

# SPACE NEEDS TASK FORCE REPORT

Recommendations to the Bedford School Committee for additional  
space at Lt. Job Lane School



Bedford Public  
Schools, January  
2, 2016

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# Major Findings

The task force found:

- Bedford Public Schools can no longer predict the number of students who enroll in kindergarten based on the town's birth rate. Many families are moving into Bedford, with children ready for school.
- Many new homes and rental units made this in-migration possible. More construction is planned. Some seniors could sell their homes, putting more on the market for families with children.
- Once children are enrolled in Bedford schools, they stay through high school (with some change in grade 9 when some students go to private schools and others arrive from Hanscom Air Force Base).
- The demand for homes in Bedford is increasing because of the school system's quality. Also, families can rent, then buy a home in any neighborhood, since our elementary schools are K-2 and 3-5.
- Based on studies and real estate data, we believe the increase in student population is permanent and will require additions to Davis, Lane and JGMS..

The task force is focusing on the Lane School project, to be funded by the Town of Bedford (The Town applied for state funds for Davis School) where we may avoid the cost of modular (temporary) classrooms at Lane if the funding is approved at Town Meeting in January, 2016, with a goal of opening the new spaces in Fall, 2017.

## Executive Summary

### Introduction

In light of three consecutive years of increased kindergarten enrollment requiring the installation of two modular classrooms at Davis School, the Bedford School Committee initiated an examination of the schools' space needs. Place holders for small additions at Davis, Lane and JGMS were included in the Six Year Capital Plan, Statements of Interest were submitted to the Massachusetts School Building Authority (MSBA), an enrollment study was commissioned, and this task force was convened to verify the enrollment study's conclusion that our enrollment growth is long-term.

To determine whether the enrollment increase is short-term (warranting temporary additional space) or long-term (requiring permanent additional space), or if long-term whether some cost-saving alternatives might exist, the task force analyzed a significant amount of data on population, housing, and economic trends. The MSBA only funds one project at a time (and it may take multiple resubmissions of our Statements of Interest before one school is chosen), so we have identified the Davis School\*, where modular classrooms already exist, as our MSBA priority, and Lane School as a candidate for a project without state funding. Though the committee will study the space needs at all three schools, it has focused initially on the Lane School where the possibility exists to avoid the cost of temporary modular classrooms if construction can be completed by September, 2017 .\*\*

\*The MSBA has since rejected the Davis School SOI. Consequently, the task force will make its recommendation for the Davis School in a subsequent report.

\*\*While the two Davis School modular classrooms installed in 2014 cost approximately \$150,000, the bid for a single modular classroom the following year came in at \$450,000. We have since found an option to buy two modular classrooms at a cost of approximately \$500,000. *See Appendices "Building Project Cost Projections."*

## Methodology

The task force, formed of school personnel, parent and resident volunteers, examined:

- The New England School Development Council (NESDEC) Enrollment Study (Spring, 2015; updated Fall, 2015)
- Two additional population projections performed by the Metropolitan Area Planning Council and the UMASS Donahue Institute (the Massachusetts U.S. Census Affiliate)
- Public and private school enrollment trends
- Building permits and housing sales
- Potential correlations between the spike in multi-dwelling developments and school enrollment increases
- The changing relationship between Bedford births and Bedford Kindergarten enrollment
- The impact of school quality, immigration, pent-up housing demand, relative affordability, Town services, the Bedford schools' unique elementary configuration and the major uptick in in-migration
- The future likelihood of the enrollment trend continuing based upon data from the Planning and Assessors departments, in-the-pipeline developments, the risk or potential for further subdivisions, and the senior citizen housing turnover rate.

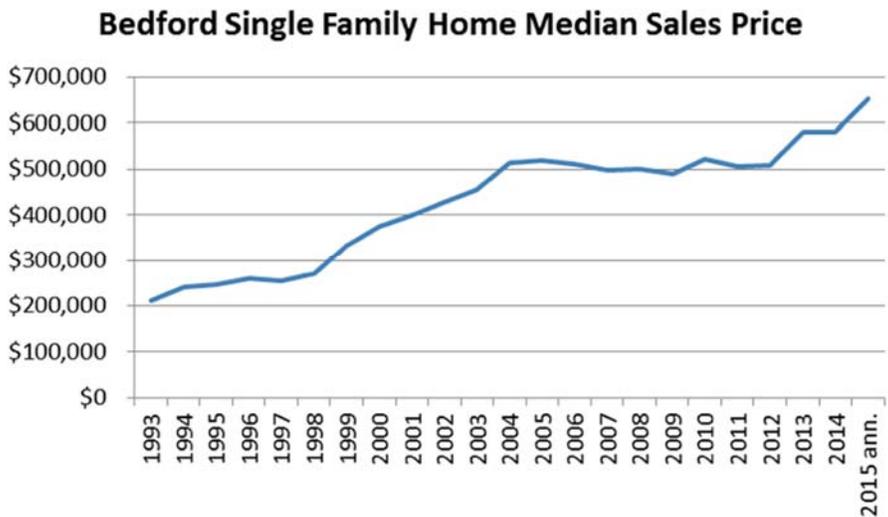
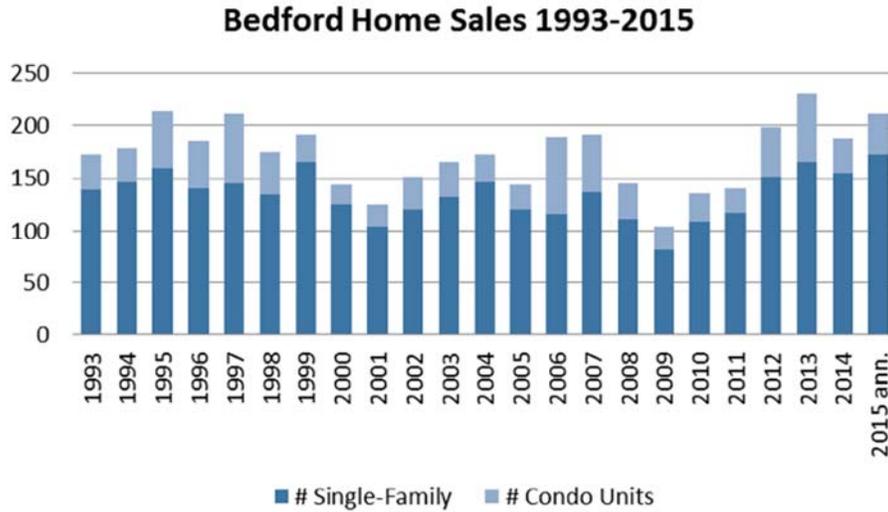
Next, the task force toured Lane School, examined its space needs, and brainstormed possible alternatives to a brick-and-mortar addition.

## Findings

Six major factors have contributed to or are associated with the sharp rise in Kindergarten enrollment, which is where the greatest increases have recently taken place:

- A major reversal in the relationship of Bedford births to Kindergarten enrollment, with enrollment now averaging about 1.4 Kindergarten students per Bedford birth (people move into Bedford with children who about to enter school).
- Massachusetts and Middlesex County are outpacing other Northeast Region states and Massachusetts counties with regard to economic development indexes and population growth. Among other municipalities, Bedford is growing at one of the higher rates.
- Highly educated families are attracted along the Cambridge West corridor because of Bedford's excellent schools and Town services, and the configuration of elementary schools which allow families to live anywhere in Bedford without having to move close to a particular school
- Bedford's relative affordability compared to Lexington and Concord add to its lure
- The construction of over 700 units in multi-dwelling developments, the majority of which are rental units, in the past decade, has offered entry to families with a range of incomes
- Immigration, including non-native speakers of English
- An increase in single-family housing values and sales as well as teardowns. (Since the initial 2015 NESDEC report, the average price for a single-family dwelling in Bedford rose from 2014's \$580,000 to \$652,000 in

2015. The number of single-family home sales rose to 129 by September 30, up from 118 during the same period in the previous year.)



- Lane School has already used all creative options to re-purpose existing space (offices and classrooms are subdivided, multipurpose room is used as a computer lab / orchestra rehearsal, and no longer has enough room for faculty meetings, etc.)

These indicators all suggest trends, except the large-scale multi-unit dwelling construction, which already raised the number of students entering the lower grades; we can expect that raised number to remain constant. Additional factors such as the number of smaller cluster developments (the 30 Coast Guard cottages or the four Hartwell Road units) in the queue, the arrival of new restaurants and other retail operations in Bedford, and the availability of additional subdivision-potential land suggest continued growth.

## Conclusion

While too many variables affect population and enrollment projections (another economic downturn, for example) to provide certainty beyond a few years, all indicators point to continued enrollment growth for at least the next ten years. While the number of Kindergarten students will eventually plateau, our studies suggest it will do so at or around its presently high number, and those students will continue to move through the system and will certainly require additional space at Lane School.

This enrollment-driven need will combine with a need for additional special education program space (the severe autism SAIL program) to yield a minimum need for:

- Two additional learning spaces (one regular education classroom and one smaller special education space) beginning in September of 2017.
- Three additional learning spaces (two regular education classrooms and one smaller special education space) in 2018–2019.
- Four additional learning spaces (three regular education classrooms and one smaller special education space) in 2019–2020.

The task force also recommends that the School Committee consider two additional classroom spaces both to provide a margin of error, since the above recommendations are based on our maximum class size guideline of 25 students, to provide the possibility of meeting the recommended guideline of 22 students particularly for classes with the greatest learning need diversity, and to address the already inadequate windowless spaces that were created in the past few years. By repurposing the existing computer lab, which is the one alternative that appears to be actionable, it may be possible to meet these needs with a 5000 sq. ft. addition and a repurposing of the computer lab.

The task force recommends that the School Committee commission a feasibility study to examine and assess the costs for these options.

## Space Needs Task Force Members

Taissir Alani	Director, Bedford Facilities Dept
Rob Badzey	Parent
Diane Cadogan Hughes	Parent/Realtor
Brenda Catanzano	Parent/Realtor
Josh Chessman	Parent
David Coelho	Finance Dir, Bedford Public Schools
Jeff Cohen	Resident (Planning Board)
Caroline Fedele	Parent (Selectman)
Shaena Grossman	Parent
Mark Mullins	Parent/Local Businessman
Jim O’Neil	Grandparent (CapEx member)
Ed Pierce	School Committee
Val Rushanan	Parent
JoAnn Santiago	Parent/Strategic Planner
Jon Sills	Superintendent

# Space Needs Task Force Report: Lane School

Bedford Public Schools

January 7, 2016

## Introduction

In each of the last three years, enrollment at Davis School grew significantly, necessitating the addition of two modular classrooms. The increased numbers will impact Lane School beginning in September, 2017. An enrollment study by the New England School Development Council (NESDEC), commissioned last November, indicates continued growth for the next ten years, with the exception of slight dips for two years. Accordingly, we submitted three statements of interest for small building additions at Davis, Lane and John Glenn Middle School to the Massachusetts School Building Authority (MSBA) last spring and put placeholders for the additions in the town's six-year capital improvements plan.

To verify the long-term vs. temporary nature of the need, and therefore the need for permanent vs. temporary space, the school department created the Space Needs Task Force. Since the MSBA will only support one project (if any), and since the Davis School already has modular classrooms and Lane School does not, the task force is focusing first on Lane School as a potential go-it-alone project. If permanent space is required at Lane School, there is a small window of opportunity for the Town to do so without having to incur the interim cost of modular classrooms. Therefore, while the task force will continue to study the potential need at Davis and JGMS, this report focuses primarily on Lane School.

Traditionally, the Bedford Public Schools could predict the number of children who would enroll in kindergarten based on the number of babies born in Bedford. But now, with many families moving into Bedford, there are about 140 kindergarteners for every 100 babies born in Bedford.

## Mandate

The task force must answer two questions in order to recommend to the Bedford School Committee whether the district's enrollment increases will require brick-and-mortar solutions:

- Are Davis School's present needs, and Lane School's and JGMS's impending space needs short-term or long-term developments?
- If long-term, are there alternative solutions to adding permanent space at each school?

