TO: Dr. Alicia M. Roy, Superintendent of Schools, New Fairfield, CT
FROM: Donald G. Kennedy, Ed.D., Demographic Specialist
DATE: November 7, 2017
RE: Enrollment Projections (dated October 12, 2017)

We are pleased to send you the enclosed documents displaying the past, present and projected enrollments for the New Fairfield School District. We have used the figures given to us by the District and we assume that the method of collecting the enrollment data has been consistent from year to year. Note that on the final three pages of the projections, are the elementary school-by-school historical and projected enrollments.

NESDEC's enrollment projection totals from fall of 2016 data fell within 12 students of the actual Grade K-12 enrollment total for fall, 2017 (2,221 projected v. 2,233 actual). In Grades K-5, 884 pupils were projected v. 902 enrolled. In Grades 6-8, 510 students were forecast v. 524 enrolled. And in Grades 9-12, 827 pupils were forecast v. 807 enrolled.

The two factors now at work which will have the greatest effect upon future enrollments are: a. a decreased number of births to New Fairfield residents and, b. new in-migration (rebounding since the 2008 real estate slowdown). The students currently in Grades 1-10 were born during a period when New Fairfield was averaging 129 births per year. More recently (and expected over the next 6-7 years) are 79-100 births annually...averaging about 44 fewer births per year than previously. Hard-hit **Connecticut experienced an 8.6% decline in births from 2007 to 2009** (in part caused by the economic Recession), the largest decline among the six New England states – followed by an 8.1% decline in Rhode Island births, the two states with the highest rates of unemployment in the New England region – Massachusetts births declined by only 3.9% over these three years. Economists are forecasting a slow-yet-steady recovery from the current rates of unemployment which, in turn, may lead to additional in-migration and births. The unemployment rate as of September, 2017 **in CT was 4.6%;** RI 4.2%; US non-farm unemployment 4.2%; New England average 3.9%; ME 3.7%; VT 2.9%; and NH 2.7% - other nearby states: NY 4.9%; PA 4.8%; and NJ 4.7%. The rate of unemployment influences the likelihood of improving real estate sales, residential construction and thus affects the number of new families moving into the community – the US unemployment rate was above 10% during the Great Recession of 2008.

The ever-changing relationship between New Fairfield births and Kindergarten enrollments is displayed on the B-K graph. New Fairfield, over the past seven years, has registered about 138 Kindergarteners for every 100 births (five years previous), a relationship which has been relatively steady. This fall there were 150 Kindergarteners for every 100 births as opposed to only 110 Kindergarteners for every 100 births in 2010-11. NESDEC Kindergarten projections for 2017-18 anticipated 141 children v. 150 enrolled…as there were more "net move-in's" than expected. Next year's Grade 1 is expected to be about 2% smaller than the previous year's Kindergarten class.

 "Hidden Trends" within the district: Like many nearby communities, New Fairfield continues to experience fluctuations in enrollment and in/out-migration in Grades 1-8. There are additional trends and counter-trends to consider. More so than other grade levels, **Grades 1-8 in most districts tend to be quite stable in their numbers.** Grades 9-12 are excluded from the calculation as there tends to be additional fluctuation for reasons having little to do with students moving in/out of the community. Re the Grade 1-8 stability, if last year the Grade 1-7 total was 1,100 children, then (if no one moved in or out) this fall's Grades 2-8 would equal about 1,100 – the same cohort of children. Because Grades 1-8 tend to be the most stable in total K-12 enrollment, these Grades 1-8 are excellent places to discover "hidden trends" that otherwise might go unnoticed and provide a useful yardstick by which to measure a district's tendency toward in-/out-migration. In the case of New Fairfield, we know that the school district is currently experiencing, in most years, a slight "in--migration" of families with school age children. For example, the 1,162 children in Grades 1-7 in 2016-17 **increased by +7 children** to 1,169 students in Grades 2-8 in 2016-17. And the 1,121 enrollment in 2016 **was increased by +16** with an enrollment of 1,137 children in 2017. However, over the past five years, the district has averaged **a net increase of +6 children**, and may continue in that range. The presence of a mixed in/out-migration trend is evidence of the complexity of enrollments in these unsettled economic times. Analysis of these hidden trends provides an additional benchmark by which to assess enrollment trends.

