
Enrollment Projections

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3.1 Methodology and Assumptions

Methodology by Merrimac Education Center (MEC)

MEC develops four different projection models based upon events of the past 3, 6, 7 and 10 years. By analyzing each of these models it is possible to make a projection based upon the most likely set of circumstances and how they will affect future events. We have found this to be a more reliable approach to forecasting unlike other demographic projection methods which develop high and low projections and take an average of the two.

Using historic enrollments submitted by the Lunenburg Public as of October 1 of each school year since 1995-96, a ratio of grade to grade survival was developed. The cohort survival ratio factors in historic enrollments assuming that all other factors such as births, in-migration, new housing starts, etc. will remain in the future as they have been in the past.

A ten year projection allows us to take into consideration factors which are either in progress or in the planning phase. This enables us to make reasonable assumptions and projections based upon fact resulting in a projection with a high degree of reliability. A twenty year projection forces us to make assumptions based primarily on conjecture since in most cases actual planning for these years is not yet in progress. As a result a twenty year projection has a much lower level of reliability and is more a statistical exercise than an accurate projection. These elements should be considered as we discuss our findings.

We reviewed the source of students in the Lunenburg Schools (Table V) and have developed projections based solely upon Lunenburg resident students as well as projections using total enrollments including students from Shirley and school choice.

In FY06 Lunenburg received \$616,362 from the Town of Shirley to enable their high school students to attend Lunenburg High School. Also school choice students coming into Lunenburg provided \$436,642 in tuition while Lunenburg students attending schools in other districts cost \$312,780, leaving a net of \$123,862 for Lunenburg.

3.1 Methodology and Assumptions

Methodology continued

The total net revenue of \$740,224 is approximately 6.3% of Lunenburg’s total operating budget. We do not expect the Town will turn away from these sources of income and limit its school enrollments strictly to resident students. We project that during the projected period of this study the percentage of students from each source will remain close to its current level.

We have developed a total of twelve different enrollment projections:

- 1) Total enrollments including Shirley and school choice students, based upon cohort survival: 10 year projection, 20 year projection (Table VI)
- 2) Total enrollment projection including new development; 10 year projection, 20 year projection (Table VIA)
- 3) Lunenburg residents only, based upon cohort survival; 10 year projection 20 year projection (Table VII)
- 4) Lunenburg residents only, including new development: 10 year projection 20 year projection (Table VIIA)
- 5) Lunenburg residents plus school choice exclusive of Shirley, based upon cohort survival: 10 year projection, 20 year projection (Table VIII)
- 6) Lunenburg residents plus school choice exclusive of Shirley including new development: 10 year projection, 20year projection (Table VIIIA)

3.1 Methodology and Assumptions

Lunenburg Assumptions

- 1) Birth rates have been projected based upon historic data provided by the Dept. of Vital Statistics from 1990 through 2004. From 2005 forward we used an average birth rate (rolling average) based on the average of each of the previous ten years.
- 2) Historic student enrollments from 1995-96 through 2005-06 as reported on October 1 of each school year have been used as the basis for the cohort survival method of school population projection. These include Lunenburg resident students, Shirley tuitioned-in students and school-choice students.
- 3) From 1990 through 2005 we used the actual number of building permits issued for housing in Lunenburg. The average number of new housing permits issued in Lunenburg from 1990 to through 2005 was 42; from 1990 through 1999 it was 39 per year. The average number of permits issued from 2000 through 2005 was 48, excluding permits issued for senior and over 55 housing.
- 4) Information from the Lunenburg Planning Board relative to new and proposed housing development has enabled us to evaluate planned development and develop a projection based upon cohort survival plus projected new development and build-out data.
- 5) We assume the population of the Lunenburg will expand as new housing is completed within the time period covered by this study and have factored in build-out projections developed by the Montachusett Regional Planning commission.
- 6) A substantial senior population with a resulting turnover of senior homes will cause more smaller, older homes to become available for younger families with school age children.

3.2 Enrollment Projections Summary

Summary

Our projections, based upon data from a variety of sources, are open to interpretation, as are all such projections. We cannot accurately predict the birth rate of future residents, particularly twenty years into the future, although births to Town residents can be expected to expand slightly. With continued new development and continued in-migration of students, school enrollments can be expected to continue to expand during the period surveyed. We are anticipating the same level of development will take place in the second decade as occurred in the first although, as we noted earlier, a twenty year projection is not as reliable as a ten year projection since there is less specificity and therefore requires more conjecture.

