

Hanover Public Schools<br>Hanover, MA

2022-23 Enrollment Projection Report

## TESDEF <br> Table of Contents



## Enrollment Summary

The global pandemic continues to influence our nation's public health and economic stability in unpredictable ways. As such, it is still too early to identify many of the factors that could impact school enrollments. Over the past school year, we have seen fluctuations in the real estate market and job trends, which have impacted student attendance patterns. Moreover, during the past school year, we have seen how school enrollment patterns can differ substantially from one district to another, with some districts losing students while others experience an influx of students.

We are pleased to send you this report displaying the past, present, and projected enrollments for the District. These ten-year projections are designed to provide the District with yearly, up-to-date enrollment information that can be used by boards and administrators for effective planning and allocation of resources. Included in this report are graphs representing historical and projected grade-by-grade enrollments, as well as historical and projected enrollments in grade combinations. We have received 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.

Enrollment projections are more reliable in Years \#1-4 in the future and less reliable in the "out-years." Projections six to ten years out may serve as a guide to future enrollments and are useful for planning purposes. In light of this, NESDEC has added a "Second Semester Refresher" enrollment projection at no cost to affiliates. (For more information please refer to the Reliability and Use of This Document section.)

NESDEC is pleased to provide you with enrollment projections for school year 2022/2023.

The NESDEC enrollment projection fell within 42 students of the K-12 total, 2,533 students projected vs. 2,491 enrolled. One variance of -27 students occurred at Preschool, 85 projected vs 112 enrolled. Ratios have been adjusted.

Births increased by +16 from a previous ten-year average of 121 to a projected average of 137 . In most districts, enrollments in Grades 1-8 are very stable. However, there have been increases in 8 of the 8 most recent years, leading to a net increase averaging +18 students per year.

Over the next three years, K-1 enrollments are projected to increase by +48 students, Grades 2-4 enrollments are projected to decrease by -32 students, Grades 5-8 enrollments are projected to increase by +54 students, and Grades 9-12 enrollments are projected to increase by +9 students, as students move through the grades.
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School District:

| Historical Enrollment By Grade |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline \text { Birth } \\ & \text { Year } \end{aligned}$ | Births* | School Year | PK | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | UNGR | K-12 | PK-12 |
| 2007 | 114 | 2012-13 | 36 | 169 | 205 | 163 | 209 | 232 | 208 | 233 | 223 | 233 | 198 | 194 | 201 | 179 | 3 | 2650 | 2686 |
| 2008 | 118 | 2013-14 | 40 | 157 | 185 | 213 | 170 | 214 | 227 | 207 | 232 | 219 | 194 | 194 | 192 | 195 | 3 | 2602 | 2642 |
| 2009 | 133 | 2014-15 | 51 | 176 | 167 | 189 | 221 | 168 | 214 | 231 | 198 | 235 | 191 | 202 | 203 | 192 | 3 | 2590 | 2641 |
| 2010 | 121 | 2015-16 | 54 | 184 | 186 | 172 | 200 | 216 | 180 | 213 | 228 | 200 | 218 | 188 | 200 | 207 | 3 | 2595 | 2649 |
| 2011 | 125 | 2016-17 | 65 | 187 | 184 | 188 | 172 | 205 | 219 | 180 | 209 | 226 | 179 | 219 | 192 | 198 | 2 | 2560 | 2625 |
| 2012 | 94 | 2017-18 | 65 | 154 | 198 | 189 | 194 | 178 | 214 | 223 | 178 | 216 | 206 | 183 | 216 | 193 | 3 | 2545 | 2610 |
| 2013 | 126 | 2018-19 | 71 | 198 | 171 | 204 | 194 | 204 | 180 | 218 | 220 | 181 | 194 | 209 | 183 | 215 | 3 | 2574 | 2645 |
| 2014 | 127 | 2019-20 | 80 | 198 | 200 | 169 | 207 | 195 | 207 | 185 | 215 | 224 | 172 | 191 | 213 | 190 | 3 | 2569 | 2649 |
| 2015 | 130 | 2020-21 | 52 | 192 | 211 | 204 | 176 | 209 | 197 | 212 | 183 | 216 | 182 | 175 | 188 | 212 | 5 | 2562 | 2614 |
| 2016 | 126 | 2021-22 | 89 | 179 | 201 | 224 | 208 | 181 | 217 | 197 | 217 | 174 | 173 | 183 | 170 | 196 | 3 | 2523 | 2612 |
| 2017 | 124 | 2022-23 | 112 | 180 | 190 | 208 | 228 | 209 | 185 | 216 | 191 | 212 | 150 | 167 | 185 | 170 | 5 | 2496 | 2608 |

*Birth data provided by Public Health Vital Records Departments in each state.

