

WESTON PUBLIC SCHOOLS
MEMORANDUM

To: Board of Education
From: Lewis D. Brey
Date: November 20, 2017
RE: NESDEC Enrollment History and Projections

This memorandum provides an overview and analysis of the attached enrollment history and forecast from the New England School Development Council (“NESDEC”). These enrollment projections provide important data for program development, budget planning, and staffing for the 2018/2019 school year

Projection Methodology

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.

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 2015/2016, increased to 104 students in grade 2 in 2016/2017, 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 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 and out of the schools;
2. Retention in the same grade;
3. Births in the community;
4. New house construction;
5. Residential turnover;
6. Spikes/declines in real estate sales and leasing;
7. Drop-outs, transfers, etc.; and
8. Economic conditions in the tri-state area.

The ratios 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 of students for which an estimate must be made to predict the number of births and health of the real estate market, thereby adding additional variables.

Projections can serve as useful guides to school administrators for educational planning. The projections are generally most reliable when they are closest in time to the current year. Nevertheless, in recent years even near term projections, particularly at the K-5 level, have fluctuated significantly from predictions just one or two years prior. For instance, in 2014, NESDEC projected that the K-2 enrollment for 2018/2019 would be 326. In 2016, NESDEC projected 2018/2019 K-2 enrollment at 434. This year, NESDEC is projecting the 2018/2019 K-2 enrollment to be 389. These discrepancies indicate that, even in the short term, projections can change dramatically – particularly at the K-2 level. Annual updates allow for the identification of any recent changes in trends.

Projections six to 10 years out may serve as a guide to future enrollments and may be useful for long-range facilities planning. However, they should be viewed as subject to change given the possibility for anomalies in the underlying assumptions, such as significant economic upheaval.

Review of Enrollment – 2017-2018

Last year, NESDEC projected a K through 12 enrollment for the 2017/18 school year of 2322. The actual K through 12 enrollment for 2017/2018 is 2314, only eight students fewer than expected. However, even though the districtwide projection difference was statistically insignificant, there were large variations between the kindergarten projections and actual enrollment as well as in the projections and actual enrollment in grade 1, grade 4, and grade 7. Actual enrollments in other grades are closer to NESDEC's projections. These totals are noted in the individual school enrollment summaries below. Please note that the NESDEC grade specific figures do not include students who are currently outplaced due to special education needs.

Hurlbutt Elementary School

At Hurlbutt Elementary School, there was a K-2 variance of 29 students below the projection (402 actual vs. 431 projected – a 6.7% deviation). This deviation was primarily the result of much smaller than projected kindergarten enrollment of 113 actual vs. 142 projected (a 20% percent deviation from the projection). Grade 1 enrollment was

closer to the projection (142 actual vs. 139 projected) as was grade 2 enrollment (147 vs. 150 projected).

In 2014, NESDEC projected an enrollment of only 107 kindergarten students for the 2017/2018 school year. As of October 1, 2017, there were 113 kindergarten students. Interestingly, NESDEC's 2014 kindergarten projection was much closer to the current actual enrollment than their projection in 2016 that there would be 142 kindergarten students in the current year. In order to make its predictions, NESDEC uses a birth to kindergarten ratio that measures the number of incoming kindergarten students compared to the number of Weston births five years earlier. In 2012, the birth year of the majority of the current kindergarten class, there were 63 births. This represents an increase in 14 births from the 49 births in 2011. However, whereas the kindergarten class in 2016 had 128 students, this year's class has only 113 students. Therefore, the birth to kindergarten ratio which had reached a 21 year high in 2016 has dropped dramatically as demonstrated below. The birth to kindergarten ratios for the last seven years are as follows:

2011: 1.91
2012: 1.61
2013: 1.97
2014: 1.97
2015: 2.03
2016: 2.61
2017: 1.79

Predicting kindergarten enrollment from births has proven very difficult. While in 2016 there was a ratio of 2.61 enrolled students for each Weston birth, as recently as 2012 this ratio was 1.61 and this year it was only 1.79. The ratio used by NESDEC for the current kindergarten projection was 2.25 (as opposed to the actual 1.79). For next year, NESDEC has used a 2.07 ratio to predict the size of the incoming kindergarten class. (114 projected students and 55 births in 2013). The average ratio over the last seven years is 1.98.

Last year, NESDEC stated that Weston was the New England district with the highest number of "net move-ins." This was an increase from 2015/2016 when Weston was in the top 3-4% of New England school districts for "net move-ins." This in-migration was the primary driver of the increasing kindergarten enrollment as opposed to births, which remain very low. This large in-migration appears to have subsided, at least at the kindergarten level, given the significant decrease in the size of the incoming class in the current school year.

With the birth rates continuing at low levels for the foreseeable future as noted in the NESDEC enrollment projection chart, the birth to kindergarten ratio will need to increase again in order to avoid further declines in enrollment. Weston has been hit hard by the statewide decline in births falling to a low of 49 births in 2011 and only modest increases

in births through 2014 when the birth rate was 70¹. Thereafter, NESDEC predicts births will not rise above 60 per year through 2022.

As in prior years, Hurlbutt has carefully monitored enrollment in area pre-schools to determine the number of Weston students who may enroll in kindergarten in the coming years. Obviously, these numbers change as new students enroll, move into the area, or leave five year old preschool programs to enter kindergarten. Also, these numbers will not reflect students who move into Weston during the summer preceding the start of school.

Year	NESDEC	Preschool Feedback	a/o 10/01	
2018-2019	114	76		* + 10 eligible 5 year old who could register for either K or 1
2017-2018	142	96*	113	* + 13 eligible 5 year old who could register for either K or 1
2016-2017	116	101*	128	* + 8 eligible 5 year olds who could register for either K or 1
2015-2016	113	102*	124	* + 10 eligible 5 year olds who could register for either K or 1
2014-2015	138	104*	140	* + 15 eligible 5 year olds who could register for either K or 1
2013-2014	116	89*	136	* + 25 eligible 5 year olds who could register for either K or 1
2012-2013	126	99*	115	* + 23 eligible 5 year olds who could register for either K or 1
2011-2012	140	120*	161	* + 29 eligible 5 year olds who could register for either K or 1
2010-2011	179	149*	159	* + 22 eligible 5 year olds who could register for either K or 1
2009-2010	170	147*	158	* + 26 eligible 5 year olds who could register for either K or 1
2008-2009	130	138*	168	* + 25 eligible 5 year olds who could register for either K or 1
2007-2008	117	139	147	

¹ This birth rate was revised upward from last year's provisional birth total of 67.

The breakdown of pre-school enrollment of Weston students is as follows:

Eligible Preschool
Kindergarten 2018/2019

School Name	2 yrs.	3 yrs.	4 yrs.	5 yrs.
A Child's Place			0	
Beginnings	0	0	0	0
Bright Horizons				
Children's Community Develop. Ctr.			0	
Christ and Holy Trinity Preschool			0	
Conservative Synagogue Preschool	1	2	0	0
Earthplace Nursery School	0	2	1	0
Greens Farms Nursery School	0	0	0	0
Landmark of Ridgefield Academy-Westport	1	0	0	1
Landmark of Ridgefield Academy-Redding	8	10	6	4
Learning Community Day School	2	1	4	3
Norfield Nursery School	4	15	12	0
Old Hill Children's Day School	1	1	0	0
Pumpkin Preschool of Westport	0	0	0	0
Landmark Preschool - Ridgefield	0	0	0	0
Saugatuck Nursery School	0	0	0	0
St. Francis of Assisi Preschool	13	19	16	0
St. Paul Christian School			1	
Temple Israel Early Childhood Ctr.	9	2	7	0
The Montessori School - Wilton	1	0	0	1
Three-Four Open the Door	3	0	2	0
Town & Country Montessori				
Westport Weston Coop Nursery School	13	10	6	0
Wilton YMCA Nursery School	0	0	1	1
Early Learning Center @ HES				
Teacher 1			9	
Teacher 2			11	
TOTAL	56	62	76	10

Weston Intermediate School

At Weston Intermediate School, enrollment was projected at 499 vs. the actual enrollment of 507, a deviation from the projection of eight additional students. While in grade 3 the projected enrollment was 155 vs. the actual enrollment of 153, there is larger than projected enrollment in grade 4 (174 actual vs. 168 projected) and in grade 5 (180 actual vs. 176 projected).

Weston Middle School

As with the intermediate school, the middle school experienced a small influx of unexpected students. At Weston Middle School, enrollment was projected at 570 vs. the actual enrollment of 584; 14 students above the projection. Grade 6 enrollment is six students above the projection (196 actual vs. 190 projected), grade 7 enrollment is two students above projection (190 actual vs. 188 projected), and grade 8 enrollment is six students above projection (198 actual vs. 192 projected).

Weston High School

At Weston High School, there was one fewer student than projected (809 actual enrollment vs. 810 projected). In grade 9, there are seven students above projection (210 actual vs. 203 projected), and in grade 10 there are five fewer students than projected (184 actual vs. 189 projected). Grade 11 came in two students below projection (209 actual vs. 211 projected), and in grade 12 there is one fewer student than projected (206 actual vs. 207 projected).

Review of NESDEC's 2018-2019 Enrollment Projections

NESDEC's most recent K through 12 projection indicates a decrease in total student enrollment for 2018/2019. Total K-12 projected enrollment for 2018/2019 is forecasted at 2276, a decrease of 38 students below the current year total K-12 enrollment of 2314. This represents a 1.6% decrease from the current year. As described further below, each school is projected to experience a small reduction with the most significant reductions at Hurlbutt Elementary School and Weston Intermediate School.

Hurlbutt Elementary School - Grades K-2 Enrollment at Hurlbutt is projected to decrease by 13 students as compared to the current enrollment in these grades in 2017/2018 (402 current vs. 389 projected). This represents a 3.2% decrease in enrollment. This decrease is attributed to a projected reduction in grade 1 enrollment of 17 students (142 current vs. 125 projected) which is due to the current kindergarten class (113) moving up. Other changes in enrollment include a projected increase of one student in kindergarten (113 current vs. 114 projected), and an increase of three students in grade 2 (147 current vs. 150 projected). Grades 1 and 2 projections are usually very accurate given that they are primarily based on students already in the District. However, as we have seen over the prior three years, there had been dramatic fluctuations in enrollment due to an in steep increase in move-ins leading to an influx of new students. NESDEC factored that trend into last year's projections, but given the much smaller than expected kindergarten class size for the current school year, they have used a more conservative birth to kindergarten ratio for the 2018/2019 projections.

Kindergarten enrollment remains the most difficult to forecast. In developing the enrollment projections for the kindergarten class entering 2018, NESDEC used a birth to kindergarten growth ratio of 2.07. This ratio is higher than the actual birth to kindergarten ratio of 1.79 applicable to the 2017 kindergarten class, but significantly lower than the 2.25 ratio they had originally used to project the size of the current class.

It is important to note that the trend over the past 14 years, and the projection for the upcoming school year, illustrated by the following chart, indicates that the in-migration rate for the current year is at its lowest point since 2012 and is the third lowest since 2004. This is in sharp contrast to 2016 when the difference between the year of birth and kindergarten eligibility five years later was at its second highest point since 2004.

In-Migration between Year of Birth and Actual Kindergarten Enrollment*

	Birth Cohort	K Enrollment	Difference
1999 to 2004	146	184	+38
2000 to 2005	129	182	+53
2001 to 2006	129	210	+81
2002 to 2007	77	146	+69
2003 to 2008	93	166	+73
2004 to 2009	97	158	+61
2005 to 2010	105	159	+54
2006 to 2011	85	162	+77
2007 to 2012	72	115	+43
2008 to 2013	69	136	+67
2009 to 2014	71	140	+69
2010 to 2015	61	124	+63
2011 to 2016	49	128	+79
2012 to 2017	63	113	+50
2013 to 2018	55	114 (projected)	+59

**Births in 2011 fell to a low of 49 (80 fewer than 10 years earlier). This represents a 62% drop in the birth rate. The 2018 in-migration rate is projected to be +59 which is twenty (20) students fewer than NESDEC had projected for the current year (+79).*

As we have for 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 2018.
- Continuing the practice 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 and other consultants to identify forecasting strategies and with appropriate town agencies to better identify three-five year-old children who may have moved into the community.
- Monitor home sales, and leases to the extent possible, to better determine how many families with young children have moved into the community. This information has proven critical given the fluctuation in the rate of sales and rentals over the last four years.

The projected enrollment for Hurlbutt Elementary School is as follows:

	Grade K	Grade 1	Grade 2
2017-2018 (current)	113	142	147
2018-2019 (projected)	<u>114</u>	<u>125</u>	<u>150</u>
Increase/Decrease	+1	-17	+3

If the projections for Hurlbutt Elementary School prove accurate, there will likely be a reduction of sections at the kindergarten and grade 1 levels. While kindergarten is projected to increase by one student, this year's class sizes are low due to the unrealized NESDEC projection for the current year, and the reduction of a section next year would keep classes within the Board's class size guidelines. In addition, the reduction of 17 students may lead to a reduction in a section.

Weston Intermediate School - Grades 3-5

Enrollment at the intermediate school is projected to decline by 13 students (507 current vs. 494 projected). This represents a 2.6% decline. Enrollment in all three grades is projected to change as follows:

	Grade 3	Grade 4	Grade 5
2017-2018 (current)	153	174	180
2018-2019 (projected)	<u>157</u>	<u>158</u>	<u>179</u>
Increase/Decrease	+4	-16	-1

As a result of the reduced projection for kindergarten enrollment in the upcoming years (as described further below), WIS is no longer projected to increase past 500 from 2022/2023 and beyond. Instead, NEDEC projects WIS enrollment to rise back to 498 in 2023/2024 and then fluctuate below the 500 level over the following few years.

Weston Middle School - Grades 6-8

Enrollment at the middle school is projected to decrease by seven (7) students (584 current vs. 577 projected). This represents a 1.2% decrease and is attributable to the decreases in grades 6 and 8 as mitigated by the projected increase in grade 7.

	Grade 6	Grade 7	Grade 8
2017-2018 (current)	196	190	198
2018-2019 (projected)	<u>187</u>	<u>200</u>	<u>190</u>
Increase/Decrease	-9	+10	-8

Weston High School - Grades 9-12

Enrollment at the high school is projected to decrease by five students (809 current vs. 804 projected). This represents a 0.6% decrease in enrollment. The sizes of each grade will fluctuate significantly next year as follows:

	Grade 9	Grade 10	Grade 11	Grade 12
2017-2018 (current)	210	184	209	206
2018-2019 (projected)	<u>203</u>	<u>189</u>	<u>211</u>	<u>207</u>
Increase/Decrease	-7	+5	+2	+1

NESDEC continues to forecast a steady decline in high school enrollment for the next 10 years which reflects the smaller cohorts of students coming up through the system. Currently, NESDEC projects that the enrollment for the high school for the 2027/2028 school year will fall to 681 students.

Long Term Projections (Beyond 2018/2019)

NESDEC has provided the District with a 10 year enrollment projection. *However, it is important to keep in mind that projections beyond the first few years are often far less reliable given the reliance on birth rate projections and other factors.* This is particularly true given the unpredictable nature of the real estate market and the state and national economies. The more reliable districtwide projections will always be for the first three years given that the official birth rates are known.

K-12 Enrollment

Since the 2007/2008 school year, total K through 12 enrollment in the Weston Public Schools has decreased by 221 students (2535 in 2007/2008 to 2314 in 2017-2018). This represents an 8.7% reduction. The forecast for the next five years, using 2017/2018 as the base year, forecasts a further decline of 126 students, a 5.4% decrease in enrollment from 2314 in 2017/2018 to 2188 in 2022/2023.

Hurlbutt Elementary School Enrollment (Grades PK-2)

Enrollment in Grades K-2 is now forecasted to fluctuate between 389 and 421 over the next five years and ultimately settle at 392 in 2022/2023 at the end of the five year period. This would represent an increase of three students from the current year's enrollment. This projection is significantly different from last year's projection of 446 students in the 2022/2023 school year – a difference of fifty-four (54) students. Enrollment is then projected to remain stable through 2027/2028 with an average K-2 population of 400 students between 2023/2024 and 2027/2028. These projections represent a major change from last year's projection which predicted an average K-2 population of 450 during this time period (excluding 2027/2018), but is much closer to the projection from 2016 which forecast average K-2 enrollment of 405 for the period of 2021/2022 – 2025/2026.

The trend from the prior three years of NESDEC projections had been a steady and substantial increase in K-2 enrollment based on larger than previously predicted kindergarten classes. Last year's projections, as noted above, forecast K-2 enrollment for a 10 year period to range from 431 to 454. This year, NESDEC has revised its projections to reflect a stabilization of K-2 enrollment for the next 10 years with enrollment ranging from a low of 387 in to a high of 421.

Weston Intermediate School Enrollment (Grades 3-5)

Enrollment for the next five years at WIS is now projected to fall by 28 students to 479 students in 2022/2023 from 507 students in the current year; a decline of 5.5%. Last year, NESDEC projected that enrollment at WIS in 2022/2023 would be 527. NESDEC's 10 year projection has the WIS enrollment increasing by 25 students to 482 in 2027/2028.

NESDEC's projections for WIS have varied greatly over the last two years. For instance, last year, NESDEC projected WIS enrollment in 2026/2027 to stand at 522. This year, NESDEC projects that WIS enrollment in 2026/2027 will be 458. This difference, 64 students, represents a 12% change in projected enrollment in only one year. This is also in sharp contrast to NESDEC's long-term projection in 2014 which forecast that enrollment at WIS in the 2024-2025 school year would be 397 students; a difference of 93 students from the current projection of 490 (a 19% variance).

The wide swings in long-term projections at WIS, and at other schools, is further evidence of why long-term projections are of only limited value.

Weston Middle School (Grades 6-8)

Over the next five years, enrollment at the middle school is forecast to decrease by 61 students (10.5%); with enrollment ranging from 584 students in the current year to 523 students (2022/2023). The decrease in enrollment is once again projected to occur steadily over that five year period. NESDEC's 10 year projection has middle school enrollment rebounding slightly to 531 students in 2027/2028. As with Hurlbutt and WIS, NESDEC's current long-term projection for the middle school is very different from their recent analyses. Last year, NESDEC projected that enrollment at the middle school in 2024/2025 would be 530 students whereas this year they are projecting enrollment for that same year will be 495². Further, in 2014, NESDEC predicted middle school enrollment in 2024/2025 would be only 402 students – a difference of 93 students from the current projection. Once again, these swings in projections should serve to caution the Board to not heavily rely on long term projections in its planning.

Weston High School Enrollment (Grades 9-12)

During the next five years, enrollment at the high school is projected to decrease by 27 students to 782 in 2022/2023. Interestingly, this projection represents a significant increase over last year's projection of 722 students in the same year. Thereafter, NESDEC predicts that enrollment at the high school will steadily decline over the following five years to 681 in 2027/2028. This represents a 10 year decline of 128 students (15.8%).

Summary Comments

Given the dramatic decline in birth rates since 2008, the uncertain real estate market, and the dramatic fluctuation in “move-ins” over the last four years, the NESDEC near-term and long-term projections have varied significantly from year-to-year. Although NESDEC projections have proved reliable and useful, we cannot unduly rely on any single year's projections. Further, predictions beyond the first few years are less reliable as they are based on estimated future birth rates and assumptions in real estate trends that are simply too far away to predict with sufficient accuracy. Given all of the uncertainties, it may be unwise to plan significant changes too far into the future.

NESDEC Enrollment Report and Projections

The information and charts that follow describe the District's enrollment history and projections. A PowerPoint presentation will highlight some of the more important enrollment data and projections for the Board, the public, and the viewing audience.

² The 2024/2025 middle school enrollment of 495 is the lowest in the ten (10) year forecast.

Weston, CT Historical Enrollment

School District: **Weston, CT**

10/17/2017

Includes non-residents tuitioned in and Special Education students in outplacements

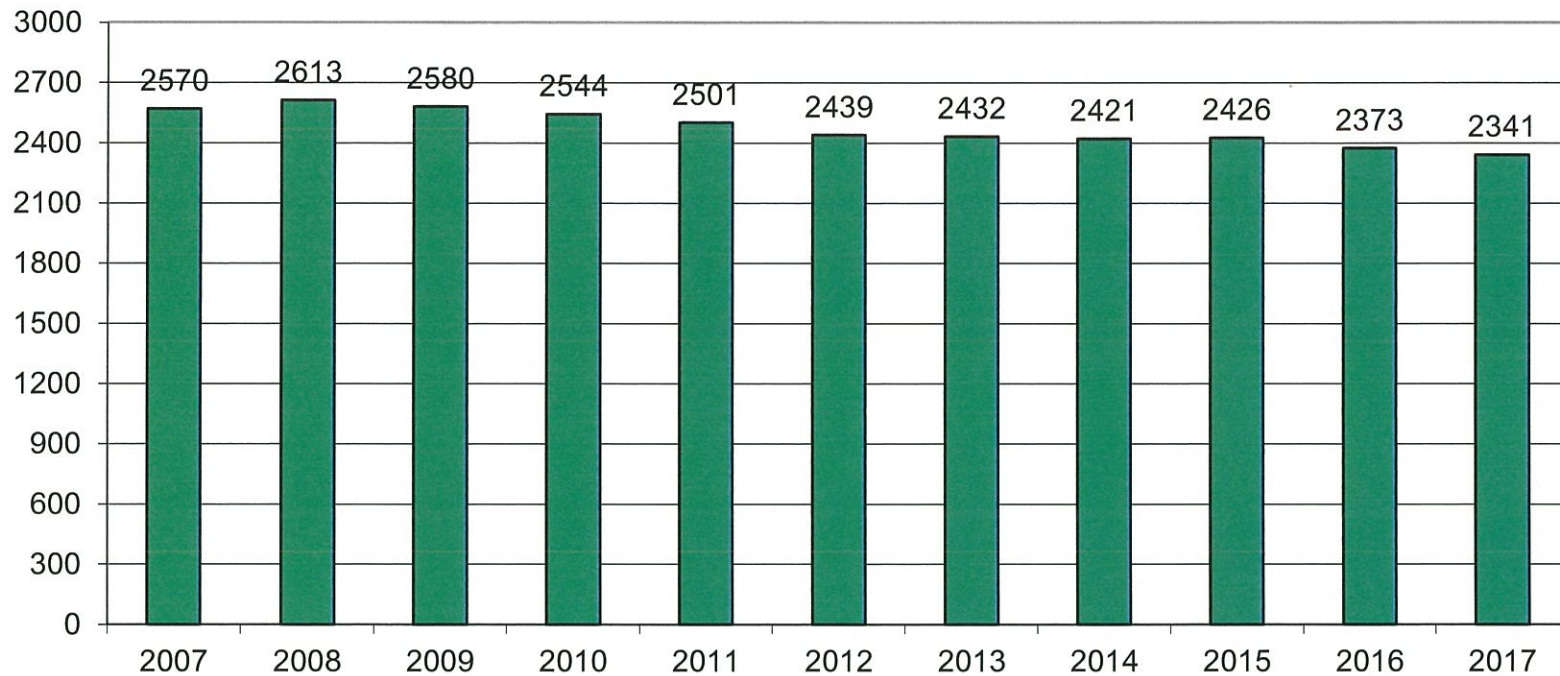
Historical Enrollment By Grade																			
Birth Year	Births	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	OUT PL	K-12	PK-12
2002	77	2007-08	35	146	220	191	196	213	170	188	203	192	197	219	197	185	18	2535	2570
2003	93	2008-09	36	166	159	220	202	194	211	183	190	210	196	206	214	198	28	2577	2613
2004	97	2009-10	39	158	171	160	214	203	209	217	181	202	208	191	193	206	28	2541	2580
2005	105	2010-11	40	159	166	178	170	216	207	211	215	181	195	205	186	192	23	2504	2544
2006	85	2011-12	30	162	156	177	180	173	217	211	207	211	170	193	203	189	22	2471	2501
2007	72	2012-13	26	115	157	163	180	186	179	221	209	207	210	173	188	205	20	2413	2439
2008	69	2013-14	20	136	135	175	176	183	194	190	214	216	214	209	169	180	21	2412	2432
2009	71	2014-15	32	140	150	146	185	177	186	203	188	212	201	207	206	167	21	2389	2421
2010	61	2015-16	26	124	141	156	161	186	184	190	206	186	216	207	206	211	26	2400	2426
2011	49	2016-17	25	128	143	145	163	173	185	186	194	205	189	213	206	206	12	2348	2373
2012	63	2017-18	27	113	142	147	153	174	180	196	190	198	210	184	209	206	12	2314	2341