Over the next three years, K-5 enrollments are forecast to decrease by a total of -94 students; Grades 6-8 to decrease by -61 pupils; and the high school level to decrease by about -109 pupils…all within the next three years – as the classes move up the grades. After that point these projections show decreasing enrollment in Grades K-5 of -90 students, with decreasing in enrollment of -95 students at Grades 6-8; and a decrease of -61 pupils in Grades 9-12 – as classes work their way up through the grades. That said, it is possible that real estate turnover will have increased further, bringing in additional new families - see the "Projections" page. Although the Year #1-3 forecast likely will occur, the longer term future is better viewed as a possible direction which may be affected by improved real estate conditions. That longer-term future also will be affected by the number of babies-yet-to-be-born…it is quite likely that the birth numbers will increase slightly as new families move in.

Will these patterns of increasing enrollments really last for as long as ten years? That is difficult to answer – although the most recent five-year trends in real estate sales and "net move-ins" of new families suggest that the later enrollment declines forecast for years #6-10 may overly pessimistic. All projections are more reliable for Years #1-5 in the future; and less reliable in the "out-years" – as some many factors can change. As soon as the economy and real estate situation become more stable in the region, additional in-migration may occur in New Fairfield. Many communities in the region sold during 2008-2014 only about 60-80% as many homes as in 2003-2007. Building permits had slowed as well; see the "Additional Data" table below. **As additional families move in, any forecasted declines may moderate.** See the description on Page 4 below regarding "reliability of projections". The birth numbers used in the projections, through 2016, are from the CT

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Department of Public Health. The "estimated" years, beginning with 2017 are a rolling five-year average, which NESDEC has found to be the most accurate method of estimation. The "provisional" totals in 2015 and 2016 are from the CTDPH – temporary totals that may be exceeded, yet will not decreased. Local City/Town Clerks have up-to-date information on local births however do not have access to the number of New Fairfield residents born out-of-state (information which will eventually become known to the CT DPH). The 2015 and 2016 "provisional" birth numbers reported by the CTDPH indicate preliminary totals – which will not decrease, yet may increase with additional out-of-state births (to residents of New Fairfield) not yet known by the CTDPH.

The two most difficult grades to forecast in all districts are Kindergarten and Grade 9. The latter is difficult to anticipate, as there are so many options for Grade 9 (in vocational or agricultural schools, private or parochial non-public schools, etc.). Kindergarten can be difficult to project based upon births alone, as many districts have large numbers of "net move-ins/move-outs" who are ages 1-4. **Some districts take extra steps to track 3 and 4-year olds with a local census, or report to NESDEC the known number of 4-year olds in local preschools/nursery schools which typically enroll Kindergarteners in the district. Knowing this information helps NESDEC to project Kindergarteners more reliably…as does data from the Kindergarten Screening in districts which also track 3 and 4-year old siblings (or neighbors) at that time. The more data, in addition to births, which is sent to NESDEC regarding the incoming Kindergarten class, the greater is the chance that "enrollment surprises" will be minimized.**

Continuing Declines Expected in New England's PK-12 Enrollments
The US Department of Education, from 2013 to 2025, anticipates changes in PK-12 enrollment of **+7.8%** in the South; **+4.47%** in the West, **-2.7%** in the Midwest; and **-4.8%** in the Northeast.

State	Fall 2013	Fall 2025 Projected	PK-12 Decline	% Change, 2013-2025
CT	546,200	468,600	-77,600	-14.2%
ME	183,995	161,900	-22,095	-12.0%
MA	955,739	910,700	-45,039	-4.7%
NH	186,310	159,100	-52,410	-14.6%
RI	142,008	133,900	-8,108	-5.7%
VT	88,690	79,600	-9,090	-10.3%

Source: USDE, National Center for Education Statistics, *Projections of Education Statistics to 2025*, Table 3, pages 40-41.

Despite overall declines regionwide, NESDEC found in over 300 sets of enrollment projections during 2016-17 that about 29% of the districts are expected to increase their enrollment by some amount over the next decade – with 71% of the districts forecast to decline below their 2016-17 PK-12 total enrollments.