| Historical Enrollment in Grade Combinations |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | K-4 | PK-4 | K-1 | PK-1 | $\mathbf{2 - 4}$ | PK-8 | K-8 | $\mathbf{5 - 8}$ | $\mathbf{9 - 1 2}$ |
| $\mathbf{2 0 1 2 - 1 3}$ | 978 | 1014 | 374 | 410 | 604 | 1911 | 1875 | 897 | 772 |
| $\mathbf{2 0 1 3 - 1 4}$ | 939 | 979 | 342 | 382 | 597 | 1864 | 1824 | 885 | 775 |
| $\mathbf{2 0 1 4 - 1 5}$ | 921 | 972 | 343 | 394 | 578 | 1850 | 1799 | 878 | 788 |
| $\mathbf{2 0 1 5 - 1 6}$ | 958 | 1012 | 370 | 424 | 588 | 1833 | 1779 | 821 | 813 |
| $\mathbf{2 0 1 6 - 1}$ | 936 | 1001 | 371 | 436 | 565 | 1835 | 1770 | 834 | 788 |
| $\mathbf{2 0 1 7 - 1 8}$ | 913 | 978 | 352 | 417 | 561 | 1809 | 1744 | 831 | 798 |
| $\mathbf{2 0 1 8 - 1 9}$ | 971 | 1042 | 369 | 440 | 602 | 1841 | 1770 | 799 | 801 |
| $\mathbf{2 0 1 9 - 2 0}$ | 969 | 1049 | 398 | 478 | 571 | 1880 | 1800 | 831 | 766 |
| $\mathbf{2 0 2 0 - 2}$ | 992 | 1044 | 403 | 455 | 589 | 1852 | 1800 | 808 | 757 |
| $\mathbf{2 0 2 1 - 2 2}$ | 993 | 1082 | 380 | 469 | 613 | 1887 | 1798 | 805 | 722 |
| $\mathbf{2 0 2 2 - 2 3}$ | 1015 | 1127 | 370 | 482 | 645 | 1931 | 1819 | 804 | 672 |


| Historical Percentage Changes |  |  |  |
| :---: | :---: | :---: | :---: |
| Year | K-12 | Diff. | $\%$ |
| $\mathbf{2 0 1 2 - 1 3}$ | 2650 | 0 | $0.0 \%$ |
| $\mathbf{2 0 1 3 - 1 4}$ | 2602 | -48 | $-1.8 \%$ |
| $\mathbf{2 0 1 4 - 1 5}$ | 2590 | -12 | $-0.5 \%$ |
| $\mathbf{2 0 1 5 - 1 6}$ | 2595 | 5 | $0.2 \%$ |
| $\mathbf{2 0 1 6 - 1 7}$ | 2560 | -35 | $-1.3 \%$ |
| $\mathbf{2 0 1 7 - 1 8}$ | 2545 | -15 | $-0.6 \%$ |
| $\mathbf{2 0 1 8 - 1 9}$ | 2574 | 29 | $1.1 \%$ |
| $\mathbf{2 0 1 9 - 2 0}$ | 2569 | -5 | $-0.2 \%$ |
| $\mathbf{2 0 2 0 - 2 1}$ | 2562 | -7 | $-0.3 \%$ |
| $\mathbf{2 0 2 1 - 2 2}$ | 2523 | -39 | $-1.5 \%$ |
| $\mathbf{2 0 2 2 - 2 3}$ | $\mathbf{2 4 9 6}$ | -27 | $-1.1 \%$ |
| Change | $\mathbf{- 1 5 4}$ |  |  |
| $\mathbf{- 5 . 8 \%}$ |  |  |  |