Historical Enrollment in Grade Combinations									
Year	K-2	K-5	3-5	K-8	PK-2	6-8	7-8	7-12	9-12
2007-08	557	1136	579	1719	592	583	395	1193	798
2008-09	545	1152	607	1735	581	583	400	1214	814
2009-10	489	1115	626	1715	528	600	383	1181	798
2010-11	503	1096	593	1703	543	607	396	1174	778
2011-12	495	1065	570	1694	525	629	418	1173	755
2012-13	435	980	545	1617	461	637	416	1192	776
2013-14	446	999	553	1619	466	620	430	1202	772
2014-15	436	984	548	1587	468	603	400	1181	781
2015-16	421	952	531	1534	447	582	392	1232	840
2016-17	416	937	521	1522	441	585	399	1213	814
2017-18	402	909	507	1493	429	584	388	1197	809

Historical Percentage Changes			
Year	K-12	Diff.	%
2007-08	2535	0	0.0%
2008-09	2577	42	1.7%
2009-10	2541	-36	-1.4%
2010-11	2504	-37	-1.5%
2011-12	2471	-33	-1.3%
2012-13	2413	-58	-2.3%
2013-14	2412	-1	0.0%
2014-15	2389	-23	-1.0%
2015-16	2400	11	0.5%
2016-17	2348	-52	-2.2%
2017-18	2314	-34	-1.4%
Change		-221	-8.7%

Weston, CT Historical Enrollment

PK-12, 2007-2017



Weston, CT Projected Enrollment

School District: **Weston, CT**

10/17/2017

Includes projection for 27 non-residents tuitioned in and 12 Special Education students in outplacements in 2017-18

Enrollment Projections By Grade*																				
Birth Year	Births		School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	OUTPL	K-12	PK-12
2012	63		2017-18	27	113	142	147	153	174	180	196	190	198	210	184	209	206	12	2314	2341
2013	55		2018-19	28	114	125	150	157	158	179	187	200	190	202	209	182	211	12	2276	2304
2014	70		2019-20	29	145	126	132	160	162	162	186	191	200	194	201	207	183	12	2261	2290
2015	61	(prov.)	2020-21	30	127	161	133	141	165	166	168	190	191	204	193	199	209	12	2259	2289
2016	51	(prov.)	2021-22	31	106	141	170	142	146	169	173	171	190	195	203	191	201	12	2210	2241
2017	60	(est.)	2022-23	32	125	118	149	182	147	150	176	176	171	194	194	201	193	12	2188	2220
2018	59	(est.)	2023-24	33	123	139	125	159	188	151	156	179	176	174	193	192	203	12	2170	2203
2019	60	(est.)	2024-25	34	125	136	147	133	164	193	157	159	179	179	173	191	194	12	2142	2176
2020	58	(est.)	2025-26	35	121	139	144	157	138	168	201	160	159	183	178	171	193	12	2124	2159
2021	58	(est.)	2026-27	36	120	134	147	154	162	142	175	205	160	162	182	176	172	12	2103	2139
2022	59	(est.)	2027-28	37	123	133	142	157	159	166	148	178	205	163	161	180	177	12	2104	2141

*Projections should be updated annually to reflect changes in in/out-migration of families, real estate sales, residential construction, and births.

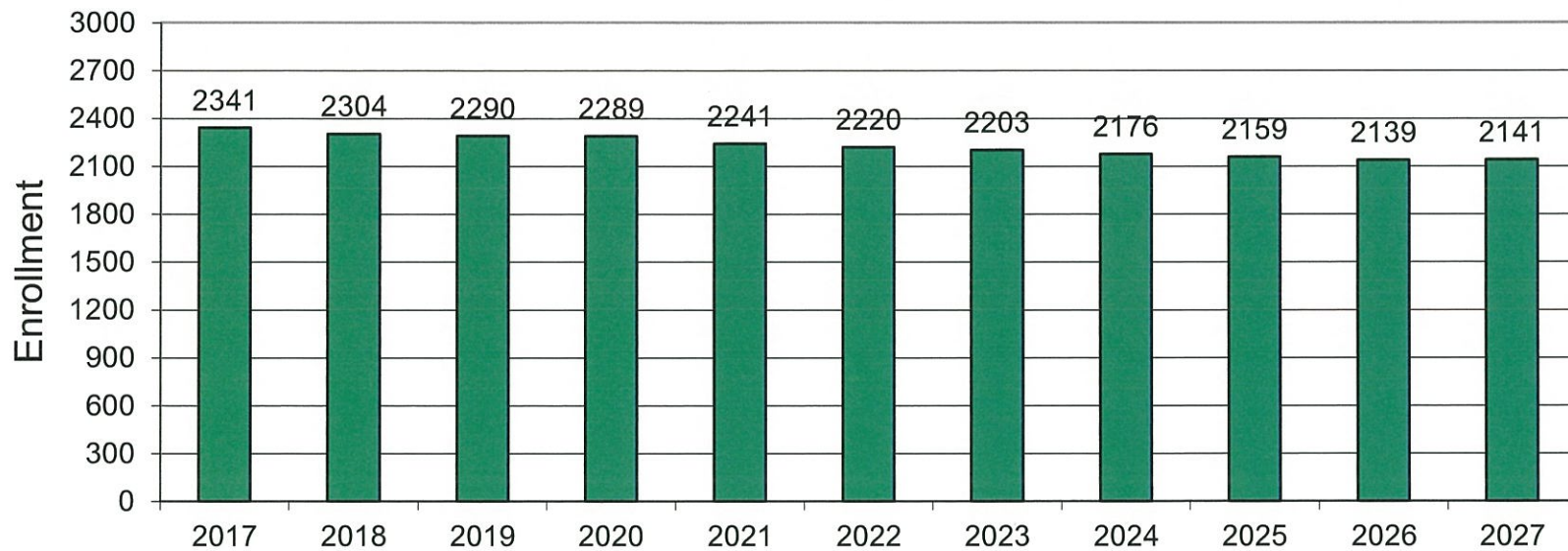
Based on an estimate of births
 Based on children already born
 Based on students already enrolled

Projected Enrollment in Grade Combinations*									
Year	K-2	K-5	3-5	K-8	PK-2	6-8	7-8	7-12	9-12
2017-18	402	909	507	1493	429	584	388	1197	809
2018-19	389	883	494	1460	417	577	390	1194	804
2019-20	403	887	484	1464	432	577	391	1176	785
2020-21	421	893	472	1442	451	549	381	1186	805
2021-22	417	874	457	1408	448	534	361	1151	790
2022-23	392	871	479	1394	424	523	347	1129	782
2023-24	387	885	498	1396	420	511	355	1117	762
2024-25	408	898	490	1393	442	495	338	1075	737
2025-26	404	867	463	1387	439	520	319	1044	725
2026-27	401	859	458	1399	437	540	365	1057	692
2027-28	398	880	482	1411	435	531	383	1064	681

Projected Percentage Changes			
Year	K-12	Diff.	%
2017-18	2314	0	0.0%
2018-19	2276	-38	-1.6%
2019-20	2261	-15	-0.7%
2020-21	2259	-2	-0.1%
2021-22	2210	-49	-2.2%
2022-23	2188	-22	-1.0%
2023-24	2170	-18	-0.8%
2024-25	2142	-28	-1.3%
2025-26	2124	-18	-0.8%
2026-27	2103	-21	-1.0%
2027-28	2104	1	0.0%
Change		-210	-9.1%

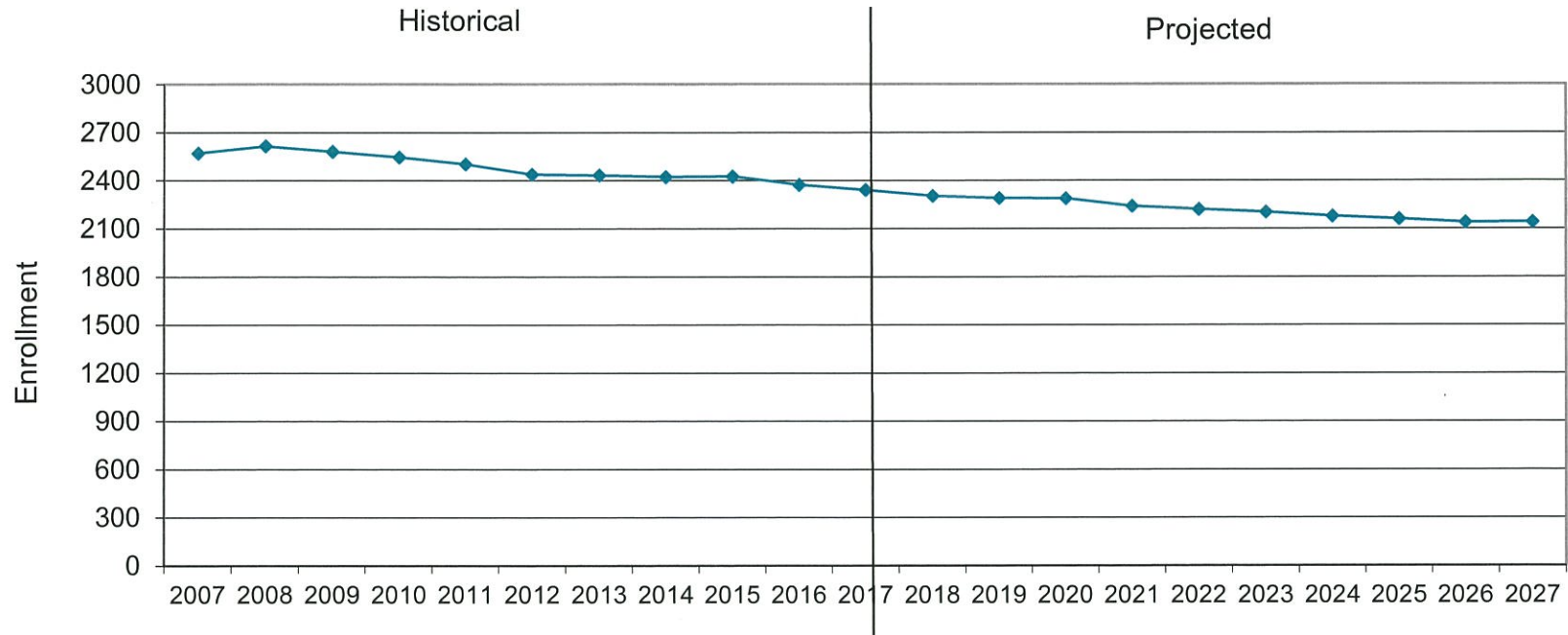
Weston, CT Projected Enrollment

PK-12 TO 2027 Based On Data Through School Year 2017-18

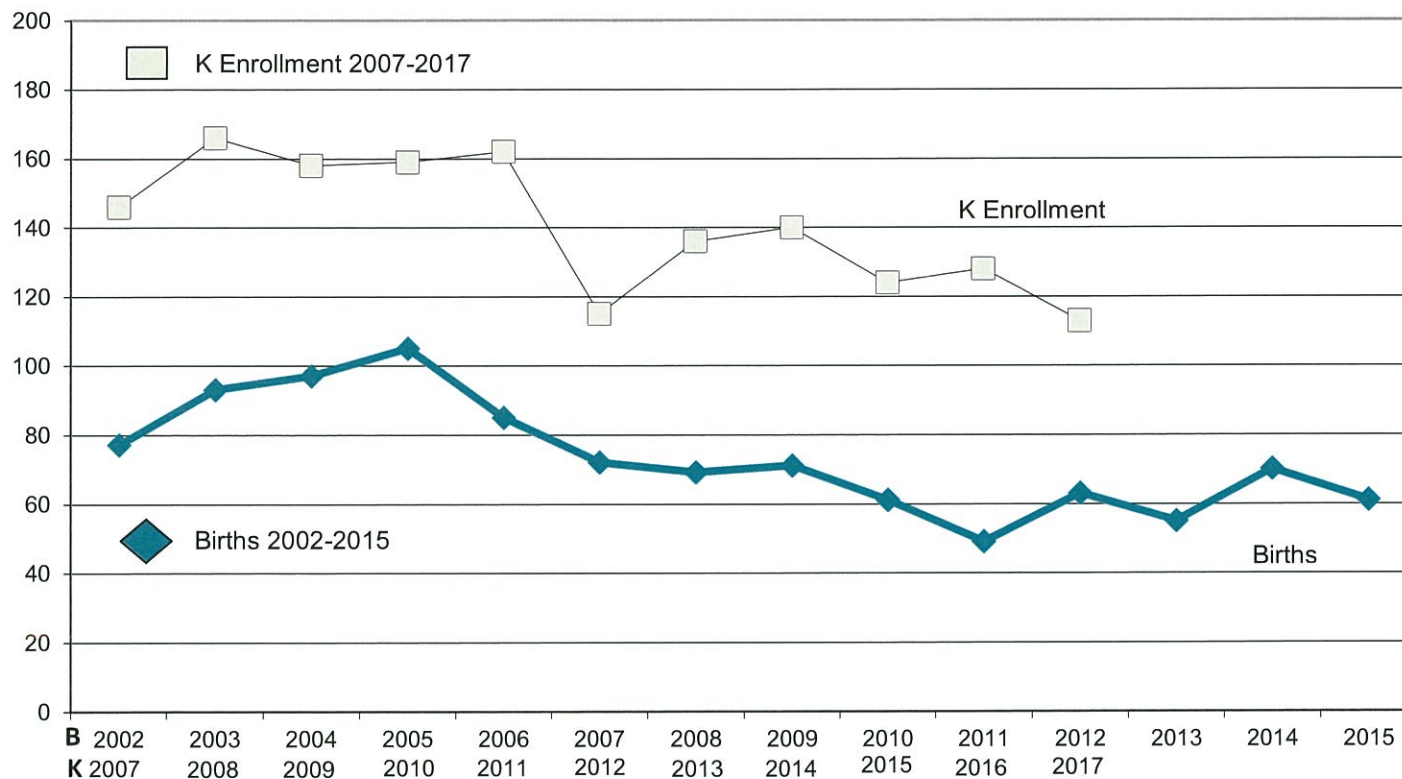


Weston, CT Historical & Projected Enrollment

PK-12, 2007-2027



Weston, CT Birth-to-Kindergarten Relationship



Weston, CT Additional Data

Building Permits Issued		
Year	Single-Family	Multi-Units
2005	31	0
2013	8	0
2014	9	0
2015	13	0
2016	14	0
2017	5 to Aug. 31	0

Source: HUD and Building Department

Enrollment History		
Year	Voc-Tech 9-12 Total	Non-Public K-12 Total
2005-06	3	235
2013-14	n/a	n/a
2014-15	n/a	n/a
2015-16	n/a	n/a
2016-17	n/a	n/a
2017-18	n/a	n/a

Residents in Non-Public Independent and Parochial Schools (General Education)														
Enrollments as of Oct. 1	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12 TOTAL
	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

K-12 Home-Schooled Students	
2017	0

K-12 Residents "Choiced-out" or in Charter or Magnet Schools	
2017	0

K-12 Special Education Outplaced Students	
2017	12

Included in PK-12 enrollment

K-12 Choiced-In, Tuitioned-In, & Other Non-Residents	
2017	27

Included in PK-12 enrollment

The above data were used to assist in the preparation of the enrollment projections. If additional demographic work is needed, please contact our office.

Weston Public Schools



Enrollment History & Forecast 2017-2018

Data supplied by New England School
Development Council (NESDEC)

Factors Affecting Enrollment

1. Migration, in or out, of the schools;
2. Retention in the same grade;
3. Births in the community;
4. New house construction;
5. Residential turnover;
6. Spikes/declines in real estate sales and leases;
7. Drop-outs, transfers, etc.; and
8. Economic conditions in tri-state area

Birth to Kindergarten Ratios

2011: 1.91

2012: 1.61

2013: 1.97

2014: 1.97

2015: 2.03

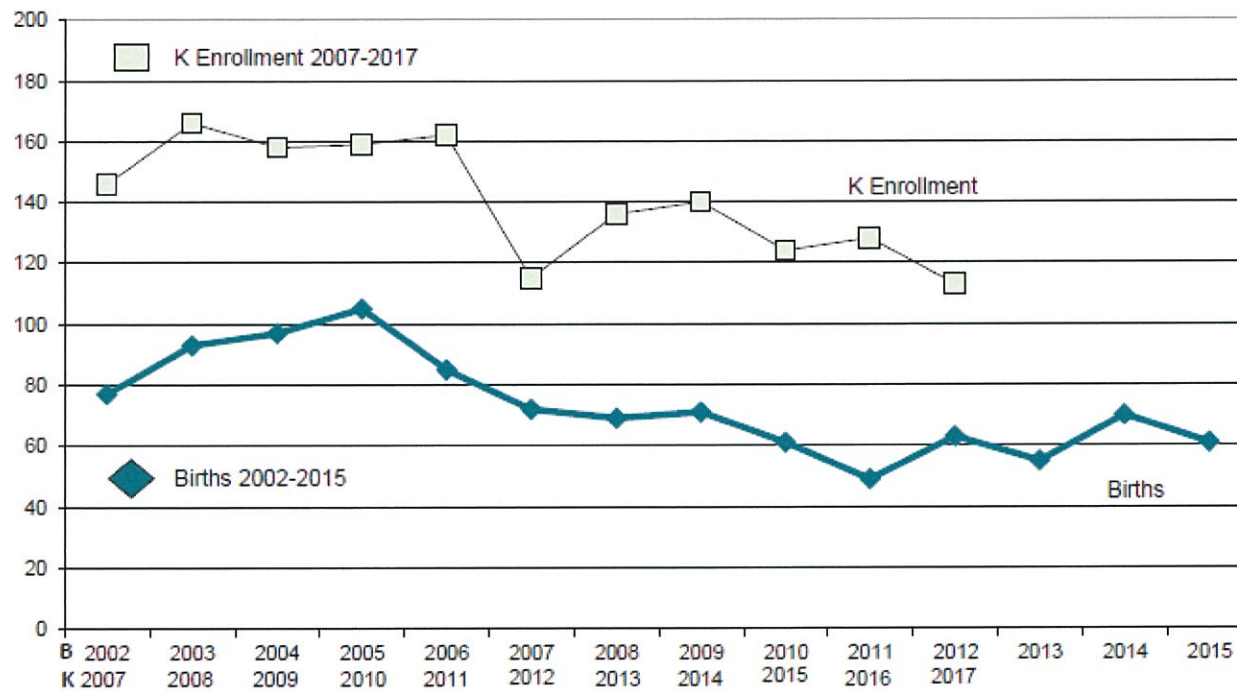
2016: 2.61

2017: 1.79

In-Migration between Year of Birth and Actual Kindergarten Enrollment

	Birth Cohort	K Enrollment	Difference
2001 to 2006	129	210	+81
2002 to 2007	77	146	+69
2003 to 2008	93	166	+73
2004 to 2009	97	158	+61
2005 to 2010	105	159	+54
2006 to 2011	85	162	+77
2007 to 2012	72	115	+43
2008 to 2013	69	136	+67
2009 to 2014	71	140	+69
2010 to 2015	61	124	+63
2011 to 2016	49	128	+79
2012 to 2017	63	113	+50
2013 to 2018	55	114 (projected)	+59

Weston, CT Birth-to-Kindergarten Relationship



Review of 2017/2018 Enrollment

Hurlbutt Elementary School

	<u>Grade K</u>	<u>Grade 1</u>	<u>Grade 2</u>
2017-2018 (current)	113	142	147
2017-2018 (projected)	<u>142</u>	<u>139</u>	<u>150</u>
Variation	-29	+3	-3



Weston Intermediate School

	<u>Grade 3</u>	<u>Grade 4</u>	<u>Grade 5</u>
2017-2018 (current)	153	174	180
2017-2018 (projected)	<u>155</u>	<u>168</u>	<u>176</u>
Variation	-2	+6	+4



Weston Middle School

	<u>Grade 6</u>	<u>Grade 7</u>	<u>Grade 8</u>
2017-2018 (current)	196	190	198
2017-2018 (projected)	<u>190</u>	<u>188</u>	<u>192</u>
Variation	+6	+2	+6



Weston High School

	<u>Grade 9</u>	<u>Grade 10</u>	<u>Grade 11</u>	<u>Grade 12</u>
2017-2018 (current)	210	184	209	206
2017-2018 (projected)	<u>203</u>	<u>189</u>	<u>211</u>	<u>207</u>
Variation	+7	-5	-2	-1



NESDEC Projections for 2018/2019

Hurlbutt Elementary School

	<u>Grade K</u>	<u>Grade 1</u>	<u>Grade 2</u>
2017-2018 (current)	113	142	147
2018-2019 (projected)	<u>114</u>	<u>125</u>	<u>150</u>
Increase/Decrease	+1	-17	+3

Pre-School Feedback

Year	NESDEC	Preschool Feedback	a/o 10/01
2018-2019	114	76	
2017-2018	142	96*	113
2016-2017	116	101*	128
2015-2016	113	102*	124
2014-2015	138	104*	140
2013-2014	116	89*	136
2012-2013	126	99*	115
2011-2012	140	120*	161
2010-2011	179	149*	159
2009-2010	170	147*	158
2008-2009	130	138*	168
2007-2008	117	139	147

* + 10 eligible 5 year old who could register for either K or 1
 * + 13 eligible 5 year old who could register for either K or 1
 * + 8 eligible 5 year olds who could register for either K or 1
 * + 10 eligible 5 year olds who could register for either K or 1
 * + 15 eligible 5 year olds who could register for either K or 1
 * + 25 eligible 5 year olds who could register for either K or 1
 * + 23 eligible 5 year olds who could register for either K or 1
 * + 29 eligible 5 year olds who could register for either K or 1
 * + 22 eligible 5 year olds who could register for either K or 1
 * + 26 eligible 5 year olds who could register for either K or 1
 * + 25 eligible 5 year olds who could register for either K or 1