## Methodology

The task force includes community and parent volunteers and school department personnel. The varied occupations and skill sets represented ensures a high degree of insight, creativity and analytical orientations. Participating, for example, are two Bedford realtors, a building/contractor consultant, a statistician, a Planning Board member, a Capital Expenditures Committee member, a School Committee member, the Town's Facilities Director, the school department's Finance Director who does enrollment studies for his home town of Needham, and the Superintendent of Schools.

The committee generated and researched a series of questions and then collaboratively analyzed the data and drew logical inferences. Consequently, the committee examined a wide range of data points in an effort to validate the NESDEC study projection of long-term enrollment impact, including:

- Monthly Planning Department Updates
- Occupancy rates in each school
- Planning Department development update
- Economic development snapshot
- Housing snapshot
- The Bedford MAPC Report (2014) and Donahue Institute Census Data
- Number of bedrooms per unit in multi-unit developments
- Number of students in BPS from each multi-unit development
- Number of tear-downs and new construction sites for last five years
- Anecdotal information from realtors
- Over 700 Parent survey responses

In addition to verifying the likely duration of the enrollment surge, the task force explored cost-saving alternatives to brick-and-mortar additions at each of the three schools. The committee toured Davis, Lane, and will tour JGMS, and held two brainstorming sessions to generate possible alternatives, which were then researched and discussed.

## **Disclaimer**

While comprehensive in its approach, the task force acknowledges that population studies cannot predict trends with certainty beyond two to five years. The students who will enter kindergarten six years from now are not yet born, nor can we control for broad economic trends that can impact home purchases by families with school-age children. However, there is sufficient data upon which to make an actionable set of recommendations.

## **Starting Point: 2015 NESDEC Enrollment Study**

The 2015 NESDEC Enrollment Study concluded:

“The K–12 student population of the Bedford Public Schools has risen by 239 students over the past decade, to 2,510 pupils in 2015–16. A continued, more moderate rise is expected over the next decade as new families move into the elementary grades. This fall, there may be about 43 additional students in Grades K–8, and about 16 fewer at the high school level, after the graduation of the large class of 2016.

The quality of Bedford’s schools continues to be a draw, as well as recreation and quality of life issues. Births are currently about 135 per year, compared with an average of 141 annual births in 2000–2009 (currently in Grades 1–10)... however, the new families have been off-setting what might have been a decline in enrollment. Single-family home sales in 2012–14 have averaged 157 homes per year (2015 = faster pace), compared with only 82 homes sold in 2009.”

- Bedford is growing, 5.8% since 2000, more rapidly than Middlesex county, 2.6% since 2000.
- Growth is driven mainly through families moving into Bedford.
- The number of residents under 18 is growing, up from 2,972 in 2000 to 3,109 in 2010. UMASS (Donahue Center) projects the cohort of residents in Bedford ages 25–44 will increase by 20.5% by the Year 2020.
- Kindergarten is expected to follow current trends through the projection period SY 2024–2025.
- Average K cohort size = 174 (compared to 156 average 2008 to 2012).
- The ratio of Births-to-Kindergarten Enrollment (number of children born to Bedford residents : children enrolled in Kindergarten) rose from .65 in SY2002–03 to 1.49 in SY 2013–14.
- The projected Birth-to-K ratio is projected to average 1.32 to 2024–25.

## Updated Numbers

NESDEC updated its report in Fall, 2015:

- According to the Warren Group, the median price for a single-family home in Bedford rose from \$580,000 in September, 2014 to \$652,000 in September, 2015.
- The number of single-family home sales rose to 129 by September 30, up from 118 during the same period in the previous year. Condo sales have increased over last year for the same period, but they are down from the previous two years.

## Discussion

The task force's research reveals the following general trends:

- Net population growth driven by excellent schools, drawing new young families
- Steady or declining birth rate, offset by increasing numbers of move-ins
- Expanding housing market, fed by recent multi-dwelling developments, increasing tear-downs, and new subdivisions across the community.

## Comparative Population Projections

To make projections about Bedford's school-age population, the task force examined these studies:

- Enrollment study commissioned by the Bedford Public Schools
  - NESDEC (New England School Development Council)
- External studies of population projections
  - MAPC (Metropolitan Area Planning Council)
  - The Donahue Institute (University of Massachusetts, the state affiliate of the U.S. Census Bureau)

The three studies yielded the following contrasting projections for school age children:

Study	Years of Projections	Findings
MAPC	2010–2030	<ul style="list-style-type: none"> <li>Status Quo scenario: 12% total population increase, 3% population decline in children under age 15.</li> <li>Strong Region scenario: 15% total population increase, negligible population decline in children under age 15, with a temporary decline in 2020, as well as trends that could lead to "greater housing demand, and a substantially larger workforce."</li> </ul>
Donahue Institute	2010–2030	17.9% total population increase, 4% increase in children under age 15.
NESDEC	2015–2025	10.7% increase in school-age children.

## Donahue Institute

For ages 0–19, a decline of 6% (150 persons, from the 3,342 persons recorded in the 2010 census) is predicted between 2010 and 2020. However, most of this decline was to occur between 2010 and 2015, then a small decline over the next five years. Between 2020 and 2030, the population of minors in Bedford is projected to increase.

Growth is projected to vary by age group, with significant growth among children aged 0–5, and a decrease projected for ages 5–14 during the next five years.

AGE	UMass Donahue Institute Projections (Spring 2015 Release)									2015 BPS Enrollment	2015 Residents in Other Schools~
	2010	2015 DI	2020 DI	Proj. Chg. '10-'20		Proj. Chg. '10-'15		Proj Chg '15-'20			
				%	#	%	#	%	#		
0-4	715	611	744	4%	29	-15%	-104	22%	133		
5-9	871	811	727	-17%	-144	-7%	-60	-10%	-84	939	17
10-14	974	951	888	-9%	-86	-2%	-23	-7%	-63	931	31
15-19	782	819	780	0%	-2	5%	37	-5%	-39		
0-19	3342	3192	3139	-6%	-203	-4%	-150	-2%	-53		

~Includes students enrolled in parochial or independent schools.

## Change in population aged 5–9 years

A 10% decline (84 persons) in the number of children aged 5–9 is projected between 2015 and 2020. These are children born between 2011 and 2015, who are not yet enrolled in the schools. There is no way to compare the current enrollment for this cohort to the projected population.

NESDEC's report included an analysis of births in Bedford relative to the size of kindergarten classes five years later. This analysis showed a recent increase in migration of young children to Bedford. For all but four years between 1970 and 2001, more children were born to Bedford residents than were enrolled in kindergarten five years later, indicating young families moved out of town. For the last seven kindergarten classes (since 2009), the number of children enrolled exceeded the number of children born in Bedford five years earlier by an average of 45 students per year.

This new migration pattern may not be fully captured by the Donahue Institute projections which are primarily based on data from 2005–2010, the timeframe when this change was beginning.

### Change in population ages 10–14

Current BPS enrollment of children aged 5–9 is 939 students, which exceeds the Donahue Institute projection of 811 children by 128 children. Another 17 Bedford residents attend parochial or independent schools. Based upon this enrollment level and the historic student retention in Bedford, it is likely that Bedford may outperform the projections as this group reaches age 10–14 in 2020.

### Variance from NESDEC Study

NESDEC probably used data from Fall, 2013. Among the most significant differences between the NESDEC data and the 2015 Donahue projection are new projections which show a significantly lower projection of growth between 2010 and 2020 among those ages 0–4, a steeper decline projected among those aged 5–14, and a significantly larger population aged 15–19. Among the methodology changes made by the Donahue Institute between its 2013 and 2015 updates was a new method to account for college-aged students, keeping likely college students “in place” and not projecting they will migrate to another community during their studies. This may explain the difference between the projections for this age group.

### Metropolitan Area Planning Council (MAPC)

MAPC's projections are based on Donahue Institute data from its 2013 release, with some changes to underlying methods and assumptions such as calculation of birth rates and the rate of outmigration of residents to create two sets of projections, a “status quo” scenario and a “stronger region” scenario which includes more robust growth.

In its January, 2014 regional report and forecast for Bedford, MAPC projected growth patterns similar to those of the Donahue Institute, with a sharper decline. The MAPC projects the population aged 0–19 will decline between 2010 and 2020, with a decline across all age groups. MAPC provides projections only every ten years.

Age	MAPC Projections				
	2010 Census	Status Quo Scenario		Strong Region Scenario	
		2020	Chg '10-20	2020	Chg '10-20
0-4	715	706	-1.2%	702	-1.8%
5-9	871	825	-5.3%	825	-5.3%
10-14	974	823	-15.5%	831	-14.6%
15-19	782	744	-4.8%	762	-2.6%
0-19	3,342	3,098	-7.3%	3,121	-6.6%

This data is subject to similar limitations as the Donahue Institute projections, except that the information used as a basis for the projections is from 2000–2010.

While all three studies use 2010 census data, only the NESDEC study factors in more recent, post-recession, housing and school population information. The task force focused most of its attention on these additional factors in order to validate the enrollment study’s conclusions.

## Excellent Schools at More Affordable Home Prices

Realtors describe Bedford as a hot market, with the quality of the schools being a primary draw. Realtors are seeing movement from the Cambridge Harvard/MIT axis west to Arlington, Lexington and Bedford, with Bedford offering a much more affordable “excellent schools” alternative to Lexington (Lexington’s average asking price in 2015 was \$1,144,337 vs. Bedford’s \$786,198).

### Population change in the last 10 years

Arlington	+16.09%	Billerica	-19.42%
Bedford	+10.68%	Burlington	-0.65%
Concord	+7.04%		
Lexington	+9.72%		

## Dramatic Shift in Kindergarten Enrollment

For all but three of the years from 1975 to 2008, fewer students attended Bedford’s kindergarten than were born in Bedford five years earlier. Beginning in 2008, however, the trend reversed, with substantially more students attending kindergarten than were born in Bedford five years earlier.

Discarding the outlier years (1996 and 2013), the average Birth-to-Kindergarten ratio changed from 78.84% between 1990 and 2008 to 140.5% between 2009 and 2015 (135.4% if we include the anomaly year 2013). This shift is attributable to families moving into Bedford during the five years preceding each kindergarten class (2009–2005) of 47, 43, 42, 7, 66, 37 and 69 students. Bedford also transitioned to full-week kindergarten in 2013, which accounted for an enrollment increase of approximately 12 of the additional 45 students.