Will many new families be moving into our school district? Everyday across America, 10,000 "Baby Boomers" celebrate their 65th birthday - a phenomenon which will continue for a decade. New England has a disproportionately large share of these senior citizens, many of whom had planned to "downsize" their living arrangements, yet postponed putting homes on the market due to the Great Recession. School enrollments are influenced strongly by the number of real estate sales, as these contribute new families moving into many districts. In over 80% of districts, the number of real estate sales is 4-5 times larger than the number of building permits for new residential construction – **thus the number of real estate sales often is a more important factor than building permits.**

In New England, how rapidly will additional homes be placed on the market? A mid-2014 study using data from the Federal Housing Finance Agency, Bureau of Economic Analysis and the U.S. Census Bureau directly links home prices to the "real Gross Domestic Product" (GDP) in each of the nine regions in the country. However New England ranks only 7th among the 9 regions in the recovery of its regional economy (as measured in "the bubble" prior to the Recession, in "real GDP"). Comparing the regional economies from 2 Quarter of 2007 to 4 Quarter 2013: W. South Central = +18.6% (that is, many jobs are available); W. North Central +11.8%; Pacific +7.4%; E. South Central + 5.6%; Middle Atlantic + 5.1%; Mountain + 4.1%; **New England +3.4%;** South Atlantic + 2.1%; and E. North Central + 2.0%. Home sales prices are +14.6% in the W. South Central region (including Texas, Arkansas, Louisiana, and Oklahoma) with the strongest "real G.D.P." v. -4.4% in New England. Thus, although real estate sales and rentals are very strong in some New England towns and cities, there are many senior citizens still refraining from placing their homes on the market – as house prices still may be rising. New England births, however, are likely to remain at low levels, due to the advanced age of the New England population.

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Historical Public Enrollments

1. After the "YEAR" column can be found the "BIRTHS" column. The number of births to residents for each of eleven years is displayed. Note any trends, e.g., have births been decreasing? increasing? leveling off? Kindergarten and Grade 1 enrollments normally are quite responsive to these fluctuations.

2. Look **down** the K and 1 columns, noting the direction of the trend. This affords a comparison of these classes over a ten-year period. Add the K and Grade 1 enrollments of the first school year recorded, and compare them with the sum of the current K and Grade 1 enrollments.

3. Take the first K class and follow it diagonally to trace its movement to Grade 1, 2, etc. up to its current 10th grade status. This comparison (which can be accomplished for other classes also) gives some measure of the effects of migration in your school district. If a sixth grade class today is larger than it was as a K class six years ago, then net in-migration probably has occurred; if it is smaller, then net out-migration probably has occurred.

4. Compare each K class with the previous year's graduating class. Note which is larger and by what amount one surpasses the other. Larger graduating classes generally reflect declining enrollments; larger K classes generally indicate increasing enrollments.

5. In the "Grade Combinations" section, note the trends of elementary, middle school and high school enrollments. A significant and consistent trend in these summaries usually results in the corresponding trend for projected enrollments. If enrollments are leveling off in the elementary grades after a period of decline, then the secondary enrollments might be expected to continue to decline for several years until the leveling off experience has had time to take hold at the secondary grades.

Enrollment Projections

1. Note the trends exhibited in the total K-12 (or 1-12) projection for the next five years as well as the projections for various grade combinations. The trends on this page should generally exhibit a continuation of the trends mentioned above for historical enrollments,

although the **rate** of change may be quite different.

2. Look at the births in the most recent years and note whether the trend is up, down, or level.

3. Make similar comparisons as appropriate on this page as were suggested for the "Historical Public Enrollments" page.

PROJECTION METHODOLOGY

Cohort component (survival) technique is a frequently used method of preparing enrollment forecasts. NESDEC uses this method, but modifies it in order to move away from forecasts which are wholly computer or formula driven. Such modification permits the incorporation of important, current town-specific information into the generation of the enrollment forecasts (such as the volume of real estate sales, building permits, in/out-migration, etc.). Basically, percentages are calculated from the historical enrollment data to determine a reliable percentage of increase or decrease in enrollment between any two grades. For example, if 100 students enrolled in Grade 1 in 2014-15, increased to 104 students in Grade 2 in 2015-16, 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.

After study and analysis of the historical ratios, and based upon a reasonable set of assumptions regarding births, migration rates, retention rates, etc., ratios most indicative of future growth patterns are determined for each pair of grades. The ratios thus selected are applied to the present enrollment statistics for a pre-determined number of 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. Real estate turnover and new residential construction;

2. Migration, in or out, of the schools;

3. Drop-outs, transfers, etc.;

4. Births to residents;

5. Retention in the same grade.

RELIABILITY OF ENROLLMENT PROJECTIONS

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 facility planning purposes. However, they should be viewed as subject to change given the likelihood of changes in the underlying assumptions/trends.

Projections that are based upon **the children who already are in the district** (the current K-12 population only) will be the most reliable; the second level of reliability will be for those children already **born into the community but not yet old enough to be in school.** A less reliable category is the group for which an estimate must be made **to predict the number of births,** thereby adding an additional variable. See these three multi-colored groupings on the "Projected Enrollment" slide/page.