Pre-School Feedback

Eligible Preschool
Kindergarten 2018/2019

School Name	2 yrs.	3 yrs.	4 yrs.	5 yrs.
A Child's Place			0	
Beginnings	0	0	0	0
Bright Horizons				
Children's Community Develop. Ctr.			0	
Christ and Holy Trinity Preschool			0	
Conservative Synagogue Preschool	1	2	0	0
Earthplace Nursery School	0	2	1	0
Greens Farms Nursery School	0	0	0	0
Landmark of Ridgefield Academy-Westport	1	0	0	1
Landmark of Ridgefield Academy-Redding	8	10	6	4
Learning Community Day School	2	1	4	3
Norfield Nursery School	4	15	12	0
Old Hill Children's Day School	1	1	0	0
Pumpkin Preschool of Westport	0	0	0	0
Landmark Preschool - Ridgefield	0	0	0	0
Saugatuck Nursery School	0	0	0	0
St. Francis of Assisi Preschool	13	19	16	0
St. Paul Christian School			1	
Temple Israel Early Childhood Ctr.	9	2	7	0
The Montessori School - Wilton	1	0	0	1
Three-Four Open the Door	3	0	2	0
Town & Country Montessori				
Westport Weston Coop Nursery School	13	10	6	0
Wilton YMCA Nursery School	0	0	1	1
Early Learning Center @ HES				
Teacher 1			9	
Teacher 2			11	
TOTAL	56	62	76	10

Hurlbutt Elementary School

Five Year Projection

<u>Timeframe</u>	<u>K-2</u>
2018-2019	389
2019-2020	403
2020-2021	421
2021-2022	417
2022-2023	392

Weston Intermediate School

	<u>Grade 3</u>	<u>Grade 4</u>	<u>Grade 5</u>
2017-2018 (current)	153	174	180
2018-2019 (projected)	<u>157</u>	<u>158</u>	<u>179</u>
Increase/Decrease	+4	-16	-1

Weston Intermediate School

Five Year Projection

<u>Timeframe</u>	<u>3-5</u>
2018-2019	494
2019-2020	484
2020-2021	472
2021-2022	457
2022-2023	479

Weston Middle School

	<u>Grade 6</u>	<u>Grade 7</u>	<u>Grade 8</u>
2017-2018 (current)	196	190	198
2018-2019 (projected)	<u>187</u>	<u>200</u>	<u>190</u>
Increase/Decrease	-9	+10	-8

Weston Middle School

Five Year Projection

<u>Timeframe</u>	<u>6-8</u>
2018-2019	577
2019-2020	577
2020-2021	549
2021-2022	534
2022-2023	523

Weston High School

	<u>Grade 9</u>	<u>Grade 10</u>	<u>Grade 11</u>	<u>Grade 12</u>
2017-2018 (current)	210	184	209	206
2018-2019 (projected)	<u>203</u>	<u>189</u>	<u>211</u>	<u>207</u>
Increase/Decrease	-7	+5	+2	+1

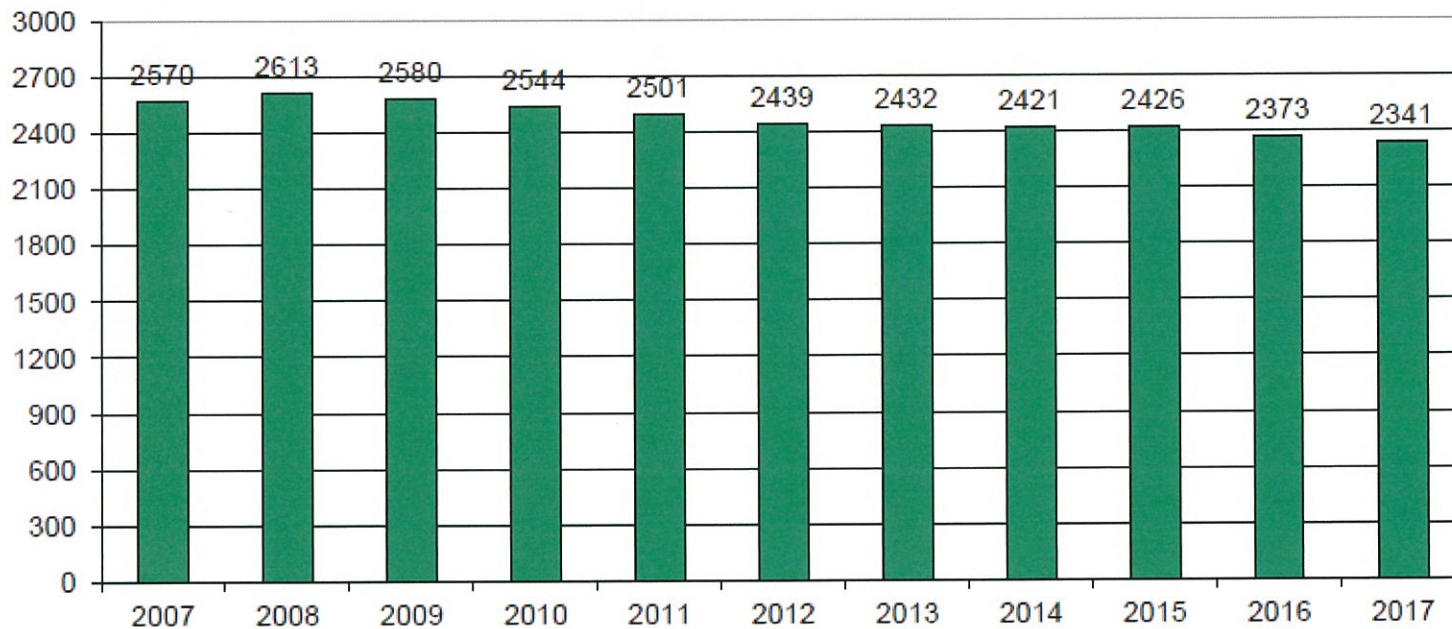
Weston High School Five Year Projection

<u>Timeframe</u>	<u>9-12</u>
2018-2019	804
2019-2020	785
2020-2021	805
2021-2022	790
2022-2023	782

Historical
And
Projected
Long-Term
Enrollment

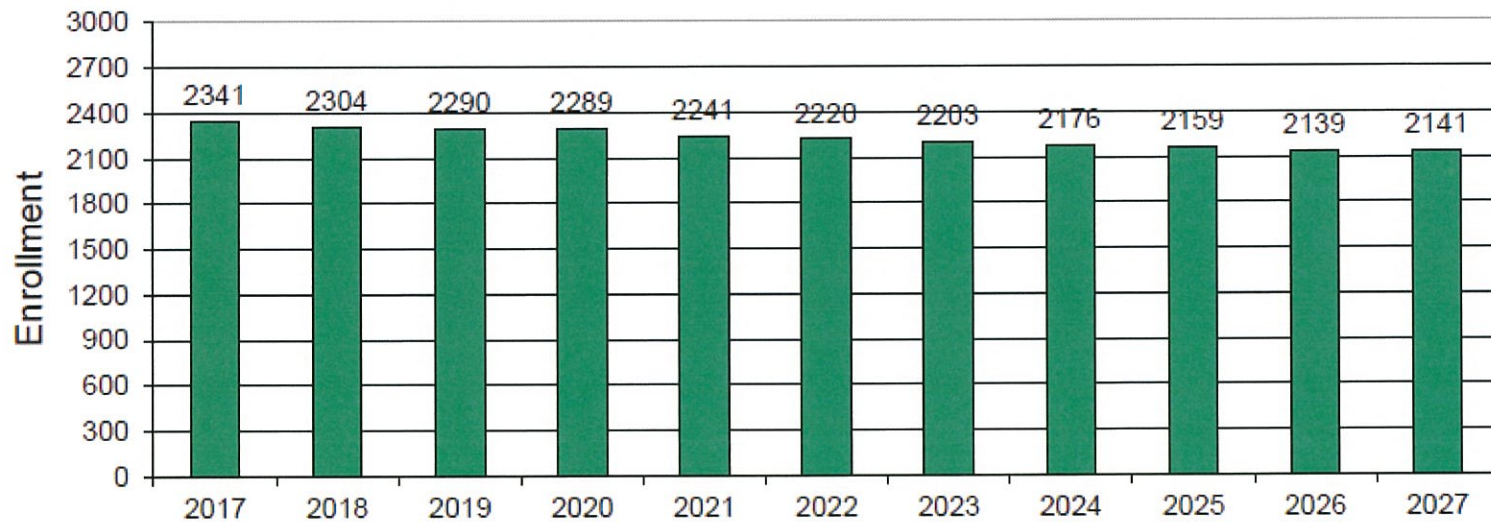
Weston, CT Historical Enrollment

PK-12, 2007-2017



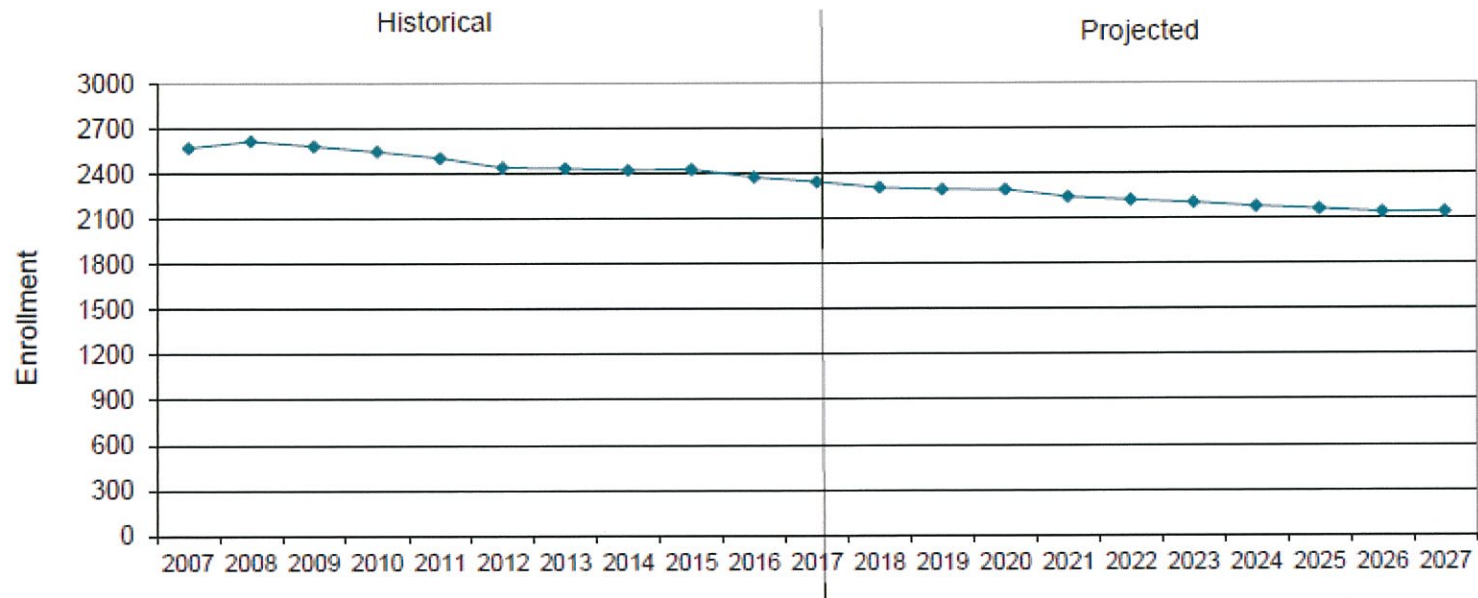
Weston, CT Projected Enrollment

PK-12 TO 2027 Based On Data Through School Year 2017-18



Weston, CT Historical & Projected Enrollment

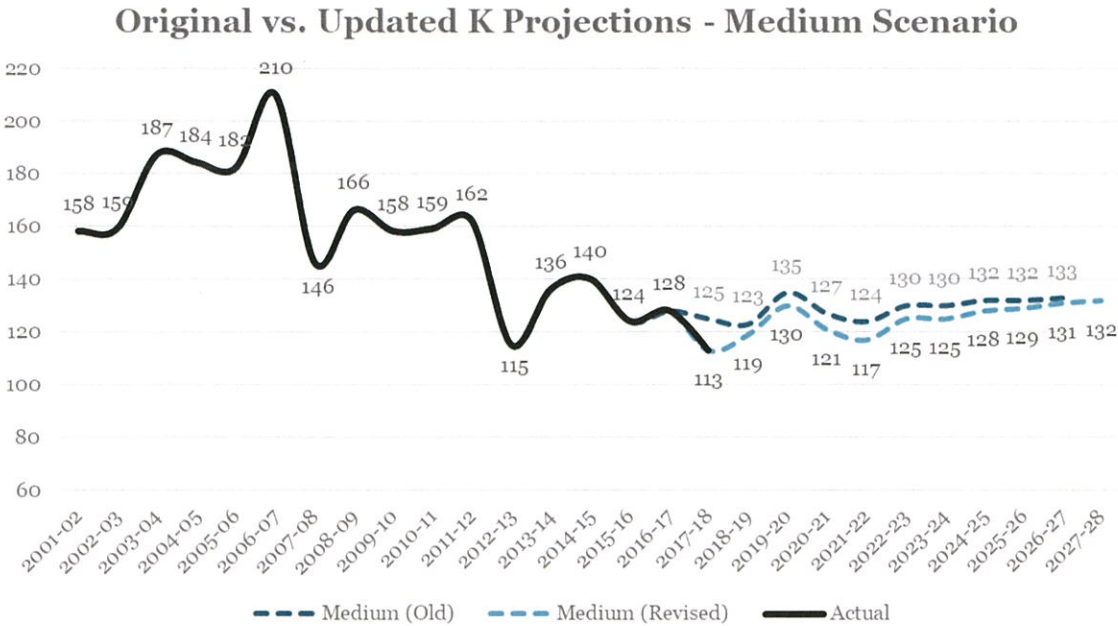
PK-12, 2007-2027



Weston Public Schools

Enrollment Projections Update, October 2017

- Comparison of Weston’s actual October 2017 enrollment figures to our recommended medium regression scenario’s enrollment numbers shows a close overall correspondence between projected and realized enrollment, with K-12 enrollment running just 4 students above projections. In-migration at the intermediate and middle grade levels exceeded projections by a small margin, while elementary enrollment ran slightly below projections due to a smaller entering kindergarten cohort.
- Our regression-based approach to projecting kindergarten enrollment was validated by the decline in kindergarten enrollment in 2017-18. The regression-based medium scenario projected 125 K enrollments, compared to 134 K students based on the traditional Birth-K persistency ratio approach. Although the regression method overshot the October 1st K count of 113 students, it showed closer alignment to actual enrollment.
- The addition of 2017-18 enrollment counts and preliminary 2017 housing sales data to the previous regression model validated the general structure of the model. The model continues to fit the data very closely ($R^2 = 0.985$). With the addition of an additional year of data, the model yields slightly lower kindergarten enrollment estimates, and responds slightly more strongly to births and less strongly to housing sales. Accordingly, the revised regression equation yields between 117 and 131 kindergarten students per year across the remainder of the 2018-19 to 2026-27 horizon, compared to a range of 123 to 133 under the previous model.



- Updated projections through 2027-28 show a similar trajectory to the previously prepared medium scenario for Weston’s overall K-12 enrollments. At the elementary and intermediate grade levels, enrollments are projected to run slightly lower than previously projected as a result

of downwards adjustments in the size of the 2017-18 and projected future kindergarten cohorts. At the middle and high school grade levels, increased rates of student in-migration yield slightly higher enrollments beginning at the middle school level and matriculating through to grades 9-12. The net effect of these trends is slightly positive, with net differences between the previous and current projection scenarios amounting to fewer than 25 students (K-12) for all projected years. Full enrollment projections by year and grade are provided in the tables below.

- A smaller-than-projected kindergarten cohort and minor adjustments to the kindergarten projections model drive lower elementary enrollments in the near term and lower intermediate enrollments in the mid-to-long term. Excluding Pre-K students, elementary enrollments are projected to decline below 400 students for five of the next six years before rebounding. Accordingly, total PK-2 enrollment is projected to remain below 450 until the 2024-25 school year, with secondary impacts felt at the intermediate grade levels as these students progress through the system.
- Greater retention and in-migration of students entering grades 4 through 9 experienced in the 2017-18 school year will have lasting impacts on the size of the cohorts progressing through the middle and high school grade levels through the projection horizon.
- As with all enrollment projections, the revised scenario presented in this memo is sensitive to changes in underlying conditions, including birth rates, housing sales, and student migration trends.

Projected Enrollments and Percent Change by Grade Groupings, 2017-18 to 2027-28

School Year	PK-12 Total	K-12 Total	PK-2 Total	3-5 Total	6-8 Total	9-12 Total
2017-18	2,329	2,302	429	507	584	809
2018-19	2,308	2,263	435	495	577	801
2019-20	2,276	2,231	436	484	576	780
2020-21	2,261	2,216	446	467	552	796
2021-22	2,220	2,175	445	455	539	781
2022-23	2,196	2,151	438	459	527	772
2023-24	2,178	2,133	442	470	509	757
2024-25	2,153	2,108	453	468	496	736
2025-26	2,140	2,095	458	459	501	722
2026-27	2,132	2,087	465	463	513	691
2027-28	2,138	2,093	469	476	510	683

5 Year Change

-5.7%	-6.6%	2.1%	-9.5%	-9.8%	-4.6%
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10 Year Change

-8.2%	-9.1%	9.3%	-6.1%	-12.7%	-15.6%
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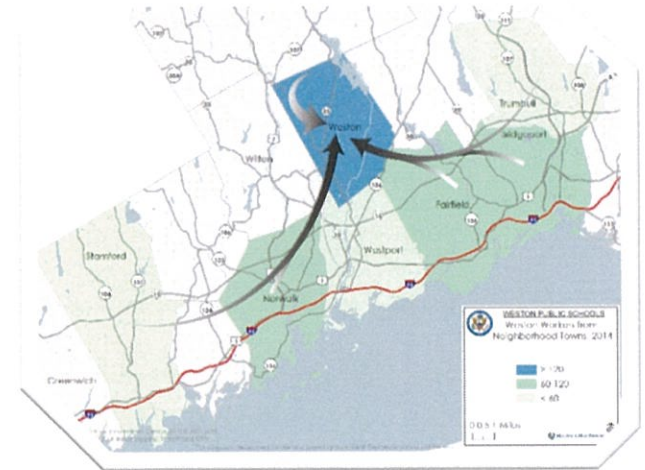
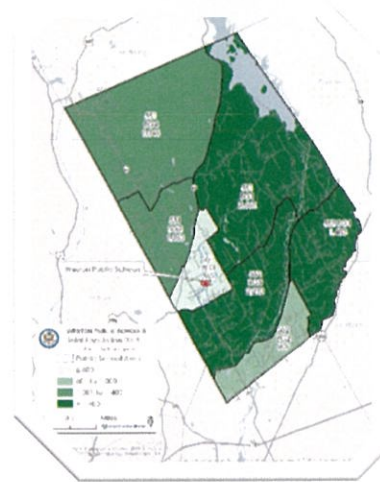
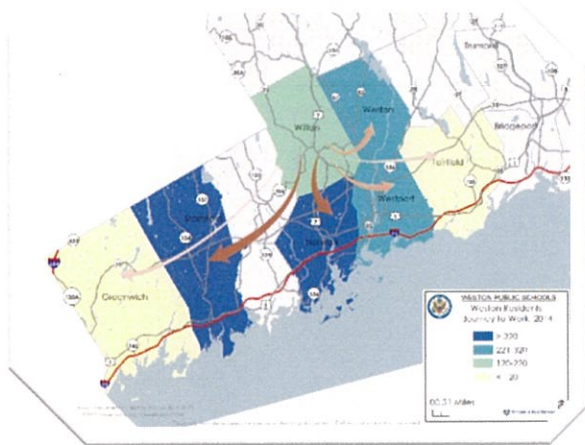
Projected Enrollments by Grade, 2017-18 to 2027-28

Medium Regression K (Derived from Medium Regression Births), 3-Year Weighted Average Persistence

School Year	Birth Year	Births	K	1	2	3	4	5	6	7	8	9	10	11	12	PK
2017-18	2012	63	113	142	147	153	174	180	196	190	198	210	184	209	206	27
2018-19	2013	60	119	125	146	155	162	178	187	200	190	202	207	182	210	45
2019-20	2014	72	130	132	129	154	164	166	185	191	200	194	199	204	183	45
2020-21	2015	61	121	144	136	136	163	168	172	189	191	204	191	196	205	45
2021-22	2016	55	117	134	149	144	144	167	175	175	189	195	201	188	197	45
2022-23	2017	62	125	130	138	158	153	148	173	179	175	193	192	198	189	45
2023-24	2018	60	125	138	134	146	167	157	154	176	179	179	190	189	199	45
2024-25	2019	62	128	138	142	142	155	171	163	157	176	183	176	187	190	45
2025-26	2020	62	129	142	142	150	150	159	178	166	157	180	180	174	188	45
2026-27	2021	64	131	143	146	150	159	154	165	182	166	161	177	178	175	45
2027-28	2022	65	132	145	147	154	159	163	160	168	182	170	159	175	179	45



Weston Public Schools Comprehensive Enrollment Study



September 18, 2017





Introduction

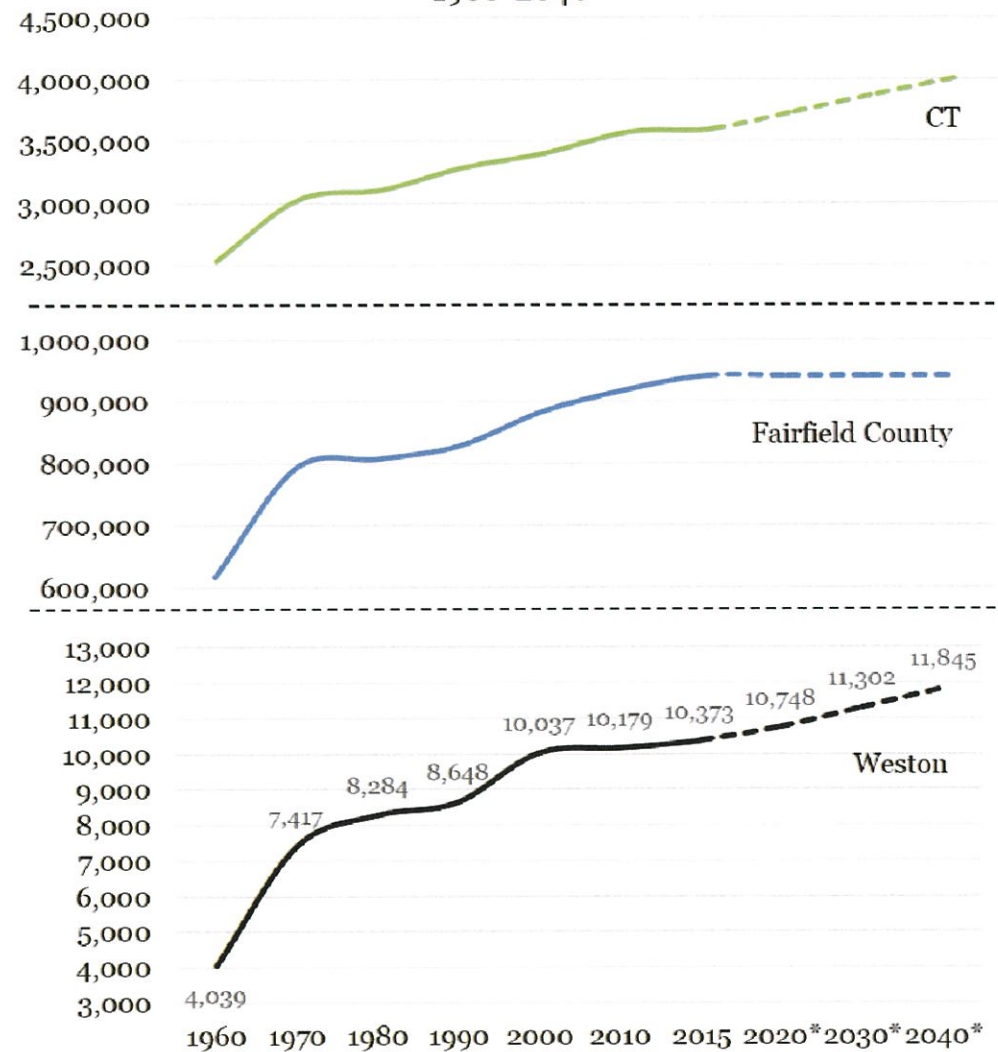
- Demographic, Housing and Economic Indicators & Trends Updates
- Enrollment Patterns and Trends
- Enrollment Projections



