



## 2010-11 Enrollment Projections

TO: Dr. Richard A. Bergeron, Superintendent of Schools, Contoocook Valley, NH SAU#1  
FROM: Donald G. Kennedy, Ed.D., Demographic Specialist  
DATE: January 3, 2011  
RE: Enrollment Projections

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We are pleased to send you the enclosed documents displaying the past, present, and projected enrollments for the Contoocook Valley School District SAU#1. 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.

NESDEC's enrollment projection totals from fall of 2009 came within 2.8% of the actual Grade K-12 enrollment total for fall, 2010 (2,604 projected v. 2,531 actual). Contoocook Valley's historic trends generally seem to be remaining in place, although there is less in-migration at all grade levels (see below). In Grades K-4, 815 children were projected v. 782 enrolled; in Grades 5-8, 825 pupils were forecast v. 802 enrolled; and at the high school, 964 were projected v. 947 enrolled (the largest variances were in Grade K, 4, 7, and 9...where fewer students enrolled than had been projected. The most difficult grade to forecast is Kindergarten; 153 students were projected (based upon historic trends) v. 133 children enrolled this fall. If you are interested, we can suggest methods of data-tracking used by a few savvy districts to more accurately track the numbers of incoming Kindergarteners. The 2010 projections have been adjusted where necessary.

The two factors at work which will have the greatest effect upon future enrollments are: a steady number of births to the Contoocook Valley residents of the nine towns; and b. slowing in-migration (recently related to the real estate slowdown). In the decade from 1995-2004, the nine Contoocook Valley communities averaged 168 births per year; more recently (and expected over the next 6-7 years) are about 162-166 births annually.

The ever-changing relationship between Contoocook Valley births and Kindergarten enrollments is displayed on the B-K graph...**note that this year the B-K graph also displays the number of 2, 3, and 4 year olds not yet in the schools.** Contoocook Valley, in recent years, has registered about 99 Kindergarteners for every 100 births (five years previous), a relationship which shrank this fall to 81 Kindergarteners for every 100 births. Note on the graph, however, that there were years (2003, 2004, and 2005) in which there were 110-116 Kindergarteners for every 100 births...thus fluctuations do occur even in stable trends...this year's "under-projection" in Kindergarten was partly a reflection of recent fluctuations in B-K ratios.

Grade 1 is expected to be about 3% larger than the previous year's Kindergarten class. Like many nearby communities Contoocook Valley continues to experience enrollment fluctuations of in/out-migration in Grades 1-12. Over the past decade, there have been three years of 1-2% out-migration, two flat years, and five years of 1-3% in-migration (although in the most recent four years, there have been no "net move-in's" for Grades 1-12 as experienced in the earlier years).

**K-12 enrollments are forecast to decrease by an average of 124 students per year for the next two years...as smaller Kindergartens replace the larger graduating classes...then several years of smaller declines. Although the enrollment declines of the next 2-3 years are reasonably clear, beyond that point it is not as certain what the future might hold, as changing patterns of real estate sales may make a difference.**

Many economists believe that "the new normal" for volume of real estate sales will have begun by 2014 or sooner. **See additional explanation below.** As soon as the economy and real estate situation improve in the region, additional in-migration may return to Contoocook Valley. Many communities in the region sold in 2008, 2009, and 2010 to date only about 50-80% as many homes as in 2005-2007. The issuance of building permits also has slowed; see the "Additional Data" table below. See the description on Page 4 below regarding "reliability of projections".

The number of births is an important variable in projecting future school enrollments, thus changing trends in births can be of special interest. U.S. births steadily increased from 2003 onward, reaching the highest peak in two decades, in 2007. However, U.S. births dropped 2% in 2008 (compared with 2007) and declined by an additional 2.6% in 2009 (compared with 2008). The Pew Research Center analyzed data from 25 states and found that the states hit hardest by the Recession (such as Michigan) had the greatest decline in births. Although additional factors may be involved, during times of substantial and prolonged economic difficulty, persons expecting to lose their employment and/or their homes, may postpone having children. The Pew Center estimates that 14% of Americans aged 18-34 postponed

having a child because of the recent recession (2% with incomes above \$75,000 postponed having a child, with higher rates of postponement in lower income brackets).