### Most Students Stay Through Grade 12

School District: Bedford, MA 10/22/2015  
 Projections assume that the real estate market, currently strong, continues at this general pace; at some point it may slow, although births may again increase due to the new “move-in’s”

#### Enrollment Projections By Grade\*

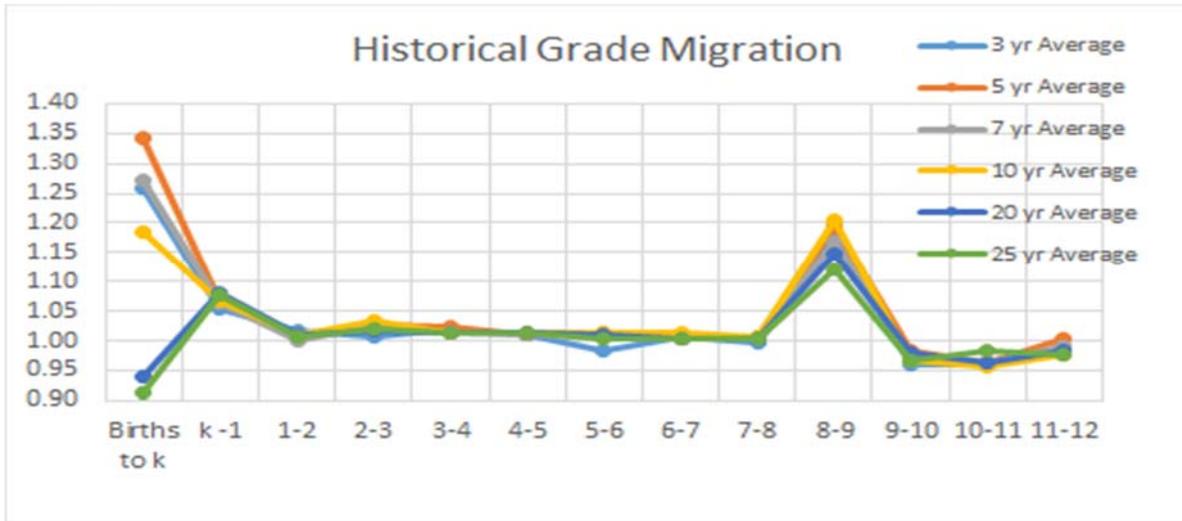
Birth Year	Births	School Year	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	UNGR	K-12	PK-12
2010	121	2015-16	31	190	199	198	183	171	180	201	154	175	221	226	207	205	0	2510	2541
2011	142	2016-17	31	189	200	202	199	187	173	178	203	153	208	212	217	206	0	2537	2568
2012	135	2017-18	32	189	210	203	204	203	189	171	179	202	182	200	200	216	0	2551	2583
2013	131 (prov.)	2018-19	32	183	199	213	205	208	205	187	172	178	240	175	182	202	0	2559	2691
2014	136 (est.)	2019-20	33	190	193	202	215	209	210	203	188	171	212	230	168	191	0	2582	2615
2015	133 (est.)	2020-21	33	186	200	196	204	219	211	208	205	187	203	204	221	167	0	2611	2644
2016	135 (est.)	2021-22	34	189	196	203	197	208	221	209	210	204	222	195	196	220	0	2670	2704
2017	134 (est.)	2022-23	34	188	199	199	205	201	210	219	211	209	243	213	187	195	0	2679	2713
2018	134 (est.)	2023-24	35	187	198	202	200	209	203	208	221	210	249	233	204	186	0	2710	2745
2019	134 (est.)	2024-25	35	188	197	201	204	204	211	201	210	220	250	239	224	203	0	2752	2787
2020	134 (est.)	2025-26	35	188	198	200	203	208	206	209	203	209	262	240	229	223	0	2778	2814

Projections should be updated on an annual basis.

Based on an estimate of births
  Based on children already born
  Based on students already enrolled

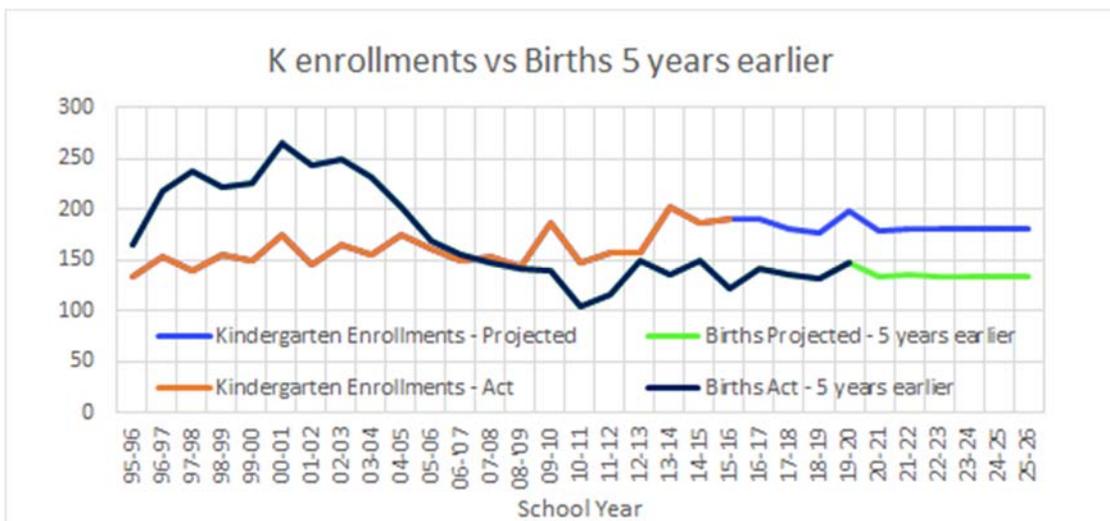
The Bedford Public Schools used a mathematical formula to calculate the number of students that stay from one grade to the next, from K to 12.

This graph illustrates the above data.



This data shows that once students enter the Bedford Public Schools in Kindergarten, migrate to grade 1, and stay all the way through to graduation, with a spike at grade 9 for the incoming Hanscom students.

The chart below shows how the birth and enrollment numbers have interacted historically, and are expected to behave in projections, estimating the births reported to Bedford residents, estimating the number of births that may occur in the future, and then applying a calculation to estimate the kindergarten enrollments.



## **In-migration is the Biggest Growth Factor**

The strongest contribution to enrollment growth, during the past three years, where kindergarten enrollment has grown from the 155.2 average (1995 to 2012) to an average of 192.6 students from 2013–2015, is the increase in migration into Bedford. This is attributable to:

- Pent-up demand since recovery from the Recession of 2009
- The construction of many new multi-unit dwellings in Bedford
- An increase in the number of small home tear-downs being replaced with larger single-family homes
- The development of privately-owned subdivisions
- Immigration

## **Growth of Major Residential Developments**

The most significant impact is from dramatic growth in multi-dwelling residential developments including both home ownership and rental properties.

- Bedford is particularly attractive to families who rent with the intention of owning because of our elementary school configuration of consecutive-year schools (Davis is K–2, and Lane is grades 3–5) rather than multiple elementary schools with the same grades. Many families move into Bedford as renters and enroll their children without worrying about having to move them to a different school when they purchase a home. This may have contributed to a much higher occupancy of families with school-age children in our multi-dwelling developments than was predicted.

Of the 701 units at the major housing developments, 503 are rental properties and 198 are owner-occupied. This table shows the number of children living in these developments and attending the Bedford Public Schools since 2005.

<b>Multi-dwelling Development</b>	<b>Number of Units</b>	<b>1 Bedroom</b>	<b>2 Bedrooms</b>	<b>3 or 4 Bedrooms</b>	<b>Present Number of Students in Bedford Schools</b>	<b>Cumulative No. of Children in schools since 2005</b>
Freedom Estates	59	0	0	59	68	85
Kendall Court	75	0	75	0	35	44
Lavender Lane	6					
Abbott Road	6					
Habitat, 447 Concord Rd	22					
Albion Rd, Bedford Woods	30	5	25	0	4	15
Thompson Farm (Rentals)	164	54	92	18	50	138
Taylor Pond (Rentals)	200	117	83	0	29	66
Avalon Bay (Rentals)	139	52	87	0	50	108
<b>Total</b>	<b>701</b>	<b>228</b>	<b>362</b>	<b>77</b>	<b>236</b>	<b>456</b>

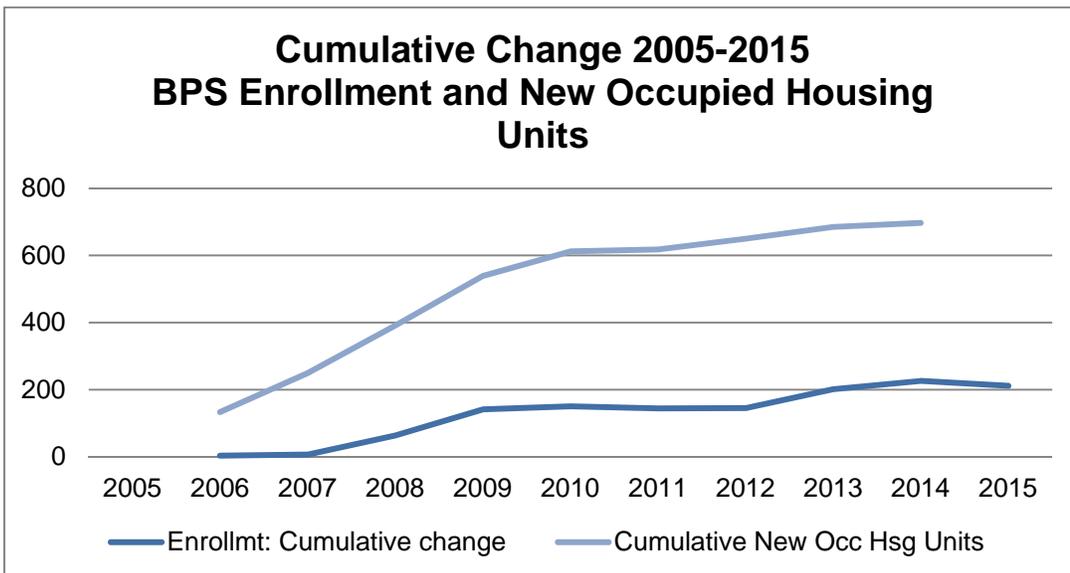
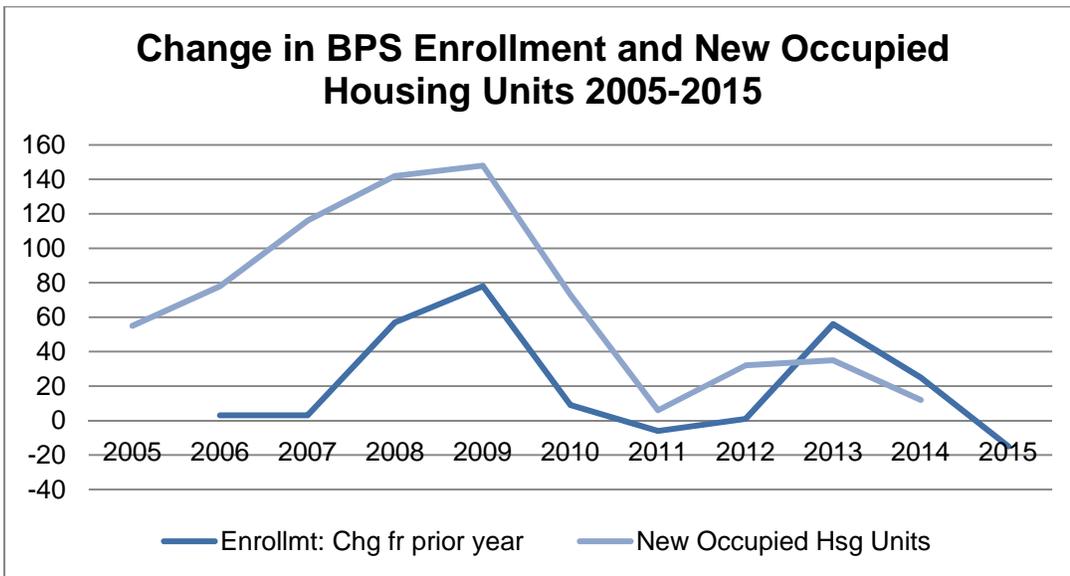
## **Correlations: Growth in BPS Enrollment, 2005–2015**

Since the completion of significant renovations of all four public schools in 2008, Enrollment has continued to rise. Between 2005 and 2015, enrollment increased from 2,279 to 2,490, or more than 200 students. This growth appears to be a direct result of the addition of 701 new housing units in larger developments, comprised of 198 owner-occupied units and 503 rental units. See the appendices for more information.

The greatest increases in enrollment occurred in 2008, 2009, 2013 and 2014. In 2006 and 2009, most of the 59 homes in the Freedom Estates development off South Road were sold, 29 condos in Bedford Woods were sold, and an estimated 390 units were rented in the Avalon Bay, Thompson Farm and Taylor Pond apartment communities. (This assumes these projects achieved full occupancy within three years of opening.) In 2009, BPS enrollment had grown by 141 students over its 2005 enrollment.

As the economy recovered between 2011 and 2014, 85 new owner-occupied homes were sold, including 75 at Hartwell Farms, 4 of 6 homes on Abbott Road, and 6 homes on Lavender Lane. BPS enrollment grew by 81 new

students in 2013 and 2014. In the 2015-2016 school year, there are 236 students residing in these new homes, built between 2005 and 2014.



