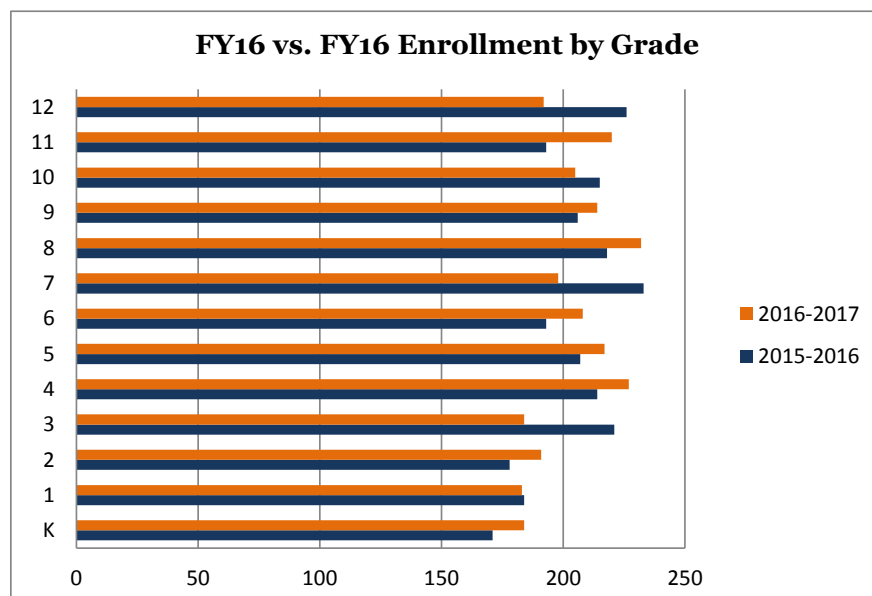
Although a decline in four students overall as compared with last year, the elementary level increased by 11 students and the middle and high schools decreased by (6) and (9), respectively. The following table illustrates the comparative actual enrollment between October 1, 2015 and October 1, 2016 for grades K-12:

COMPARATIVE ENROLLMENTS GRADES K-12
2015-2016 vs. 2016-2017

GRADE	2015-2016	2016-2017	CHANGE
K	171	184	13
1	184	183	-1
2	178	191	13
3	221	184	-37
4	214	227	13
5	207	217	10
6	193	208	15
7	233	198	-35
8	218	232	14
9	206	214	8
10	215	205	-10
11	193	220	27
12	226	192	-34
TOTAL K-12	2,659	2,655	-4
K-5	1,175	1,186	11
6-8	644	638	-6
9-12	840	831	-9

Last year's fifth grade cohort of 207 students was replaced by an incoming cohort of 184 kindergarten students. Grade 8's cohort of 218 students was replaced by an incoming grade 6 class of 208. The Wayland High School's 2016 graduating class of 226 students was replaced by an incoming freshman class of 214 this year.

The bar graph below compares October 1 actual enrollment by grade level for FY16 and FY17. This school year, Grade 8 is the highest enrolled grade followed by grade 4 and grade 11, whereas grade 1, kindergarten and grade 3 are the lowest enrolled of all grade levels K-12:



The budget and staffing levels for the 2016-17 school year were built on a projected enrollment of 2,648. Actual enrollment totaled 7 more students than projected in grades K-12. The elementary level reported (11) students fewer than projected. The middle and high schools reported 7 and 11 students more than the number of students projected. The table below illustrates projected versus actual enrollments by school and grade level:

PROJECTED vs. ACTUAL ENROLLMENTS, K-12

October 1, 2016

GRADE	PROJECTED	ENROLLED	DIFFERENCE
	Oct. 1, 2016	Oct. 1, 2016	
K	187	184	-3
1	183	183	0
2	191	191	0
3	185	184	-1
4	234	227	-7
5	217	217	0
6	206	208	2
7	192	198	6
8	234	232	-2
9	212	214	2
10	203	205	2
11	214	220	6
12	190	192	2
TOTAL K-12	2,648	2,655	7
K-5	1,197	1,186	-11
6-8	631	638	7
9-12	820	831	11