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## TESIEF

Historical Enrollment

K-12, School Years 2012-13 to 2022-23

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## Projected Enrollment

| 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 |
| 2017 | 124 |  | 2022-23 | 112 | 180 | 190 | 208 | 228 | 209 | 185 | 216 | 191 | 212 | 150 | 167 | 185 | 170 | 5 | 2496 | 2608 |
| 2018 | 133 |  | 2023-24 | 89 | 197 | 189 | 195 | 213 | 231 | 214 | 187 | 214 | 189 | 182 | 150 | 168 | 187 | 5 | 2521 | 2610 |
| 2019 | 142 |  | 2024-25 | 90 | 210 | 207 | 194 | 199 | 216 | 236 | 217 | 185 | 212 | 163 | 182 | 151 | 170 | 5 | 2547 | 2637 |
| 2020 | 133 |  | 2025-26 | 91 | 197 | 221 | 213 | 198 | 202 | 221 | 239 | 215 | 183 | 182 | 163 | 183 | 153 | 5 | 2575 | 2666 |
| 2021 | 147 | (prov.) | 2026-27 | 92 | 218 | 207 | 227 | 218 | 201 | 207 | 224 | 237 | 213 | 157 | 182 | 164 | 185 | 5 | 2645 | 2737 |
| 2022 | 136 | (est.) | 2027-28 | 93 | 201 | 229 | 213 | 232 | 221 | 206 | 210 | 222 | 235 | 183 | 157 | 183 | 166 | 5 | 2663 | 2756 |
| 2023 | 138 | (est.) | 2028-29 | 94 | 204 | 211 | 235 | 218 | 235 | 226 | 209 | 208 | 220 | 202 | 183 | 158 | 185 | 5 | 2699 | 2793 |
| 2024 | 139 | (est.) | 2029-30 | 95 | 206 | 214 | 217 | 240 | 221 | 241 | 229 | 207 | 206 | 189 | 202 | 184 | 160 | 5 | 2721 | 2816 |
| 2025 | 139 | (est.) | 2030-31 | 96 | 205 | 216 | 220 | 222 | 243 | 226 | 244 | 227 | 205 | 177 | 189 | 203 | 186 | 5 | 2768 | 2864 |
| 2026 | 140 | (est.) | 2031-32 | 97 | 207 | 215 | 222 | 225 | 225 | 249 | 229 | 242 | 225 | 176 | 177 | 190 | 206 | 5 | 2793 | 2890 |
| 2027 | 138 | (est.) | 2032-33 | 98 | 205 | 217 | 221 | 227 | 228 | 230 | 252 | 227 | 240 | 194 | 176 | 178 | 192 | 5 | 2792 | 2890 |

Note: Ungraded students (UNGR) often are high school students whose anticipated years of graduation are unknown, or students with special needs - UNGR not included in Grade Combinations for 7-12, 9-12, etc.

| Projected Enrollment in Grade Combinations* |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | K-4 | PK-4 | K-1 | PK-1 | $\mathbf{2 - 4}$ | PK-8 | K-8 | $\mathbf{5 - 8}$ | $\mathbf{9 - 1 2}$ |  |
| $\mathbf{2 0 2 2 - 2 3}$ | 1015 | 1127 | 370 | 482 | 645 | 1931 | 1819 | 804 | 672 |  |
| $\mathbf{2 0 2 3 - 2 4}$ | 1025 | 1114 | 386 | 475 | 639 | 1918 | 1829 | 804 | 687 |  |
| $\mathbf{2 0 2 4 - 2 5}$ | 1026 | 1116 | 417 | 507 | 609 | 1966 | 1876 | 850 | 666 |  |
| $\mathbf{2 0 2 5 - 2 6}$ | 1031 | 1122 | 418 | 509 | 613 | 1980 | 1889 | 858 | 681 |  |
| $\mathbf{2 0 2 6 - 2 7}$ | 1071 | 1163 | 425 | 517 | 646 | 2044 | 1952 | 881 | 688 |  |
| $\mathbf{2 0 2 7 - 2 8}$ | 1096 | 1189 | 430 | 523 | 666 | 2062 | 1969 | 873 | 689 |  |
| $\mathbf{2 0 2 8 - 2 9}$ | 1103 | 1197 | 415 | 509 | 688 | 2060 | 1966 | 863 | 728 |  |
| $\mathbf{2 0 2 9 - 3 0}$ | 1098 | 1193 | 420 | 515 | 678 | 2076 | 1981 | 883 | 735 |  |
| $\mathbf{2 0 3 0 - 3 1}$ | 1106 | 1202 | 421 | 517 | 685 | 2104 | 2008 | 902 | 755 |  |
| $\mathbf{2 0 3 1 - 3 2}$ | 1094 | 1191 | 422 | 519 | 672 | 2136 | 2039 | 945 | 749 |  |
| $\mathbf{2 0 3 2 - 3 3}$ | 1098 | 1196 | 422 | 520 | 676 | 2145 | 2047 | 949 | 740 |  |


| Projected Percentage Changes |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year | K-12 | Diff. | $\%$ |  |  |
| $\mathbf{2 0 2 2 - 2 3}$ | 2496 | 0 | $0.0 \%$ |  |  |
| $\mathbf{2 0 2 3 - 2 4}$ | 2521 | 25 | $1.0 \%$ |  |  |
| $\mathbf{2 0 2 4 - 2 5}$ | 2547 | 26 | $1.0 \%$ |  |  |
| $\mathbf{2 0 2 5 - 2 6}$ | 2575 | 28 | $1.1 \%$ |  |  |
| $\mathbf{2 0 2 6 - 2 7}$ | 2645 | 70 | $2.7 \%$ |  |  |
| $\mathbf{2 0 2 7 - 2 8}$ | 2663 | 18 | $0.7 \%$ |  |  |
| $\mathbf{2 0 2 8 - 2 9}$ | 2699 | 36 | $1.4 \%$ |  |  |
| $\mathbf{2 0 2 9 - 3 0}$ | 2721 | 22 | $0.8 \%$ |  |  |
| $\mathbf{2 0 3 0 - 3 1}$ | 2768 | 47 | $1.7 \%$ |  |  |
| $\mathbf{2 0 3 1 - 3 2}$ | 2793 | 25 | $0.9 \%$ |  |  |
| $\mathbf{2 0 3 2 - 3 3}$ | 2792 | -1 | $0.0 \%$ |  |  |
| Change | $\mathbf{2 9 6}$ |  |  |  | $\mathbf{1 1 . 9} \%$ |

