

# Enrollment History & Projections



# ENROLLMENT

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This section of the budget presents student enrollment history and projections. The historical review presents the previous five fiscal years, and compares the actual enrollment to the projections. Each year, the district provides the State of Connecticut with the number of enrolled students by school as of October 1. The district uses these numbers as the official count for the current fiscal year. We use our student information system, Power School, to upload electronically the enrollment data to the state's computer system. In addition, we update these numbers periodically during the school year. Student enrollment is a factor in most federal and state entitlement grants. Therefore, the Business Services Office and Technology Office maintain a record of the data so that the school district's independent auditors can perform their required testing.

The New England School Development Council (NESDEC) provides the district with enrollment projections, which they update annually. They use the cohort survival method to calculate these projections. This statistical model projects student enrollment by using historical enrollment data for each school by grade along with published birth rates. The model looks at the previous five years of enrollment progression by grade at each school, and assumes similar ratios for the future. Experience has taught us that reasonable variances between actual and projected enrollments occur for a variety of reasons. Therefore, we also consider new and resale housing rates, and non-public school enrollment data when appropriate.

Enrollment projections provide the basis for both operating and capital budget planning. These enrollment projections, developed annually, provide important data for program and budget planning, and staffing for the 2010-11 school year. Mr. Arvid Anderson prepared the following report after NESDEC released Weston's updated enrollment projections in the fall of 2009. Please keep in mind that NESDEC DOES NOT provide projections for the number of pre-school special education students and their typical peers, or for the students that are placed in facilities outside the district. The district's Director of Special Education and Pupil Personnel Services calculates these numbers. The district adds both projections to arrive at the total enrollment figures.

## **Projection Methodology**

As you may know, in developing projections for member school districts, NESDEC uses the cohort survival technique, the most common method for preparing enrollment forecasts. By incorporating some appropriate modifications, NESDEC is able to consider information specific to an individual school district and consequently, avoid forecasts that are entirely formula driven.

Basically, NESDEC calculates percentages from historical data and determines reliable percentage increases or decreases between each pair of consecutive grade levels. For example, if 100 students enrolled in Grade 1 in 2008-2009, increased to 104 students in Grade 2 in 2009-2010, the percentage of survival would have been 104% or a ratio of 1.04. Such ratios are calculated between each pair of grades or years in school over several recent years.

The ratios used are the key factors in the reliability of the projections, given the validity of the data at the starting point. The strength of the ratios lies in the fact that each ratio encompasses collectively the variables that account for increases or decreases in the size of a grade enrollment as it moves on to the next grade. Each ratio represents the cumulative effect of the following factors:

1. Migration, in or out, of the schools;
2. Retention in the same grade;
3. Drop-outs, transfers, etc.;
4. Births and deaths;
5. New house construction.
6. Economic conditions

The ratios thus selected are applied to the present enrollment statistics for a pre-determined number of years.

### **Reliability of Enrollment Projections**

Enrollment projections based upon the children already in the district (the current K-12 population only) will be the most reliable. The second level of reliability encompasses those children already born into the community, but not yet old enough to be in school. The third and least reliable category is the group for which an estimate must be made to predict the number of births, thereby adding an additional variable.

Projections can serve as useful guides to school administrators for educational planning. In this regard, the projections are generally most reliable when they are closest in time to the current year. Projections six to ten years out may serve as a guide to future enrollments, and are useful for long-range facilities planning. However, they should be viewed as subject to change given the possibility for anomalies that may crop up in the underlying assumptions. Annual updates allow for the identification of any recent changes in historical trends.

### **Review of Enrollment – 2009-2010**

Last year, NESDEC projected a K-12 enrollment for 2009-2010 of 2511, which excludes the 39 students in the Pre-K Early Learning Center program. The actual K-12 October 1<sup>st</sup> total enrollment for 2009-2010 is 2519, a difference of 8 students more than projected. NESDEC's enrollment projection total from fall of 2008 came within 0.3% of the actual October 1, 2009 enrollment. Enrollment projection variances from actual grade level enrollments are, for the most part, limited to Kindergarten at Hurlbutt Elementary School, Grade 5 at Weston Intermediate School, and Grade 8 at Weston Middle School. Actual enrollments in other grades are close to NESDEC's projections. These totals are noted in the individual school enrollment summaries.

At Hurlbutt Elementary School there was a decrease of 20 students over the projection (489 actual vs. 509 projected). This decrease was most notable in Kindergarten, which enrolled 12 students less than the projection. However, NESDEC used a larger than usual

growth ratio of 1.75% to attempt to make up for the under projections in Kindergarten the past several years.