Of the 2,655 students enrolled in the Wayland Public Schools on October 1, 2016, 137 were Boston students participating in our METCO program. The number of Boston students enrolled in Wayland has remained consistent over the past several years. Boston student enrollment by grade and schools follows:

ENROLLMENTS BY GRADE - METCO Students

October 1, 2016

GRADE	CLAYPIT	HAPPY	MIDDLE	HIGH	TOTAL	
	HILL	HOLLOW				LOKER
* Pre-K					93	
K	0	1	0		1	
1	3	2	1		6	
2	4	5	1		10	
3	7	4	6		17	
4	5	5	5		15	
5	5	5	0		10	
6				11	11	
7				11	11	
8				14	14	
9					15	
10					6	
11					11	
12					10	
METCO K-12	24	22	13	36	42	137

In addition to the number of Boston residents enrolled in the district, 71 children of staff members who live outside of Wayland attend the Wayland Public Schools. Of the total students enrolled, 36 students attend school at the elementary level, 16 attend the middle school and 19 attend the high school.

The district's elementary enrollment lines are drawn in such a way to support two classrooms per level for a total of twelve sections at the Loker School, Kindergarten to grade 5; three classrooms per level at the Happy Hollow School, for a total of 18 sections, and four classrooms per level except for kindergarten which has five sections at the Claypit Hill School, for a total of 25 sections.

The average classroom sizes at each elementary school, with the exception of grade 1 at Claypit Hill and Grade 1 and Grade 4 at Loker, fall within the class size targets established by the Wayland School Committee. Actual class size by school and by grade for each elementary school is reported in the table below:

ELEMENTARY CLASS SIZES

FY 2017 Actual Elementary School Class Size

	TOTAL	NUMBER CLASSROOMS	AVERAGE CLASS SIZE	TARGET UPPER LIMIT
<u>Claypit Hill</u>				
Kindergarten	90	5	18	20
Grade 1	84	4	21	20*
Grade 2	83	4	21	23
Grade 3	87	4	22	23
Grade 4	101	4	25	25
Grade 5	<u>96</u>	<u>4</u>	<u>24</u>	25
Total	541	25	22	23
<u>Happy Hollow</u>				
Kindergarten	58	3	19	20
Grade 1	58	3	19	20
Grade 2	66	3	22	23
Grade 3	59	3	20	23
Grade 4	73	3	24	25
Grade 5	<u>73</u>	<u>3</u>	<u>24</u>	25
Total	387	18	22	23
<u>Loker</u>				
Kindergarten	36	2	18	20
Grade 1	41	2	21	20*
Grade 2	42	2	21	23
Grade 3	38	2	19	23
Grade 4	53	2	27	25*
Grade 5	<u>48</u>	<u>2</u>	24	25
Total	258	12	22	23
Total Elementary	1,186	55	22	

* Average class size exceeds target upper limit.

This year, an additional full day Kindergarten classroom opened at Claypit Hill to accommodate an increase in enrollment. Of the district's total ten Kindergarten classrooms, seven are full day programs; four at Claypit Hill, two at Happy Hollow, and one at Loker. For the first time this year, a hybrid kindergarten classroom is in operation in the district. The third kindergarten classroom at Happy Hollow is a combination traditional and full day program where students enrolled in both programs attend school together. At mid-day the traditional students depart and the full day students remain until afternoon dismissal. The district operates two traditional day kindergarten classrooms: one at Claypit Hill and one at Loker. Of the total 184 Kindergarten students enrolled, 141 students, representing early 77%, participate in Full Day Kindergarten.

Although enrollment overall has declined slightly over the last several years, projections indicate a shift slightly upward next year through 2021 due in part to the slight increase in trend of the turnover of homes