## BEDFORD PUBLIC SCHOOLS STUDENT ENROLLMENT

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total BPS Enrollment	2279	2282	2285	2342	2420	2429	2423	2424	2480	2505	2490
Change from prior year		3	3	57	78	9	-6	1	56	25	-15
Cumulative change		3	6	63	141	150	144	145	201	226	211

## NEW HOUSING UNITS IN MAJOR DEVELOPMENTS

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total Units	2015 Stdnts
New Occupied Hsg Units	55	80	118	142	148	73	6	32	35	12		701	186
Cumulative Occ Hsg Units		135	253	395	543	616	622	654	689	701			
<b>Newly-Occupied Units by development</b>													
Freedom Estates (est2)	8	18	13	12	4	4						59	68
Kendall Court							5	31	33	6		75	35
Lavender Lane										6		6	
Abbott Road						2	1	1	2			6	
Albion Road/Bdfd Wds		16	4	8	1	1						30	4
Habitat, 447 Concord Rd (unk)					22							22	
Avalon Bay (est1)	47	46	46									139	50
Thompson Farm (est1)			55	55	54							164	50
Taylor Pond (est1)				67	67	66						200	29
<b>New Occ Hsg Units</b>	<b>55</b>	<b>80</b>	<b>118</b>	<b>142</b>	<b>148</b>	<b>73</b>	<b>6</b>	<b>32</b>	<b>35</b>	<b>12</b>		<b>701</b>	<b>236</b>
<i>New owned</i>	8	34	17	20	27	7	6	32	35	12		198	
<i>New rental</i>	47	46	101	122	121	66	0	0	0	0	0	503	

1 estimate based on 3-year fill up

2 estimate based on actual sale data for 49 + est sale dates for others not id'd or which have resold, which were allocated to 2006-2007

## Direct Impact

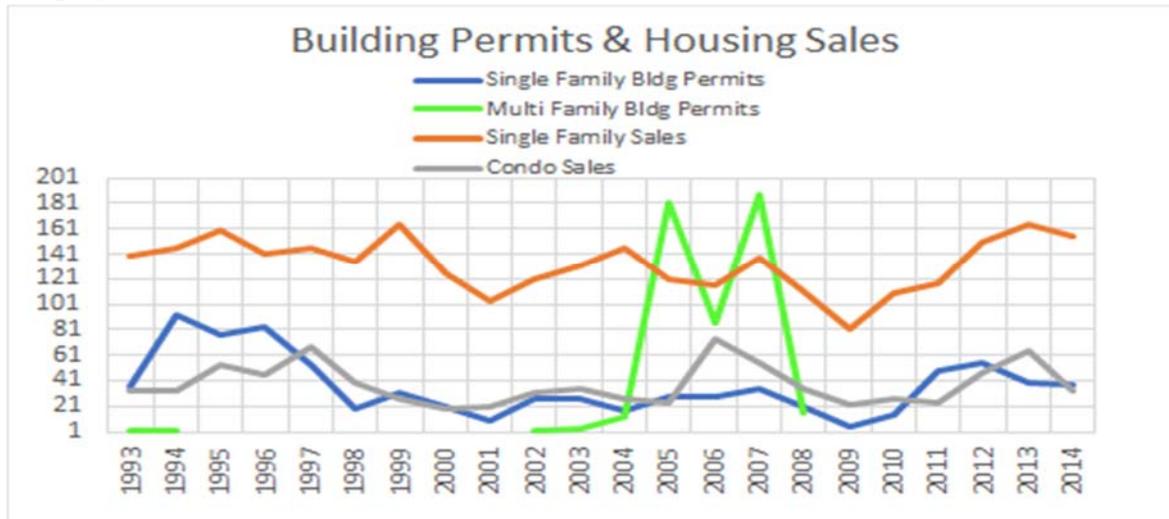
The committee calculated the number of students who are enrolled in each grade whose address is one of the newer housing developments (principally, Avalon Bay, Thompson Farm, Taylor Pond, Prescott and Hartwell Farms).

The number of students from these new dwellings currently enrolled in the Bedford Public Schools:

	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Total BPS students in new housing developments	40	27	34	23	11	19
Rental units (Avalon Bay, Thompson Farm, Taylor Pond)	23	12	14	9	4	10

## Building Permit Data

This chart shows the permits issued for new construction and the turnover in housing stock. Most significant are the permits for 455 multi-family units from 2005–2008, and the rebound in single-family home sales after the damping from the recession in 2008.



## Home Sales

Single-family home sales, which dipped significantly in 2008 and 2009, began to rebound slowly in 2010–2011, jumped dramatically in 2012, and continue to sustain high numbers.

Year	# Single-Family	S-F Median Sales Price	# Condo Units
2004	146	\$515,000	27
2005	120	\$520,000	24
2006	116	\$512,500	73
2007	137	\$499,000	55
2008	111	\$500,000	34
2009	82	\$488,750	22
2010	109	\$522,000	27
2011	117	\$505,000	24
2012	151 (113 to Sep 30)	\$510,000	47 (37 to Sep 30)
2013	165 (129 to Sep 30)	\$581,000	65 (48 to Sep 30)
2014	155 (118 to Sep 30)	\$580,000	33 (26 to Sep 30)
2015	(129 to Sep 30)	\$652,000	30 to Sep 30

## Recent Information: Immigration Growth

The 2015 US Census indicates that Massachusetts is the fastest-growing state for the fifth year in a row in the Northeast (New England, New York, New Jersey and Pennsylvania). According to *The Boston Globe*, “Since 2010 the state’s population has grown .7% annually as compared to .3% annually between 2000 and 2010.”

Much of this is attributable to immigration, which continues to offset population loss to other states. This is consistent with the rise in English Language Learners in Bedford, whose numbers have increased by 700% in the past eight years.

Year	Number of Students	Percentage of Total Population
2007–2008	20	0.8%
2012–2013	100	4.0%
2015–2016	178	7.1%

## Future Demand

Enrollment growth over the past three years corresponds to:

- A spike in construction of multi-dwelling developments between 2004 and 2008
- Significant increases in single-family home and condo sales, with a corresponding rise in median sale price beginning in 2012
- Recent growth in the number of small-home tear-downs
- Increases in the population of English Language Learners

The last three trends show seem likely to continue growing, like the overall population increases in Bedford and in Massachusetts.

The task force found several additional factors related to housing demand and in-migration and therefore supports a projection of continued enrollment growth.

## Employment Outlook

MAPC projects continued job growth in communities touching Route 128 from Waltham through Woburn. Many of these new jobs will require higher education. It is likely that the workers filling these positions will place a high value on education for their children.

- Job growth in MAPC is slower than job growth nationally. However, Bedford is expected to see +2000 new jobs between 2000-2030. Job growth is expected to increase more slowly after 2010.
- Neighboring communities with an increase of +2,000 jobs projected between 2000 and 2030 include communities touching Route 128 from Waltham through Woburn.
- 11-15% job growth is projected for Bedford and Lexington between 2000 and 2030. Job growth of 15-20% is projected in Burlington and Woburn.

## **Value**

Bedford is a good option for families looking for excellent schools at a relatively reasonable price. Of the 11 communities with the highest-ranked schools on *Boston Magazine's* 2015 "Best Schools" list, seven had median home sale prices significantly higher than Bedford's (Concord, Carlisle, Lexington, Weston, Newton, Dover and Wellesley). Wayland's price was slightly higher, Harvard's slightly lower. Westborough's median sale price was much lower. (Source: *The Boston Globe*, 2013 median sale price.)

## **Home turnover**

There will be a continued turnover of homes as older adults sell homes to younger families. In 2013, 2,591 older adults were living in 1,561 older adult households in Bedford. (Source: ESRI.) The Joint Center on Housing Studies of Harvard University estimates that 4% of older adult households sell their home each year, indicating a potential turnover of 62 homes of which approximately 47 will be owned units and 15 rental units. (Source: Bedford Comprehensive Plan: Housing, 76% of homes in Bedford are owner-occupied.)

The number of homes turning over from older to younger families is likely to grow to 88 by 2030. MAPC projects the number of older adult households in Bedford to increase by approximately 40% from its current level to approximately 2,200 in 2030.

## **Development of new homes**

The Bedford Planning Board identified many projects proposed or in development. Nineteen condominiums on Loomis Street are nearing completion (all units are pre-sold), housing projects comprising 101 units are believed to be actively moving forward with the development process, and an additional projects with 54 units are under discussion.

## Housing Development Update 12/7/15

<b>Location</b>	<b>Estimated Units</b>
<b>Project Nearing Completion</b>	
Loomis Street	19
<b>Projects Actively Moving Forward</b>	
30 Chelmsford Rd, Cluster special permit with subdivision approval--4 units	4
150A–162 South Rd, planned residential development, special permit with subdivision approval—9 units	9
56 Evergreen Ave. Yauckoes Farm, likely PRD special permit with subdivision approval—17 units	17
100 Plank St. mixed use, special permit amendment— 52 units & office space	52
<b>Total Moving Forward &amp; Nearing Completion</b>	<b>101</b>
<b>Less Certain Status</b>	
Ebenezer Davis Farm, ANR	3
Coast Guard property, Pine Hill Rd.	30 cottage-style homes
56 Hartwell Rd—4 Houses	4
New Road- Isabella—4 houses	4
Irene Drive off Pine Hill—4 houses	4
Springs Road @Billerica line, possible new subdivision, investigating PRD or cluster, as well as conventional—possibly 9 units	9
<b>Total Less Certain Status</b>	<b>54</b>

## Future Subdivision Potential

An analysis of Bedford’s housing parcels reveals approximately 60 that have a single small home on lots greater than 3 acres in size. A conservative estimate (factoring in the likely impact of wetlands and a decrease from the

recent four-or five-per-year trend) of two to three new subdivisions per year with four new houses each could continue to add 3.5 students annually over the next ten years (using Bedford’s 2010 student per unit ratio of .44).

## Conclusion: Long-Term Growth

All indications are that the recent surge in student enrollment is a long-term trend related to growth in the number of new housing units, turnover of homes currently owned by older families whose children have moved away, job growth in Bedford and neighboring communities, immigration increases, and desirability of the community for families seeking access to excellent public schools.

## Lane School

Given the long-term enrollment projection, what follows is a specific examination of Lane School’s space needs.

### History of Space Needs at Lane School

The Lt. Job Lane School was built in 1963 at 50,460 sq. ft., plus a 30,120 sq. ft. addition. It enjoyed a renovation/addition in 2000 for a current total of 80,580 sq. ft. .

During the past five years, the following space modifications have been made to accommodate increased enrollment, increased demand for small group work and intervention space, and the creation of in-house special education programs:

Year	Description	Cost
2011	Various materials for Rm 118 modifications.	\$2,464.03
2012	Separation of classrooms. Create meeting room in hallway.	\$12,688.70
2013	Partitioned a regular-sized classroom to create two special education spaces, and turned an existing special education classroom into a regular education classroom.	\$23,152.92
2014	2nd floor classroom. Finished Rm 118 hardware. Room 203A, and storage space.	\$34,128.47
2015	Created small group intervention spaces in upper and lower hallways.	\$8,561.07
	Turned copier room into conference room (Cost not final yet).	\$13,000.00

Lane School has run out of modifiable spaces. Also, the small group intervention spaces in the upper and lower hallways are windowless instruction areas and should not serve as long-term areas for teachers and students to work.

## Educational Requirements

In keeping with community expectations, the Bedford Public Schools:

- supports each student’s achievement of 21st Century learning objectives
- ensures the maintenance of a comprehensive curriculum
- engages all students in meaningful “minds-on” instruction that is active, student-centered and focused on higher order thinking skills, and
- provides the academic and social-emotional supports required to meet the diverse learning needs of an increasingly complex student body.

## **21st Century Learning Objectives and Minds-on Instruction**

The development of students’ critical and creative thinking skills cannot be accomplished through the old educational system of mostly passive ways to absorb information. Instead, students must be actively engaged in increasingly complex learning tasks that require small group instruction, collaboration with peers, engagement in multi-step projects, and opportunities for self-reflection.

## **Personalization/Differentiation and Appropriate Academic and Social-emotional Support**

With our expectation that all students can achieve these learning expectations comes the need to constantly make adjustments to instruction to address their diverse range of learning styles. Also, 7.1% of the student population are English Language Learners, 17.3% are Special Education students, and 11.7% are from low-income homes. These students require additional differentiation both within the classroom and through special programming, which all have a direct impact on class size and available space.

