

**WESTON PUBLIC SCHOOLS
MEMORANDUM**

To: Board of Education
From: Lewis D. Brey, Director of Human Resources *LB*
Date: November 12, 2010
RE: **NESDEC Enrollment History and Projections**

Attached is the updated enrollment history and forecast from the New England School Development Council (NESDEC) that we recently received. These enrollment projections, developed annually, provide important data for program and budget planning, and staffing for the 2011-2012 school year.

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.

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 2009/2010, increased to 104 students in Grade 2 in 2010/2011, 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 – 2010-2011

Last year, NESDEC projected a K-12 enrollment for 2010/2011 of 2506, which excludes the 45 students in the Pre-K Early Learning Center program. The actual K-12 October 1st total enrollment for 2010/2011 is 2504, a difference of 2 students fewer than projected. NESDEC's enrollment projection total from fall of 2009 came within 0.08% of the actual October 1, 2010 enrollment. Enrollment projection variances from actual grade level enrollments are, for the most part, limited to Kindergarten and Grade 2 at Hurlbutt Elementary School, Grade 3 at Weston Intermediate School, Grade 8 at Weston Middle School, and Grades 9, 10, and 12 at Weston High 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 11 students under the projection (505 actual vs. 516 projected). This decrease was most notable in Kindergarten, which enrolled 19 fewer students (11.95%) than the projection. However, the difference in Kindergarten was partially offset by an increase of 10 students in Grade 2.

The significant decline in Kindergarten enrollment at Hurlbutt is a deviation from the experience of other DRG A Districts. With the exception of one other District in DRG A, Kindergarten enrollment for 2010/2011 was either higher than projected or was on target:

	<u>Projected</u>	<u>Actual</u>	<u>Difference</u>
District A	284	284	0
District B	352	393	+41 (+11.65%)
District C	305	351	+46 (+15.08%)
District D	292	269	-23 (-7.87%)

District E	97	98	+1 (+1.03%)
District F	97	108	+11 (+11.34%)
Weston	179	159	-20 (-11.17%)

At Weston Intermediate School enrollment was projected at 586 vs. the actual enrollment of 595, an increase of 9 students. The entire increase above the projection was in Grade 3.

At Weston Middle School enrollment was projected at 618 vs. the actual enrollment of 612, a decrease of 6 students. Grade 6 had the largest decrease with 5 fewer students than the NESDEC's projection.

At Weston High School, the total 9-12 enrollment was projected at 786 vs. 792 actual enrollment – representing a variance of 6 students. However, in grades 9 and 12, there were significant variances. Grade 9 enrollment was 11 students below the projection (193 v. 204) and grade 12 was 11 students higher (201 v. 190).

Review of NESDEC's 2011-2012 Enrollment Projections

NESDEC's most recent K-12 projections indicate a decrease in student enrollment. Total K-12 projected enrollment for 2011/2012 is forecasted at 2469, a decrease of 35 students, as compared to the actual 2010/2011 enrollment of 2505, a 1.4% decrease over last year.

Hurlbutt Elementary School—Grades PK-2

Enrollment at this school level is projected to decrease by 30 students as compared to the current enrollment in these grades in 2010/2011 (550 current vs. 520 projected). This decrease is attributed to a lower than usual projected Kindergarten enrollment of 140 students and the projected decrease of 12 students in Grade 2.

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 2011, NESDEC used a Birth-to-Kindergarten growth ratio (a factor of 1.65), which is slightly lower than the 1.70 ratio used in 2009 and 1.75 used in 2008.

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 peaked in 2006 and has since been on a general decline.

In-Migration between Year of Birth and Actual Kindergarten Enrollment

Years, Birth to K	Birth Cohort	K Enrollment	Difference
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
2005 to 2010	105	159	+54

Kindergarten Enrollment Projections

NESDEC's enrollment projections for 2011/2012, utilizing the 1.65 growth ratio forecasts Kindergarten enrollment at 140 students, which is +55 over the size of the birth cohort five years previously (85 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 2011.
- 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 size comparison, which illustrates this variance.