How often do the actual enrollments closely match the NESDEC projections? The research literature reports the closest that enrollment forecasters are likely to come to actual enrollments is about 1% variance per year-from-the-known-data. That is, a 1% variance from projection-to-actual "one-year-out" into the future (2% variance "two-years-out" … 10% variance "ten-years-out"). NESDEC reaches this "highest possible" standard in about 90% of cases. When our NESDEC variance is greater, the reasons often are one of the following: a. imbedded/intervening "hidden" variables (examples: a parochial school closed or other students returned from non-public schools, a charter school opened, the Kindergarten program changed entrance age or to extended/full-day, the high school toughened its course credit/graduation requirements, the District set new attendance boundaries for elementary schools, or the District had well-publicized budget/referendum academic accreditation difficulties); b. the District size was below 500 students, thus subject to fluctuations in total numbers; or c. the District has not done enrollment projections on an annual basis.

Annual updates allow for early identification of recent changes in historical trends. When the actual enrollment in a grade is significantly different (high or low) from the projected number, it is important (yet difficult) to determine whether this is a one-year aberration or whether a new trend may have begun. **In light of this possibility, NESDEC urges all school districts to have updated enrollment forecasts developed by NESDEC each October.** This service is available at no cost to affiliated school districts.

NESDEC

If you would like to extract the information contained in this report for your own documents or presentations, you can use Adobe Acrobat reader to convert the desired information to a "snapshot," which can be inserted into PowerPoint slides, Word documents, etc. Because the snapshot tool creates a graphic, the image is not editable.

Steps for Using The Snapshot Tool in Adobe Acrobat Reader:
1. Click on Edit Menu (earlier versions of Adobe Reader might require you to click on the Tools menu and then choose "Select and Zoom;");
2. Choose "Take a Snapshot" (or "Snapshot Tool" in earlier versions);
3. Click and drag around the text, chart, and/or graphics that you would like to capture: your selection will be copied to the clipboard automatically;
4. Click in the document where you would like the information to appear;*
5. Give Paste command.

If you have an earlier version of Adobe Acrobat and these instructions don't work for you, contact your tech support person, or NESDEC and we will try to assist you. Telephone (508)481-9444 or ep@nesdec.org. Ask for Carol or Christina.

*You may paste your snapshot onto a PowerPoint slide, onto an Excel sheet, or even into a graphics program to save as a separate graphic file (in .jpg or other format), so that it is available for inserting into future documents.

New Fairfield, CT Historical Enrollment

School District: New Fairfield, CT

10/12/2017

Historical Enrollment By Grade

Birth Year	Births	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2002	171	2007-08	75	183	205	201	221	237	242	231	261	252	250	265	211	213	0	2972	3047
2003	143	2008-09	79	177	196	212	204	225	239	247	235	268	265	245	262	203	0	2978	3057
2004	166	2009-10	77	187	188	198	210	204	223	241	251	232	273	249	237	261	0	2954	3031
2005	126	2010-11	79	139	198	185	197	213	200	231	246	257	250	269	239	223	0	2847	2926
2006	128	2011-12	73	172	146	197	191	194	209	203	234	248	287	234	255	231	0	2801	2874
2007	125	2012-13	67	154	163	151	204	196	201	216	206	232	256	280	232	248	0	2739	2806
2008	125	2013-14	66	162	151	170	157	201	203	204	216	206	247	246	261	241	0	2665	2731
2009	85	2014-15	85	139	158	162	174	154	199	209	204	216	213	240	240	268	0	2576	2661
2010	117	2015-16	67	153	130	151	165	173	152	193	198	199	230	213	228	245	0	2430	2497
2011	102	2016-17	77	136	153	138	152	164	172	152	190	201	188	226	211	235	0	2318	2395
2012	100	2017-18	74	150	139	153	137	153	170	180	154	190	190	186	225	206	0	2233	2307

Historical Enrollment in Grade Combinations

Year	PK-2	K-5	3-5	K-8	5-8	6-8	7-8	7-12	9-12
2007-08	664	1289	700	2033	986	744	513	1452	939
2008-09	664	1253	668	2003	989	750	503	1478	975
2009-10	650	1210	637	1934	947	724	483	1503	1020
2010-11	601	1132	610	1866	934	734	503	1484	981
2011-12	588	1109	594	1794	894	685	482	1489	1007
2012-13	535	1069	601	1723	855	654	438	1454	1016
2013-14	549	1044	561	1670	829	626	422	1417	995
2014-15	544	986	527	1615	828	629	420	1381	961
2015-16	501	924	490	1514	742	590	397	1313	916
2016-17	504	915	488	1458	715	543	391	1251	860
2017-18	516	902	460	1426	694	524	344	1151	807