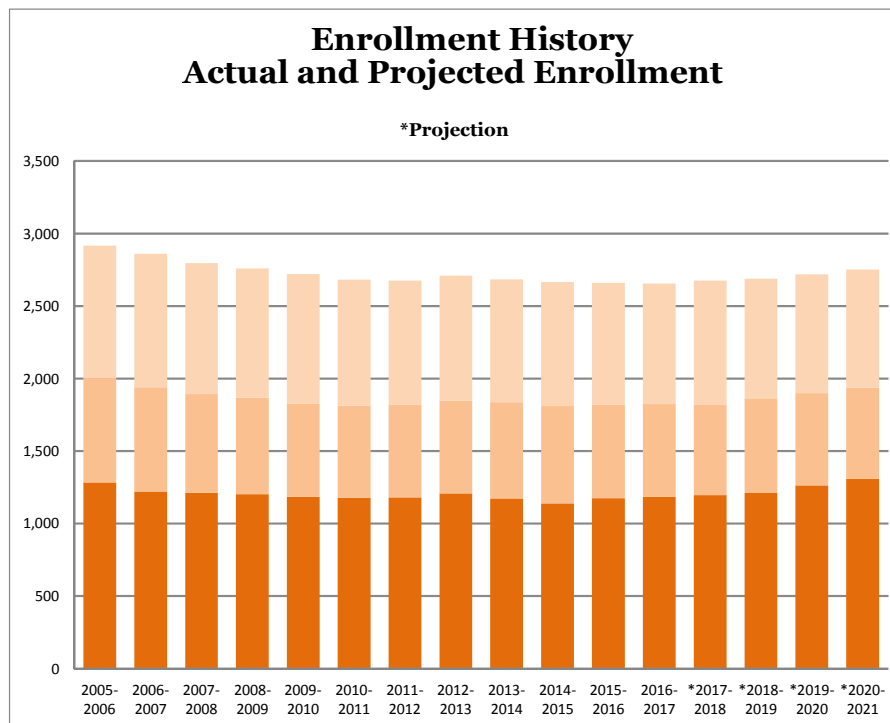
and the increased birth rates in Wayland. The table and graph below shows Wayland's October 1 enrollment history from 2006 through a projected enrollment to 2021:

ENROLLMENT HISTORY and PROJECTIONS

YEAR	K-5	6-8	9-12	TOTAL	CHANGE	% CHANGE
2005-2006	1,283	721	912	2,916	-8	-0.27%
2006-2007	1,221	720	919	2,860	-56	-1.92%
2007-2008	1,213	680	903	2,796	-64	-2.24%
2008-2009	1,203	665	891	2,759	-37	-1.32%
2009-2010	1,186	639	896	2,721	-38	-1.38%
2010-2011	1,179	634	869	2,682	-39	-1.43%
2011-2012	1,180	639	856	2,675	-7	-0.26%
2012-2013	1,208	640	862	2,710	35	1.31%
2013-2014	1,174	663	847	2,684	-26	-0.96%
2014-2015	1,139	672	854	2,665	-19	-0.71%
2015-2016	1,175	644	840	2,659	-6	-0.22%
2016-2017	1,186	638	831	2,655	-4	-0.15%
*2017-2018	1,196	622	858	2,676	21	0.79%
*2018-2019	1,211	652	826	2,689	13	0.49%
*2019-2020	1,263	637	819	2,719	30	1.13%
*2020-2021	1,309	629	814	2,752	33	1.23%

*Projections using 3-Year Cohort Survival.

*Due to rounding of CSR, sums may reflect +/- 1.



Projected Enrollment 2018-2021

A three-year cohort survival ratio (CSR) is used to develop internal projections for the Wayland Public Schools. In addition, the Wayland Public Schools contracts with New England School Development Council (NESDEC) to conduct enrollment projections for the district based on October 1 actual enrollment. The results of NESDEC's will be compared with internal projections using the CSR method and reported when received.

The CSR method has been employed for many years by the administration to make enrollment projections. The CSR takes into account housing growth, migration, retention, withdrawals, transfers and births over the three previous school years and produces reliable next year projections for enrollments in Grades 1-12. However, the CSR is less reliable in predicting out-year enrollment as well as kindergarten enrollments. Kindergarten forecasts are affected by several factors including postponed kindergarten enrollment, attendance at private full-day kindergarten programs, adoption, and housing development and turnover. Our own full day, tuition-based, kindergarten program also has an impact.

There are several sources of data one can use as the basis for predicting kindergarten enrollment including census data from the Town Clerk, birth data from five years before kindergarten enrollment, and self-reported data from parents and local preschools. Wayland has traditionally used the second source, the three-year average of the birth-to-kindergarten ratio, i.e., the number of kindergarteners to the number of children born to Wayland residents five years earlier as reported to the Commonwealth's Department of Public Health Registry of Vital Records and Statistics.