	Grade K	Grade 1	Grade 2	
2010-2011 (actual)	159	166	180	
2011-2012 (projected)	<u>140</u>	<u>167</u>	<u>168</u>	
Variance	-19	+1	-12	(-30 net)

Weston Intermediate School—Grades 3—5

Enrollment at the intermediate school level is projected to decline by 16 students in 2011-2012 (579 projected vs. 595 actual). While the enrollment in Grades 3 and 5 are projected to increase, Grade 4 will decline dramatically due to the smaller Grade 3 class moving up. This is illustrated in the following grade size distribution chart:

	Grade 3	Grade 4	Grade 5	
2010-2011 (actual)	171	217	207	
2011-2012 (projected)	<u>186</u>	<u>172</u>	<u>221</u>	
Variance	+15	-45	+14	(-16 net)

Weston Middle School—Grades 6-8

Enrollment at the middle school is projected to increase by 34 students (646 projected vs. 612 current). The increase is primarily attributable to a smaller grade 8 moving to Weston High School next year which is being replaced by a much larger incoming class. A grade by grade size comparison illustrates this variance.

	Grade 6	Grade 7	Grade 8	
2010-2011 (actual)	211	216	185	
2011-2012 (projected)	<u>213</u>	<u>211</u>	<u>222</u>	
Variance	+2	-5	+37	(+34 net)

Weston High School—Grades 9-12

Enrollment at the high school is projected to decrease by 32 students (769 projected vs. 792 current), with Grade 9, 10, and 12 projected to enroll fewer students than the current enrollment. Grade 11 is projected to increase by 12 students. For the period 2000-01 through 20010-2011 high school enrollment grew from 508 students to 792, an increase

of 284 students, and a 55.9% growth rate for that period. A grade by grade class size comparison follows:

	Grade 9	Grade 10	Grade 11	Grade 12	
2010-2011	193	207	191	201	
2011-2012	<u>184</u>	<u>192</u>	<u>203</u>	<u>190</u>	
Variance	-9	-15	+12	-11	(-23 net)

General Comments (Five Year "Look-Ahead" Perspective)

Each year, NESDEC provides the District with a five (5) year enrollment projection. However, it is important to keep in mind that projections beyond the first few years are often less reliable given the reliance on birth rate projections and other factors. For instance, in November, 2005, NESDEC predicted total Pre-K-12 enrollment of 2356 for 2010/2011. The actual enrollment this year as of October 1 was 2549 – a variance of +193 students (8.2%). At the K-2 level, NESDEC's 2005 projection for this year was 449 students. The actual enrollment as of October 1, 2010 was 505 – a difference of 56 students (12.47%).

Pre-K-12 Enrollment

Since the 2000/2001 school year, total enrollment in the Weston Public Schools has increased by 184 students, a 7.8% growth rate for that period. The forecast for the next five years, using 2011/2012 as the base year, forecasts a decline of 118 students, a 4.7% decrease in enrollment to 2396 students in 2015/2016. During the last several years, NESDEC's forecast for future years has been revised as the overall enrollment decline has moderated.

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 39 students during that period. A more significant drop of 77 students is projected to occur through 2014/2015, but an increase of 38 students is projected in 2015/2016.

Weston Intermediate School Enrollment (Grades 3-5)

Enrollment at the intermediate school for the next five years is forecasted to experience a decline of 106 students to 473 students in 2015-2016, which represents a decline of 18.3%. However, between 2015/2016 and 2018/2019, NESDEC projects enrollment at Weston Intermediate School to climb to 500 and then to 537 by 2020/2021. It should be noted, however, that beyond 2016/2017 for Grade 3, 2017/2018 for Grade 4, and 2018/2019 for Grade 5, projections are based on an estimate of annual births.

Weston Middle School (Grades 6-8)

Over the next five years, enrollment at the middle school is forecasted to decrease by 81 students (12.54%) during this period, with enrollment ranging from 646 students (2011-2012) to 565 students (2015-2016). It should be noted that this projected decrease reflects the much larger Grade 8 class in 2011/2012 as opposed to the current year. Had the comparison been made to the current year enrollment, the reduction at the middle school would have been 47 students rather than 81. Further, the middle school is projected to have 657 students in 2012-2013 which would represent an increase of 45 students over the current year and an increase of 11 students over 2011/2012.

Weston High School Enrollment (Grades 9-12)

During the next five years enrollment at the high school is projected to increase by 108 students (14.04%) to 877 in 2015-2016. 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, in 2008 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.