Among the six New England states, hard-hit Connecticut dropped by 8.6% over the two-year period from 41,684 births in 2007 to 38,083 in 2009; similarly, Rhode Island experienced an 8.1% decline from 12,503 births in 2007 to 11,494 births in 2009; mothers in Vermont gave birth to 6,492 children in 2007 and 6,118 babies in 2009, a 5.8% decline; Maine dropped by 4.7% from 14,177 children in 2007 to 13,506 babies in 2009; **New Hampshire experienced a 4.4% decrease from 14,397 births in 2007 compared with only 13,764 children born in 2009**; lastly, Massachusetts declined by only 3.9% from 77,731 births in 2007 to 74,643 children born in 2009. Overall, in the 275+ enrollment projections prepared by NESDEC during 2009-10, about 64% of districts were continuing to shrink in enrollment; whereas about 36% of districts appeared to be experiencing flat enrollments or some growth (of 0.5% or more per year) in the K-12 student population. Because of the higher median ages among the New England population, births in the region generally have been declining over the past several years; thus the Recession has accelerated an on-going trend.

In addition to the number of births, the number of homes and condos sold (whether new homes or turn-over of existing properties) is a second factor influencing K-12 school enrollments, as it can lead to additional in-migration of families with school-age children. Although the volume of real estate sales in some districts increased in 2010 (over the two previous years), economists speculate that “the new normal” may not be firmly established until 2014...and will not rise to the numbers of dwellings sold during the “boom/bubble years” prior to the Recession. A third factor influencing school enrollments (in some, not all, communities) is the number of residents enrolling in non-public schools; during difficult economic times, larger numbers of residents sometimes remain in, or return to, the public schools.

If your district has need for further assistance in the area of long range facilities planning, we would urge you to call so that we might discuss our planning services which include our Demographic and Long-Range Enrollment Projection Studies.

We have enclosed suggestions for interpreting the printout and a brief description of the modified cohort survival methodology used in preparing the projections. As always, we would be delighted to hear from you regarding ways in which we might make the enrollment forecasts more useful to you. Please don't hesitate to call or email us at [ep@nesdec.org](mailto:ep@nesdec.org). Best wishes for the school year.

# Analyzing Your Enrollment

## 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 are normally quite responsive to these fluctuations.
2. Look down the K and 1 columns and note 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 in-migration has probably occurred; if it is smaller, then out-migration has probably 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/junior high, 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**

The cohort survival technique is the most frequently used method of preparing enrollment forecasts. NESDEC uses that technique, 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. 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 2009-10, increased to 104 students in Grade 2 in 2010-11, 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 possibility for change in the underlying assumptions/trends.

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 will be for those children already **born into the community but not yet old enough to be in school**. The least 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 difficulties); b. the District size was below 500 students, thus subject to fluctuations; 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 be starting. **In light of this, 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.

## Using This Information Electronically

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 8.0:

1. Click on Tools Menu;
2. Choose “Select & Zoom;”
3. Choose “Snapshot Tool;”
4. 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;
5. Click in the document where you would like the information to appear;\*
6. 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](mailto:ep@nesdec.org). Ask for Peggy, Don, or Carol.

\*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.