Total Population Change

- Total population increased 1.4% from 2000 to 2010, and is estimated to have increased another 2% during 2010-2015
- CT DOT projects steady growth through 2040

Historic and Projected Total Population
1960-2040

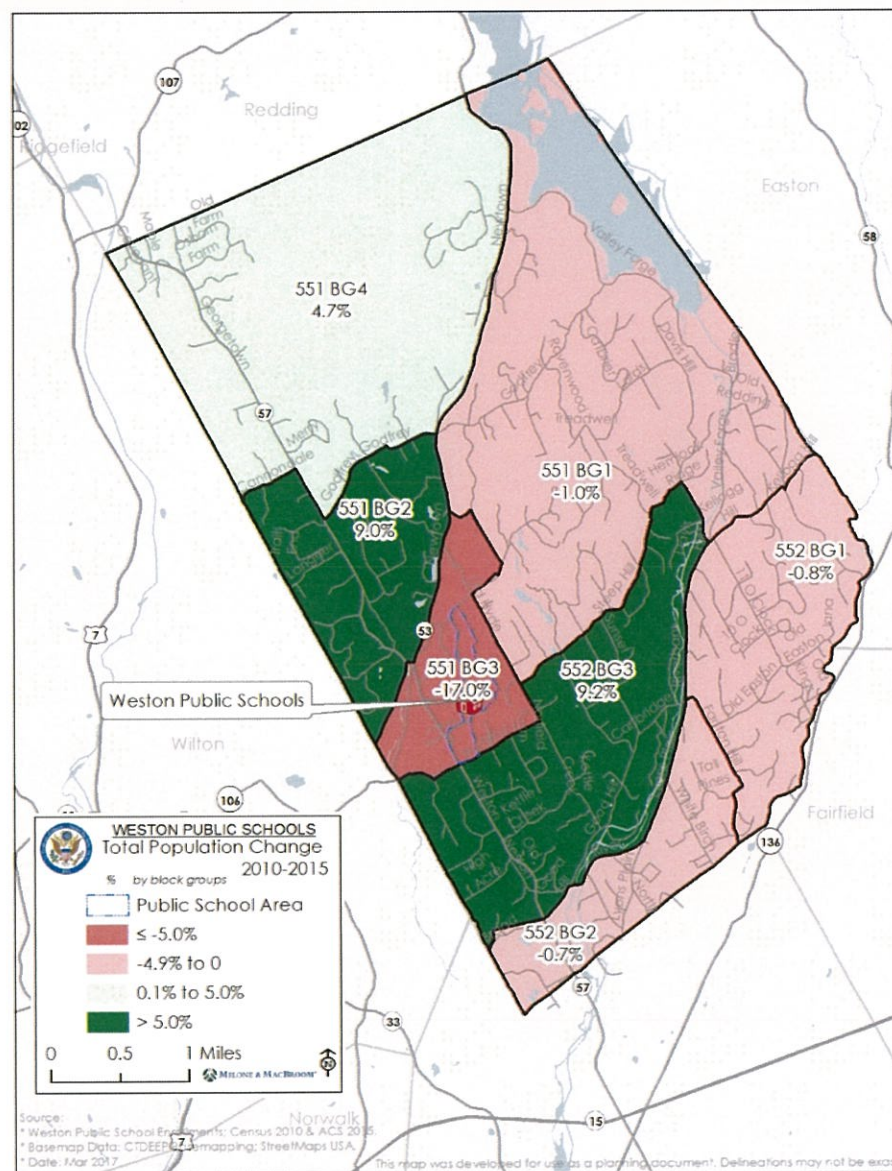


Source: US Census 2000 & 2010, ACS 2010-2015; * indicates CT DOT projections.



Total Population Change

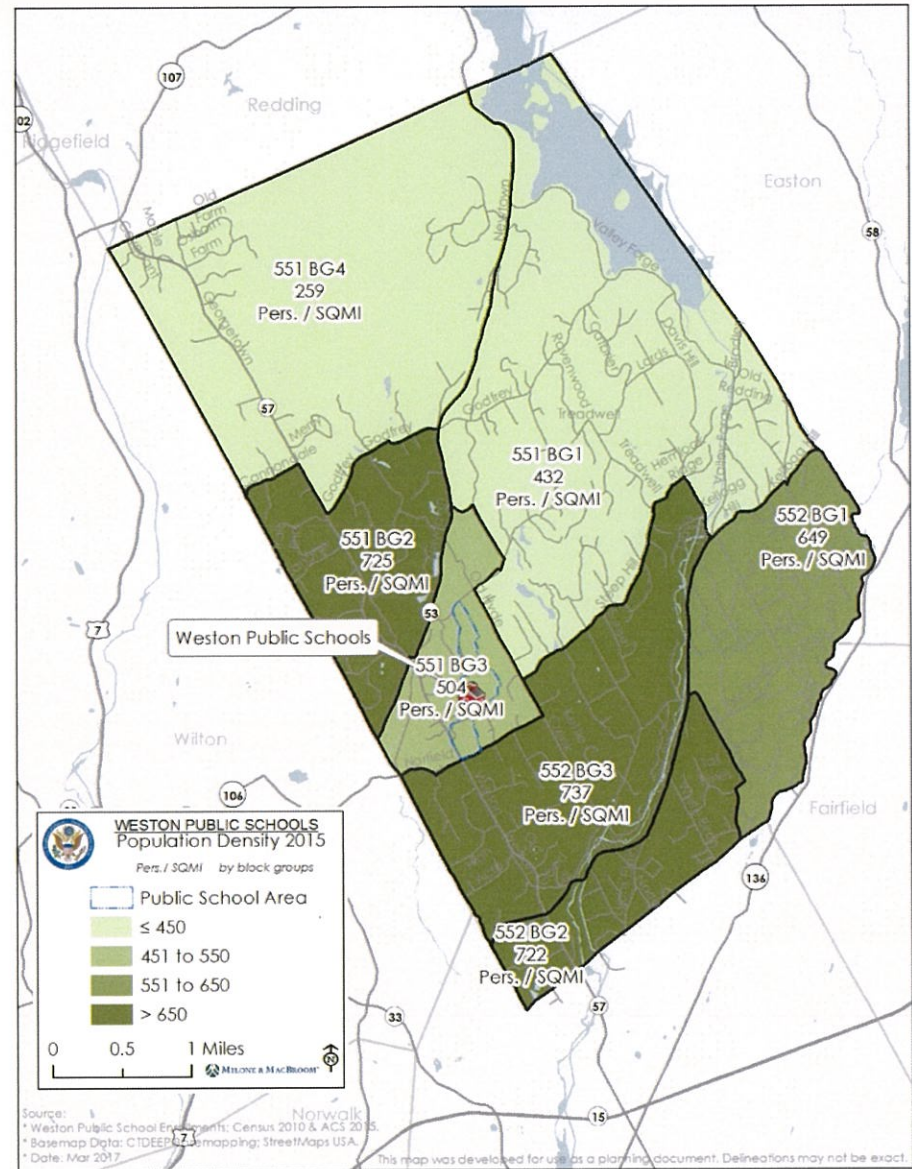
- Growth in the first half of 2010s unevenly distributed throughout the town
- Greatest percentage gains in western neighborhoods closer to the Town Center





Population Density

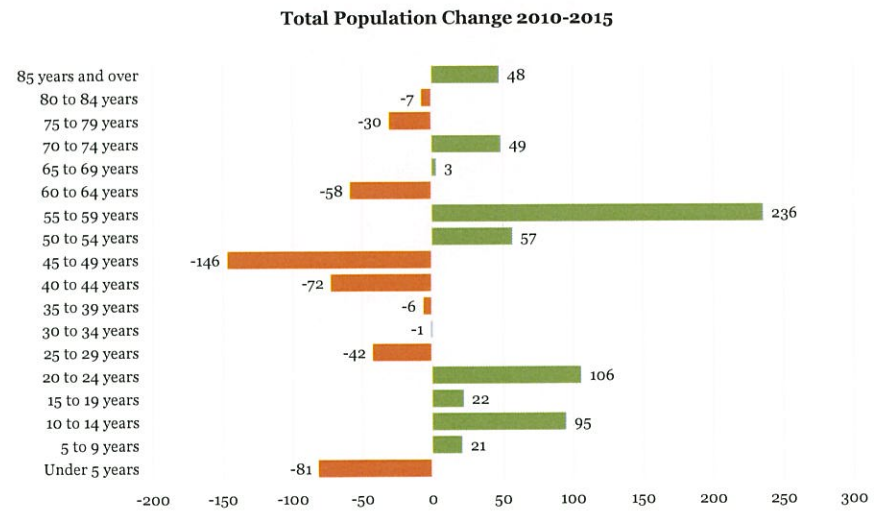
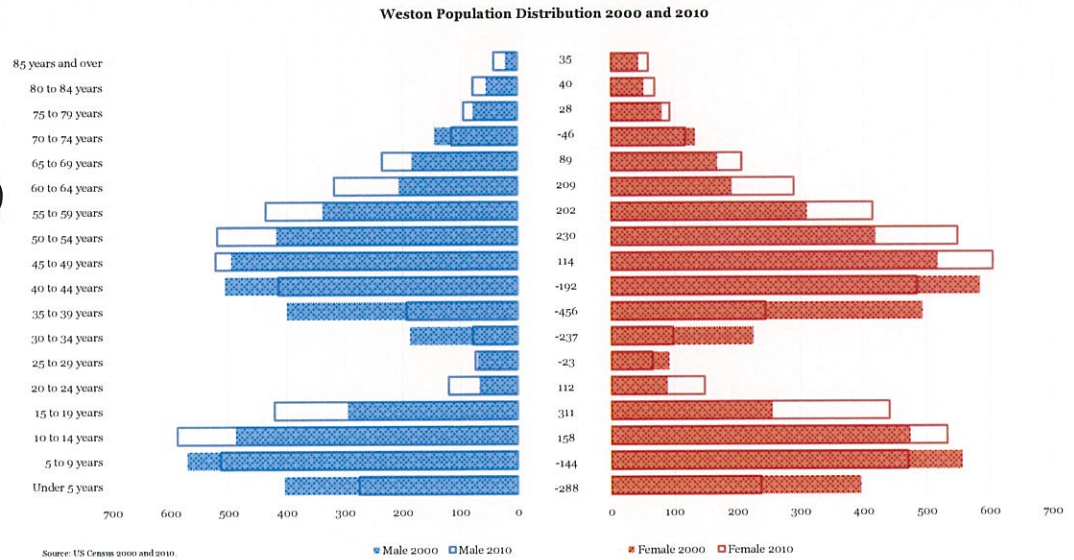
- Suburban to rural densities
- Average Fairfield County population density: 1,410 persons/sq. mile
- Average CT population density: 742 persons/sq. mile





Population by Age and Sex

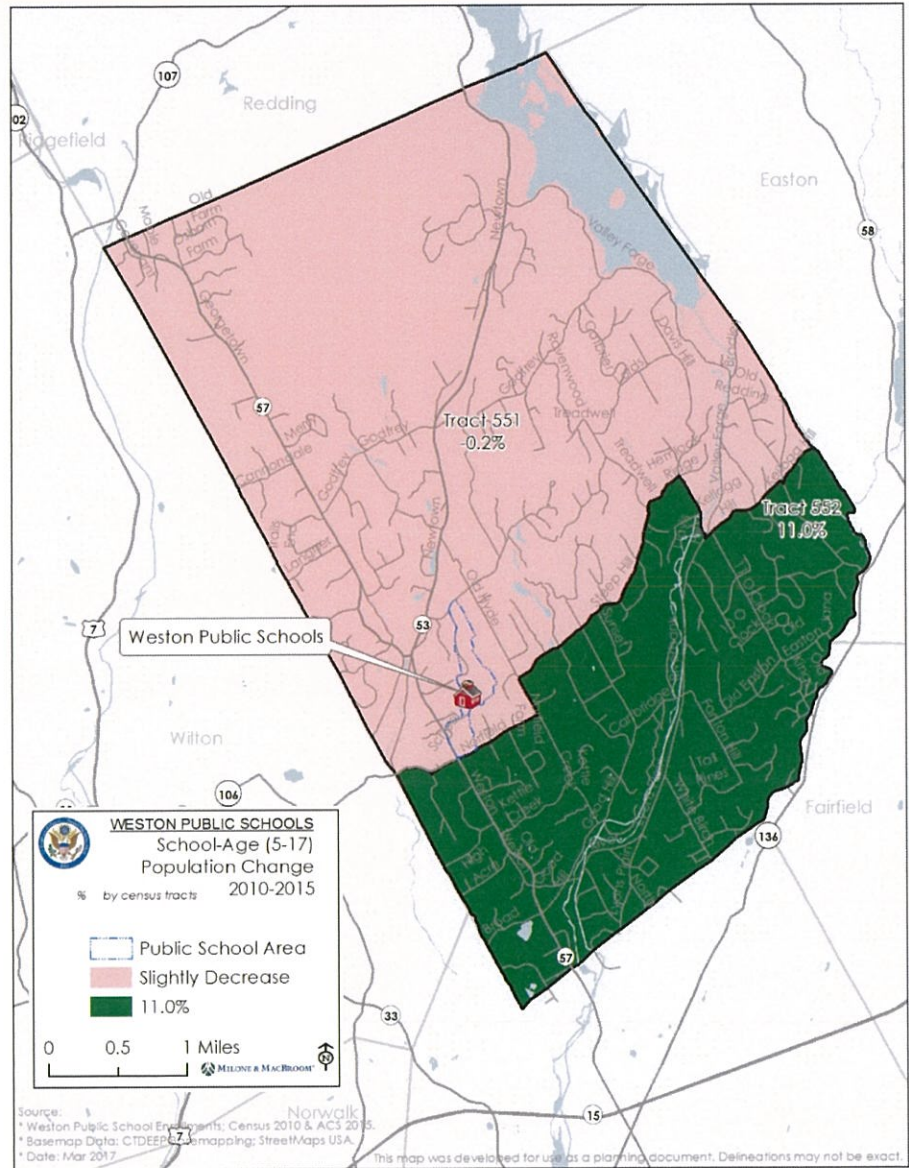
- Growth in the 10 to 24 and 45 to 64 year old cohorts; decline in 0 to 9 and 30 to 44 cohorts through the 2000s
- More recent estimates show growth in younger population (5 to 24), as well as decreases in the working age (25-49) cohorts (though this data is less precise than Decennial Census counts)





School Age (5-17) Population Change

- Overall 5% increase in school age population from 2010 to 2015 (2,797 to 2,933)
- Rate of increase more than that of total population
- This increase was recorded entirely in Tract 552 (south of Norfield, Steep Hill, and Kellogg Hill Rds.)

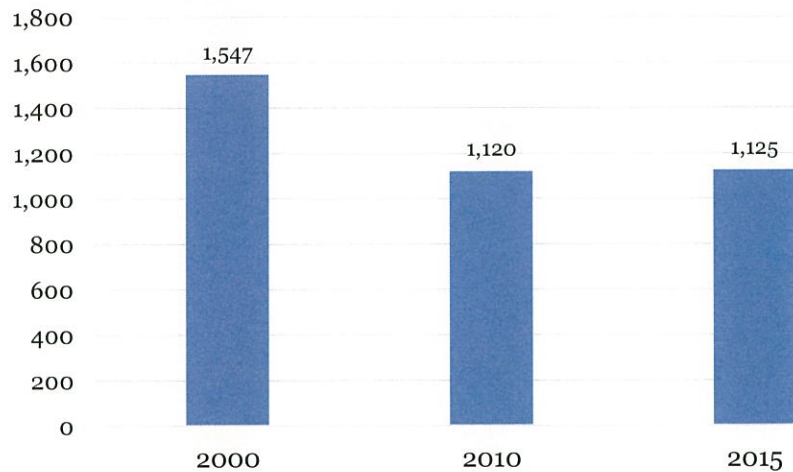




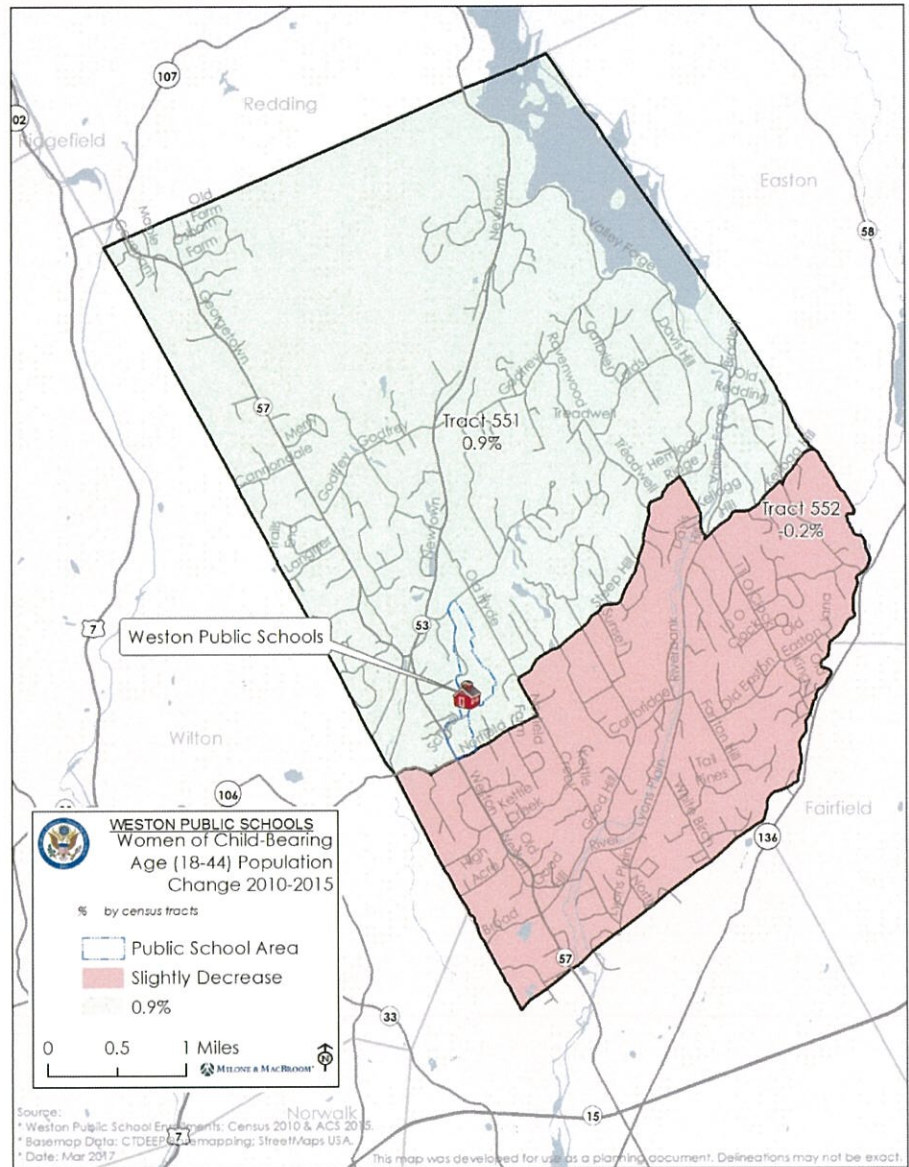
Females of Child-Bearing Age (18-44)

- Population of potential mothers was stable from 2010-2015, following a large decrease from 2000-2010
- No strong geographic pattern to change in this demographic

Female of Child-Bearing Age (18-44)



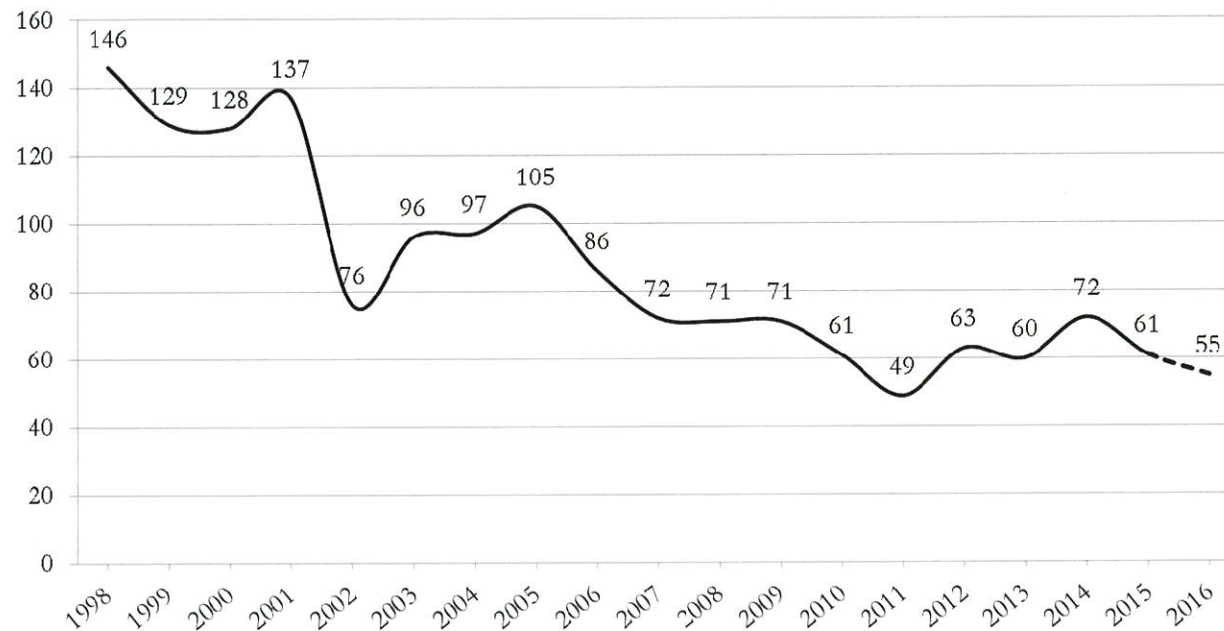
Source: U.S. Census 2000 and 2010; ACS 2010-2015.