At Weston Intermediate School enrollment was projected at 615 vs. the actual enrollment of 628, an increase of 13 students. As was mentioned previously, Grade 5, increased by 18 students, which was mainly attributed to a higher than expected in-migration.

At Weston Middle School enrollment was projected at 585 vs. the actual enrollment of 600, an increase of 15 students. Grade 8 had the largest increase with 13 additional students over the NESDEC's projection.

At Weston High School, the total 9-12 enrollment matched NESDEC's projection, a fairly rare occurrence (802 actual vs. 802 projected).

### **Review of NESDEC's 2010-2011 Enrollment Projections**

NESDEC's most recent K-12 projections indicate a modest decrease in student enrollment. Total K-12 projected enrollment for 2010-2011 is forecasted at 2506, a decrease of 13 students, as compared to the actual 2009-2010 enrollment of 2519, a 0.5% decrease over last year.

#### **Hurlbutt Elementary School—Grades PK-2**

Enrollment at this school level is projected to increase by 27 students, as compared to the actual enrollment in these grades in 2009-2010 (489 actual vs. 516 projected). This increase is mainly attributed to a larger than usual projected Kindergarten enrollment of 179 students. If this projection holds up, it will be the largest Kindergarten since 2006-2007. The projected increase is due mainly to a higher birth rate in 2005 (105 births), which was the highest since 2001.

Kindergarten enrollment remains the most difficult to forecast and is somewhat elusive to accurately project. In developing the enrollment projections for the Kindergarten class of 2010, NESDEC used a Birth-to-Kindergarten growth ratio (a factor of 1.70), which is slightly lower than the 1.75 ratio used the past two years, to partially adjust for the decrease in the actual Kindergarten enrollment noted in 2008 and 2009.

It is important to note that the trend over the past ten years, illustrated by the following chart, indicates that the in-migration/growth rate between the year of birth and Kindergarten eligibility five years later has been on a general decline, although moderating somewhat over the past four years, perhaps signaling a new upward trend.

In-Migration between Year of Birth and Actual Kindergarten Enrollment

Years, Birth to K	Birth Cohort	K Enrollment	Difference
1995 to 2000	132	208	+76
1996 to 2001	114	158	+44
1997 to 2002	114	163	+49
1998 to 2003	146	191	+45
1999 to 2004	129	184	+55
2000 to 2005	129	182	+53
2001 to 2006	138	210	+72
2002 to 2007	77	147	+70
2003 to 2008	93	153	+60
2004 to 2009	97	158	+61

*Kindergarten Enrollment Projections*

NESDEC's enrollment projections for 2010-2011, utilizing the 1.70 growth ratio forecasts Kindergarten enrollment at 179 students, which is +74 over the size of the birth cohort five years previously (105 births). This difference in the birth to Kindergarten enrollment needs to be monitored closely through out the year, especially in light of the lower than average birth rates over the past several years.

As in the last several years, we plan to continue our effort to gather the most accurate Kindergarten enrollment data through the following activities:

- Scheduling a late fall pre-registration for Kindergarten to help with staff planning and the number of sections needed for the fall of 2010.
- Continuing the process of contacting all area pre-school programs to obtain an accurate update on the number and ages of children enrolled in these programs.
- Sending parents of Kindergarten age children pre-registration letters, providing information on the school district website and posting information in the Weston Forum about the registration process and deadlines.
- Continuing to work closely with NESDEC to identify forecasting strategies and with appropriate town agencies to better identify 3-5 year-old children who may have moved into the community.

*Hurlbutt Elementary School (con't)*

The enrollment variances by grade level at Hurlbutt Elementary School may impact on the number of sections, in Kindergarten as noted in a grade by grade class size comparison, which illustrates this variance.

	Grade K	Grade 1	Grade 2	
2009-2010 (actual)	158	171	160	
2010-2011 (projected)	<u>179</u>	<u>167</u>	<u>170</u>	
Variance	+21	-4	+10	(+27 net)

Weston Intermediate School—Grades 3—5

Enrollment at the intermediate school level is projected to decrease by 42 students in 2010-2011 (586 projected vs. 628 actual). Similar to last year the grade level class sizes are projected to change as two larger classes continue to move through grade levels. The largest grade level variance is projected in Grade 3 as illustrated in the class size distribution chart that follows:

	Grade 3	Grade 4	Grade 5	
2009-2010 (actual)	215	204	209	
2010-2011 (projected)	<u>162</u>	<u>217</u>	<u>207</u>	
Variance	-53	+13	-2	(-42 net)

Weston Middle School—Grades 6-8

Enrollment at the middle school is projected to increase by 18 students (600 actual vs. 618 projected). There are class size variances in grades 7 and 8, which is likely to have some impact on staff planning and deployment. A grade by grade class size comparison illustrates this variance.