As mentioned above, it is important to note that projections beyond the first few years are often less reliable given the reliance on birth rate projections and other factors. While small deviations do occur, larger deviations become more likely as NESDEC projects further out.

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.

Weston Public Schools
Enrollment Report K-12 October 1, 2010

NESDEC Projection
 2010-11

Enrollment 10/1/10* **Difference**

Hurlbutt Elementary School

Kindergarten	179	159	-20
Grade 1	167	166	-1
Grade 2	170	180	10

Weston Intermediate School

Grade 3	162	171	9
Grade 4	217	217	0
Grade 5	207	207	0

Weston Middle School

Grade 6	216	211	-5
Grade 7	216	216	0
Grade 8	186	185	-1

Weston High School

Grade 9	204	193	-11
Grade 10	205	207	2
Grade 11	187	191	4
Grade 12	190	201	11

*Numbers included out-placed students

NESDEC

Enrollment

School District: **Weston, CT Revised**

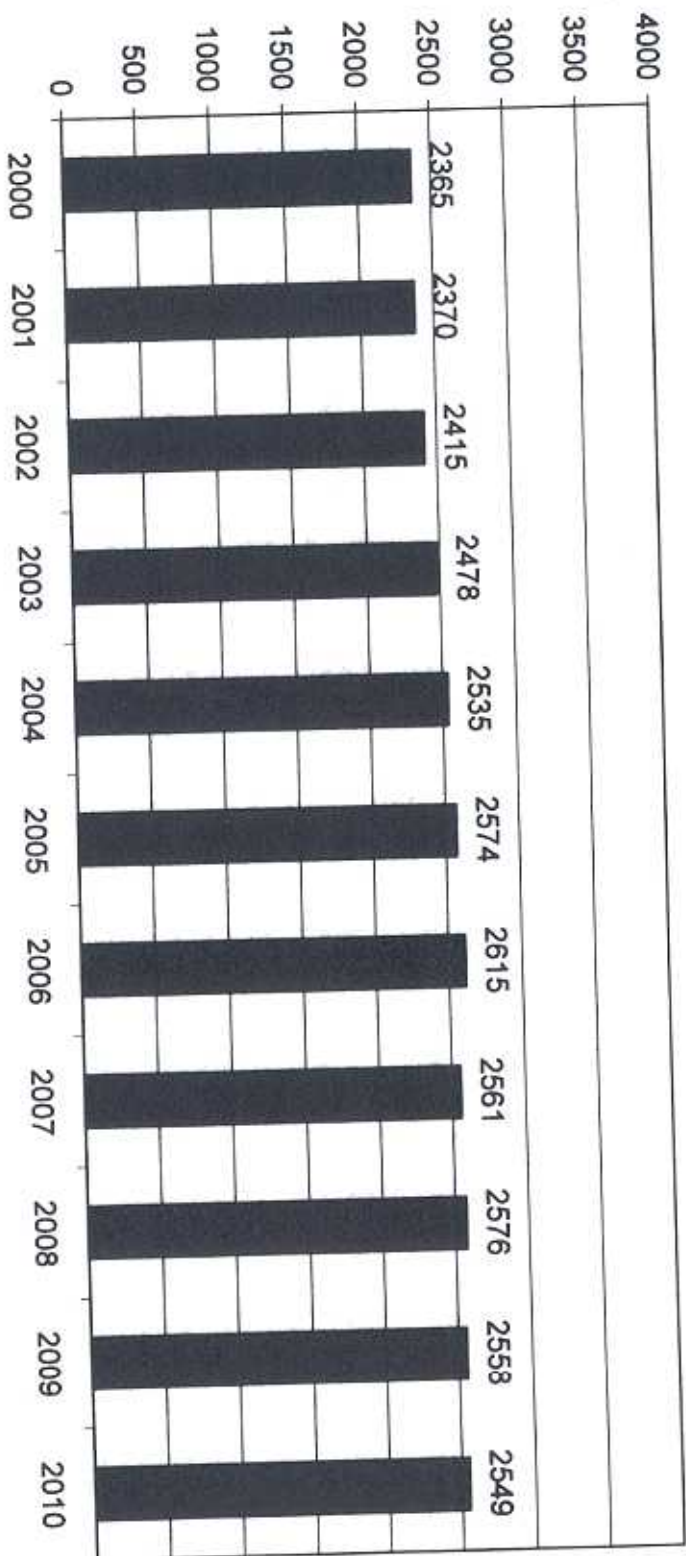
10/27/2010

Year	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11						
1985	119	200	198	206	227	225	227	187	173	186	138	135	132	103	0	2345	2365
1986	132	158	210	193	201	226	212	217	181	176	178	135	129	138	0	2352	2370
1987	114	163	173	196	194	205	226	221	211	186	174	177	141	132	0	2399	2415
1988	114	29	181	188	194	198	211	223	216	212	181	167	175	132	0	2448	2478
1989	146	31	184	204	178	184	201	197	226	206	207	170	187	171	0	2504	2535
2000	129	38	182	194	213	174	191	206	199	232	212	203	166	163	0	2536	2574
2001	129	40	210	194	200	210	174	186	208	201	201	208	189	189	0	2575	2615
2002	77	35	147	220	191	199	213	170	203	192	200	219	199	189	0	2526	2561
2003	93	36	168	160	218	203	195	212	182	205	185	200	214	200	0	2540	2576
2004	97	39	158	171	160	215	204	209	188	202	208	192	195	207	0	2519	2558
2005	105	46	159	166	180	171	217	207	211	185	193	207	191	201	0	2504	2549

Year	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