Births

Weston Historic Births



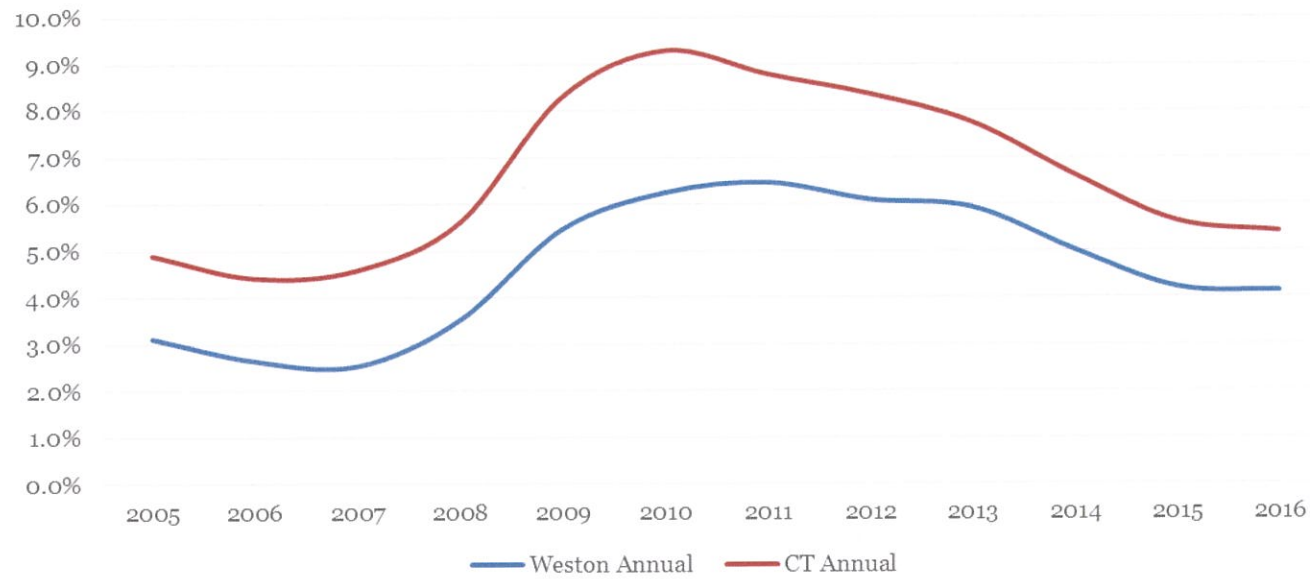
Source: CT Dept. of Public Health with MMI adjustments for estimated out of state births (2013-2016); projections prepared by MMI.

- The small size of the community and low absolute number of births exaggerates small year-to-year changes
- Annual births declined 28% from 2008 to 2016 (based on most recent estimates)
- Moderate increases in births in 2012 and 2014 are tied to 2017-18 and 2019-20's entering kindergarten classes



Unemployment

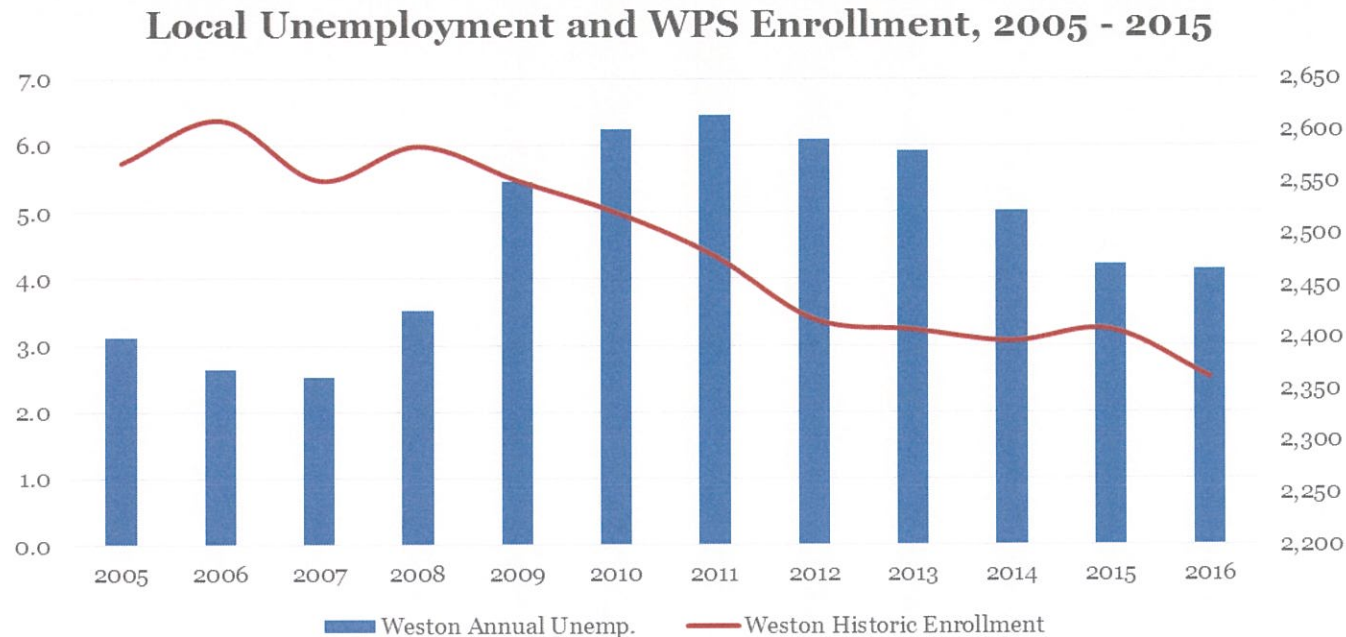
Weston and CT Unemployment Rates, 2005 - 2015



- Local unemployment rate has consistently trended approximately 1.5-3.0 percentage points below statewide levels



Historic Unemployment and Enrollment



- Annual unemployment rates have continued to decline since 2011, continuing below 6.5% and remaining lower than the average of peer Fairfield County communities
- The historic inverse relationship between enrollment and unemployment rates has not held in the past several years as both indicators have continued to decline



Demographics Summary

- Population growth has been slow through the last 15 years
- Birth rates decreased through the late 2000s, and has fluctuated at a low level from 2010 to the present
- Most recent population estimates indicate increasing school age population, but these indicators should be interpreted cautiously



Housing

Housing Units and Households, 2000-2015

	Weston				
	2000	2010	2015	Change 2010-2015	
				Number	%
Total Population	10,037	10,179	10,373	194	1.9%
Total Housing Units	3,532	3,674	3,801	127	3.5%
Total Occupied Housing Units	3,312	3,379	3,379	0	0.0%
Owner Over 65 Occupied Housing Units	577	652	730	78	12.0%
Total Households	3,312	3,379	3,379	0	0.0%
Family Households	2,811	2,854	2,874	20	0.7%
With Own Children Under 18	1,649	1,647	1,711	64	3.9%
Married Couple Family	2,597	2,557	2,657	100	3.9%
With Own Children Under 18	1,511	1,482	1,573	91	6.1%
Female Householder, No husband Present	166	222	170	-52	-23.4%
With Own Children Under 18	109	125	105	-20	-16.0%
Non-Family Households	501	525	505	-20	-3.8%
Householder Living Alone	372	421	453	32	7.6%
Householder 65 Years and Over	161	196	219	23	11.7%
Average Household Size	3	3.0	3.1	0.1	3.3%
Average Family Size	3.3	3.3	3.4	0.1	3.0%

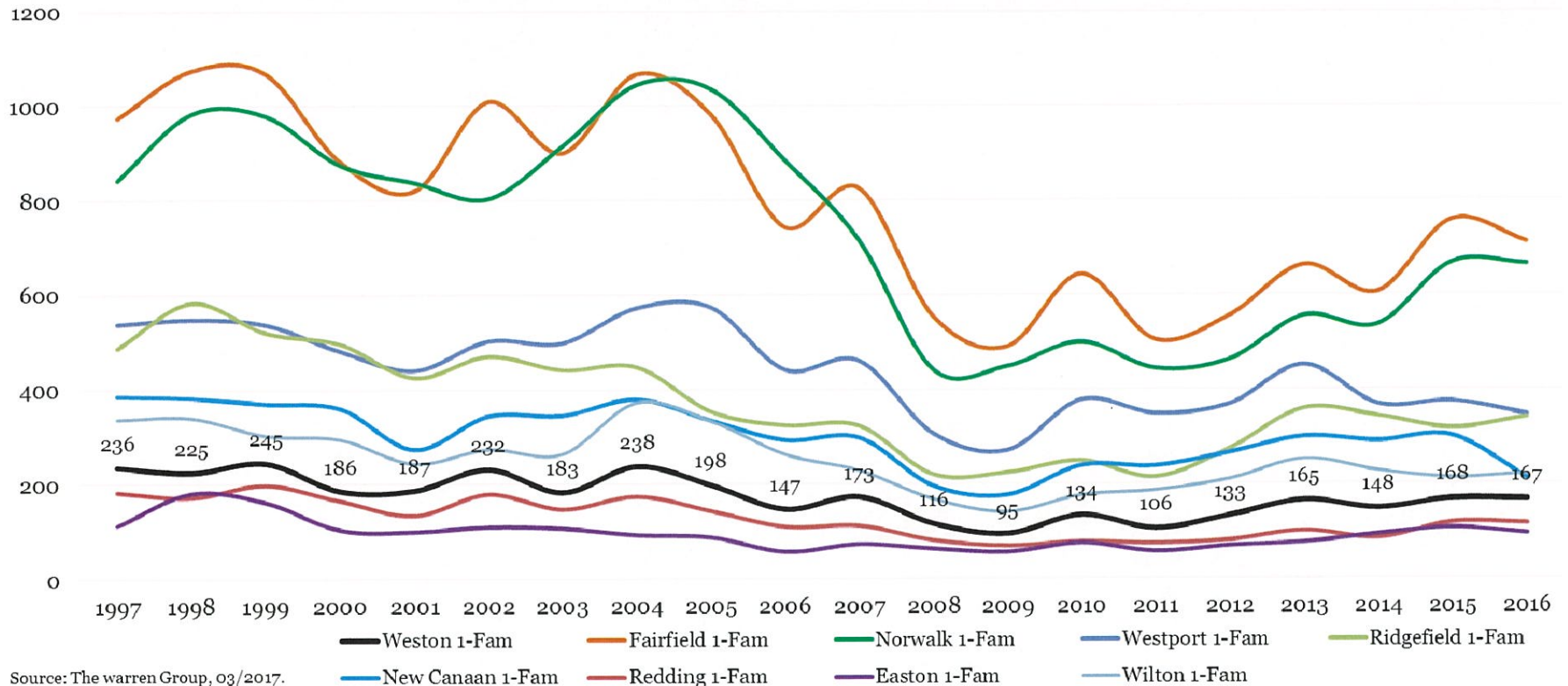
Source: U.S Census 2000 and 2010, ACS 2010-2015

- Total number of housing units increased 3.5% from 2010 to 2015
- Owner-occupied housing units with homeowners age 65 or older increased 12%, indicating stock with greater potential for future turnover



Housing Sales

Single Family Homes Sales - Weston and Surrounding Towns, 1997-2016



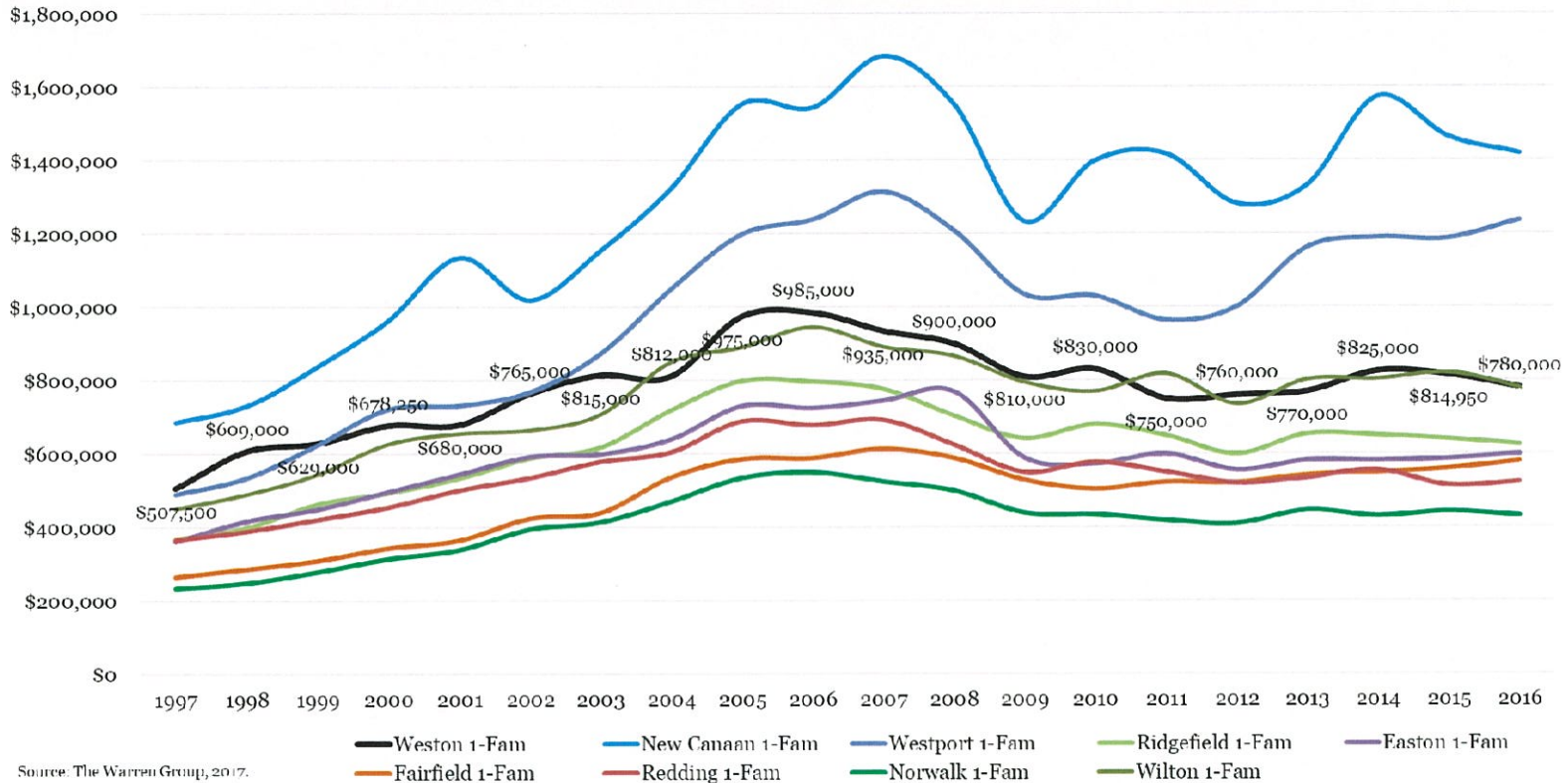
Source: The warren Group, 03/2017.

- Pace of housing market activity since the Great Recession has remained fairly stagnant since 2013
- 2016 saw total sales of 167 homes (up 76% from 2009 low)



Median Housing Price

Single Family Median Sales Prices of Weston and Surrounding Towns, 1997-2016

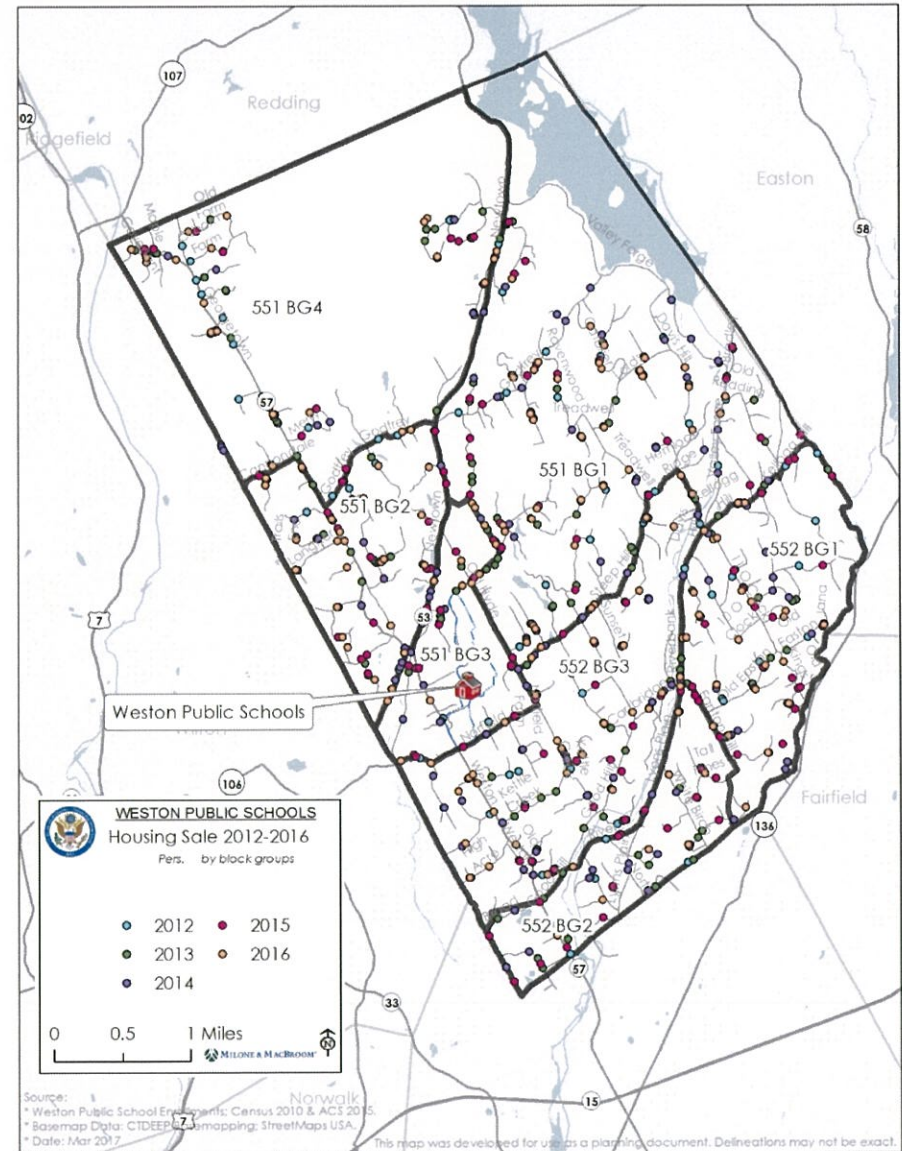


- 2016 median single family sale price: \$780,000
- Median prices in Weston have remained more affordable than Westport/New Canaan, on par with Wilton, and well above other central Fairfield County towns
- Greater price stability than New Canaan or Westport



Housing Sales

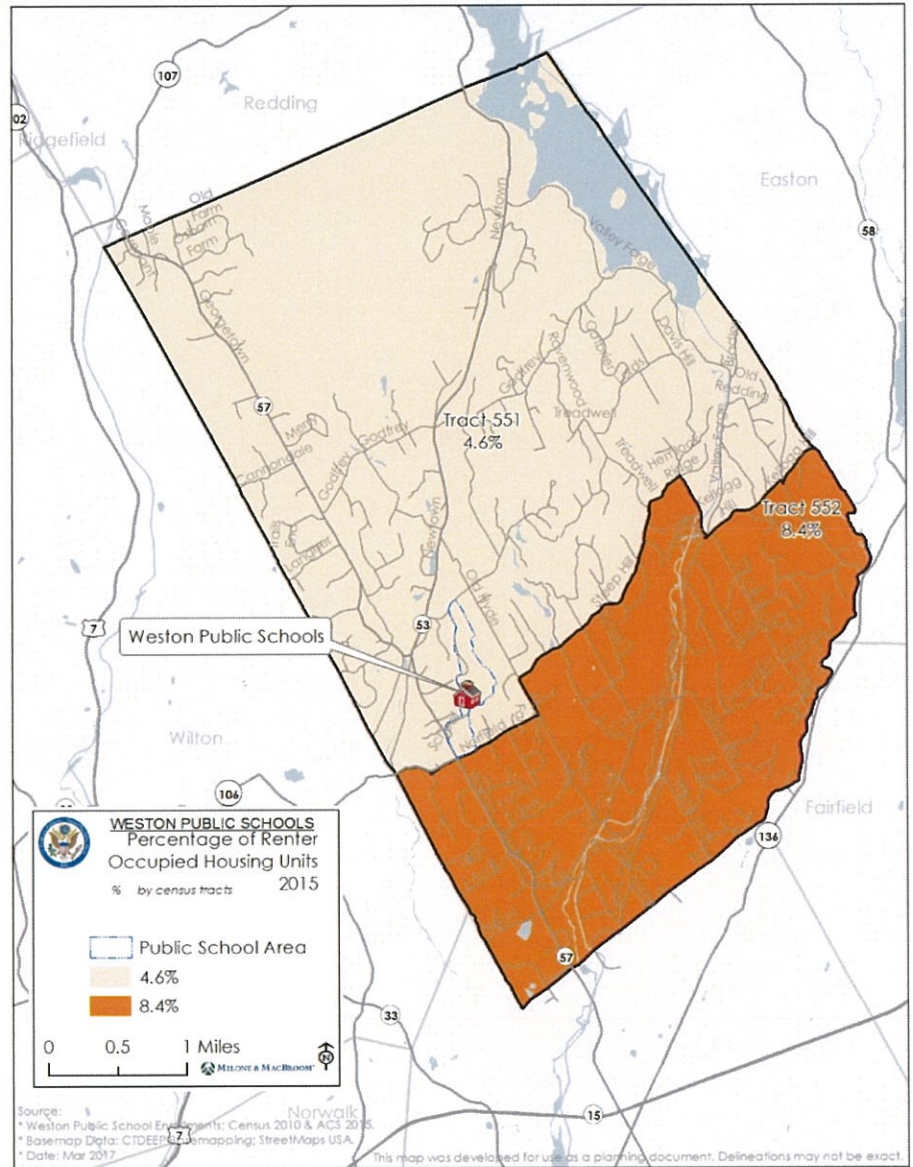
- Home sales have been evenly distributed across Weston, with no strong geographic trends between neighborhoods





Rental Units

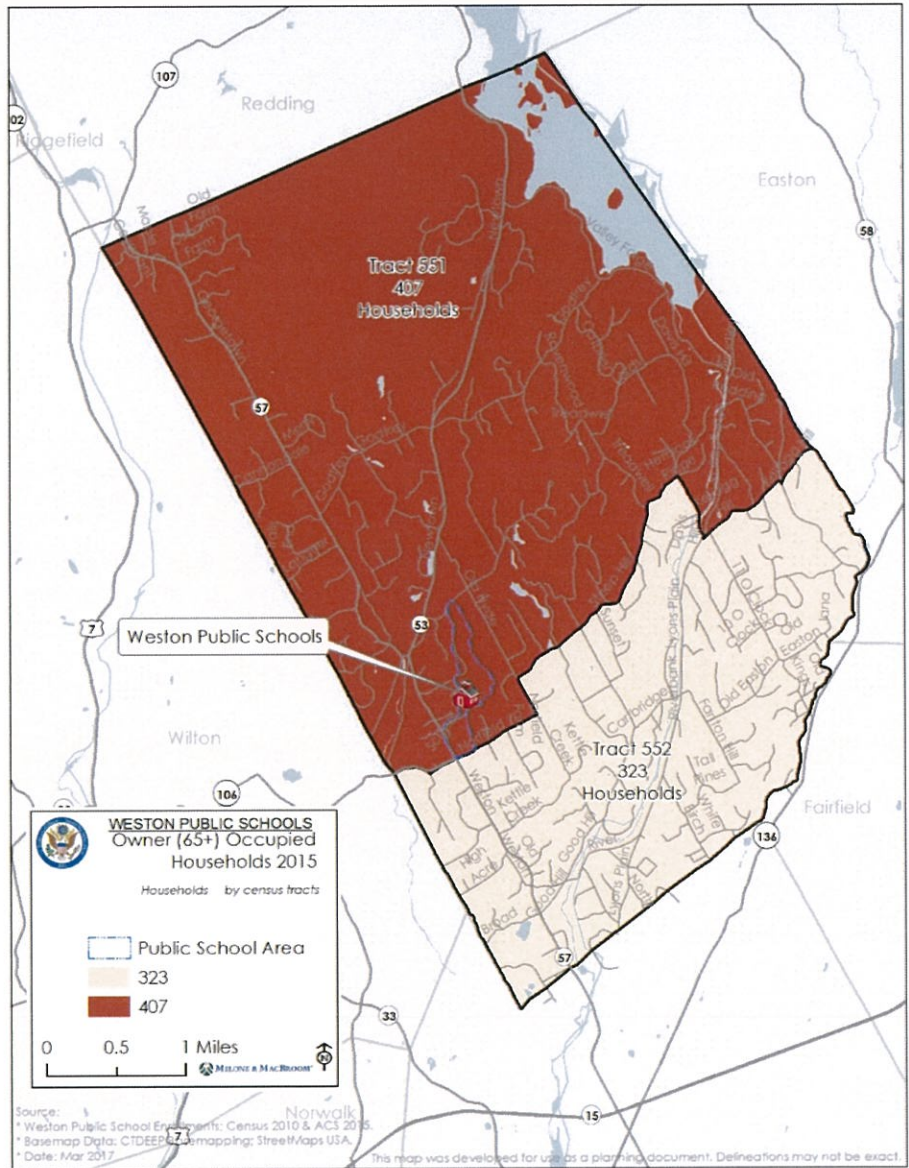
- Only 6% of occupied units are renter occupied
- Relatively more renters in south of the town
- Less transient population
- Vacancy rates <5%