# Contoocook Valley SAU#1, NH Historical Enrollment

School District: Contoocook Valley SAU#1, NH

1/3/11

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
1995	180	2000-01	0	189	224	192	219	248	243	286	273	289	270	238	235	219	7	3132	3132
1996	175	2001-02	0	190	209	212	210	227	273	243	296	283	316	256	226	192	5	3138	3138
1997	167	2002-03	7	175	223	197	221	214	243	274	245	310	318	281	259	210	0	3170	3177
1998	159	2003-04	17	175	192	212	197	220	213	239	267	245	337	305	275	252	0	3129	3146
1999	159	2004-05	10	185	184	185	212	193	235	226	235	294	273	323	290	259	11	3105	3115
2000	157	2005-06	31	179	209	188	190	213	205	248	234	253	331	247	312	289	12	3110	3141
2001	171	2006-07	25	176	187	210	203	199	220	215	266	241	289	318	262	285	4	3075	3100
2002	154	2007-08	24	164	184	190	210	195	206	227	217	265	263	274	310	240	0	2945	2969
2003	173	2008-09	37	147	170	179	182	213	208	197	224	214	299	259	248	278	0	2818	2855
2004	188	2009-10	39	166	154	169	170	191	212	207	206	225	235	262	258	252	0	2707	2746
2005	164	2010-11	43	133	167	158	161	163	197	206	194	205	238	217	250	242	0	2531	2574

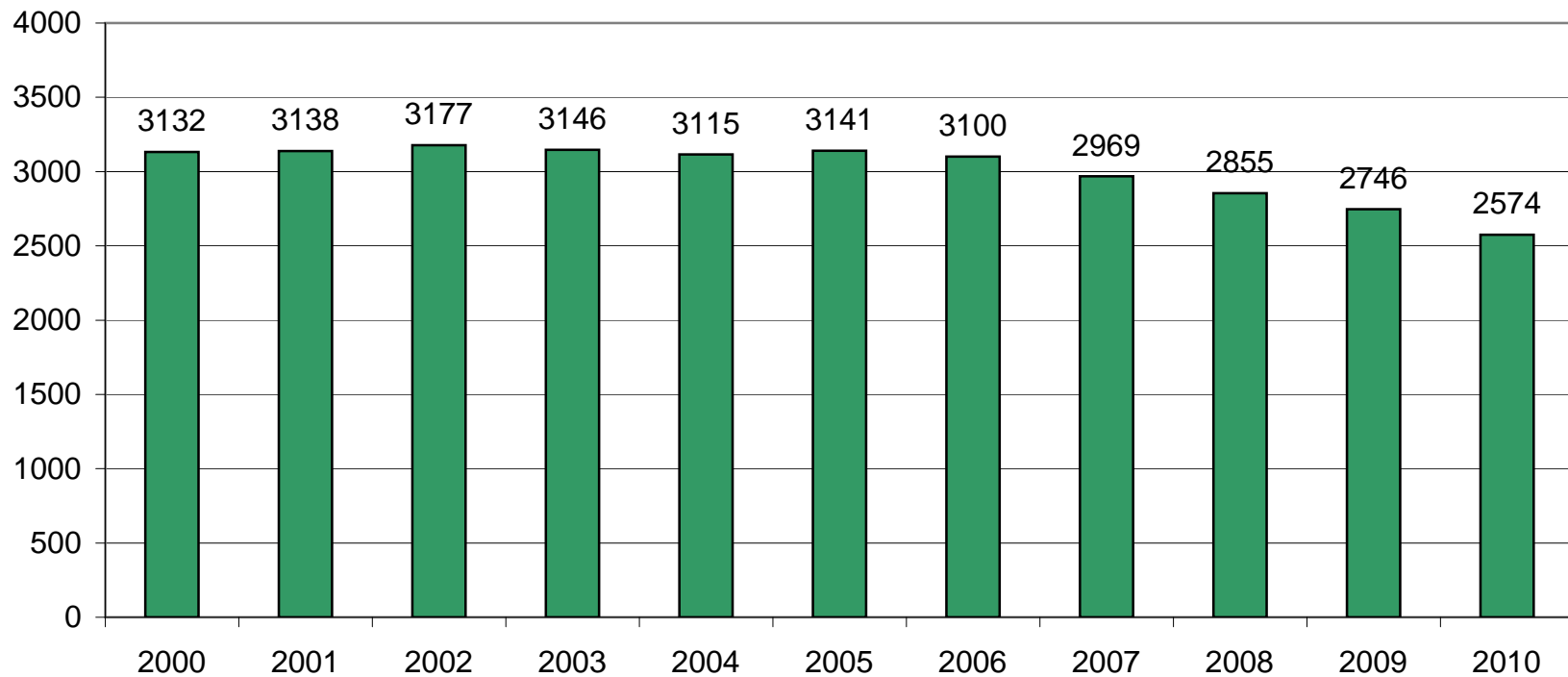
Historical Enrollment in Grade Combinations									
Year	PK-4	K-4	K-6	K-8	5-8	6-8	7-8	7-12	9-12
2000-01	1072	1072	1601	2163	1091	848	562	1524	962
2001-02	1048	1048	1564	2143	1095	822	579	1569	990
2002-03	1037	1030	1547	2102	1072	829	555	1623	1068
2003-04	1013	996	1448	1960	964	751	512	1681	1169
2004-05	969	959	1420	1949	990	755	529	1674	1145
2005-06	1010	979	1432	1919	940	735	487	1666	1179
2006-07	1000	975	1410	1917	942	722	507	1661	1154
2007-08	967	943	1376	1858	915	709	482	1569	1087
2008-09	928	891	1296	1734	843	635	438	1522	1084
2009-10	889	850	1269	1700	850	638	431	1438	1007
2010-11	825	782	1185	1584	802	605	399	1346	947