Historical Percentage Changes

Year	K-12	Diff.	%
2007-08	2972	0	0.0%
2008-09	2978	6	0.2%
2009-10	2954	-24	-0.8%
2010-11	2847	-107	-3.6%
2011-12	2801	-46	-1.6%
2012-13	2739	-62	-2.2%
2013-14	2665	-74	-2.7%
2014-15	2576	-89	-3.3%
2015-16	2430	-146	-5.7%
2016-17	2318	-112	-4.6%
2017-18	2233	-85	-3.7%
Change		-739	-24.9%

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New Fairfield, CT Historical Enrollment

PK-12, 2007-2017

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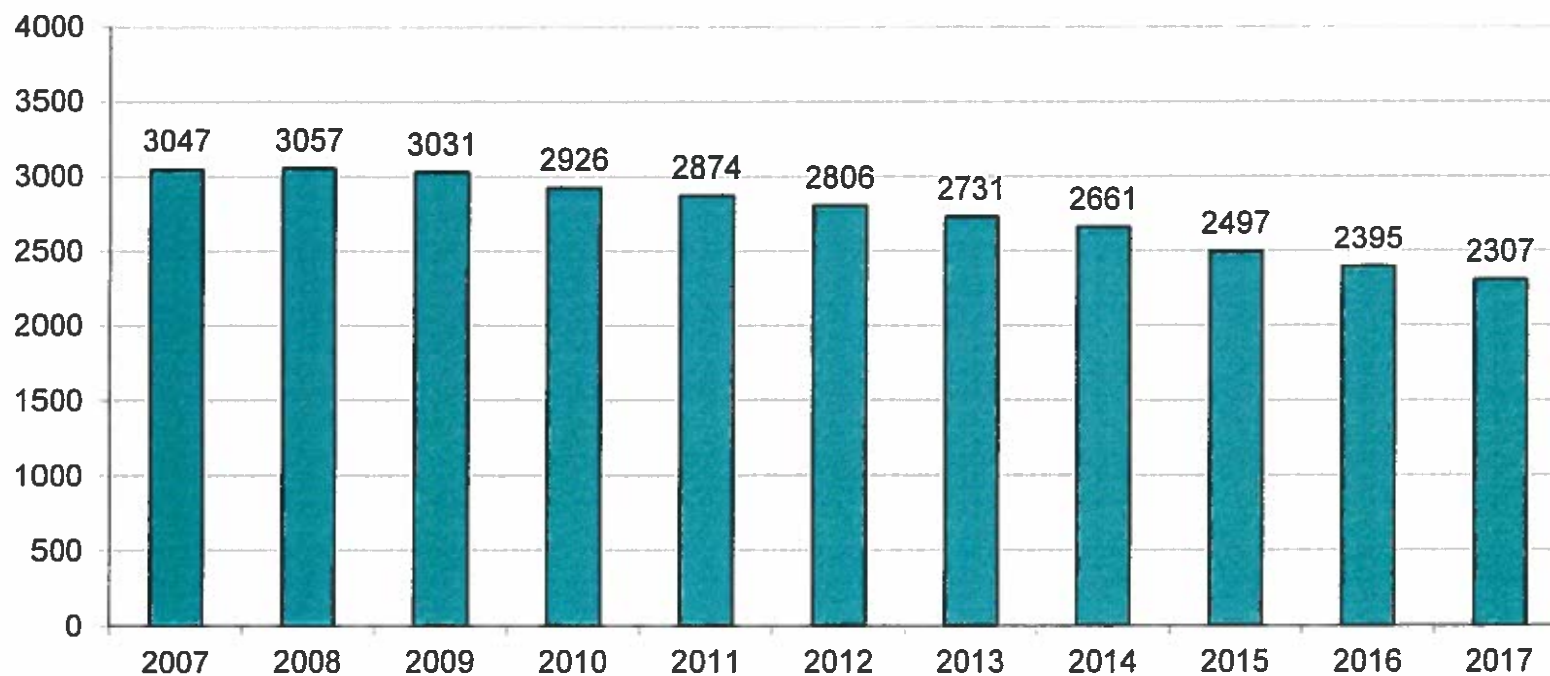
New Fairfield, CT Projected Enrollment