Age 65+ Ownership Units

- Overall 22% of owner-occupied units headed by 65+ householder
- These units will have greater potential for turnover in the next ten years





Housing Permits (New Construction)



Source: CT DECD and The Warren Group, 2017

- Permits for new housing construction have seen limited and slow recovery since Great Recession-era dropoff
- Existing inventory inhibiting new development
- Currently 23 open home permits (in all stages of development) not yet online



Recent Housing Development

- Current and future development information provided by Weston's Land Use Director
- P&Z has not approved any subdivisions of a substantial scale since 2004; current subdivision and homebuilding activity is on the scale of 2-3 lot projects
 - Current teardown/new build activity fairly limited
- Known potential future projects would yield <10 units and may not come to market for some time
- Conversations and proposed language on cluster housing options have not yielded changes to zoning regulations to date
- Younger families make up a large share of homebuyers, both to older starter homes and new builds



Future Housing Development

- 2015 document “Crafting a Strategic Plan for Weston’s Future” examined potential residential development across the community as it impacts the Town’s population and Weston Public Schools enrollment
- Residential buildout analysis of major potentially developable sites identified sites yielding just 85 new single-family homes under existing zoning provisions
 - The document notes that separate estimates of development potential have yielded higher estimates (200-500) but that challenging site conditions may render development of many such parcels infeasible
- Notes that characteristics of potential residential development (large lots, limited access to local commercial amenities) may not be closely aligned with demands of young families



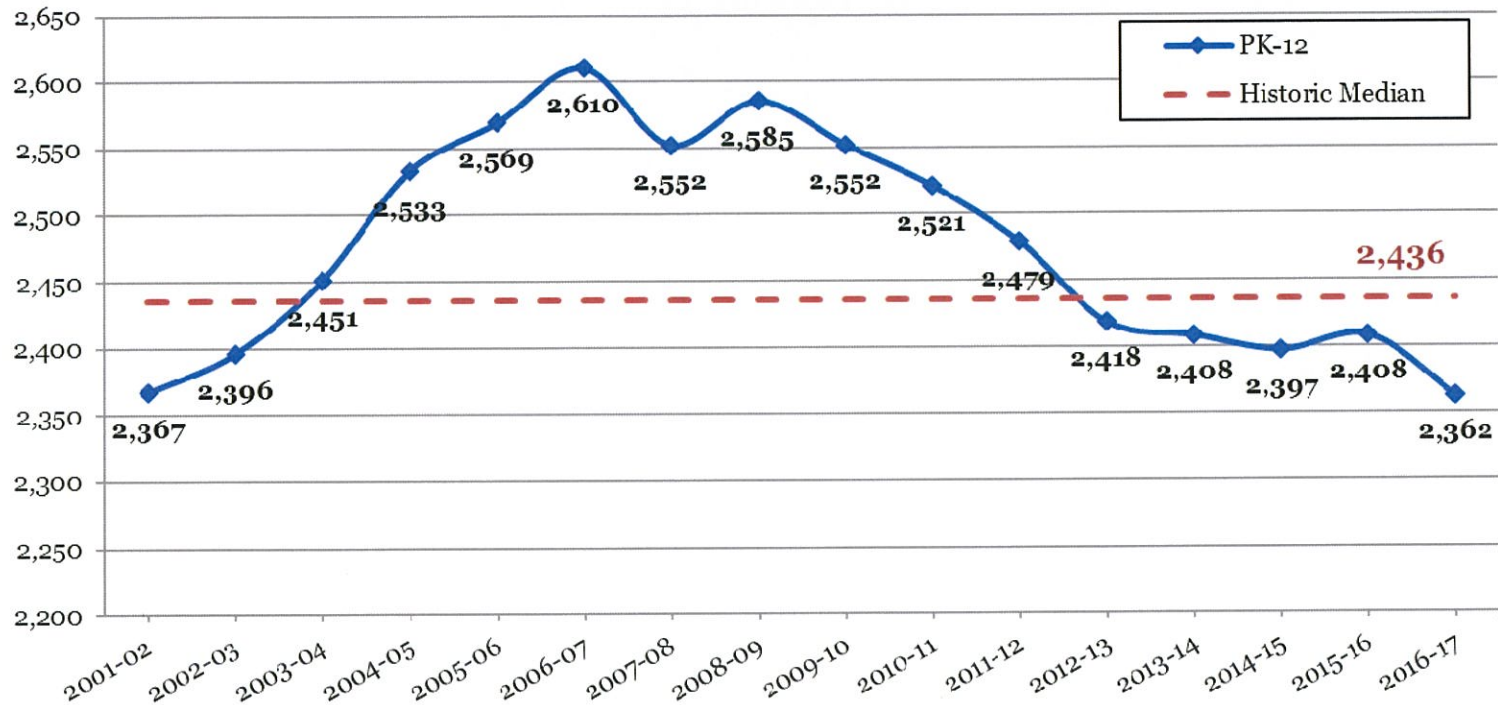
Housing Summary

- Stable real estate market driven by high quality of local schools
- Almost exclusively owner-occupied housing stock with low rental vacancy rates, creating a stable long-term residential base
- Largely built-out community with limited opportunities for significant expansion of housing stock under current zoning
- Increasing number of owner-occupants over age 65 a leading indicator of future housing turnover



Historic Enrollment

Total (PK-12) Historic Enrollments
Weston Public Schools



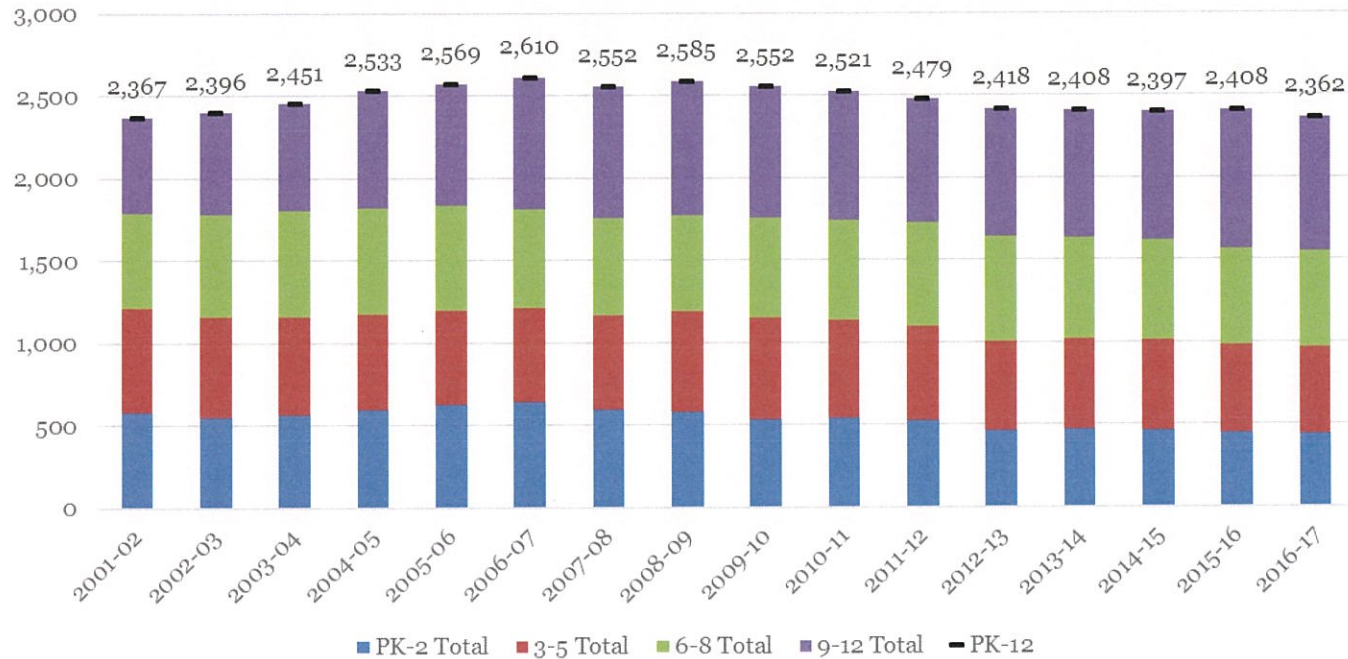
Sources: CT Dept. of Education CeDar, and Weston Public Schools

- Historic enrollment followed an increasing trend through the early 2000s to a peak in 2006-07, followed by a steady decline since 2008-09



Historic Enrollment

Weston Historic Enrollments, 2001-02 to 2016-17

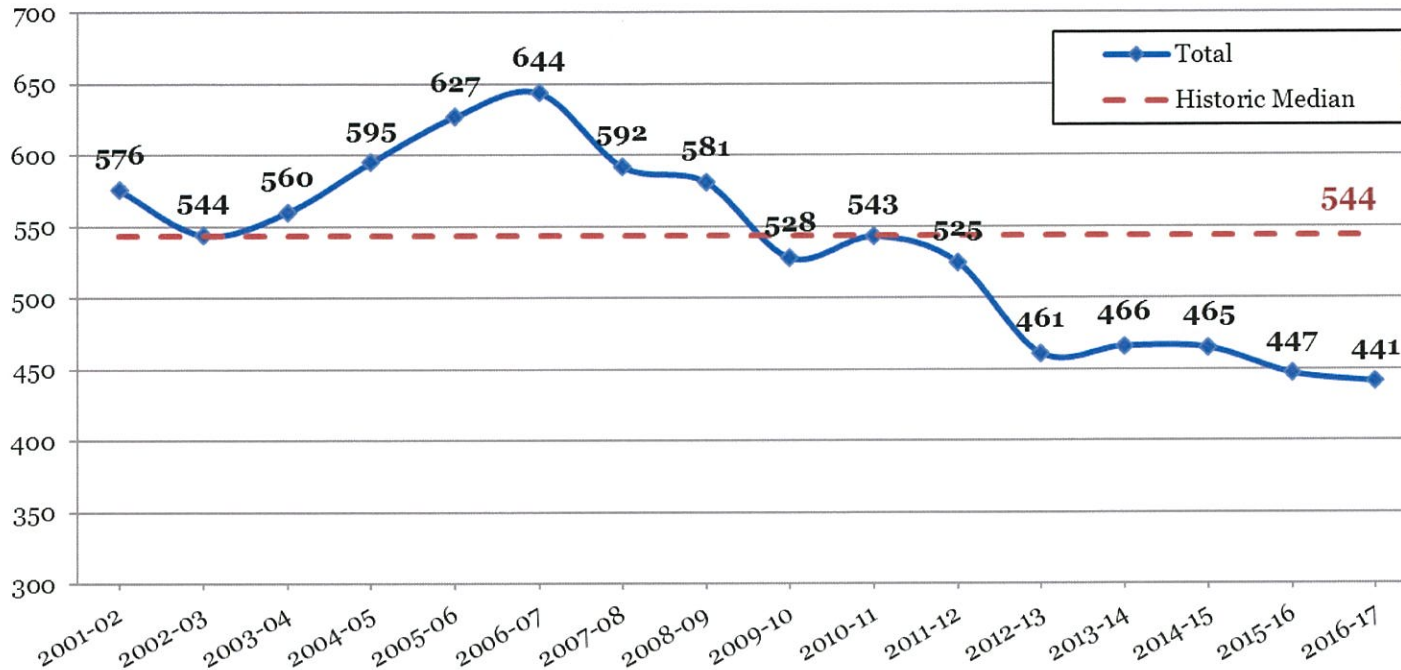


- Examining historic enrollment at the unit of each grade level illustrates changing dynamics that sum to the total system-wide change in enrollment



Historic Enrollment

Elementary (PK-2nd) Enrollments Weston Public Schools



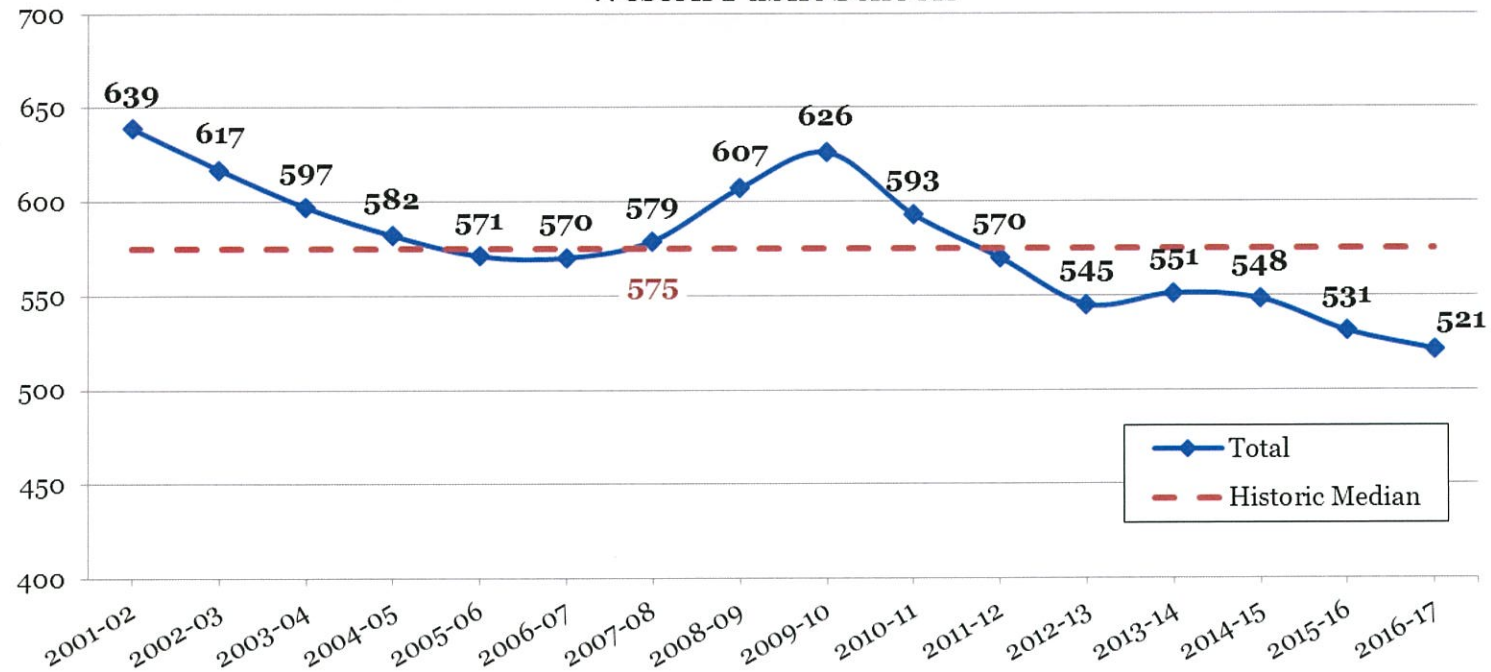
Sources: CT Dept. of Education CeDar, and Weston Public Schools

- Elementary enrollment has been on a downward trend since 2006-07; this grade level is most responsive to changes in births, migration, and housing conditions



Historic Enrollment

Intermediate (3rd - 5th) Enrollments Weston Public Schools



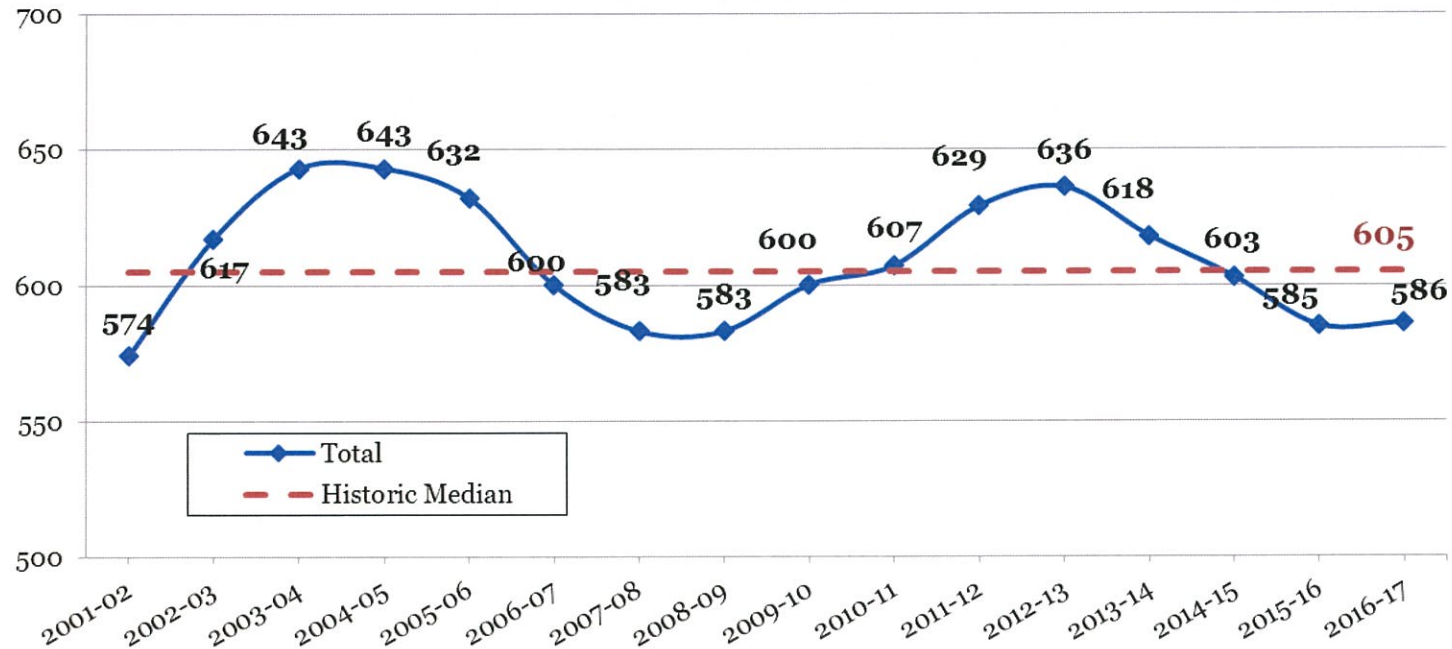
Sources: CT Dept. of Education CeDar, and Weston Public Schools

- Intermediate enrollments fall in 2010-11 and continue downward, a few years after elementary enrollments began declining



Historic Enrollment

Middle (6th-8th) Enrollments Weston Public Schools



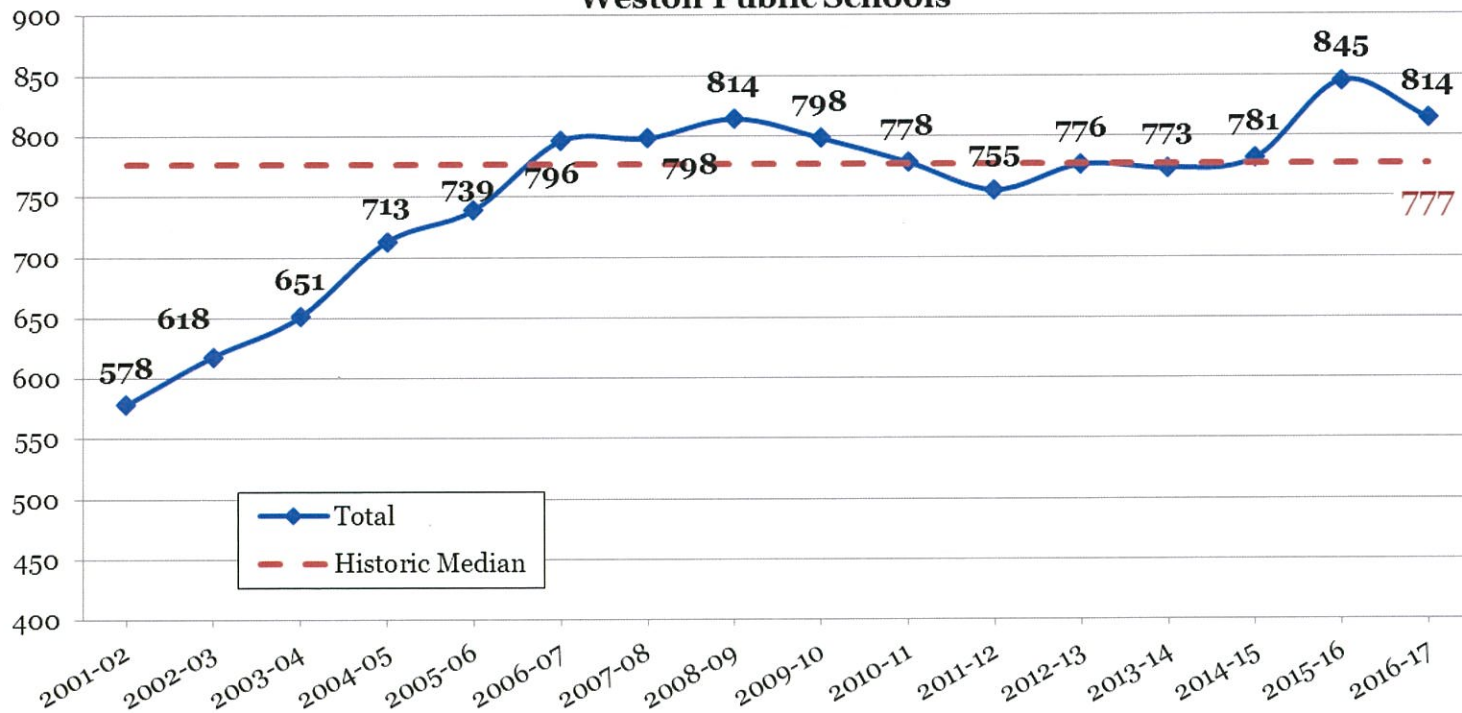
Sources: CT Dept. of Education CeDar, and Weston Public Schools

- Middle school enrollments peak in early 2000s (on large cohorts that entered in the mid-90s) and again in 2012-13 (on cohorts entering in mid-2000s); now in declining phase as last cohort of over 200 students prepares to matriculate to high school levels



Historic Enrollment

High (9th-12th) Enrollments Weston Public Schools



Sources: CT Dept. of Education CeDar, and Weston Public Schools

- High school enrollments currently near high point, with several successive larger cohorts making up current grades 9-12 population