	Grade 6	Grade 7	Grade 8	
2009-2010 (actual)	217	181	202	
2010-2011 (projected)	<u>216</u>	<u>216</u>	<u>186</u>	
Variance	-1	+35	-16	(+18 net)

Weston High School—Grades 9-12

Enrollment at the high school is projected to decrease by 16 students (786 projected vs. 802 current), with Grade 12 projected to enroll 17 less students than the current Grade 12 enrollment. For the period 2000-01 through 2009-2010 high school enrollment grew from 508 students to 802, an increase of 294 students, and a 58% growth rate for that period. A grade by grade class size comparison follows:

	Grade 9	Grade 10	Grade 11	Grade 12	
2009-2010	208	192	195	207	
2010-2011	<u>204</u>	<u>205</u>	<u>187</u>	<u>190</u>	
Variance	-4	+13	-8	-17	(-16 net)

**General Comments (Five Year “Look-Ahead” Perspective)**

K-12 Enrollment

Since the 1999-2000 school year, total enrollment in the Weston Public Schools has increased by 276 students, a 12.3% growth rate for that period. The forecast for the next five years, using 2009-2010 as the base year, forecasts a decline of 135 students, a 5.4% decrease in enrollment to 2384 students in 2014-2015. During the last several years,

NESDEC's forecast for future years has been revised as the enrollment decline has moderated somewhat.

*Hurlbutt Elementary School Enrollment (Grades PK-2)*

Enrollment at Grades K-2 is forecasted to decline over the next five years with a total enrollment decrease of 40 students during that period. This decrease has moderated during the last several years, mainly attributed to the modest upturn in the birth rates since 2003 and several years of higher than projected actual Kindergarten enrollment.

*Weston Intermediate School Enrollment (Grades 3-5)*

Enrollment at the intermediate school for the next five years is forecasted to experience a decline of 112 students, to 516 students in 2014-2015, which represents a decline of 17.8%. However, as was previously mentioned, enrollment projections at these grade levels and those following are forecasted from estimated birth rates and are therefore, subject to fluctuations from year to year.

*Weston Middle School (Grades 6-8)*

Over the next five years, enrollment at the middle school is forecasted to remain fairly steady, with a modest decrease of 15 students during this period, with enrollment ranging from 618 students (2010-2011) to 585 students (2014-2015).

*Weston High School Enrollment (Grades 9-12)*

During the next five years enrollment at the high school is projected to increase by 32 students to 834 in 2014-2015. This reverses the projected enrollment decline in previous years and is attributed to some of the larger than previously projected classes moving up into the high school. As a reference point, last year NESDEC projected a five-year decline of 86 students.

**Summary Comments**

Although NESDEC projections have proved consistent, reliable, and useful, we should not unduly rely on any single year's projections. Small shifts may occur each year depending upon economic conditions, in and out migrations, transfers from private/parochial schools, housing construction and other factors that cannot be anticipated with absolute precision.

**NESDEC Enrollment Report and Projections**

The information and charts that follow add to the school district's enrollment history and projections. A power-point presentation will highlight some of the more important enrollment data and projections for the public and viewing audience.