The regular education classroom, which will have 3 to 5 students on Individual Educational Plans, plus 1 or 2 students for whom English is a second language (Lane also has several students who began the year with no English whatsoever), plus a significant number of struggling readers.

## **Comprehensive Curriculum**

The Bedford Public Schools are committed to a well-rounded education for all students, so the instruction of musical instruments and foreign languages begin at third grade at the Lane School. The importance of STEM-related (science, technology, engineering, and math) curricula with a strong emphasis on computer-aided learning has space implications as well.

- Art
- Kiln room
- Music
- Orchestra
- Band
- Computer Lab
- Spanish
- French

To meet the needs of our students with learning or emotional disabilities, as well as those who struggle with reading, or for whom English is a second language, we presently need the following additional learning spaces:

<b>Subject</b>	<b>Additional Space Requirements</b>
ELL (English Language Learners)	3 small group instruction classrooms
Reading	3 small group instruction classrooms
SPED (Special Education) Moderate Disabilities	3 classrooms with multiple learning groups
Language-based LD (Learning Disabilities)	2 classrooms with multiple learning groups
Crossroads (Cognitive)	1 small group instruction classroom
Regular Ed Intervention	3 small group instruction spaces
Speech and Language	1 small group or one-on-one space
<b>Total:</b>	<b>16 additional classrooms or spaces</b>

Note: these small-group learning spaces cannot be repurposed as large-group regular education classrooms.

## Class Size and Enrollment Projections

In order to deliver the more minds-on instruction and differentiate daily to meet diverse needs, class size should not exceed 25, and would serve students best if it remained at 22.

<b>2015–2016</b>	<b>Lane Class size by grade with current space only</b>		
<b>Grade</b>	<b>3</b>	<b>4</b>	<b>5</b>
Enrollment	183	171	180
# Classrooms w/Current Space	8	8	8
Avg Class size	22–23	21–22	22–23
<b>2016–2017</b>	<b>Lane Class size by grade with current space only</b>		
<b>Grade</b>	<b>3</b>	<b>4</b>	<b>5</b>
Enrollment	199	187	173
# Classrooms w/Current Space	9	8	7
Avg Class size	21-22	23–24	24-25
<b>2017–2018</b>	<b>Lane Class size by grade</b>		
<b>Grade</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Enrollment</b>	205	216	188
# Classrooms w/Current Space	8	9	8
Avg Class size	25–26	24	23–24

<b>Minimum # of Classrooms Needed</b>	9	9	8
<b>Ave Class Size</b>	<b>22-23</b>	<b>24</b>	<b>23-24</b>
<b>2018–2019</b>	<b>Lane Class size by grade</b>		
<b>Grade</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Enrollment</b>	222	208	218
<b># Classrooms with current space</b>	9	8	8
<b>Avg Class size</b>	24–25	26	27–28
<b>Minimum # of Classrooms needed</b>	<b>9</b>	<b>9</b>	<b>9</b>
<b>Avg Class Size</b>	<b>24-25</b>	<b>23-24</b>	<b>24-25</b>
<b>2019–2020</b>	<b>Lane Class size by grade</b>		
<b>Grade</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Enrollment</b>	202	226	210
<b># Classrooms</b>	8	9	8
<b>Avg Class size</b>	25–26	25–26	26–27
<b>2020–2021</b>	<b>Lane Class size by grade</b>		
<b>Grade</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Enrollment</b>	192	205	228
<b># Classrooms with current space</b>	8	8	9
<b>Avg Class size</b>	24	25–26	25–26
<b>Minimum # of classes needed</b>	8	9	10
<b>Avg Class Size</b>	24	22-23	22-23

## Space Needs Moving Forward

To meet even our maximum class size guideline of 25 students, Lane School will need one additional classroom beginning September, 2017, two additional classrooms the following year, 2018–2019, and three additional classrooms in 2019-2020 (See Appendices).

Additionally, the severe autism SAIL program, presently at Davis School, will need to expand to Lane School beginning in September of 2017, requiring one additional classroom space and additional occupational therapy space.

Given the likelihood that the class size averages will exceed the projections even by a few students, it makes sense to add a margin of error contingency of an additional classroom. Thus, in 2019–2020, combining the anticipated need for three classrooms (at class size maxes) with one overflow classroom plus the SAIL program need, a minimum equivalent of five regular sized classrooms will be needed. The impending feasibility study should examine solutions for the two existing windowless spaces and factor in the potential of repurposing the computer room as a regular classroom space.

## Identifying or Ruling Out Alternatives

While there may be alternatives for the JGMS space need, such as moving the central administration offices to another town building (both the police department and the fire department are exploring potential building projects), no such viable alternative exists for the Lane School.

These alternatives were considered and rejected:

- Build an inflatable structure for the gymnasium, and convert the present gymnasium into classrooms
- Reconfigure grade structure at the four schools
- Use other non-classroom space (this has already been done)

Transition to remote computing and repurpose the present computer lab

- Considered and potentially actionable, although not in itself a solution.
- Full-fledged district-wide transition to remote computing using laptops and handheld devices is not advisable (significant increase in switches, servers and bandwidth needed, and handhelds such as iPads cannot accommodate the peripheral plug-ins needed for technology/robotics, etc.).

Note: The Lane School computer lab could be repurposed if sufficient laptops are purchased. This would add one potential classroom space, but not enough to eliminate the need for additional space.

### **Is it possible to eliminate computer labs and provide tablets instead to convert labs to classroom?**

- In general, no. The one-to-one iPad program at BHS has enabled us to eliminate one computer lab, and at JGMS, we have downsized two computer labs to create spaces for other functions while still maintaining the labs. However, there are too many programs that require that additional capacity of the computer lab desktops to allow us to eliminate labs at Davis and JGMS in the foreseeable future. The need for machines that can connect to peripherals limits the value of handheld devices as computer lab replacements.

- That being said, at Lane School, the computer lab functions could be adequately addressed with sufficient laptop availability and repurposing. It should be explored as part of any plan moving forward.

**Are there plans to expand non-core subjects at Davis/Lane/JGMS that would impact the space needs? For example, additional STEM resources at Lane or JGMS may require either specialty rooms/labs or additional space.**

- a. Yes. The SAIL Program at Davis (severe autism) will expand to Lane School at the same time that enrollment will require additional classrooms (September, 2017). Part of the Lane School library is now used as a Maker space.
- b. The expansion of our technology education program at JGMS to include 6<sup>th</sup> graders has displaced a foreign language teacher, who is now required to teach in four different classrooms. When the population surge hits JGMS, we will need additional Art/Wellness classroom space. If appropriate, we will expand the SAIL program to JGMS.

**What space needs will grow, to re-purpose newly constructed spaces, after the bubble? More room for IT, special needs, or something else? Would a STEAM trend, for example, increase space needs in the arts, or interdisciplinary studies?**

- It is difficult to predict given the open-ended appearance of the population surge. However, there is a growing trend for “Maker spaces” to provide opportunities for hands-on learning, particularly related to STEM.
- The success of the STEP program at BHS (a substantially separate Special Education program for students with social-emotional challenges) may lead us to replicate it at JGMS depending upon need.

**Can we transform storage space to use for small classes?**

- We have already done so at all three schools (either for instruction or for teacher planning or conferencing). We have also had to build additional storage by creating small rooms within the pods at Davis, and by creating small rooms within the computer labs and by utilizing hall space at JGMS.

**Can we use portions of large spaces (LGIs [large group instruction rooms], gyms, libraries?) to create new classrooms/learning areas?**

- The LGI at JGMS has long since been turned into two classrooms. The LGI at Lane is being used for one class and we are exploring its use for a second class if partitioned. However, it is the only adequate space for faculty meetings, so it can't be permanently divided.
- Last year, when the modular completion was delayed, we temporarily used a part of the gymnasium at Davis as a classroom. This was a problem, and would only be repeated in an emergency. At Davis, the need that enrollment generated need for additional Physical Education classes prevents us from doing it again.
- At Lane, the library is already being reconceived as a Maker space. At Davis, visiting the library is an important part of the curriculum and it is also the only adequate space for faculty meetings. At JGMS, the library is regularly used for research.
- The auditorium and the café at JGMS are used for orchestra and choir rehearsals.

## Could we add an Inflatable Structure for the Gymnasium at Lane and Renovate the Existing Gym as Classroom Spaces?

The cost savings are not sufficient, particularly factoring in the energy costs associated with maintaining the bubble's inflation. More importantly, there are potential dangers involved.

Facilities Dept Data:

1.	Cost of bubble gym/structure (Year-around): size : 9,000 sq. ft.	
	Site Prep: @ \$9.10/sq. ft.:	\$91,000
	50-70-ft x 10-ft. connector:	\$75,000
	Flooring:	\$198,000
	Gym Equipment/bleachers:	\$115,000
	Divider	\$43,000
	Sound system	\$30,000
	6 backstops	\$30,000
	M-E-P	\$200,000
	Scoreboard:	\$20,000
	Bubble (\$15/sqft)	\$135,000
	Other Misc:	\$30,000
	<b>Subtotal:</b>	<b>\$967,000</b>
2.	Cost of Re-configuring gym into classrooms: (5,000 sq. ft. @ \$150/sq. ft.)	\$750,000
	<b>Project Total</b>	<b>\$1,717,000</b>

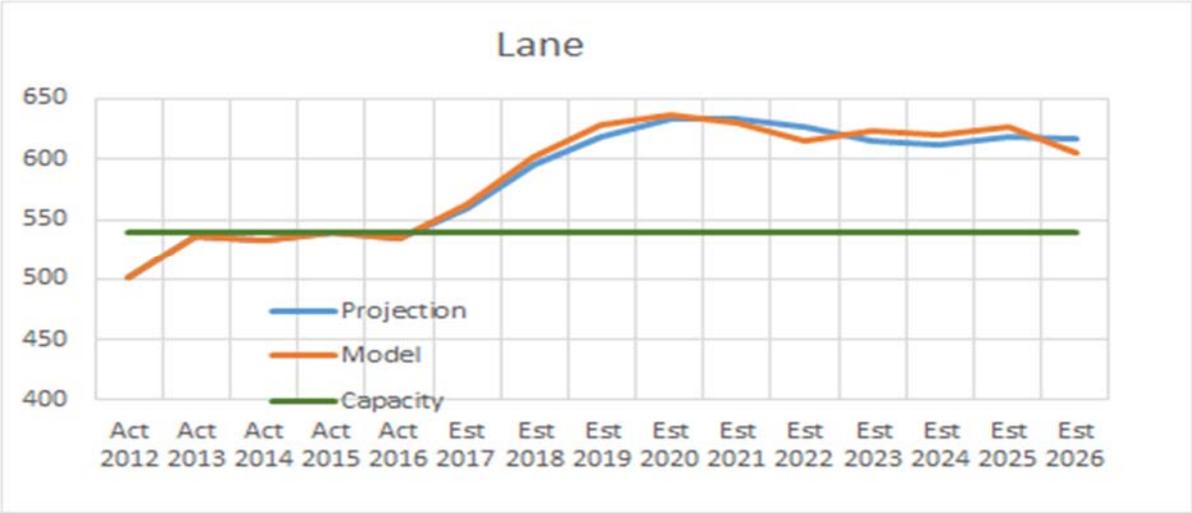
Notes:

- According to bubble manufacturers, the useful life (replacement required) is between 10–25 years, based on region and assuming seasonal use.. Consulting services fees (approx. 9% of total project) are not included.

# Appendices

## Existing Inadequate Spaces at Lane School

This chart shows that the population of Lane School far exceeds its capacity.