Historic Enrollment

Weston Public School Enrollment History Kindergarten through 12th Grade

School Year	Birth Year	Births	K	1	2	3	4	5	6	7	8	9	10	11	12	PK
2001-02	1996	114	158	210	193	201	226	212	217	181	176	176	135	129	138	15
2002-03	1997	114	159	170	194	193	201	223	221	209	187	173	175	137	133	21
2003-04	1998	146	187	163	181	194	195	208	218	215	210	180	167	173	131	29
2004-05	1999	129	184	204	176	184	201	197	211	226	206	206	169	167	171	31
2005-06	2000	128	182	194	213	174	191	206	199	201	232	212	201	163	163	38
2006-07	2001	137	210	194	200	210	174	186	208	191	201	225	207	197	167	40
2007-08	2002	76	146	220	191	196	213	170	188	203	192	197	219	197	185	35
2008-09	2003	96	166	159	220	202	194	211	183	190	210	196	206	214	198	36
2009-10	2004	97	158	171	160	214	203	209	217	181	202	208	191	193	206	39
2010-11	2005	105	159	166	178	170	216	207	211	215	181	195	205	186	192	40
2011-12	2006	86	162	156	177	180	173	217	211	207	211	170	193	203	189	30
2012-13	2007	72	115	157	163	180	186	179	221	208	207	210	173	188	205	26
2013-14	2008	71	136	135	175	174	183	194	190	214	214	214	209	170	180	20
2014-15	2009	71	140	150	146	185	177	186	203	188	212	201	207	206	167	29
2015-16	2010	61	124	141	157	161	186	184	190	209	186	218	208	206	213	25
2016-17	2011	49	128	143	145	163	173	185	187	194	205	189	213	206	206	25

State Department of Education - Public School Information System, Summary Report for 2001-02 to 2011-12; CT CeDar 2012-13 to 2015-16; CT EdSight 2016-17

- Historic enrollments by grade level provide a guide to ongoing enrollment dynamics and foreseeable changes in enrollment as existing cohorts continue through the system



Historic Enrollment

Weston Public School Enrollment History
Kindergarten through 12th Grade

School Year	Birth Year	Births	K	1	2	3	4	5	6	7	8	9	10	11	12	PK
2001-02	1996	114	158	210	193	201	226	212	217	181	176	176	135	129	138	15
2002-03	1997	114	159	170	194	193	201	223	221	209	187	173	175	137	133	21
2003-04	1998	146	187	163	181	194	195	208	218	215	210	180	167	173	131	29
2004-05	1999	129	184	204	176	184	201	197	211	226	206	206	169	167	171	31
2005-06	2000	128	182	194	213	174	191	206	199	201	232	212	201	163	163	38
2006-07	2001	137	210	194	200	210	174	186	208	191	201	225	207	197	167	40
2007-08	2002	76	146	220	191	196	213	170	188	203	192	197	219	197	185	35
2008-09	2003	96	166	159	220	202	194	211	183	190	210	196	206	214	198	36
2009-10	2004	97	158	171	160	214	203	209	217	181	202	208	191	193	206	39
2010-11	2005	105	159	166	178	170	216	207	211	215	181	195	205	186	192	40
2011-12	2006	86	162	156	177	180	173	217	211	207	211	170	193	203	189	30
2012-13	2007	72	115	157	163	180	186	179	221	208	207	210	173	188	205	26
2013-14	2008	71	136	135	175	174	183	194	190	214	214	214	209	170	180	20
2014-15	2009	71	140	150	146	185	177	186	203	188	212	201	207	206	167	29
2015-16	2010	61	124	141	157	161	186	184	190	209	186	218	208	206	213	25
2016-17	2011	49	128	143	145	163	173	185	187	194	205	189	213	206	206	25

State Department of Education - Public School Information System, Summary Report for 2001-02 to 2011-12; CT CeDar 2012-13 to 2015-16; CT EdSight 2016-17

- Peak enrollment conditions occurred when several large cohorts were simultaneously in the system
- As smaller kindergarten cohorts began entering the system in 2007-08 and particularly since 2012-13, elementary & intermediate grade levels have shrunk while high school has grown



Historic Enrollment

Weston Public School Enrollment History
Kindergarten through 12th Grade

School Year	Birth Year	Births	K	1	2	3	4	5	6	7	8	9	10	11	12	PK
2001-02	1996	114	158	210	193	201	226	212	217	181	176	176	135	129	138	15
2002-03	1997	114	159	170	194	193	201	223	221	209	187	173	175	137	133	21
2003-04	1998	146	187	163	181	194	195	208	218	215	210	180	167	173	131	29
2004-05	1999	129	184	204	176	184	201	197	211	226	206	206	169	167	171	31
2005-06	2000	128	182	194	213	174	191	206	199	201	232	212	201	163	163	38
2006-07	2001	137	210	194	200	210	174	186	208	191	201	225	207	197	167	40
2007-08	2002	76	146	220	191	196	213	170	188	203	192	197	219	197	185	35
2008-09	2003	96	166	159	220	202	194	211	183	190	210	196	206	214	198	36
2009-10	2004	97	158	171	160	214	203	209	217	181	202	208	191	193	206	39
2010-11	2005	105	159	166	178	170	216	207	211	215	181	195	205	186	192	40
2011-12	2006	86	162	156	177	180	173	217	211	207	211	170	193	203	189	30
2012-13	2007	72	115	157	163	180	186	179	221	208	207	210	173	188	205	26
2013-14	2008	71	136	135	175	174	183	194	190	214	214	214	209	170	180	20
2014-15	2009	71	140	150	146	185	177	186	203	188	212	201	207	206	167	29
2015-16	2010	61	124	141	157	161	186	184	190	209	186	218	208	206	213	25
2016-17	2011	49	128	143	145	163	173	185	187	194	205	189	213	206	206	25

State Department of Education - Public School Information System, Summary Report for 2001-02 to 2011-12; CT CeDar 2012-13 to 2015-16; CT EdSight 2016-17

- As existing mid-size cohorts matriculate to high school level, moderate declines are likely at upper grade levels
- Current cohorts at grades K-4 are much smaller than historic levels and will continue to impact the system for the next 8-12 years



Historic Enrollment

Kindergarten through 12th Grade Persistency Ratios by School Year
2002-03 to 2016-17

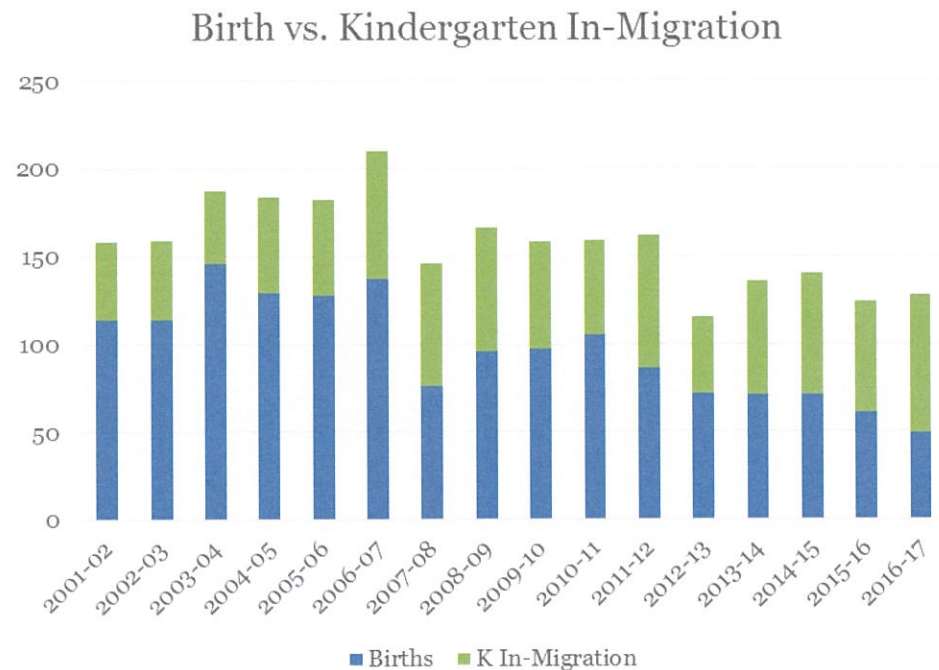
Year	Birth-K	K-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	Migration Estimate (2-7 to 3-8)
2002-03	1.3947	1.0759	0.9238	1.0000	1.0000	0.9867	1.0425	0.9631	1.0331	0.9830	0.9943	1.0148	1.0310	0.33%
2003-04	1.2808	1.0252	1.0647	1.0000	1.0104	1.0348	0.9776	0.9729	1.0048	0.9626	0.9653	0.9886	0.9562	-0.08%
2004-05	1.4264	1.0909	1.0798	1.0166	1.0361	1.0103	1.0144	1.0367	0.9581	0.9810	0.9389	1.0000	0.9884	1.16%
2005-06	1.4219	1.0543	1.0441	0.9886	1.0380	1.0249	1.0102	0.9526	1.0265	1.0291	0.9757	0.9645	0.9760	0.67%
2006-07	1.5328	1.0659	1.0309	0.9859	1.0000	0.9738	1.0097	0.9598	1.0000	0.9698	0.9764	0.9801	1.0245	-1.18%
2007-08	1.9211	1.0476	0.9845	0.9800	1.0143	0.9770	1.0108	0.9760	1.0052	0.9801	0.9733	0.9517	0.9391	-0.60%
2008-09	1.7292	1.0890	1.0000	1.0576	0.9898	0.9906	1.0765	1.0106	1.0345	1.0208	1.0457	0.9772	1.0051	2.50%
2009-10	1.6289	1.0301	1.0063	0.9727	1.0050	1.0773	1.0284	0.9891	1.0632	0.9905	0.9745	0.9369	0.9626	2.17%
2010-11	1.5143	1.0506	1.0409	1.0625	1.0093	1.0197	1.0096	0.9908	1.0000	0.9653	0.9856	0.9738	0.9948	1.35%
2011-12	1.8837	0.9811	1.0663	1.0112	1.0176	1.0046	1.0193	0.9810	0.9814	0.9392	0.9897	0.9902	1.0161	0.17%
2012-13	1.5972	0.9691	1.0449	1.0169	1.0333	1.0347	1.0184	0.9858	1.0000	0.9953	1.0176	0.9741	1.0099	1.37%
2013-14	1.9155	1.1739	1.1146	1.0675	1.0167	1.0430	1.0615	0.9683	1.0288	1.0338	0.9952	0.9827	0.9574	2.81%
2014-15	1.9718	1.1029	1.0815	1.0571	1.0172	1.0164	1.0464	0.9895	0.9907	0.9393	0.9673	0.9856	0.9824	1.86%
2015-16	2.0328	1.0071	1.0467	1.1027	1.0054	1.0395	1.0215	1.0296	0.9894	1.0283	1.0348	0.9952	1.0340	2.86%
2016-17	2.6122	1.1532	1.0284	1.0382	1.0745	0.9946	1.0163	1.0211	0.9809	1.0161	0.9771	0.9904	1.0000	1.84%
Long Term Avg.	1.7242	1.0611	1.0372	1.0238	1.0178	1.0152	1.0242	0.9885	1.0064	0.9889	0.9874	0.9804	0.9918	
5-Year Avg.	2.0259	1.0813	1.0632	1.0565	1.0294	1.0257	1.0328	0.9988	0.9979	1.0026	0.9984	0.9856	0.9967	
3-Year Avg.	2.2056	1.0878	1.0522	1.0660	1.0324	1.0169	1.0281	1.0134	0.9870	0.9946	0.9931	0.9904	1.0054	

- Persistency ratios indicate year-to-year gains or losses in the size of cohorts as they progress through the system
- Substantial increases in cohort size through elementary and intermediate school years



Birth-K Analysis

- Predicting future kindergarten cohorts has been historically challenging in Weston due to low local birthrates and high levels of in-migration of families with children age 0 to 5
- This challenge has been magnified in recent years as Birth-K ratio has risen from ~1.5 (or 50% increase in the size of incoming classes relative to local births) to 2.61
- Static estimate of Birth-K ratio likely to be misleading due to sensitivity to small changes in local birthrates





K Analysis

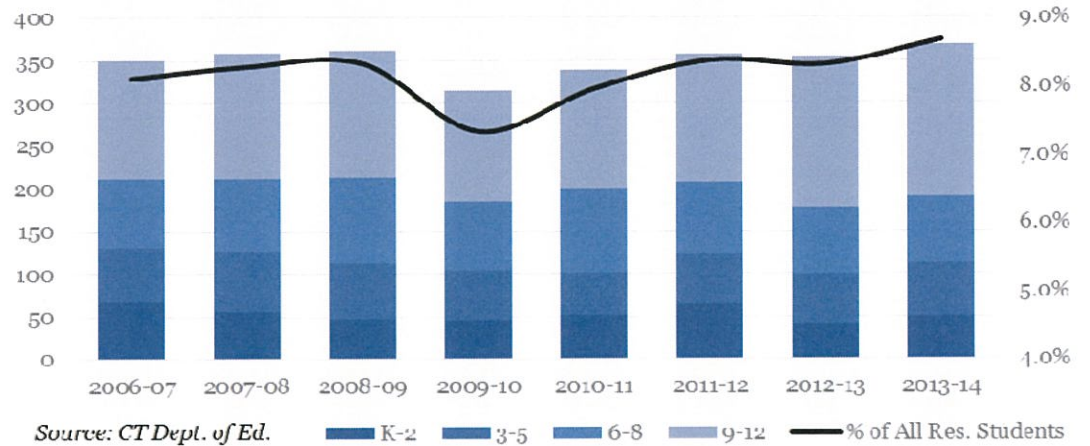
- Over the past four years, an average of 34% of kindergarten enrollments can be directly matched to a Weston birth record
- For 2016-17 kindergarten enrollments, 25% matched a birth record and an additional 59% matched a home sale that occurred in the past five years
 - The remaining 16% unaccounted for from these sources may be attributable to students in rental housing, students who have moved within Weston before entering school, students living with extended family, or any discrepancies between birth, sales, and enrollment records
- Births not matched to a kindergarten enrollment may reflect moves out of town or attendance at private or other public programs



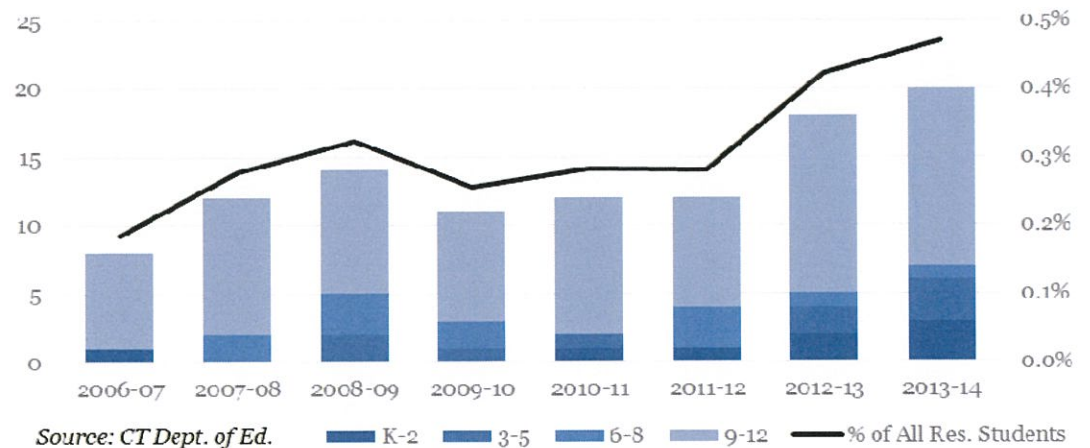
Non-WPS Enrollment

- Local enrollment in non-public schools has historically accounted for approximately 350 students or 8% of all resident students
- Brief dip occurred in 2009-10
- Very limited (<0.5%) enrollment in other public programs
- Comparable SDE data on private & other public enrollment not available for recent years

Resident Students Attending Private School



Resident Students Attending Other Public Schools





Projections Primer

- The cohort survival methodology relies on observed data from the recent past in order to project the near future
- Persistency Ratios calculated from historic enrollment data to determine growth or loss in a class as it progresses through school system
- Persistency Ratios account for the various external factors affecting enrollments: housing characteristics, residential development, economic conditions, student transfers in and out of system, and student mobility
- Changes in population, housing stock and tenure, and economic conditions help explain persistency ratios
- **In scenarios where external factors drive enrollment in a fashion without linear relationships to existing births and/or enrollments, adjustments to the cohort-survival methodology may improve projections**



Kindergarten Projections

- Two methodological options for projecting K—each carries different assumptions
- Traditional cohort-survival method based on historic Birth-K ratios
 - Standard methodology based on recent years' births and K enrollments
 - Assumes stable and linear relationship between future births and total kindergarten enrollment from all sources (e.g. home purchases, rentals, etc.)
 - Potential to over-respond to year-to-year variations in births
 - Additional option tested: adjustment to Birth-K ratio each year to stabilize total number of kindergarten students generated by in-migration; minimal differences from stable Birth-K method
- Regression-based estimate based on historic births, home sales, and K data
 - Adjustment to standard methodology
 - Assumes linear relationships between kindergarten enrollment and two variables (home sales and births) based on multiple regression analysis of all available years of data
 - Places greater weight on housing sales trends projected under each scenario compared to the traditional approach (especially in years 1-5)



Regression Analysis

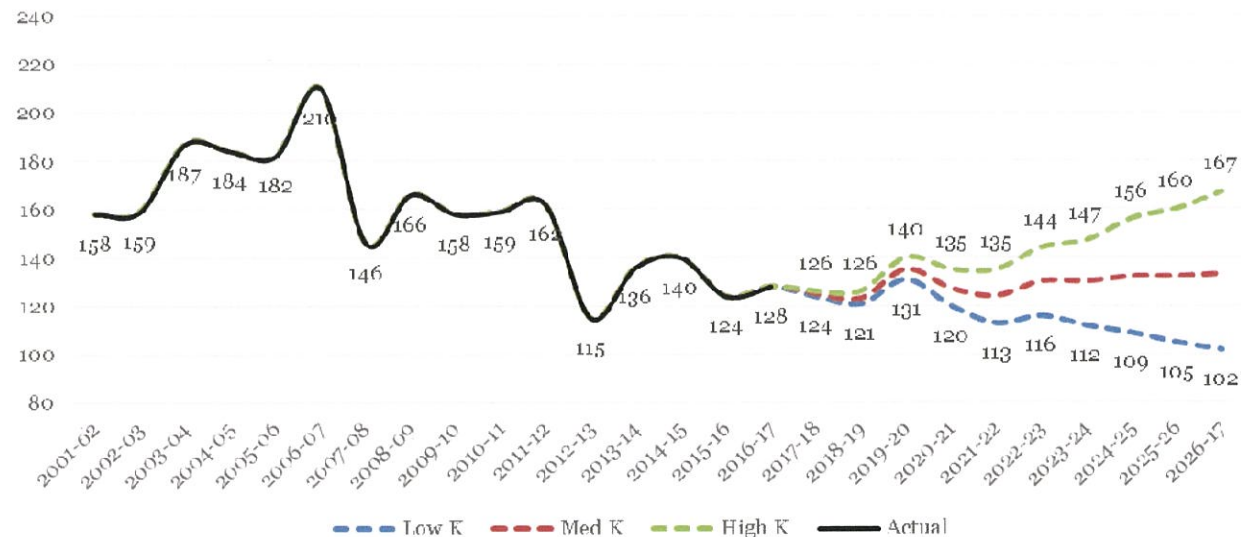
- Regression analysis of kindergarten enrollment vs. home sales and births yields good model fit and significance metrics ($R^2 = 0.987$, variable $p \approx 0.01$):

$$K_{Yr} = (Births_{Yr-5} * 0.779) + (Five_Yr_Sales_{Yr} * 0.093)$$

	Scenario Parameters		
	Low	Medium	High
Annual Births	48 - 62	62 - 64	62 - 83
Annual Home Sales	140 - 162	170 - 180	178 - 220

- K scenarios developed based on assumed births and sales

Historic and Projected K Enrollment, 2001-02 to 2021-22

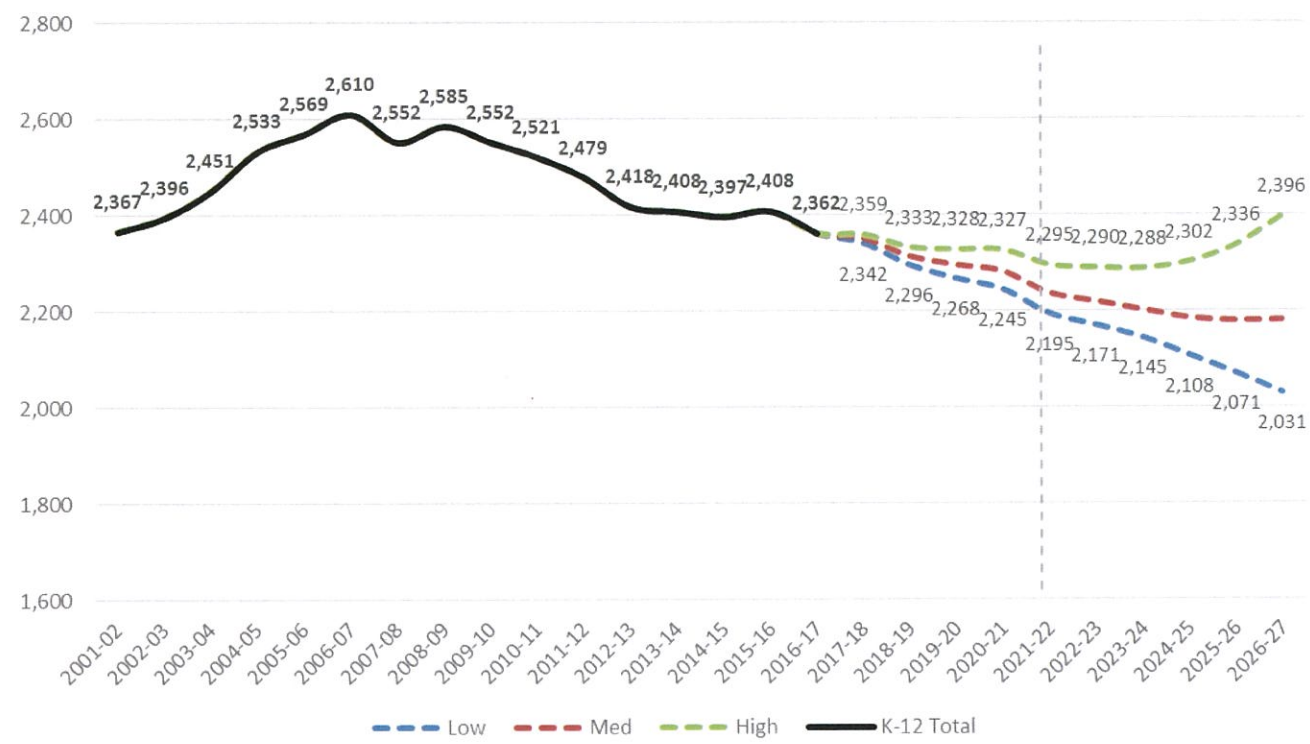




Districtwide Projections

- Developed projections under three scenarios and two K projection methodologies
- Static Birth-K Ratio Method (may overstate potential for future recovery, especially under high scenario assumptions)