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

K-12, School Years 2022-23 to 2032-33

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Historical \& Projected Enrollment

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Historical \& Projected Enrollments in Grade Combinations

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## Historical \& Projected Enrollments in Grade Combinations



## TLSSDEA <br> Birth-to-Kindergarten Relationship


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## Additional Information

| Building Permits Issued <br> (Source: HUD) <br> Year |  |  |
| :---: | :---: | :---: |
| Single-Family |  |  |$\quad$ Multi-Units | M |
| :---: |
| 2012 |


| $\begin{array}{c}\text { Enrollment History* } \\ \text { Career-Tech } \\ \text { Year }\end{array}$ |  |  |
| :---: | :---: | :---: |
| $\begin{array}{c\|c\|c\|}\text { Non-Public }\end{array}$ |  |  |
| 2012-13 | 67 | K-12 Total |$]$


| Residents in Non-Public Independent and Parochial Schools (General Education)* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Oct. 1 Enrollment | K | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | K-12 TOTAL |
|  | 1 | 3 | 4 | 2 | 4 | 3 | 6 | 14 | 14 | 25 | 37 | 20 | 31 | 164 |


*The above data were provided by the District, with the exception of building permit data (provided by HUD)

$$
\text { " } \mathrm{n} / \mathrm{a} \text { " signifies that information was not provided by District. }
$$

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## New England's PK-12 Enrollment Trends

From 2020 to 2030, the US Department of Education anticipates changes in PK-12 enrollment of $-2.4 \%$ in the South, $-6.5 \%$ in the West, $-3.8 \%$ in the Midwest, $-6.2 \%$ in the Northeast, and a total of $-4.3 \%$ nationwide.

| State | Fall 2020 <br> PK - 12 | Fall 2030 <br> Projected | PK-12 Decline | \% Change <br> 2020-2030 |
| :---: | ---: | ---: | ---: | ---: |
| CT | 509,058 | 475,600 | $-33,458$ | $-6.6 \%$ |
| ME | 172,455 | 161,800 | $-10,655$ | $-6.2 \%$ |
| MA | 921,712 | 879,900 | $-41,812$ | $-4.5 \%$ |
| NH | 169,027 | 144,600 | $-24,427$ | $-14.5 \%$ |
| RI | 139,184 | 130,200 | $-8,984$ | $-6.5 \%$ |
| VT | 82,401 | 74,600 | $-7,801$ | $-9.5 \%$ |

Source: U.S. Department of Education, National Center for Education Statistics, Enrollment In Public Schools fall 1990 to fall 2030, Table 203.20, March 2022.

Although most New England Districts are seeing a decline in the number of births, NESDEC's experience indicates that the impact on enrollment varies from District to District. Almost half of New England Districts have been growing in PK-12 enrollment, and a similar number are declining (often in rural areas), with the other Districts remaining stable.

## Reliability and Use of this Document

## 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 that are wholly computer- or formula-driven. Such modification permits the incorporation of important, current district-specific information into the generation of enrollment forecasts (such as in/out-migration of students, resident births, HUD-reported building permits, etc.). 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 2018-19 increased to 104 students in Grade 2 in 2019-20, the percentage of survival would be $104 \%$, or a ratio of 1.04. 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 to project into future years. The ratios are the key factors in the reliability of the projections, assuming validity of the data at the starting point.

## RELIABILITY OF ENROLLMENT PROJECTIONS

Projections can serve as useful guides to school administrators for educational planning. Enrollment projections are more reliable in Years \#1-4 in the future and less reliable in the "out-years." Projections six to ten years out may serve as a guide to future enrollments and are useful for planning purposes, but they should be viewed as subject to change given the likelihood of potential shifts in underlying assumptions/trends, such as student migration, births as they relate to Kindergarten enrollment, and other factors.

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. The least reliable category is the group for which an estimate must be made to predict the number of births, thereby adding additional uncertainty. See these three multi-colored groupings on the "Projected Enrollment" tab.

Annual updates allow for early identification of recent changes in historical trends. When the actual enrollment in a grade is significantly different (higher or lower) 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.

## 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 screenshots, which can be inserted into PowerPoint slides, Word documents, etc. Because screenshots create graphics, the image is not editable. Please feel free to contact us if you need assistance in this matter, by phone (508-481-9444) or by email (ep@nesdec.org).
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