## Occupancy Rates at Lane School, and Unavailability of Existing Space

Room	Use of space	Percentage of use per day, and days of the week
14	Reading	MT 50%; W 0%; ThF 50%
18	Bridge (Special Ed)	100%
32	Art	100%
36	Kiln-Art	100%
not numbered	Running records, etc. (Reading Assessment)	Varied use
37	Speech	M-Th 100%
38	SPED	100%
42	Foreign Language	100%
43	Foreign Language	100%
122	Computer Lab	100%
124	Special Education office	100%

129	"elevator" room	
135	Music	100%
136	Band	MTThF 100%
138	Orchestra	20%
140	Conference Room	Varied use
142	Teachers' Room	
146	Nurse's Office	100%
148	Small conference room in main office	
156	MPR	MTF 100%; W 50%; Th 0% <i>Used for Professional Development of teachers, and faculty meetings</i>
203	Reading	100%
204	Special Education	100%
211	Guidance	100%
215	Special Education	100%
215B	English Language Learners	100%
216	Special Education	100%
219	Special Education	100%
220	Reading	100%
not numbered	Reading program storage	100%
230	OT	100%
not numbered	running records, etc.	varied use
231	English Language Learners	90%
232	Special Education	100%

## C: Photos of Inadequate Spaces at Lane School

Note: The overcrowding at Davis School is more severe. The larger number of students now at Davis will be coming to Lane School soon, so Lane will quickly be more overcrowded than it is presently.



Optimizing hallway space for computer use. A partition near the end of the hallway blocks natural light.



On the other side of a partition, a teacher meets with a small group of students.



Additional offices and small meeting spaces have been created in hallways, and in part of the main office.



The copy room has been changed into the conference room. There is no natural light.



A foreign language classroom has been divided in half. The wall on the right is not very thick, so the students and teacher in this classroom hear what's going on in the other half, and vice-versa.

## D: Building Project Cost Projections

Lane School - at 5000 sqft	Bedford Only - Construction starts 2016, Occupy Sept 2017	MSBA @ 40% reimbursement - Construction Start 2019	Bedford w/Modulars construction Starts 2017 (1 yrs)	Bedford w/Modulars construction Starts 2018 (2 yrs)
Draft Cost Comparison				
Feasibility Study, Schematic design @ 4%	\$64,480	\$69,742	\$64,480	\$67,059
Design Dev-Construction Docs/Bidding @ 11%	\$177,320	\$191,789	\$177,320	\$184,413
Construction	\$1,612,000	\$1,743,539	\$1,612,000	\$1,676,480
SqFt const Cost	\$322	\$349	\$322	\$335
Const Contingency @10%	\$161,200	\$174,354	\$161,200	\$167,648
FFE/IT @ 2.5% of construction	\$40,300	\$40,300	\$40,300	\$40,300
Modulars - 2 Modular units owned/installed	\$500,000	\$500,000	\$500,000	
MSBA Reimbursement (40%)	\$0	(\$777,241)	\$0	\$0
Total costs	\$2,055,300	\$1,942,483	\$2,555,300	\$2,635,900
Cost/sqft	\$411	\$388	\$511	\$527
Variance Bedford to MSBA	\$112,817	\$612,817	\$693,417	

## **TIMETABLE**

- Request for Proposals issued: January 13, 2016
- Briefing Session: January 20, 2016
- Proposal Due Date: January 27, 2016
- Anticipated Date of Award: February 3, 2016
- Project Milestones:
  - Feasibility Study W/Options: February 26, 2016
  - Decision to Proceed w/Chosen Option: March 2, 2016
  - Schematic Design Complete W/Construction Estimate  
March 18, 2016
  - Town Meeting Vote for Construction Documents and Construction: March 28, 2016
  - Debt Exclusion Vote April 5, 2016
  - Award of Full Design & Construction Bid Documents Contract April 12, 2016
  - Construction documents and Bidding Complete: June 10, 2016
  - Construction Complete: August 2017

# NESDEC Enrollment Study 2015 Draft Findings

Bedford Public Schools

# Projections to SY 2025

Grade	Actual SY 2012	Act SY 2013	Actual SY 2014	Actual SY 2015	Proj SY 2016	Proj SY 2017	Proj SY 2018	Proj SY 2019	Proj SY 2020	Proj SY 2021	Proj SY 2022	Proj SY 2023	Proj SY 2024	Proj SY 2025
K	157	157	202	186	202	183	174	169	175	171	175	173	173	173
1	166	166	171	202	195	212	192	182	177	184	179	184	181	181
2	190	168	169	179	207	200	217	197	187	182	189	184	189	186
3	147	204	173	164	183	212	205	222	202	192	186	194	189	194
4	174	152	206	174	167	186	216	208	226	205	195	189	197	192
5	180	180	154	202	179	169	188	218	210	228	207	197	191	199
6	199	181	183	145	200	174	167	186	215	207	225	205	195	189
7	190	199	180	177	143	197	172	165	184	212	204	222	202	193
8	186	195	199	180	179	145	199	174	167	186	215	207	225	205
9	236	223	231	230	213	211	171	235	206	197	220	254	245	266
10	197	245	211	220	225	209	207	167	230	202	193	215	249	240
11	215	186	238	204	212	217	201	200	161	222	195	196	207	240
12	187	224	188	227	204	212	217	201	200	161	222	195	186	207
Total	2424	2480	2505	2490	2509	2527	2526	2524	2540	2549	2605	2615	2629	2665
Chg	2.19%	2.31%	1.01%	-0.60%	0.76%	0.72%	-0.04%	-0.08%	0.63%	0.35%	2.20%	0.38%	0.54%	1.37%

School	Proj SY 2012	Act SY 2013	Proj SY 2014	Proj SY 2015	Proj SY 2016	Proj SY 2017	Proj SY 2018	Proj SY 2019	Proj SY 2020					
Davis	513	491	542	567	604	595	583	548	539	537	543	541	543	540
Lane	501	536	533	540	529	567	609	648	638	625	588	580	577	585
JGMS	575	575	562	502	522	516	538	525	566	605	644	634	622	587
BHS	835	878	868	881	854	849	796	803	797	782	830	860	887	953
Totals	2424	2480	2505	2490	2509	2527	2526	2524	2540	2549	2605	2615	2629	2665
% over Prior	2.19%	2.31%	1.01%	-0.60%	0.76%	0.72%	-0.04%	-0.08%	0.63%	0.35%	2.20%	0.38%	0.54%	1.37%

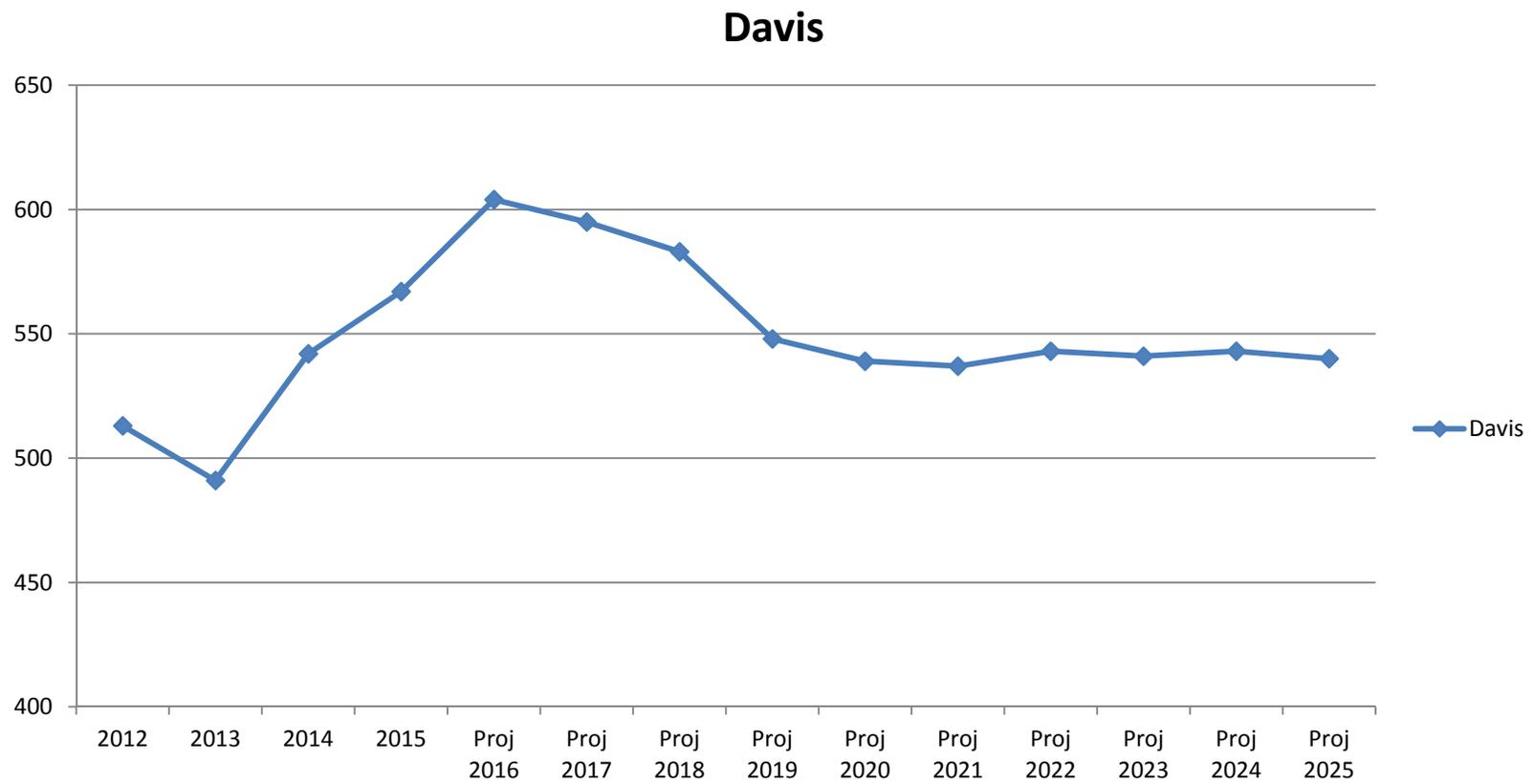
# Bottom Line

- Bedford is growing, 5.8% since 2000, more rapidly than Middlesex county, 2.6% since 2000.
- Number of residents under 18 is growing, up from 2972 in 2000 to 3109 in 2010
- UMASS (Donahue Ctr) projects the cohort of residents in Bedford ages 25-44 will increase by 20.5% by the Year 2020