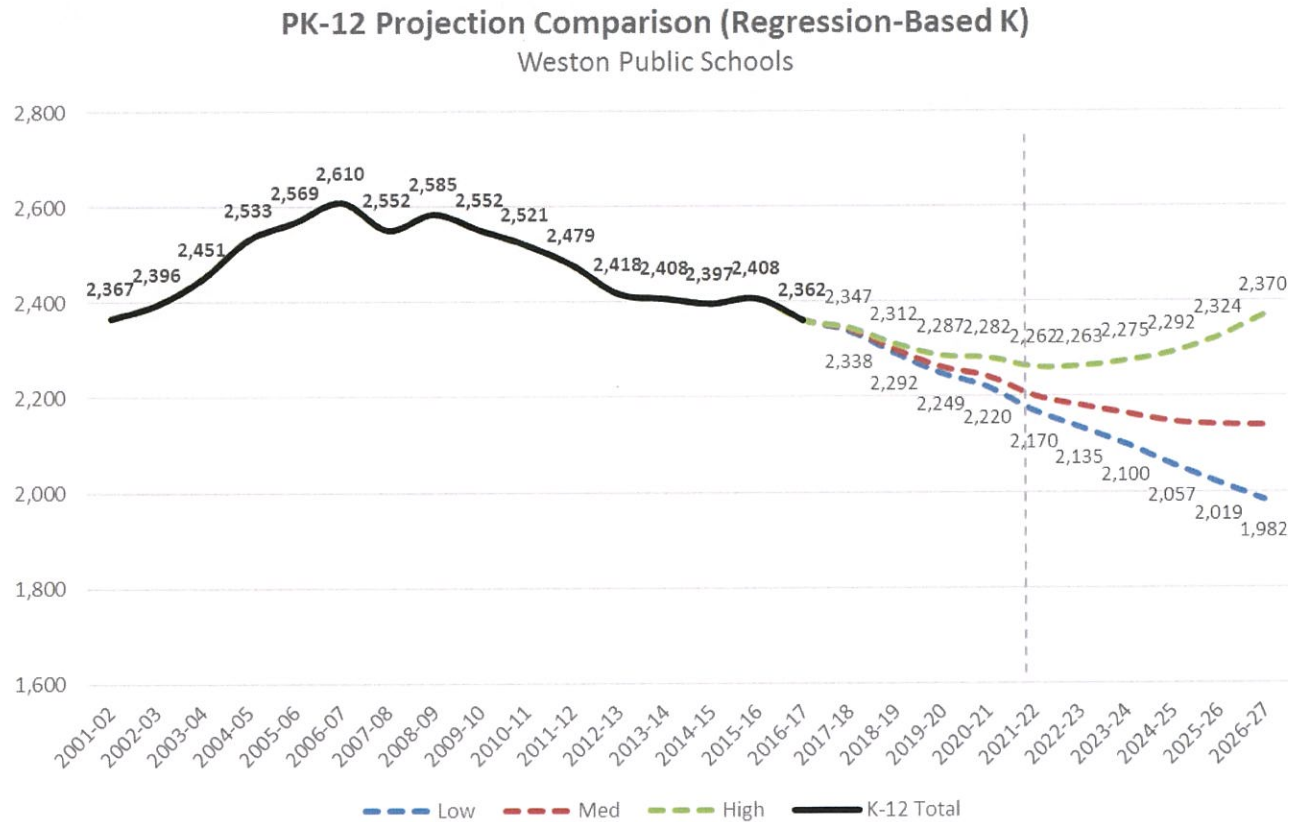
PK-12 Projection Comparison (Static Birth-K Ratios)
Weston Public Schools





Districtwide Projections

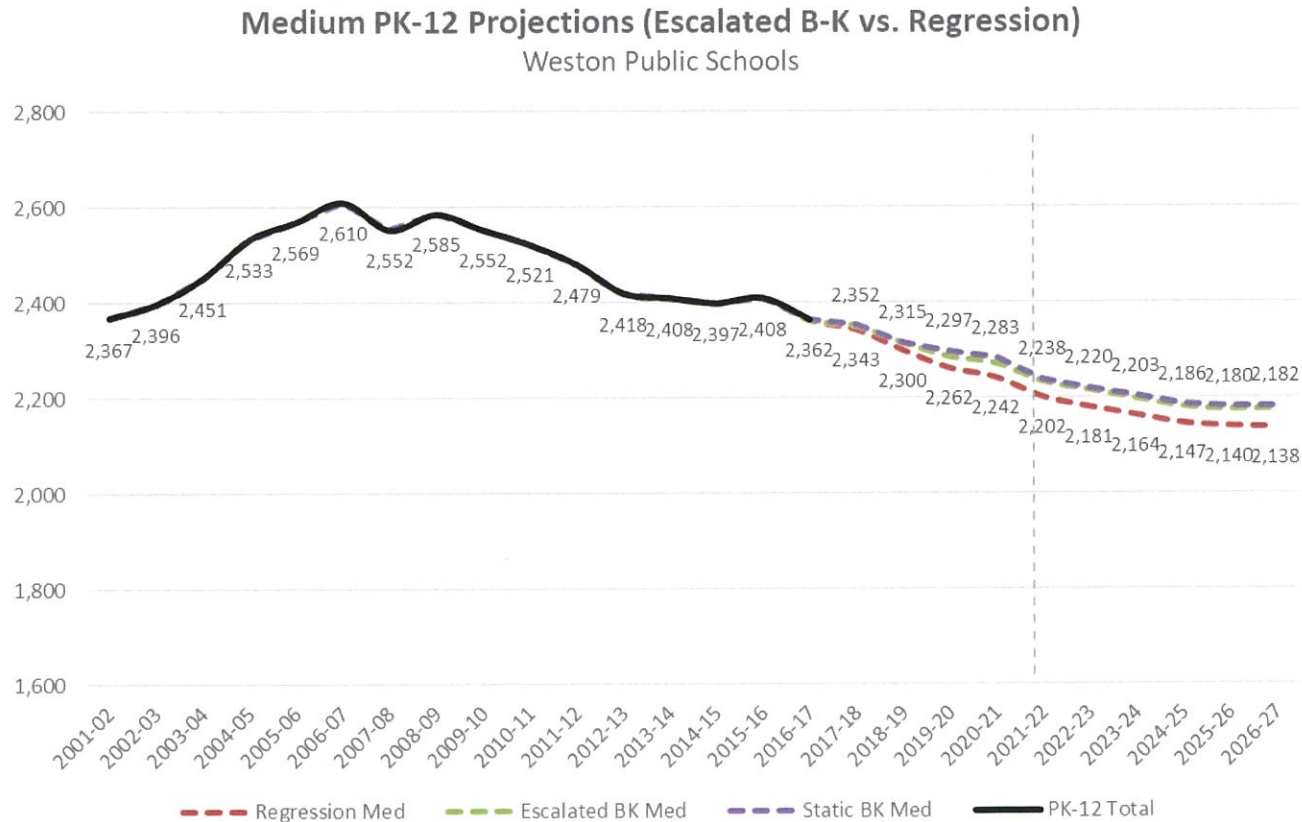
- Developed projections under three scenarios and two K projection methodologies
- Regression-based method (yields slightly lower projected enrollments)





Projection Comparison

- Medium scenario comparison by methodology
 - Small differences in first two years; widens to a gap of about 40 students for the remainder of the projection horizon
 - Total 10-yr PK-12 decline of ~200 (-8.8%) in Birth-K projections and ~225 (-9.5%) in regression-based projections





10-Yr Projections By Grade

Medium Regression K (Derived from Medium Regression Births), 3-Year Weighted Average Persistency

School Year	Birth Year	Births	K	1	2	3	4	5	6	7	8	9	10	11	12	PK
2016-17	2011	49	128	143	145	163	173	185	187	194	205	189	213	206	206	25
2017-18	2012	63	125	140	149	154	170	175	189	190	191	207	188	211	208	45
2018-19	2013	60	123	137	146	159	161	172	179	193	188	193	205	186	213	45
2019-20	2014	72	135	135	143	156	165	163	176	183	190	189	192	204	188	45
2020-21	2015	61	127	148	141	152	162	167	166	179	180	191	188	190	205	45
2021-22	2016	55	124	139	154	150	158	164	171	170	177	181	190	186	191	45
2022-23	2017	62	130	136	145	164	156	160	168	174	167	178	180	189	188	45
2023-24	2018	60	130	142	142	154	171	158	164	171	172	168	177	179	190	45
2024-25	2019	62	132	142	149	151	161	173	161	167	169	173	167	175	180	45
2025-26	2020	62	132	145	149	158	157	163	177	164	165	170	172	166	177	45
2026-27	2021	64	133	145	151	158	165	159	167	181	162	166	169	171	167	45



Individual School Projections

- Projections for individual school buildings/grade ranges are presented based on the regression methodology under medium-scenario assumptions
- Hurlbutt projected to increase slightly (based on assumed PK population of 45) and remain stable at ~450 to 475 students throughout projection horizon

PK-2 Historic & Projected Enrollment (Regression Medium Scenario)
Weston Public Schools

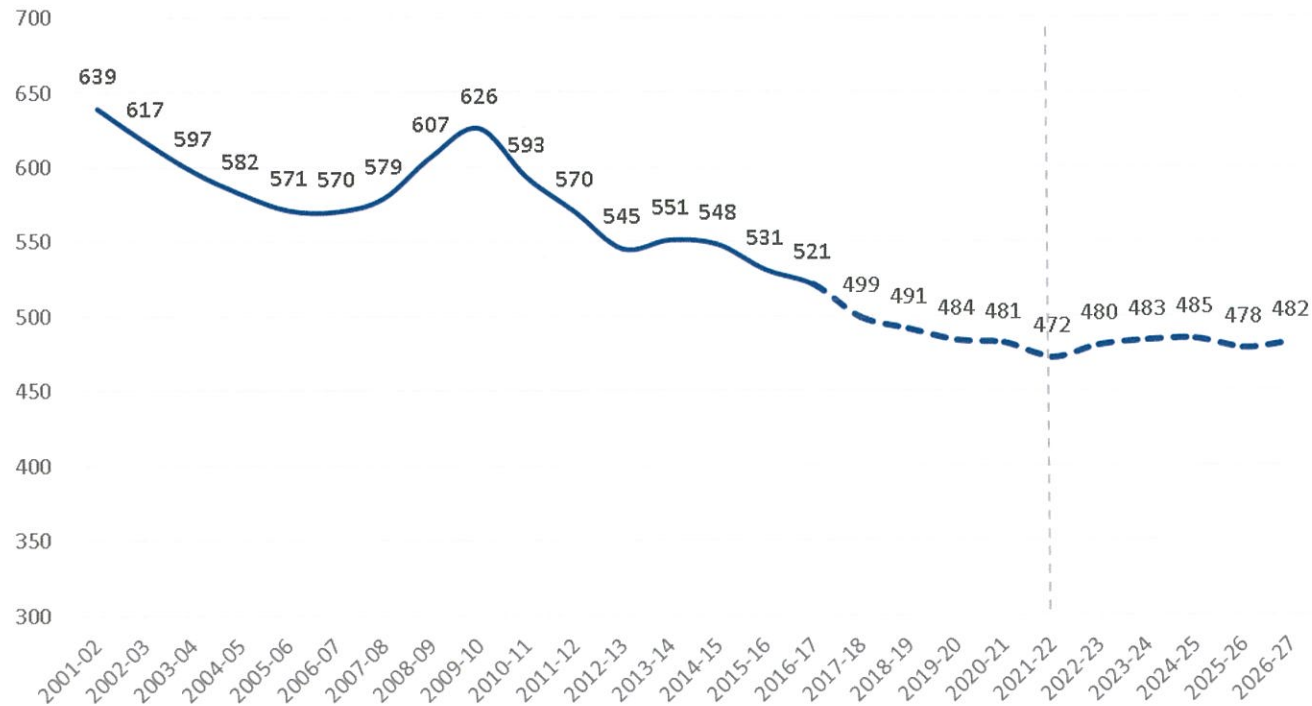




Individual School Projections

- WIS projected to experience sharp drop in 2017-18 and continued decline through 2021-22 (to ~470 students) before experiencing slight recovery and stabilization in final years at ~480 students

3-5 Historic & Projected Enrollment (Regression Medium Scenario)
Weston Public Schools

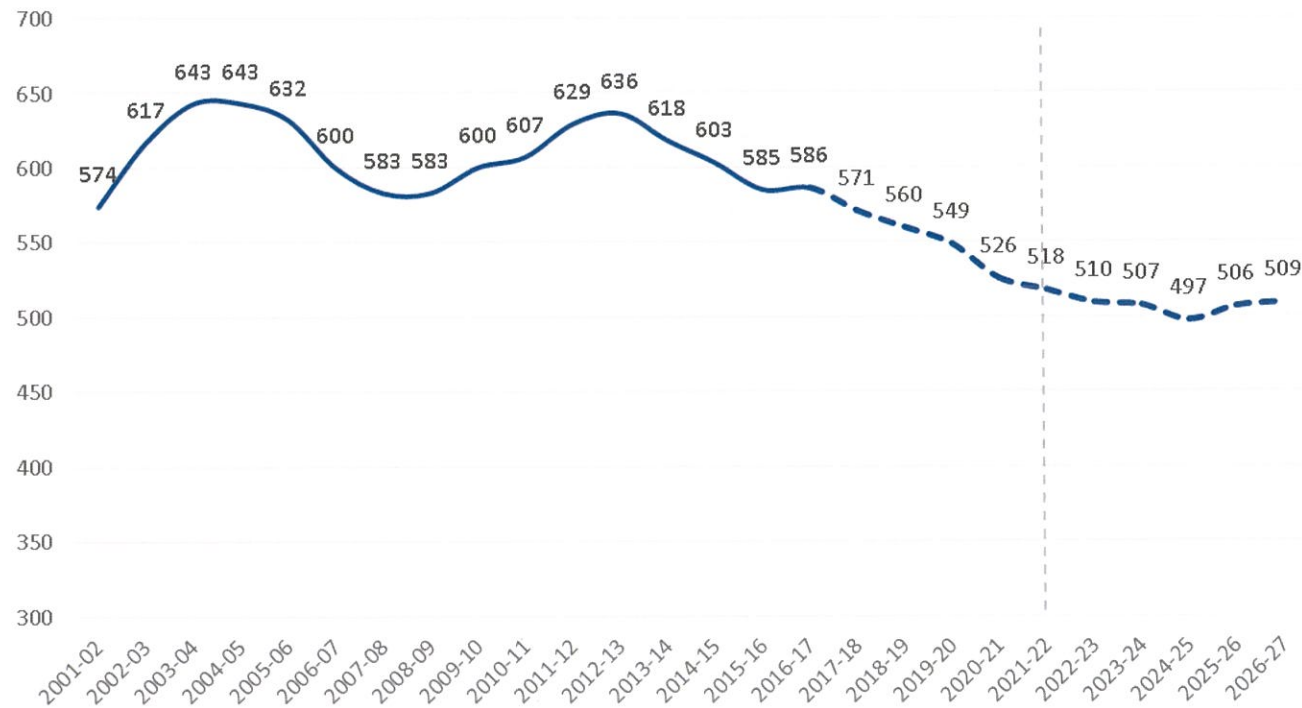




Individual School Projections

- WMS projected to see the steepest near term decline; projected to continue over the majority of the projection horizon to just below 500 in 2024-25 before stabilizing

6-8 Historic & Projected Enrollment (Regression Medium Scenario)
Weston Public Schools

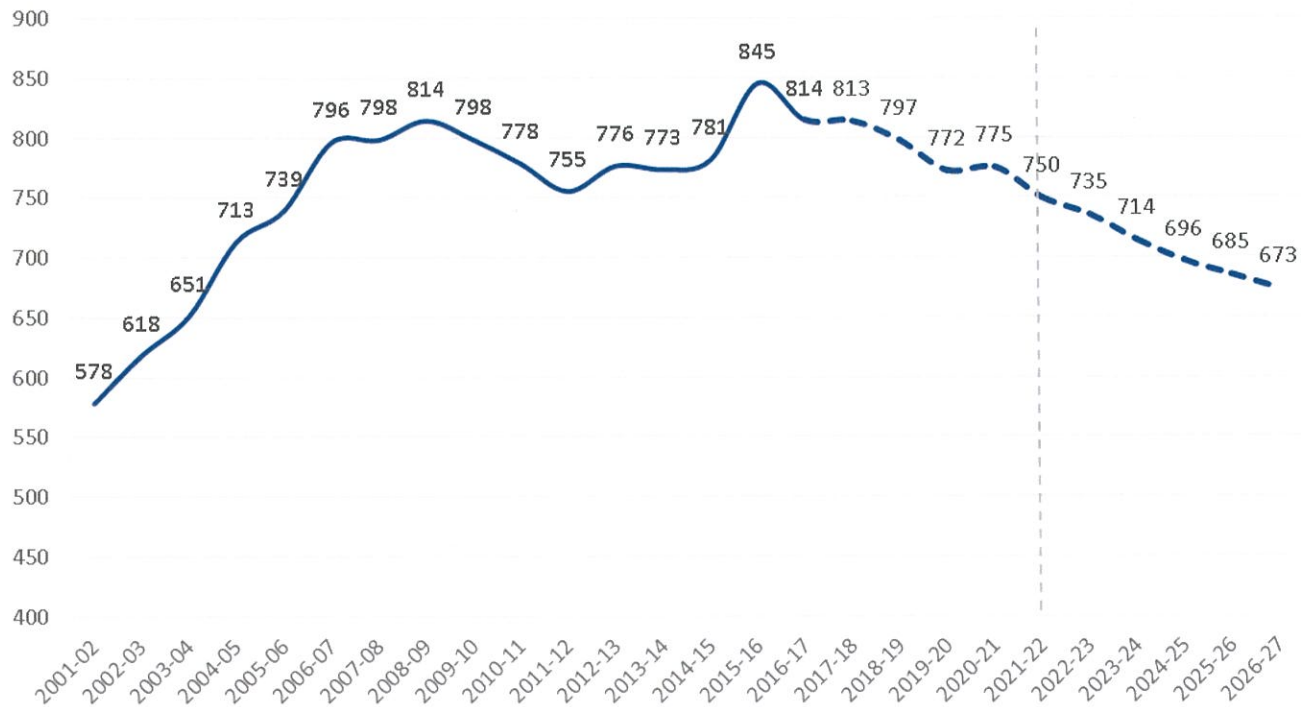




Individual School Projections

- WHS projected to see more gradual decline in next two years before a sharper dip in 2019-20 and a sustained decline in the second half of the projection horizon as successive smaller cohorts currently in the system matriculate

9-12 Historic & Projected Enrollment (Regression Medium Scenario)
Weston Public Schools





Takeaways

- Weston Public Schools is likely to continue to experience declining enrollments through at least the early 2020s, largely due to changes in the size of grade-level cohorts that have already taken place
 - This result occurs across a range of methods and assumptions
 - The regression-based method of projecting future Kindergarten enrollments is a departure from traditional modeling methods; however, the dominance of in-migration (not local births) in forming new student cohorts leads us to believe this method may be more appropriate for Weston's market and demographics
- Declines at the K-2 grade level are projected to be of a smaller magnitude than upper grade levels and are likely to stabilize or slightly increase after 2018-19
- Intermediate and middle grade levels are projected to see sharpest near-term declines as current cohorts are replaced by successive smaller cohorts
- High school grade level enrollment is projected to begin declining from peak, with accelerated declines in second half of the projection horizon



Discussion

Any Questions?

WESTON PUBLIC SCHOOLS OPERATING BUDGET
Enrollment Projections

Grade	Actual Enrollment October 1, 2017	NESDEC Projected Enrollment 2018-2019	Change	Milone & MacBroom	Change
K	113	114	1	119	6
1	142	125	-17	125	-17
2	147	150	3	146	-1
Hurlbutt Elementary School Total	402	389	-13	390	-12
3	153	157	4	155	2
4	174	158	-16	162	-12
5	180	179	-1	178	-2
Intermediate School Total	507	494	-13	495	-12
6	196	187	-9	187	-9
7	190	200	10	200	10
8	198	190	-8	190	-8
Middle School Total	584	577	-7	577	-7
9	210	202	-8	202	-8
10	184	209	25	207	23
11	209	182	-27	182	-27
12	206	211	5	210	4
High School Total	809	804	-5	801	-8
In-District Total (K-12)	2,302	2,264	-38	2,263	-39
Out-of-District (K-12)	13	12	-1	12	-1
Total (K-12)	2,315	2,276	-39	2,275	-40
Pre-School	27	28	1	45	18
Total Enrollment	2,342	2,304	-38	2,320	-22

The proposed staffing for FY 2019 will yield the following class sizes K-5:

Budgeted Class Sizes Based on NESDEC Projections				Impact of Further Reductions	
Grade	Projected 18-19 Enrollment	Proposed Number of Sections	Average Number of Students per Section	Result of Reducing a Section Per Grade	
K	114	6	19.00	22.80	Exceeds Guidelines
1	125	7	17.86	20.83	Exceeds Guidelines
2	150	7	21.43	25.00	Exceeds Guidelines
3	157	7	22.43	26.17	Exceeds Guidelines
4	158	7	22.57	26.33	Exceeds Guidelines
5	179	8	22.38	25.57	Exceeds Guidelines

WESTON PUBLIC SCHOOLS OPERATING BUDGET

Weston Public Schools, Weston, CT

Budgeted Class Sizes Based on NESDEC Enrollment Projections				Impact of Further Reductions	
Grade	Projected Enrollment 18/19	Proposed Number of Sections	Average Number of Students Per Section	Result of Reducing a Section Per Grade	Notes
K	114	6	19.00	22.80	Exceeds BOE Guidelines
1st	125	7	17.86	20.83	Exceeds BOE Guidelines
2nd	155	7	22.14	25.83	Exceeds BOE Guidelines
3rd	157	7	22.43	26.17	Exceeds BOE Guidelines
4th	158	7	22.57	26.33	Exceeds BOE Guidelines
5th	179	8	22.38	25.57	Exceeds BOE Guidelines

Board of Education Class Size Guidelines:

Kindergarten and 1st Grade: 18-20 Students

2nd Grade through 12 range: 20-24 Students

Currently Kindergarten is six students (6) from tipping past the Board of Education Class Size Guidelines of 18-20 students per class. The district has chosen not to budget a for the possibility of class size tipping above the guidelines should enrollment fluctuate. Should enrollment tip passed the 120 students there is a possibility of an additional teacher in Kindergarten being needed. Additionally grades three (3) and four (4) are eleven (11) and ten (10) students from tipping past the Board of Education Class Size Guidelines of 20-24 students per class. The cost of this will vary based on the specific teacher hired by the Weston Public Schools should this occur but it would typically cost in excess of \$80,000 for an individual teacher inclusive of benefits.

WESTON PUBLIC SCHOOLS OPERATING BUDGET

DRG A Comparisons

Weston Public Schools, Weston, CT

**WESTON PUBLIC SCHOOLS
WESTON, CONNECTICUT**

2016-2017 PER PUPIL EXPENDITURES
*Net Per Pupil Expenditures
& Wealth Ranking*

COMPARISON OF STATE DESIGNATED "DISTRICT REFERENCE GROUP" - DRG A

<u>Town Name</u>	<u>Net Per Pupil Expenditures</u>		
	<u>2016-2017</u>	<u>DRG A Rank</u>	<u>State Rank</u>
<u>K-12 Districts</u>			
RIDGEFIELD	17,994	9	59
EASTON	19,291	8	36
WILTON	19,873	7	28
DARIEN	20,159	6	26
NEW CANAAN	20,162	5	25
DRG A AVERAGE	20,236		
WESTPORT	20,387	4	20
WESTON	20,888	3	19
REGION 9	21,636	2	15
REDDING	21,733	1	14