**ENROLLMENT HISTORY**  
**PROJECTIONS vs ACTUALS**

	2005-06			2006-07			2007-08			2008-09			2009-10		
	Proj	Actual	Diff.	Proj	Actual	Diff.	Proj	Actual	Diff.	Proj	Actual	Diff.	Proj	Actual	Diff.
Grade	Proj	Actual	Diff.	Proj	Actual	Diff.	Proj	Actual	Diff.	Proj	Actual	Diff.	Proj	Actual	Diff.
K	178	182	4	193	210	17	117	147	30	153	168	15	170	158	-12
1	195	194	-1	193	194	1	224	220	-4	156	160	4	179	171	-8
2	208	213	5	199	200	1	202	191	-11	227	218	-9	160	160	0
<b>Primary</b>	<b>581</b>	<b>589</b>	<b>8</b>	<b>585</b>	<b>604</b>	<b>19</b>	<b>543</b>	<b>558</b>	<b>15</b>	<b>536</b>	<b>546</b>	<b>10</b>	<b>509</b>	<b>489</b>	<b>-20</b>
3	176	174	-2	213	210	-3	198	196	-2	188	203	15	220	215	-5
4	188	191	3	178	174	-4	213	213	0	199	195	-4	204	204	0
5	203	206	3	193	186	-7	176	170	-6	210	212	2	191	209	18
<b>Intermediate</b>	<b>567</b>	<b>571</b>	<b>4</b>	<b>584</b>	<b>570</b>	<b>-14</b>	<b>587</b>	<b>579</b>	<b>-8</b>	<b>597</b>	<b>610</b>	<b>13</b>	<b>615</b>	<b>628</b>	<b>13</b>
6	198	199	1	207	208	1	187	187	0	171	182	11	218	217	-1
7	210	201	-9	195	191	-4	201	203	2	181	188	7	178	181	3
8	224	232	8	201	201	0	191	192	1	204	205	1	189	202	13
<b>Middle</b>	<b>632</b>	<b>632</b>	<b>0</b>	<b>603</b>	<b>600</b>	<b>-3</b>	<b>579</b>	<b>582</b>	<b>3</b>	<b>556</b>	<b>575</b>	<b>19</b>	<b>585</b>	<b>600</b>	<b>15</b>
9	201	212	11	226	225	-1	195	200	5	190	195	5	204	208	4
10	200	203	3	203	208	5	221	219	-2	195	200	5	192	192	0
11	169	166	-3	202	199	-3	205	199	-6	212	214	2	194	195	1
12	164	163	-1	163	169	6	197	189	-8	193	200	7	212	207	-5
<b>Senior</b>	<b>734</b>	<b>744</b>	<b>10</b>	<b>794</b>	<b>801</b>	<b>7</b>	<b>818</b>	<b>807</b>	<b>-11</b>	<b>790</b>	<b>809</b>	<b>19</b>	<b>802</b>	<b>802</b>	<b>0</b>
Pre-K	31	38	7	38	40	2	34	39	5	47	50	3	53	39	-14
Outplaced	26	28	2	22	27	5	25	28	3	24	22	-2	21	20	-1
<b>Total</b>	<b>2,571</b>	<b>2,602</b>	<b>31</b>	<b>2,626</b>	<b>2,642</b>	<b>16</b>	<b>2,586</b>	<b>2,593</b>	<b>7</b>	<b>2,550</b>	<b>2,612</b>	<b>62</b>	<b>2,585</b>	<b>2,578</b>	<b>-7</b>

Change

67

40

-49

19

-34

**WESTON PUBLIC SCHOOLS  
WESTON, CONNECTICUT**

**ENROLLMENT PROJECTIONS  
2010-11 TO 2014-15**

	2010-11	2011-12	2012-13	2013-2014	2014-2015
<b>Grade</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>	<b>Projected</b>
K	179	146	124	155	155
1	165	188	153	130	163
2	170	166	187	153	130
<b>Primary</b>	<b>514</b>	<b>500</b>	<b>464</b>	<b>438</b>	<b>448</b>
3	162	172	168	189	154
4	217	163	173	169	191
5	207	220	165	175	171
<b>Intermediate</b>	<b>586</b>	<b>555</b>	<b>506</b>	<b>533</b>	<b>516</b>
6	215	213	227	170	180
7	213	211	209	223	166
8	185	221	220	218	233
<b>Middle</b>	<b>613</b>	<b>645</b>	<b>656</b>	<b>611</b>	<b>579</b>
9	202	186	223	222	220
10	203	199	183	220	219
11	183	195	192	176	212
12	185	177	189	186	170
<b>Senior</b>	<b>773</b>	<b>757</b>	<b>787</b>	<b>804</b>	<b>821</b>
Pre-School	39	39	39	39	39
Out-Placed	20	20	20	20	20
<b>Total</b>	<b>2,545</b>	<b>2,516</b>	<b>2,472</b>	<b>2,445</b>	<b>2,423</b>
<b>Projected Change</b>	<b>-33</b>	<b>-29</b>	<b>-44</b>	<b>-27</b>	<b>-22</b>

*Note: The NESDEC enrollment projections report that was presented to the Board of Education in November includes students placed in out-of-district facilities by grade. This report reduces the enrollment projections by grade level for these students, and reports them on a separate line entitled "Out-placed."*