School District: New Fairfield, CT 10/12/2017

Enrollment Projections By Grade*

Birth Year	Births		School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2012	100		2017-18	74	150	139	153	137	153	170	180	154	190	190	186	225	206	0	2233	2307
2013	85		2018-19	75	120	147	143	155	136	154	172	178	154	192	186	180	229	0	2146	2221
2014	88		2019-20	76	124	118	151	145	154	137	156	170	178	156	188	180	183	0	2040	2116
2015	80	(prov.)	2020-21	77	113	122	121	153	144	155	139	154	170	180	153	182	183	0	1969	2046
2016	79	(prov.)	2021-22	78	112	111	125	123	152	145	157	137	154	172	177	148	185	0	1898	1976
2017	86	(est.)	2022-23	79	122	110	114	127	122	153	147	155	137	156	169	171	151	0	1834	1913
2018	84	(est.)	2023-24	80	118	120	113	116	126	123	155	145	155	138	153	164	174	0	1800	1880
2019	83	(est.)	2024-25	81	118	116	123	115	115	127	124	153	145	157	135	148	167	0	1743	1824
2020	82	(est.)	2025-26	82	117	116	119	125	114	116	129	123	153	147	154	131	151	0	1695	1777
2021	83	(est.)	2026-27	83	117	115	119	121	124	115	117	128	123	155	144	149	133	0	1660	1743
2022	84	(est.)	2027-28	84	119	115	118	121	120	125	116	116	128	124	152	140	152	0	1646	1730

*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	PK-2	K-5	3-5	K-8	5-8	6-8	7-8	7-12	9-12
2017-18	516	902	460	1426	694	524	344	1151	807
2018-19	485	855	445	1359	658	504	332	1119	787
2019-20	469	829	436	1333	641	504	348	1055	707
2020-21	433	808	452	1271	618	463	324	1022	698
2021-22	426	768	420	1216	593	448	291	973	682
2022-23	425	748	402	1187	592	439	292	939	647
2023-24	431	716	365	1171	578	455	300	929	629
2024-25	438	714	357	1136	549	422	298	905	607
2025-26	434	707	355	1112	521	405	276	859	583
2026-27	434	711	360	1079	483	368	251	832	581
2027-28	436	718	366	1078	485	360	244	812	568

Projected Percentage Changes

| Year	K-12	Diff.	%
2017-18	2233	0	0.0%
2018-19	2146	-87	-3.9%
2019-20	2040	-106	-4.9%
2020-21	1969	-71	-3.5%
2021-22	1898	-71	-3.6%
2022-23	1834	-64	-3.4%
2023-24	1800	-34	-1.9%
2024-25	1743	-57	-3.2%
2025-26	1695	-48	-2.8%
2026-27	1660	-35	-2.1%
2027-28	1646	-14	-0.8%
Change		-587	-26.3%