612	679	1281	1837	773	546	359	897	508			
561	639	1200	1774	786	574	357	935	578			
532	625	1157	1775	844	616	397	1021	624			
542	601	1143	1794	862	651	428	1083	655			
564	582	1146	1789	840	643	432	1147	715			
589	571	1160	1792	838	632	433	1177	744			
604	570	1174	1774	786	600	392	1183	801			
558	579	1137	1719	752	582	395	1202	807			
546	610	1158	1731	787	575	383	1202	809			
489	628	1117	1717	809	600	383	1185	802			
505	585	1100	1712	818	612	401	1183	792			

Year	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
2345	2352	2399	2449	2504	2536	2575	2526	2540	2519	2504	
0	7	47	50	55	32	39	-49	14	-21	-15	
0.0%	0.3%	2.0%	2.1%	2.2%	1.3%	1.5%	-1.9%	0.6%	-0.8%	-0.6%	

PK-12, 2000-2010



School District: Weston, CT Revised

10/27/2010

Enrollment Projections by Grade

Year	Births	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2005	105	2010-11	45	159	166	180	171	217	207	211	216	186	193	207	191	201	0	2504	2549
2006	85	2011-12	45	159	166	180	186	172	221	213	211	222	184	192	203	190	0	2469	2514
2007	72	2012-13	46	159	166	174	187	175	227	213	217	217	221	183	189	202	0	2423	2469
2008	69	2013-14	46	159	166	175	187	175	191	180	227	219	216	220	180	188	0	2359	2405
2009	90	2014-15	47	159	166	179	191	179	198	180	180	233	218	215	216	179	0	2342	2389
2010	90	2015-16	47	159	166	184	196	184	196	180	196	185	232	217	213	215	0	2349	2396
2011	88	2016-17	48	159	166	184	196	184	196	180	196	185	232	217	213	215	0	2318	2365
2012	85	2017-18	48	159	166	184	196	184	196	180	196	185	232	217	213	215	0	2286	2334
2013	85	2018-19	49	159	166	184	196	184	196	180	196	185	232	217	213	215	0	2254	2303
2014	88	2019-20	49	159	166	184	196	184	196	180	196	185	232	217	213	215	0	2213	2262
2015	87	2020-21	50	159	166	184	196	184	196	180	196	185	232	217	213	215	0	2218	2268

Projections should be updated on an annual basis. [] Based on an estimate of births

