# The Public Schools of Brookline 

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| TO: | Brookline School Committee |
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| FROM: | Andrew Bott, Superintendent |
| DATE: | November 27, 2018 |
| RE: | District Enrollment Report |

## Summary

Since December 2016, the Public Schools of Brookline has created and distributed an enrollment projection report designed to be one part of the budget and capital planning process for the School Department, the Town, and Town Boards. Each year the projections in this report are revised due to changes in birth rates, birth to kindergarten progression rates, planned housing developments and the report's methodology.

The underlying need for this report has not changed, as the Public Schools of Brookline remain severely overcrowded. As of October 2018, the public schools have 1,600 more students in the same number of schools than they did in 2005 . While creative work by the building department during the expand-in-place effort has limited the impact on class size, the buildings themselves are over-utilized and too small for the number of students being crowded into them.

Over the past 10 years the equivalent of four K-8 schools worth of additional students has been crammed into existing buildings and rented facilities. This has resulted in dramatically overburdened cafeterias, gyms, administration, and other teaching and learning spaces. Spaces needed for contemporary education, such as dedicated rooms for special education, English language instruction, project based learning, and teacher collaboration, that are taken for granted in Brookline's peer communities, are lacking in all of our schools with the exception of Coolidge and are desperately needed for our students to keep pace. Learning spaces and special education classrooms have been carved out of auditoriums, locker rooms, hallways, and windowless storage spaces. Schedules are created based on hallway traffic patterns because passageways are insufficient to handle the number of students. Students are learning in modular classrooms and temporary rental spaces. BEEP students have been systematically removed from our school buildings and placed in rented facilities.

This year's PSB Enrollment Projection Report anticipates a decline in growth in the coming years. Even with these conservative projections, five years from now, school enrollment will be more than 1,400 students above what is was in 2005-2006. Ten years from now, projected enrollment remains nearly 1,100 students more than where it was when this growth started. Regardless of enrollment projections, Brookline needs additional capacity today simply to address the current and existing conditions that are subpar and well below what Brookline should expect in its school facilities.

## Enrollment Projections: 2016-2018

The 2016 Enrollment Report was the first formal enrollment report generated by the Public Schools of Brookline. This initial report included actual student enrollment from the 1976-1977 school year through September 30, 2016. There were a number of variables that were not included in the 2016 enrollment report, including the effects of in/out migration of older students, grades 1 through 12, and the impact of future development of single family homes into multi-unit condominiums. The report, however, did include estimated enrollment projections including known filed developments over 12 units. The ten year
projection in this initial report was made using a three year birth rate average and a five year progression rate average. Because the students in the out years have not yet been born, the year 6 through 10 projections rely on statistical averages not actual births.

Using this methodology, the 2016 enrollment report showed the following:
Without any development, the projections show a reduction of 175 students (SY26-27) over SX 16-17. However, due to the ten year span there is the potential for a 617 student variance depending on when development is completed and student population rises or shifts. The variance is a function of modeling and the fact that the future projection is based on an average birth rate due to students not yet being born. The average birth rate used is 630 and the Progression Rate is 0.96. As the enrollment projection is completed each year, the district will be able to monitor year-to-year accuracy of the projection.

The above referenced report showed a net increase of $267 \mathrm{~K}-8$ students over 10 years when the estimated projections for known filed developments were included.

It was noted in the 2016 report that the district had at that time already absorbed $1,322 \mathrm{~K}-8$ students within our 8 elementary schools. This increase is equivalent to the current combined enrollment at the Lawrence and Driscoll Schools being added into our existing 8 elementary schools. The stress of this growth has resulted in a school infrastructure that can no longer support Brookline's educational vision or programming.

The 2017 Enrollment Report included a significant and important change from the 2016 Report. In an effort to provide complete clarity and transparency about the School Committee's long standing commitment to the Town's two non-resident student programs, the 2017 Enrollment Report explicitly included the 40 non-resident students who are included in our kindergarten's each year. An error was made, however, in adding these additional students to the birth rate without making a corresponding reduction in the progression rate used to project kindergarten enrollment.