This projection is intended to put into perspective the space needs of the Lunenburg Public Schools based upon enrollments, birth rates, in/out migration, new development and other relevant demographic data. In a projection of this type there are always unforeseen factors that cannot be anticipated. We have utilized the most recent information available. Lunenburg is working to control its growth and development in an organized fashion and has passed a by-law to control its growth as it seeks to retain its rural characteristics. As with any projection, future development should be closely monitored. Changes in the data on which we based our assumptions will necessarily impact the projections. This document and the enrollments forecast for specific years should be considered guidelines rather than a firm forecast and should be updated on a regular basis.

A question that must always be associated with, “How many students are we going to have?” is the question, “Are the present educational facilities going to be adequate to accommodate these students?” Therefore other questions must be answered such as the condition of existing space, whether such space meets state standards and how space requirements will impact the quality of education and the ability to support a diversified educational program.

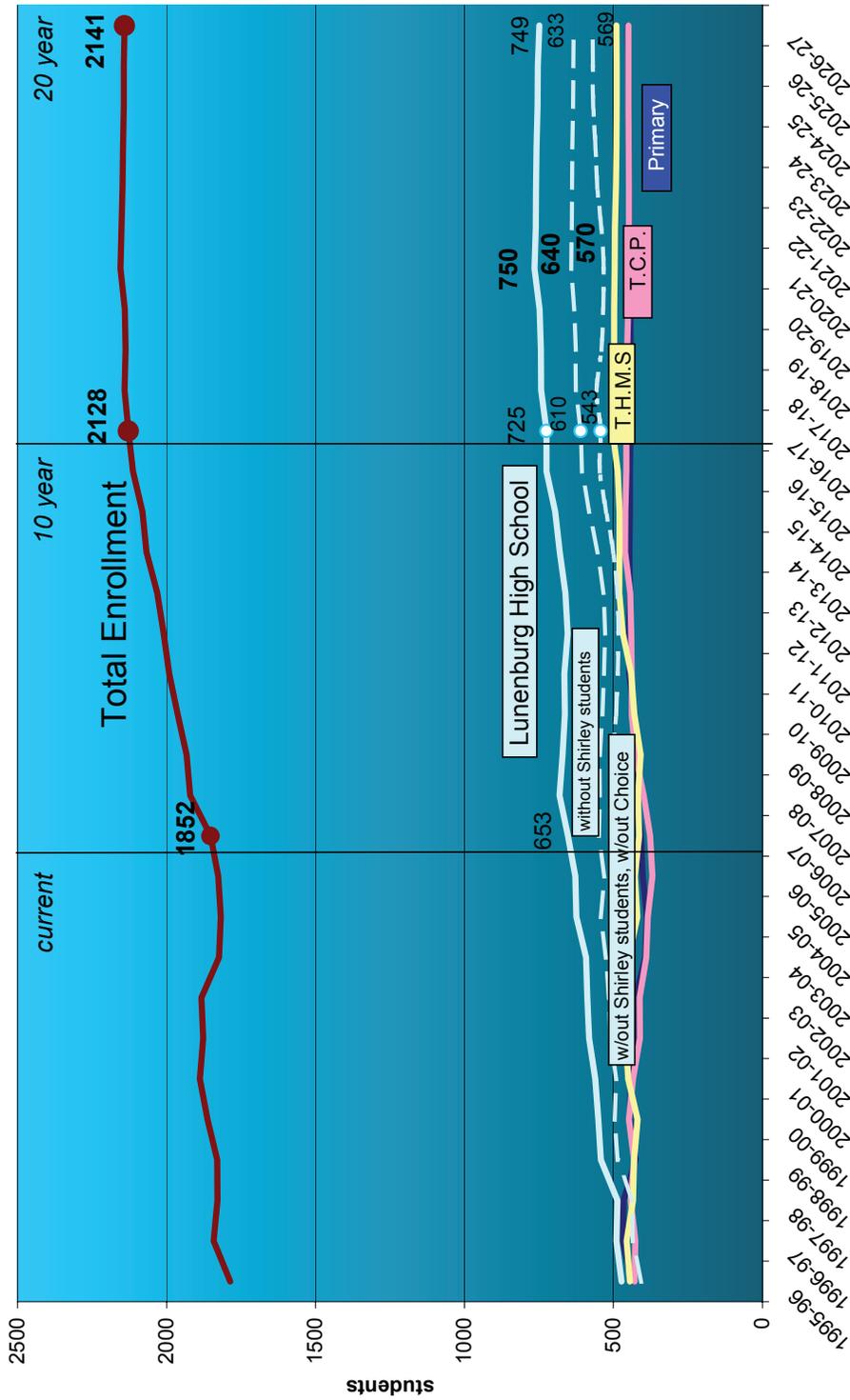
The Lunenburg Public Schools is acting wisely as it examines its options to accommodate substantial growth in school population in the next twenty years. To do less will ultimately limit the ability of the Lunenburg School Dept. to maintain the high quality of its educational program.