Additionally, the district's Special Education Department collects information from local preschools and parents of age-eligible children for kindergarten enrollment. This method relies on census data from these sources and adjusts for postponements (at both ends), METCO and staff students, and possible retentions. This estimate is used to validate the cohort survival method.

The Wayland Public Schools contracts with New England School Development Council (NESDEC) to conduct enrollment projections for the district based on October 1 actual enrollment. This year, NESDEC has been contracted to provide a school by school projection and special education trend report.

Enrollment projections are used to develop the coming year's budget. Staffing levels at all grade levels are predicated upon the number and demographics of students reasonably expected to be enrolled at the start of the school year. Elementary enrollment numbers by school and by grade are used in conjunction with the School Committee's Class Size Policy guidelines to determine the number of classroom sections needed at each grade level, which in turn drives the number of specialists (e.g. art, general music and physical education teachers) required at each school.

On the pages to follow, enrollment projections are provided by school, grade and elementary classroom for FY18 and then followed by a five year projection by grade level for the period of FY18 through FY21.

Using only the cohort survival method for all grades, next year's total enrollment in the Wayland Public Schools is projected to total 2,676 students, 21 more students than enrolled in the current school year. The High School enrollment is projected to increase by 27 due to the rising of the largest cohort in the district, the 8th grade, the Middle School to decrease by (16), and the elementary (Grades K-5) to increase by 10 students. The table on the following page illustrates projected and comparative enrollment by grade:

**PROJECTED ENROLLMENT
(3-Yr Cohort Survival Ratios, except for K)**

2017-2018

GRADE	CLAYPIT HILL	HAPPY HOLLOW	LOKER	MIDDLE SCHOOL	HIGH SCHOOL	TOTAL
K	90	58	36			184
1	98	63	39			200
2	88	61	43			192
3	86	69	44			199
4	91	62	40			193
5	102	73	53			228
6				216		216
7				209		209
8				197		197
9					225	225
10					211	211
11					205	205
12					217	217
TOTAL K-12	555	386	255	622	858	2,676
Oct. 1, 2016	541	387	258	638	831	2,655
DIFFERENCE	14	-1	-3	-16	27	21
% DIFFERENCE	2.59%	-0.30%	-1.19%	-2.50%	3.22%	0.80%

COMPARATIVE ENROLLMENTS K - 12

GRADE	ACTUAL	PROJECTED	CHANGE	
	2016-2017	2017-2018		
K	184	184	0	0.3%
1	183	200	17	9.3%
2	191	192	1	0.5%
3	184	199	15	8.0%
4	227	193	-34	-14.9%
5	217	228	11	5.1%
6	208	216	8	4.0%
7	198	209	11	5.3%
8	232	197	-35	-15.0%
9	214	225	11	5.1%
10	205	211	6	2.7%
11	220	205	-15	-6.7%
12	192	217	25	13.1%
TOTALS	2,655	2,676	21	0.8%
K-5	1,186	1,196	10	0.8%
6-8	638	622	-16	-2.5%
9-12	831	858	27	3.2%

Based on the enrollment projections, elementary class sizes are expected to be at or below the class size target limit, with the exception of Grade 1 at Claypit Hill and Happy Hollow Schools and Grade 5 at the Loker School. Projected class sizes in these grade levels may require additional staffing for FY18.

Projected class sizes for each grade and elementary school are found in the table below:

PROJECTED 2017-2018 ELEMENTARY CLASS SIZES

	Using 3-Year Cohort Survival Ratios except for K				ACTUAL
	PROJECTED	NUMBER	AVERAGE	TARGET	CLASSROOMS
<u>Claypit Hill</u>	TOTAL	CLASSROOMS	CLASS SIZE	UPPER LIMIT	PRIOR YEAR
Kindergarten	90	5	18	20	5
Grade 1	98	4	25	20*	4
Grade 2	88	4	22	23	4
Grade 3	86	4	22	23	4
Grade 4	91	4	23	25	4
Grade 5	<u>102</u>	<u>4</u>	<u>26</u>	25	<u>4</u>
Total	555	25	22	23	25
<u>Happy Hollow</u>					
Kindergarten	58	3	19	20	3
Grade 1	63	3	21	20*	3
Grade 2	61	3	20	23	3
Grade 3	69	3	23	23	3
Grade 4	62	3	21	25	3
Grade 5	<u>73</u>	<u>3</u>	<u>24</u>	25	<u>3</u>
Total	386	18	21	23	18
<u>Loker</u>					
Kindergarten	36	2	18	20	2
Grade 1	39	2	20	20	2
Grade 2	43	2	21	23	2
Grade 3	44	2	22	23	2
Grade 4	40	2	20	25	2
Grade 5	<u>53</u>	<u>2</u>	<u>27</u>	25*	<u>2</u>
Total	255	12	21	22	12
Total Elementary	1,196	55	22		55

* Average class size exceeds target upper limit.

The actual enrollment by grade from 2006 through the forecasted change for FY18 to FY21 is outlined on the next page. Also provided are live birth rates. Elementary school growth for the district is in part driven by the rising birth rates reported and tracked by the Town Clerk's Office. The number of live births reported in Wayland in 2015 is the highest reported since before 2006.

WAYLAND PUBLIC SCHOOLS
ENROLLMENT TRACKING from FY 2007 - 2017
and ENROLLMENT PROJECTIONS for FY18, FY19, FY20 and FY21

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17		FY18	FY18	FY18	FY18	FY18	FY19	FY20	FY21	
Oct. 1	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016		5 Yr CSR	4 Yr CSR	3 Yr CSR	2 Yr CSR	1 Yr CSR	Using 3 Year CSR*			
Births	123	112	91	105	99	112	124	120	121	125											
K	193	174	178	160	168	179	190	161	165	171	184		187	186	184	189	184	197	199	206	
Grade 1	194	206	192	205	169	179	190	190	176	184	183		191	203	200	208	192	202	216	218	
Grade 2	186	202	203	204	221	176	185	194	207	178	191		186	198	192	195	186	209	211	226	
Grade 3	235	193	204	208	204	220	192	191	198	221	184		185	192	199	194	182	200	218	220	
Grade 4	213	230	199	211	209	212	228	202	199	214	227		230	202	193	202	226	209	210	229	
Grade 5	200	208	227	198	208	214	223	236	194	207	217		216	231	228	234	215	194	210	211	
Grade 6	253	208	210	225	197	209	219	223	234	193	208		215	223	216	223	215	227	194	209	
Grade 7	225	248	207	208	225	196	218	218	220	233	198		211	219	209	221	214	217	228	194	
Grade 8	242	224	248	206	212	234	203	222	218	218	232		198	218	197	217	195	208	216	227	
Grade 9	230	232	222	232	202	212	233	202	218	206	214		229	198	225	196	230	191	201	209	
Grade 10	224	221	229	218	226	199	206	234	196	215	205		209	230	211	231	211	221	188	198	
Grade 11	228	222	223	229	214	227	205	208	233	193	220		201	207	205	207	204	211	222	188	
Grade 12	237	228	217	217	227	218	218	203	207	226	192		223	202	217	201	226	202	208	219	
Total	2,860	2,796	2,759	2,721	2,682	2,675	2,710	2,684	2,665	2,659	2,655		2,681	2,709	2,676	2,717	2,679	2,689	2,719	2,752	
Delta	-56	-64	-37	-38	-39	-7	35	-26	-19	-6	-10		16	44	11	52	-30	10	31	33	
Growth	-1.9%	-2.3%	-1.3%	-1.4%	-1.5%	-0.3%	1.3%	-1.0%	-0.7%	-0.2%	-0.4%		0.6%	1.6%	0.4%	1.9%	-1.1%	0.4%	1.1%	1.2%	
Totals																					
K-5	1,221	1,213	1,203	1,186	1,179	1,180	1,208	1,174	1,139	1,175	1,186		1,196	1,212	1,196	1,222	1,184	1,211	1,263	1,309	
6-8	720	680	665	639	634	639	640	663	672	644	638		623	660	622	661	625	652	637	629	
9-12	919	903	891	896	869	856	862	847	854	840	831		862	838	858	835	870	826	819	814	

*Due to rounding of CSR, sums may reflect +/- 1.