Historical Percentage Changes			
Year	K-12	Diff.	%
2000-01	3132	0	0.0%
2001-02	3138	6	0.2%
2002-03	3170	32	1.0%
2003-04	3129	-41	-1.3%
2004-05	3105	-24	-0.8%
2005-06	3110	5	0.2%
2006-07	3075	-35	-1.1%
2007-08	2945	-130	-4.2%
2008-09	2818	-127	-4.3%
2009-10	2707	-111	-3.9%
2010-11	2531	-176	-6.5%
<b>K-12 Change</b>		<b>-601</b>	<b>-19.2%</b>



# Contoocook Valley SAU#1, NH Historical Enrollment

PK-12, 2000-2010



# Contoocook Valley SAU#1, NH Projected Enrollment

School District: Contoocook Valley SAU#1, NH

1/3/11

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	164		2010-11	43	133	167	158	161	163	197	206	194	205	238	217	250	242	0	2531	2574
2006	165		2011-12	44	140	137	167	151	162	168	192	204	193	224	221	207	238	0	2404	2448
2007	166		2012-13	45	141	144	137	159	152	167	164	190	203	211	208	210	197	0	2283	2328
2008	166		2013-14	46	141	145	144	131	160	157	163	162	189	222	196	198	200	0	2208	2254
2009	162		2014-15	47	137	145	145	137	132	165	153	161	161	207	206	187	188	0	2124	2171
2010	165	(est.)	2015-16	48	140	141	145	138	138	136	161	151	160	176	192	196	178	0	2052	2100
2011	165	(est.)	2016-17	49	140	144	141	138	139	142	133	159	150	175	163	183	186	0	1993	2042
2012	165	(est.)	2017-18	50	140	144	144	134	139	143	138	132	158	164	162	155	174	0	1927	1977
2013	164	(est.)	2018-19	51	139	144	144	137	135	143	139	137	131	173	152	154	147	0	1875	1926
2014	164	(est.)	2019-20	52	139	143	144	137	138	139	139	138	136	143	161	145	146	0	1848	1900
2015	164	(est.)	2020-21	53	139	143	143	137	138	142	135	138	137	149	133	153	138	0	1825	1878

\*Projections should be updated on an annual basis.

Based on an estimate of births

Based on children already born

Based on students already enrolled

Projected Enrollment in Grade Combinations*									
Year	PK-4	K-4	K-6	K-8	5-8	6-8	7-8	7-12	9-12
2010-11	825	782	1185	1584	802	605	399	1346	947
2011-12	801	757	1117	1514	757	589	397	1287	890
2012-13	778	733	1064	1457	724	557	393	1219	826
2013-14	767	721	1041	1392	671	514	351	1167	816
2014-15	743	696	1014	1336	640	475	322	1110	788
2015-16	750	702	999	1310	608	472	311	1053	742
2016-17	751	702	977	1286	584	442	309	1016	707
2017-18	751	701	982	1272	571	428	290	945	655
2018-19	750	699	981	1249	550	407	268	894	626
2019-20	753	701	979	1253	552	413	274	869	595
2020-21	753	700	977	1252	552	410	275	848	573