# Kindergarten Impact

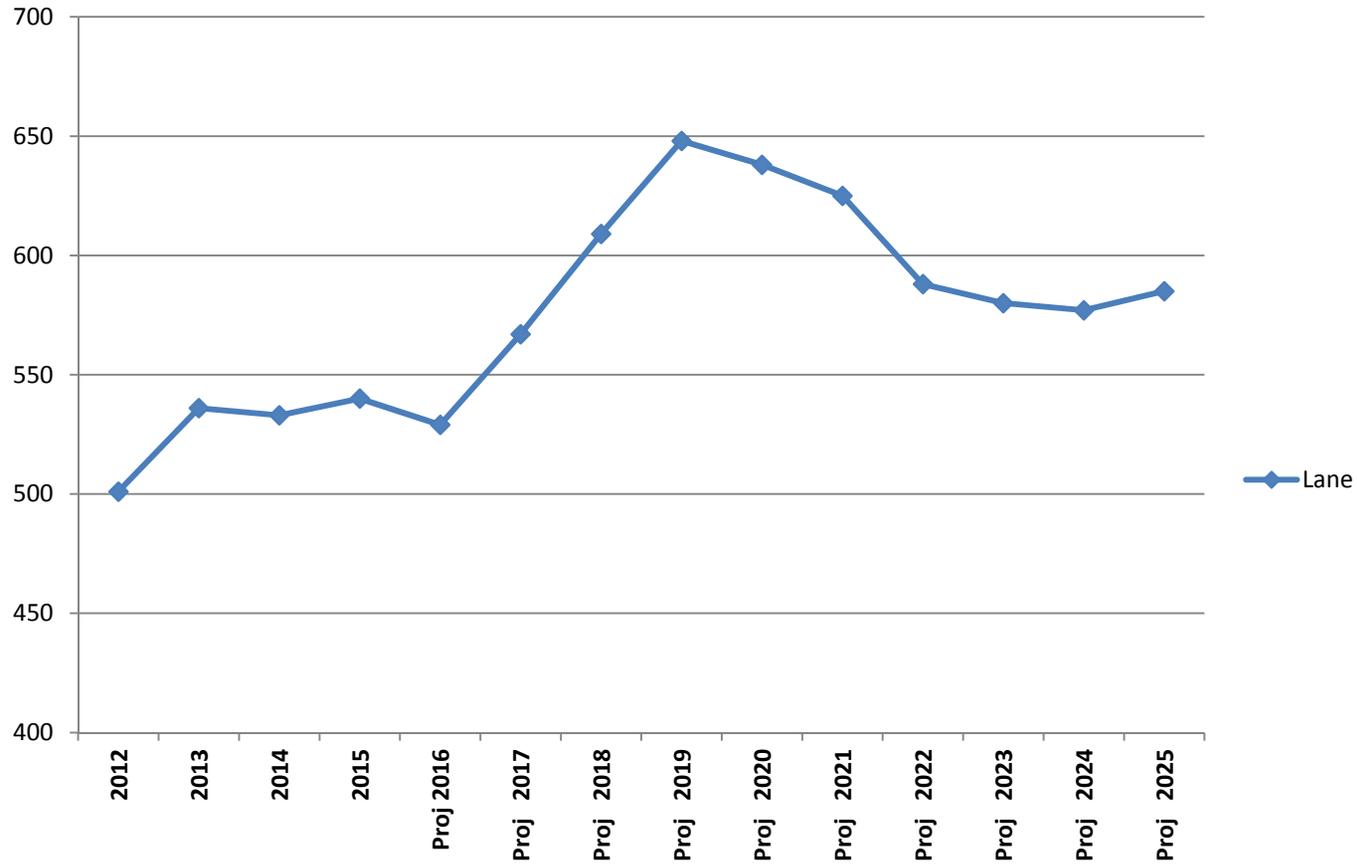
- Kindergarten is expected to follow current trends through the projection period SY 2024-2025
- Average K cohort size = 174
- Births to Kindergarten Enrollment Ratio have risen from .65 in SY2002-03 to 1.49 in SY 2013-14
- Projected Birth to K ratio is projected to average 1.32 to 2024-25
- Driven mainly through families moving into Bedford

# Davis School to 2025



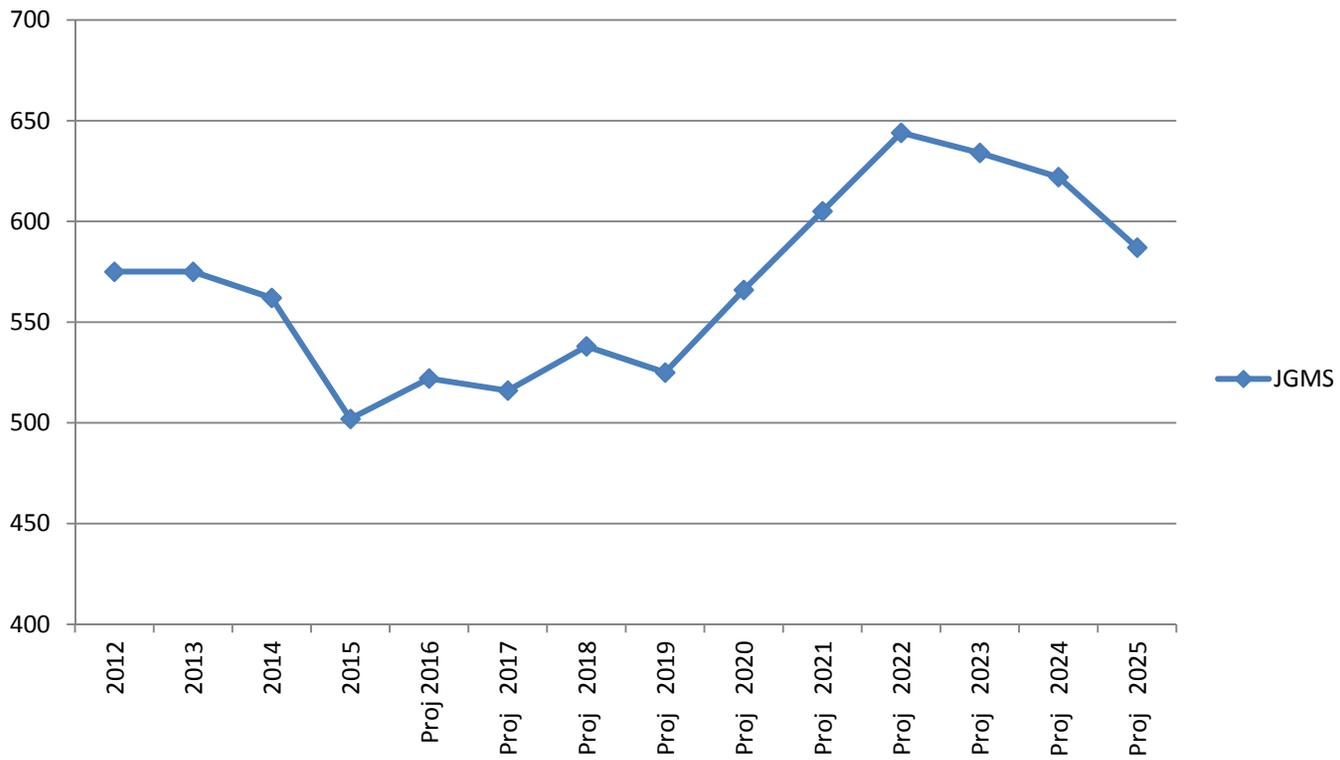
# Lane School

Lane



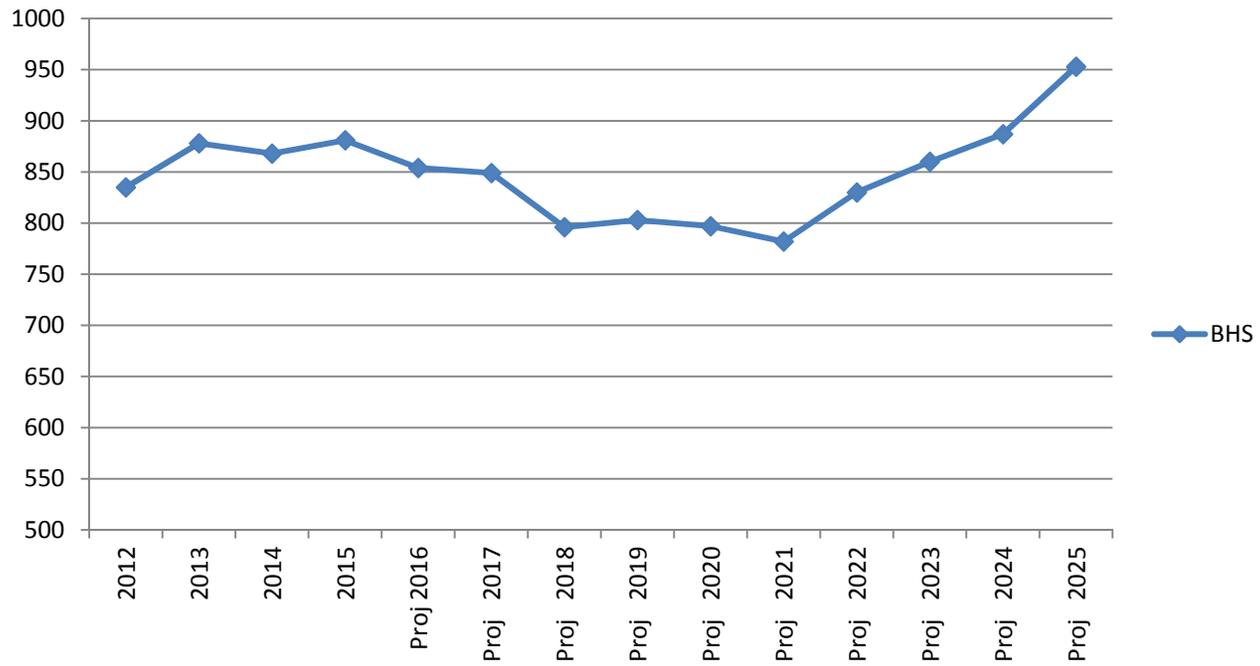
# John Glenn Middle School

## JGMS



# Bedford High School

## BHS



# Residential Construction: In Process and Future

## Changes that could accelerate in-migration:

- Pine Hill Road...conversion of 30-35 former Coast Guard units being discussed, maybe 2017 ?, might include 10% affordable units
- Accelerated commercial growth in the area could increase pressure for more residential housing
- Residential tear downs are continuing

## Changes that could impede in-migration:

- Closing of Hanscom (rumored), although might have little effect even if it occurred
- New zoning replaced mixed-use which had included residential, now excluded

# Residential Construction: In Process and Future

- 19 condo units – 54 Loomis Street – mostly 1BR, may attract empty nesters or singles – approximately 5 are 2BR; and may attract young families; currently under construction
- 5 S-F homes on Irene Road; completion estimated in Fall 2015 (also smaller sub-divisions with fewer than 5 homes)
- Not yet approved in the permitting process are three proposals: 5 units at 57-75 Hartwell Road, if approved, earliest occupancy in late 2016... North Road, 4 single-family homes proposed... 152-162 South Road, a cluster of up to 5 cottages proposed, if approved, earliest occupancy late 2016

# **Conversations with Realtors and Town Planner**

- **Trulia (on-line realty) has labeled Middlesex County as one of the top-ten real estate markets in the U.S. ...effect is uneven, yet Bedford is a top priority for many young families**
- **Often there are multiple offers on homes in the \$400-\$800,000 range**
- **Inventory is low, although properties are now coming on the market, very recent sales have been slow due to the difficult winter, yet open houses are packed and sales are up in the last few years**
- **Some families are moving into apartments or condos, and waiting for homes to come onto the market; parents do not have to worry about switching schools, due to the grade configuration by age, instead of by neighborhood**
- **Although some Baby Boomers are downsizing, many are hanging on because they “do not want to leave town”...yet rising value of their homes, the recent tough winter and “high taxes” may cause additional seniors to downsize**

# **Conversations with Realtors and Town Planner (con't)**

- **Many apartments have been added (Avalon and Hartwell Farms rent for \$3,000 per month), families with children sometimes move in**
- **Some teardowns have been replaced by 4,000 s.f. homes**
- **In a 2 BR condo development, some owners have created a third BR**
- **Who moves in? – people who work in Cambridge, along Route 128 toward Burlington, in Boston...home prices are lower than Lexington, the Bedford Public Schools are a draw...Bedford is becoming a part of “Greater Cambridge” bio-techs, Harvard, MIT are coming**

# Summary

- Expect current trends to continue as large bubble moves through system and
- In-migration of new residents will maintain kindergarten class sizes at approximately 175 for the foreseeable future
- Davis School will average 560 students through the final year of the NESDEC projection 2024-2025
- Lane will experience 600 plus size enrollment beginning in 2017-18 through 2020-2021
- JGMS will experience enrollment sizes of 600 plus starting in 2020-2021
- BHS enrollment is projected to top out at 953 in 2024-2025