[] Based on children already born

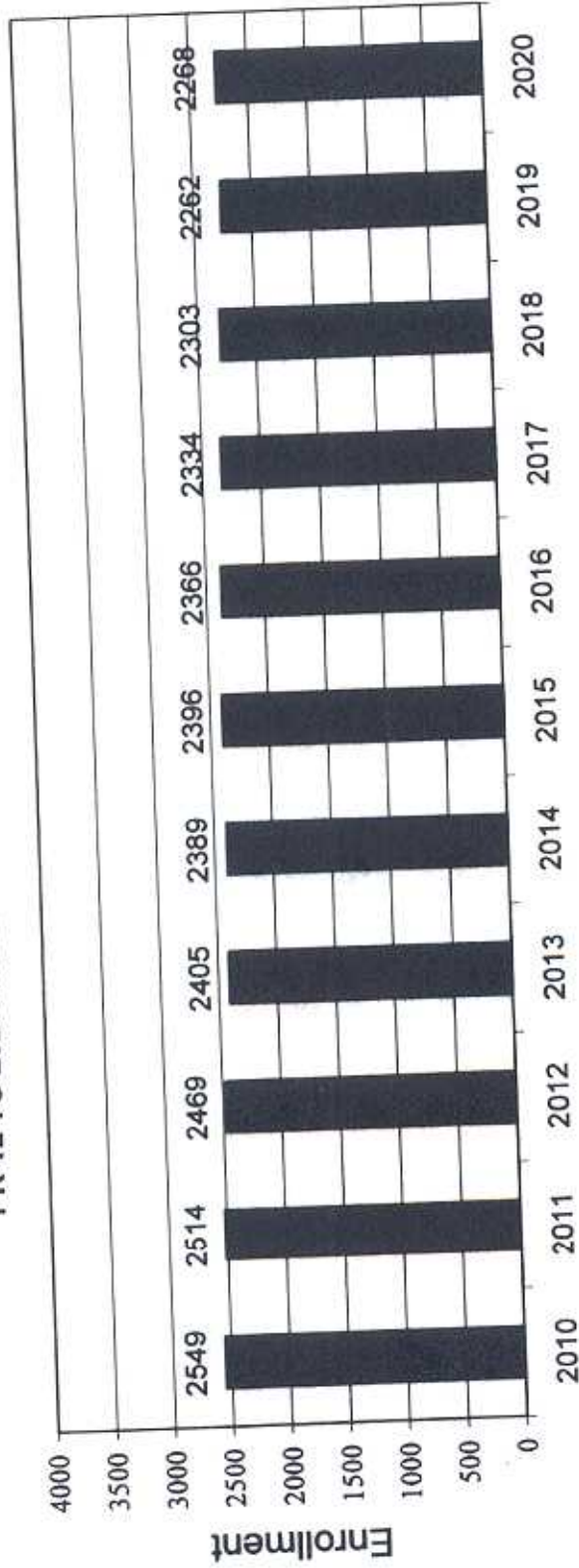
[] Based on students already enrolled

Year	PK-5	K-6	K-6	K-8	5-8	6-8	7-8	7-12	8-12
2010-11	1145	1100	1311	1712	819	612	401	1193	792
2011-12	1099	1054	1267	1700	867	646	433	1202	769
2012-13	1017	971	1198	1628	832	657	430	1226	765
2013-14	975	929	1109	1555	817	628	446	1250	804
2014-15	952	905	1101	1514	788	609	413	1241	828
2015-16	954	907	1091	1472	745	565	381	1258	877
2016-17	955	907	1082	1477	730	570	385	1226	841
2017-18	971	923	1087	1461	680	538	374	1199	825
2018-19	1006	959	1105	1459	641	500	354	1149	795
2019-20	1049	1000	1145	1480	643	480	315	1068	753
2020-21	1048	998	1188	1481	671	483	295	1032	737

See "Reliability of Enrollment Projections" section of accompanying letter. Projections are more reliable for Years 1-5 in the future than for Years 6 and beyond.

Years	K-12	Diff.	%
2010-11	2604	0	0.0%
2011-12	2469	-35	-1.4%
2012-13	2423	-46	-1.9%
2013-14	2359	-64	-2.6%
2014-15	2342	-17	-0.7%
2015-16	2349	7	0.3%
2016-17	2318	-31	-1.3%
2017-18	2286	-32	-1.4%
2018-19	2254	-32	-1.4%
2019-20	2213	-41	-1.8%
2020-21	2218	5	0.2%

PK-12 TO 2020 Based On Data Through School Year 2010-11



NESDEC Westo... Relationship