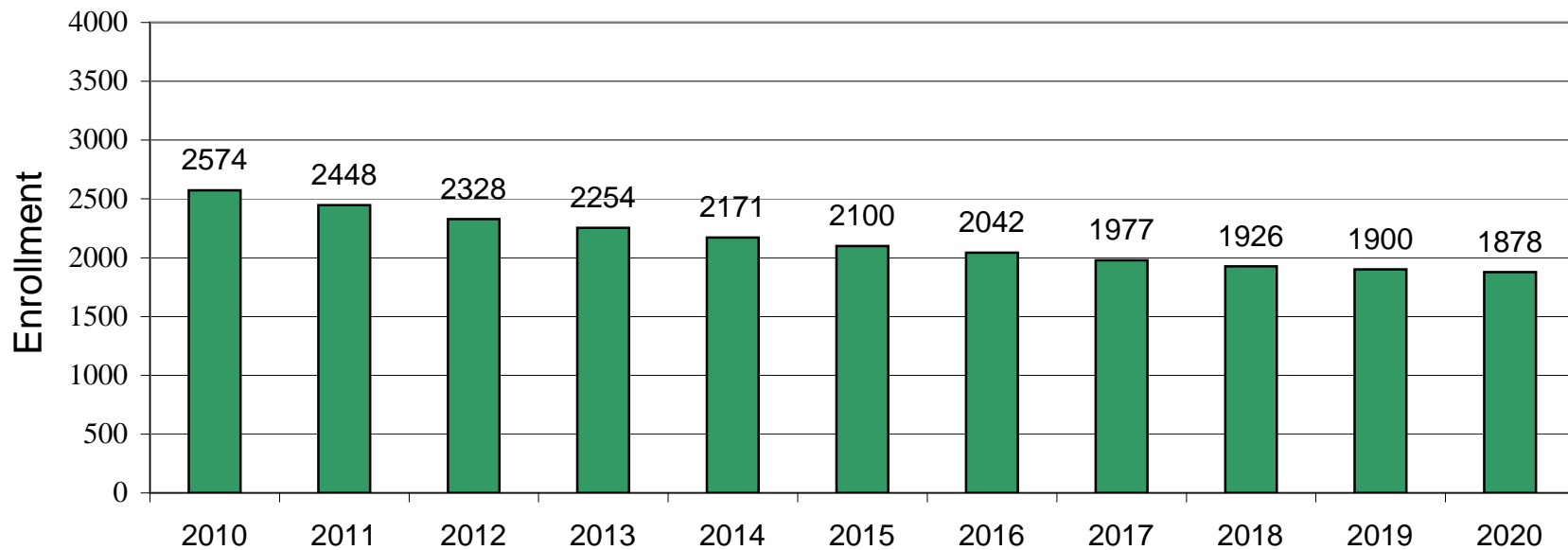
Projected Percentage Changes			
Years	K-12	Diff.	%
2010-11	2531	0	0.0%
2011-12	2404	-127	-5.0%
2012-13	2283	-121	-5.0%
2013-14	2208	-75	-3.3%
2014-15	2124	-84	-3.8%
2015-16	2052	-72	-3.4%
2016-17	1993	-59	-2.9%
2017-18	1927	-66	-3.3%
2018-19	1875	-52	-2.7%
2019-20	1848	-27	-1.4%
2020-21	1825	-23	-1.2%
<b>K-12 Change</b>		<b>-706</b>	<b>-27.9%</b>

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.