3.2 Enrollment Projections Summary

Enrollment Projections Chart

Refer to corporate enrollment projections report dated 1/22/2007 in Appendices

Enrollment Projections with New Development



3.2 Enrollment Projections Summary

Lunenburg with School Choice without Shirley

Lunenburg w/ School Choice w/o Shirley

10 Year Projection (with new development)

Year	PK - 2	Grades 3 - 5	Grades 6 - 8	Grades 9 - 12	Total
2007 - 08	422	387	412	546	1767
2008 - 09	434	420	401	546	1801
2009 - 10	429	430	424	537	1820
2010 - 11	443	436	435	532	1846
2011 - 12	444	434	469	528	1875
2012 - 13	442	441	478	533	1894
2013 - 14	445	455	482	553	1935
2014 - 15	442	454	482	581	1959
2015 - 16	444	451	488	606	1989
2016 - 17	443	451	501	610	2005

20 Year Projection (with new development)

Year	PK - 2	Grades 3 - 5	Grades 6 - 8	Grades 9 - 12	Total
2017 - 18	440	449	500	626	2015
2018 - 19	442	448	497	626	2013
2019 - 20	444	445	498	631	2018
2020 - 21	446	444	496	642	2028
2021 - 22	447	445	495	640	2027
2022 - 23	448	446	493	639	2026
2023 - 24	449	447	492	638	2026
2024 - 25	450	447	493	636	2026
2025 - 26	451	447	494	635	2027
2026 - 27	452	447	495	633	2027

3.2 Enrollment Projections Summary

Lunenburg Total Enrollments (includes Shirley & School Choice)

Lunenburg Total Enrollments (Includes Shirley School Choice)

10 Year Projection (with new development)

Year	PK - 2	Grades 3 - 5	Grades 6 - 8	Grades 9 - 12	Total
2007 - 08	422	387	412	681	1902
2008 - 09	434	420	401	671	1926
2009 - 10	429	430	424	663	1946
2010 - 11	443	436	435	665	1979
2011 - 12	444	434	469	654	2001
2012 - 13	442	441	478	661	2022
2013 - 14	445	455	482	680	2062
2014 - 15	442	454	482	696	2074
2015 - 16	444	451	488	725	2108
2016 - 17	443	451	501	725	2120

20 Year Projection (with new development)

Year	PK - 2	Grades 3 - 5	Grades 6 - 8	Grades 9 - 12	Total
2017 - 18	440	449	500	743	2132
2018 - 19	442	448	497	744	2131
2019 - 20	444	445	498	748	2135
2020 - 21	446	444	496	765	2151
2021 - 22	447	445	495	761	2148
2022 - 23	448	446	493	760	2147
2023 - 24	449	447	492	758	2146
2024 - 25	450	447	493	755	2145
2025 - 26	451	447	494	754	2146
2026 - 27	452	447	495	749	2143

3.2 Enrollment Projections Summary

Lunenburg Total Enrollments (Resident Students Only)

Lunenburg Resident Students Only

10 Year Projection (with new development)

Year	PK - 2	Grades 3 - 5	Grades 6 - 8	Grades 9 - 12	Total
2007 - 08	411	378	386	500	1675
2008 - 09	413	406	375	500	1694
2009 - 10	416	410	398	491	1715
2010 - 11	428	400	409	486	1723
2011 - 12	429	397	423	483	1732
2012 - 13	434	392	427	487	1740
2013 - 14	435	405	416	500	1756
2014 - 15	431	405	415	524	1775
2015 - 16	426	409	414	546	1795
2016 - 17	429	406	427	543	1805

20 Year Projection (with new development)

Year	PK - 2	Grades 3 - 5	Grades 6 - 8	Grades 9 - 12	Total
2017 - 18	436	406	415	557	1814
2018 - 19	446	410	410	541	1807
2019 - 20	446	412	413	535	1806
2020 - 21	449	409	425	533	1816
2021 - 22	447	414	435	541	1837
2022 - 23	451	414	436	554	1855
2023 - 24	452	409	433	560	1854
2024 - 25	447	410	423	568	1848
2025 - 26	447	408	423	569	1847
2026 - 27	446	420	413	569	1848