New Fairfield, CT Projected Enrollment

PK-12 TO 2027 Based On Data Through School Year 2017-18
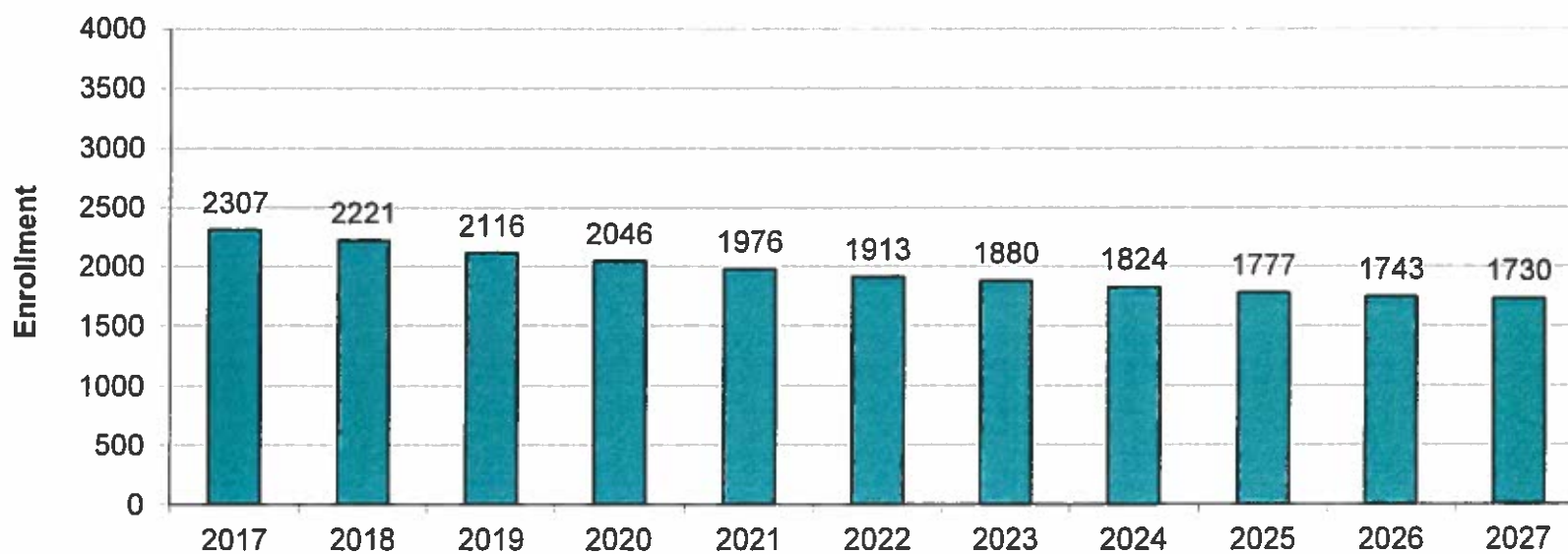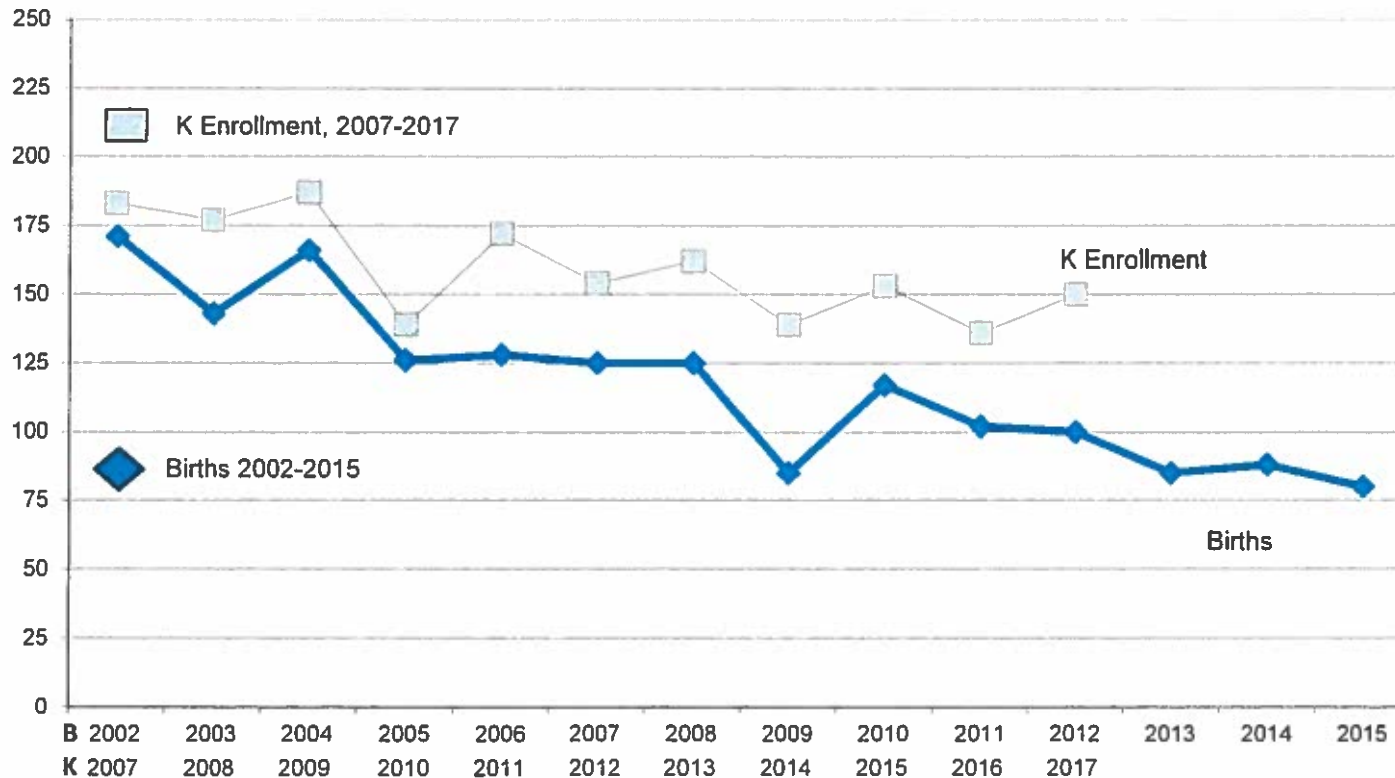
New Fairfield, CT Historical & Projected Enrollment