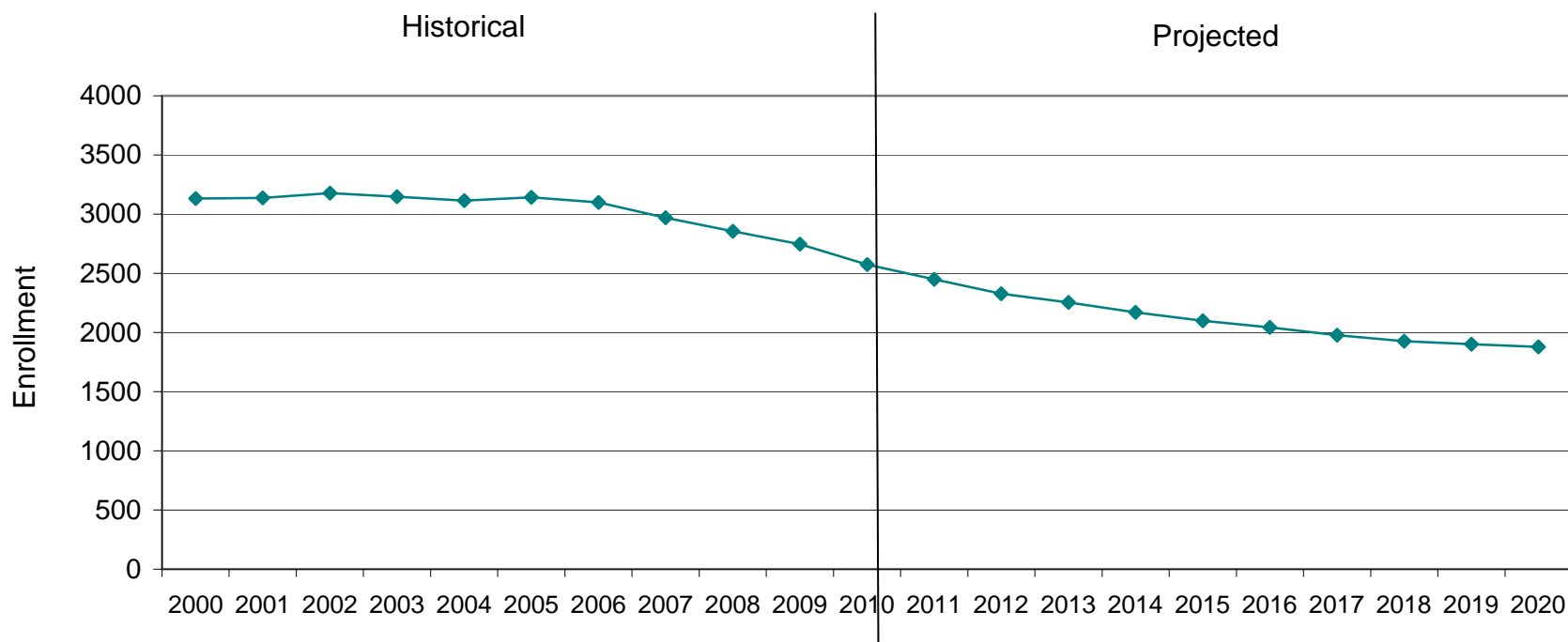
# Contoocook Valley SAU#1, NH Projected Enrollment