The K-8 projections from the 2017 Enrollment Report have been revised by removing these 40 students and applying the 2017 birth rate and progression rate averages (including known filed housing developments):

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | FY27 | FY28 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 5,482 | 5,527 | 5,573 | 5,636 | 5,716 | 5,657 | 5,563 | 5,515 | 5,540 | 5,533 | 5,525 |

In the original 2017 Enrollment Report, the inclusion of the 40 non-resident students and the calculation error resulted in the following projections (again, inclusive of known filed housing developments):

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | FY27 | FY28 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 5,482 | 5,567 | 5,654 | 5,737 | 5,856 | 5,834 | 5,775 | 5,764 | 5,827 | 5,857 | 5,847 |

Using the same methodology as the 2016 Enrollment Report, there is a net correction of 140 students in FY22 and 322 students in FY28. The FY22 total K-8 enrollment, including this correction, remains 234 students above FY18 actual enrollment.

In the "Brookline Births per Year" section of both the 2016 and 2017 Enrollment Reports, a reduction in birth rates was noted. This reduction in birth rates led to a projected average of 630 students per year in the out years of the 2016 Enrollment Report and a projected average of 615 births per year in the out years of the 2017 Enrollment Report. This trend will continue in the 2018 Enrollment Report, with the projected average of 581 used for the out years. The 2018 Enrollment Report will use a lower 5 year average progression rate, driven lower by the .85 progression rate for the current kindergarten class.

While the progression rate applied to incoming kindergarten students in the 2018 Enrollment Report will be .91 , it is important to note that the K-8 average progression rate is 1.0 , the $9-12$ progression rate is 1.02 , to a district wide progression rate of 1.01 .

The 2018 K-8 Enrollment Projections, including new housing developments, are as follows:

| FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | FY27 | FY28 | FY29 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 5,503 | 5,499 | 5,474 | 5,356 | 5,452 | 5,310 | 5,214 | 5,171 | 5,097 | 5,032 | 4,984 |

Compared to the revised 2017 K-8 Enrollment Projections (without additional non-resident students) as follows:

| FY18 | FY19 | FY20 | FY21 | FY22 | FY23 | FY24 | FY25 | FY26 | FY27 | FY28 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 5,482 | 5,527 | 5,573 | 5,636 | 5,716 | 5,657 | 5,563 | 5,515 | 5,540 | 5,533 | 5,525 |

Based on a lower kindergarten progression rate and a lower average birth rate in out years, the FY23 K-8 enrollment projections are 51 students lower than current enrollment. In FY 24, the projections are 193 students lower, inclusive of new developments. FY24 is the last year of the 10 year projections for which students have actually been born. For the purposes of this enrollment projection, the birth rates used to calculate kindergarten enrollment in FY25-29 are the three year average of FY16-18 of 581 students. Even if this decrease in projected enrollment comes to pass, the severe overcrowding in our schools will remain unresolved. A decrease of 193 students in FY24 compared with current enrollment will mean that the overall K-8 enrollment increase from 2005-2024 will still be 1,131 students. Continuing to operate our schools through 2024 in the extreme overcrowded conditions our schools currently face will prevent the Public Schools of Brookline from achieving our educational vision for all students.

The new housing included in the 2018 Enrollment Projections comes directly from the Planning Department. Not included in these projections are any age restricted developments. For planning purposes, the 2018 Enrollment Projections use the more conservative Waldo/Durgin proposal as opposed to The Coolidge. Based on the information provided by the Planning Department to our demographer, the 2018 Enrollment Projects include an estimated increase of 89 students K-12 in the Coolidge Corner district, 50 students K-12 in the Lawrence district, and 203 students K-12 in the Baker district.

The enrollment projections are based on the October 1 certified enrollment number. The enrollment of the Public Schools of Brookline, however, changes throughout the year. At this point in the year, our kindergarten enrollment has reached 617 with our overall K-8 enrollment now 26 students higher than the October 1 certified count.

The same caution included in the 2016 Enrollment Report applies to the 2018 Enrollment Projections. Since 2000, Brookline's residential unit count grew by 400 units. Our birth rate predictive model does not account for the in/out movement in our district, it does not include the future impact of single unit family conversions to condominiums, and it does not include the impact of generational changes. Future enrollment reports will include the above variables, making for stronger planning and modeling for student growth or reduction.