PK-12, 2007-2027
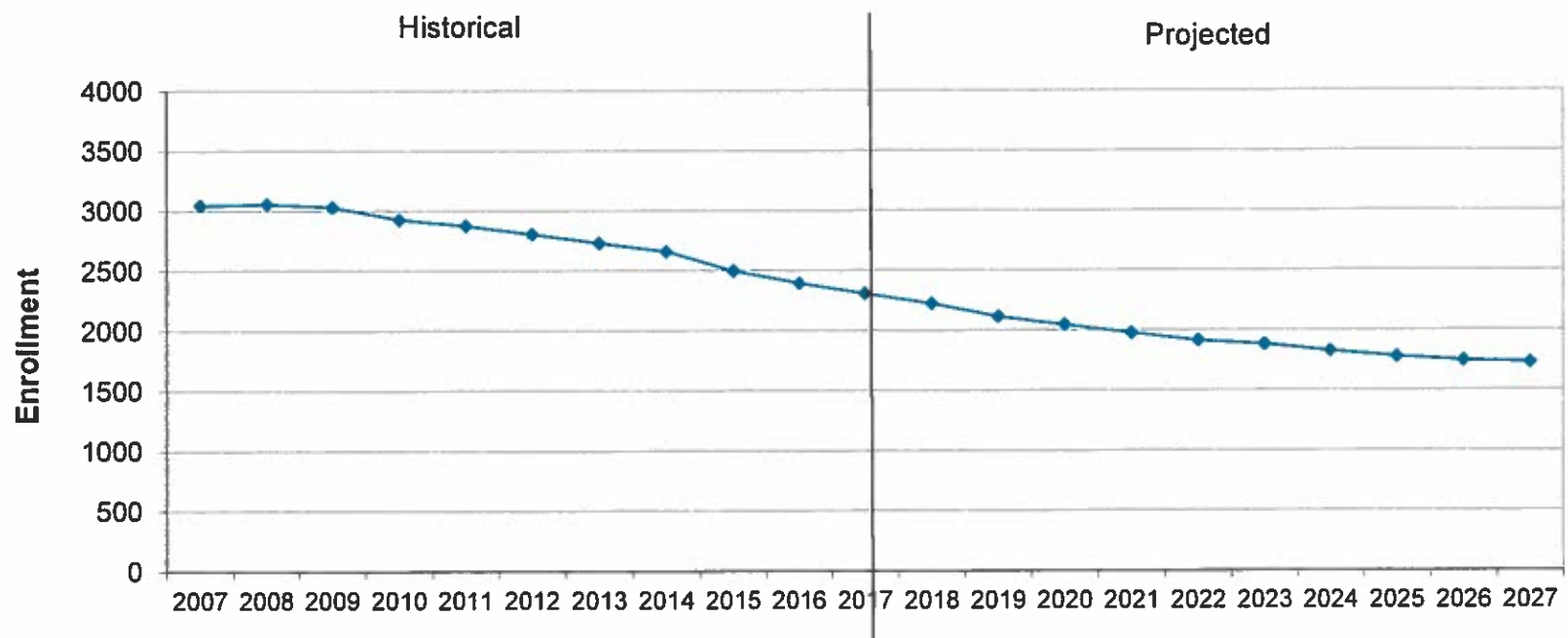
New Fairfield, CT Birth-to-Kindergarten Relationship

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Building Permits Issued		
Year	Single-Family	Multi-Units
2005	25	18
2013	6	0
2014	5	0
2015	9	0
2016	10	0
2017	4 thru May 31	0

Source: HUD and Building Department

Enrollment History		
Year	Voc-Tech 9-12 Total	Non-Public K-12 Total
2005-06	36	138
2013-14	29	n/a
2014-15	30	n/a
2015-16	24	n/a
2016-17	24	n/a
2017-18	29	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	12

K-12 Residents "Choiced-out" or in Charter or Magnet Schools	
2017	18

K-12 Special Education Outplaced Students	
2017	7

K-12 Choiced-In, Tuitioned-In, & Other Non-Residents	
2017	n/a

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