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

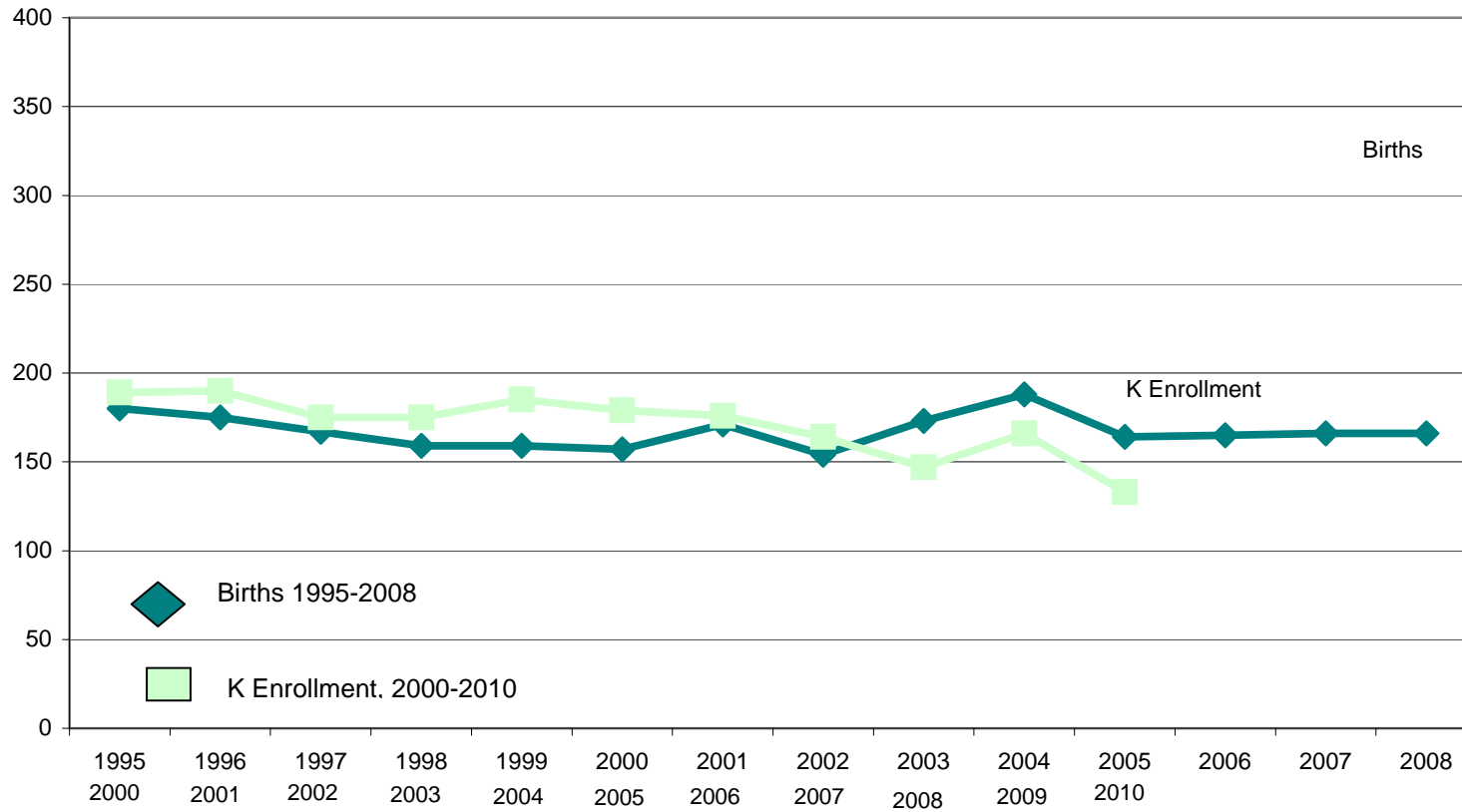


# Contoocook Valley Historical & Projected Enrollment

### PK-12, 2000-2020



# Contoocook Valley Birth-to-Kindergarten Relationship



# Contoocook Valley SAU#1, NH Additional Data

Building Permits Issued		
Year	Single-Family	Multi-Units
2000	0	0
2006	85	19
2007	75	40
2008	29	1
2009	17	0
2010	12 to date	0

Source: HUD and Building Department

Enrollment History		
Year	Voc-Tech 9-12 Total	Non-Public K-12 Total
2000-01	0	n/a
2006-07	534	n/a
2007-08	476	n/a
2008-09	479	n/a
2009-10	483	n/a
2010-11	515*	n/a

\*Taking Voc courses

Residents in Non-Public Independent and Parochial Schools (Regular Education)														
Enrollments as of Oct. 1	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12 TOTAL
	0	0	0	0	0	0	0	0	0	0	0	0	0	n/a

K-12 Home-Schooled Students	
2010	124

K-12 Residents Enrolled in Charter or Magnet Schools	
2010	0**

\*\*20 Gr. 11 and 23 Gr. 12 students take courses outside of SAU#1

K-12 SpEd Outplaced Students	
2010	14

K-12 Choiced-In, Tuitioned-In, & Other Non-Residents	
2010	7

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