# **BEDFORD, MASSACHUSETTS**

## **Demography and Enrollment Projections**

**Donald G. Kennedy, Ed.D.**

**November 12, 2015**

**Updated from June 9 School Committee meeting...**



# THE BOTTOM LINE

**STEADY GROWTH IS EXPECTED, WITH A MODERATE  
PACE CONTINUING IN KINDERGARTEN  
SEE PAGE 21**



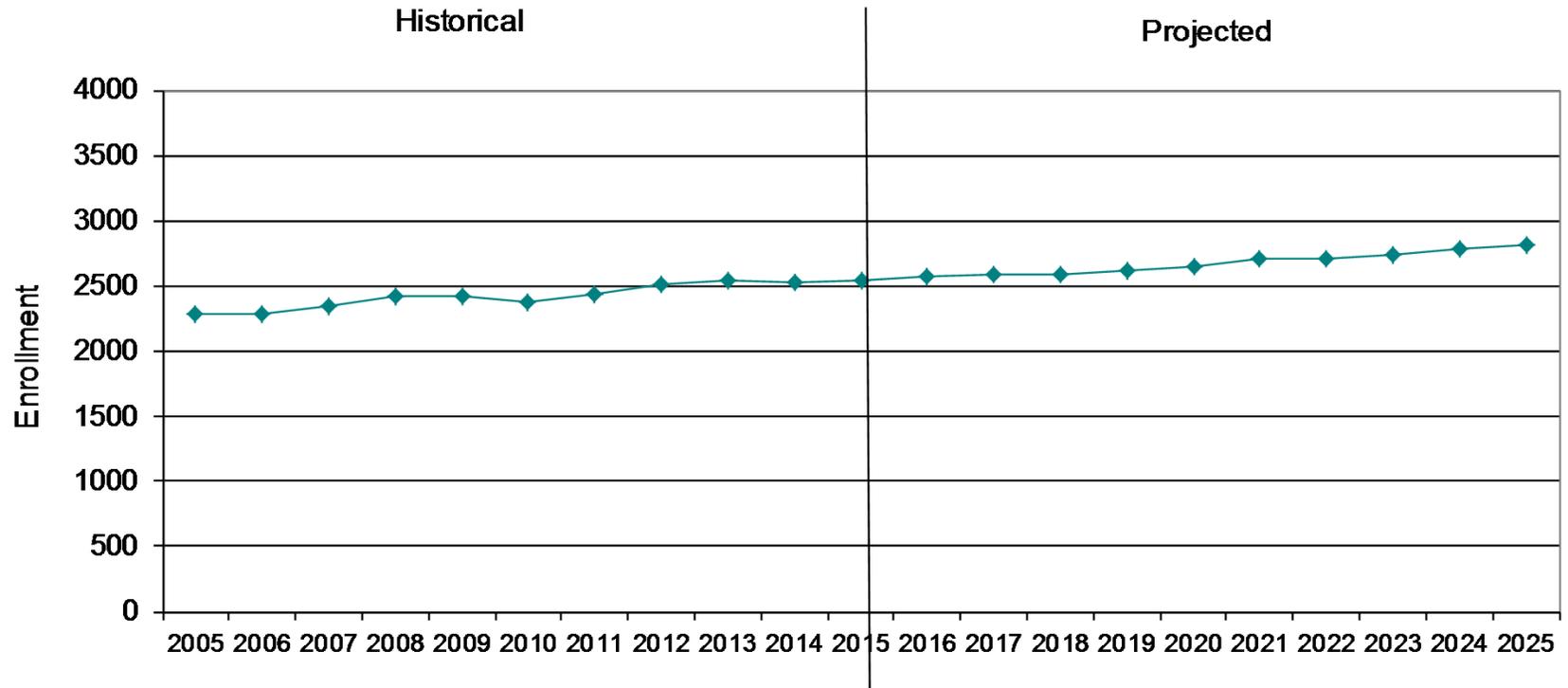
# EXECUTIVE SUMMARY

The K-12 student population of the Bedford Public Schools has risen by **239** students over the past decade, to **2,510** pupils in **2015-16**. A continued, more moderate rise is expected over the next decade as new families move into the elementary grades. This fall, there may be about **43** additional students in Grades K-8, and about **16** fewer at the high school level, with the graduation of the large class of **2016**.

The quality of Bedford's schools continues to be a draw, as well as recreation and quality of life issues. Births are currently about **135** per year, compared with an average of **141** annual births in **2000-2009 (currently in Grades 1-10)**... however the new families have been off-setting what might have been an decline in enrollment. Single-family home sales in **2012-14** have averaged **157** homes per year (**2015=faster pace**), compared with only **82** homes sold in **2009**. The median price of a single-family home also has risen above **\$580,000 (\$652K to Sep 30)** in recent years, according to the Warren Group.

# Bedford, MA Historical & Projected Enrollment

**PK-12, 2005-2025**



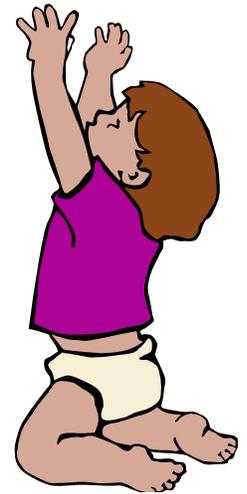
# **FACTORS TO WATCH...**

- **# homes advertised for sale (especially Boomers downsizing)**
- **Information on housing sales**
- **“Net in-migration” of new families**
- **# building permits**
- **# births**
- **# 4-years olds in feeder nursery schools**
- **Employment opportunities in the area**
- **News of the public schools**



# LOOKING INTO THE FUTURE

**HOW DO WE  
KNOW WHAT WE  
THINK WE KNOW  
?**



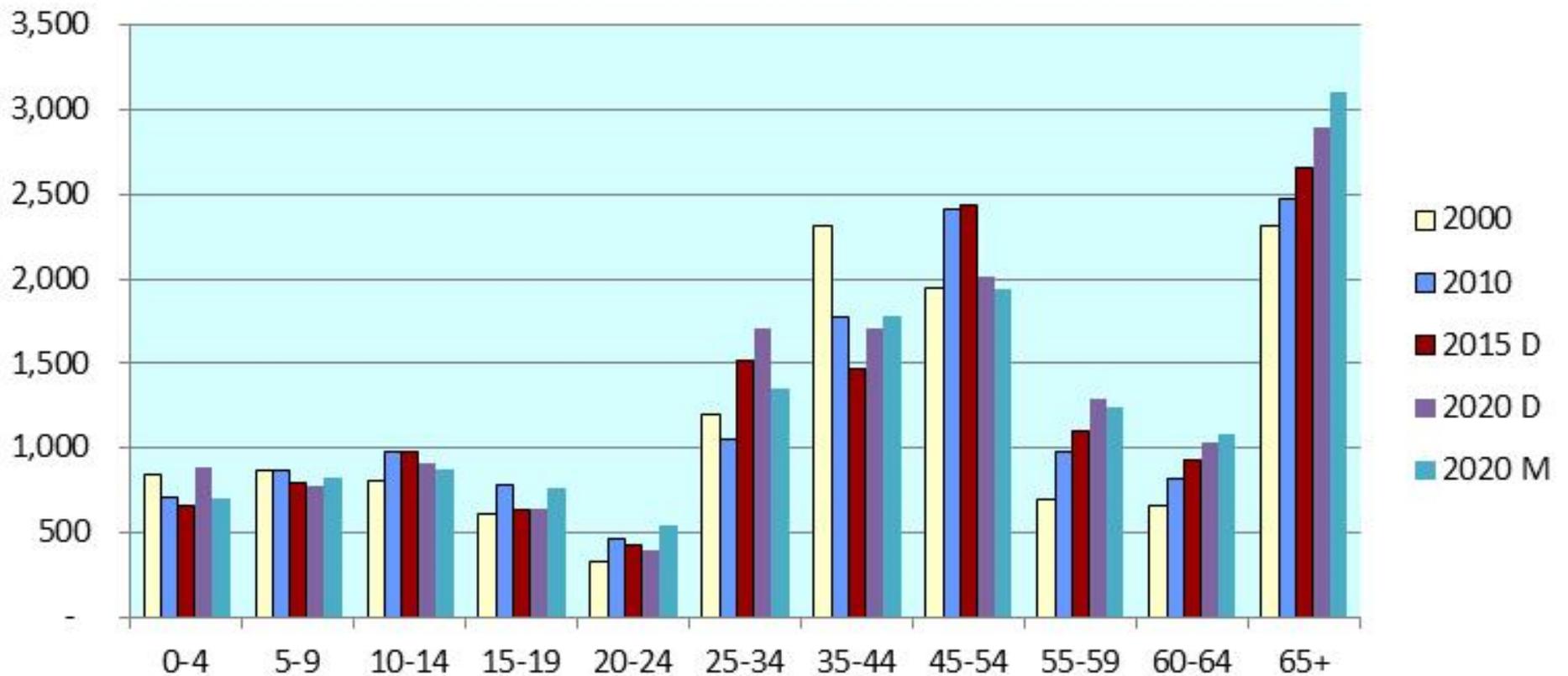
# TABLE 3 AGE COHORTS – BEDFORD, MA

AGE COHORTS - BEDFORD, MA  
U.S. Census July 1, 2014 est. = 14,205

AGE	SIZE OF COHORT					% CHANGE, 2010 to 2020 D projection
	2000	2010	2015 D pr.	2020 D pr.	2020 M pr.	
0-4	843	715	656	883	706	19.0%
5-9	873	871	790	781	825	-11.5%
10-14	809	974	976	912	881	-6.8%
15-19	610	782	642	645	762	-21.2%
20-24	332	468	430	394	550	-18.8%
25-34	1,196	1,056	1,522	1,703	1,347	38.0%
35-44	2,310	1,773	1,468	1,707	1,777	-3.9%
45-54	1,952	2,409	2,433	2,019	1,936	-19.3%
55-59	701	979	1,102	1,286	1,238	23.9%
60-64	658	814	924	1,034	1,078	21.3%
65+	2,311	2,479	2,663	2,900	3,111	14.5%
<b>TOTAL:</b>	<b>12,595</b>	<b>13,320</b>	<b>13,606</b>	<b>14,264</b>	<b>14,211</b>	<b>6.6%</b>

Source: U.S. Census 2000 and 2010; Donohue Center, UMASS 2015 D and 2020 D; Metropolitan Area Planning Council (MAPC) 2020 M "Strong Region" projection

## Age Cohorts: 2000, 2010, 2015 D, 2020 D, 2020 M projections - Bedford, MA



**TABLE 6B  
BEDFORD, MA BUILDING PERMITS**

Year	Single-Family	Multi-Family		Year	Single-Family	Multi-Family
1970	45			1993	36	2
1971	40			1994	92	2
1972	30			1995	77	
1973	15			1996	83	
1974	15			1997	54	
1975	15			1998	19	
1976	29			1999	31	
1977	30			2000	21	
1978	27			2001	9	
1979	10			2002	26	2
1980	25			2003	26	4
1981	20			2004	18	12
1982	40	36		2005	29	181
1983	35	3		2006	28	86
1984	2			2007	35	188
1985	1			2008	20	16
1986	25			2009	5	
1987	58			2010	15	
1988	18			2011	49	7
1989	35			2012	55	
1990	14			2013	40	
1991	16			2014	38	
1992	38			2015	1 to Mar 31	89 to Mar 31

Source: HUD website malfunction

## TABLE 6C BEDFORD, MA HOME SALES

Year	# Single-Family	S-F Median Sales Price	# Condo Units
1993	139	\$212,000	33
1994	146	\$240,500	33
1995	160	\$247,000	54
1996	141	\$260,000	45
1997	145	\$254,000	67
1998	135	\$270,000	40
1999	165	\$331,000	26
2000	125	\$375,000	19
2001	104	\$400,200	21
2002	120	\$428,500	31
2003	132	\$454,000	34
2004	146	\$515,000	27
2005	120	\$520,000	24
2006	116	\$512,500	73
2007	137	\$499,000	55
2008	111	\$500,000	34
2009	82	\$488,750	22
2010	109	\$522,000	27
2011	117	\$505,000	24
2012	151 (113 to Sep 30)	\$510,000	47 (37 to Sep 30)
2013	165 (129 to Sep 30)	\$581,000	65 (48 to Sep 30)
2014	155 (118 to Sep 30)	\$580,000	33 (26 to Sep 30)
2015	129 to Sep 30	\$652,000	30 to Sep 30

Source: The Warren Group, *Banker & Tradesman*

## **Residential Construction: In Process and Future**

- **19 condo units – 54 Loomis Street – mostly 1BR, may attract empty nesters or singles – approximately 5 are 2BR; and may attract young families; currently under construction**
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# Residential Construction: In Process and Future

## Changes that could accelerate in-migration:

- **Pine Hill Road...conversion of 30-35 former Coast Guard units being discussed, maybe 2017 ?, might include 10% affordable units, no formal proposal thus far**
- **Accelerated commercial growth in the area could increase pressure for more residential housing**
- **Residential tear downs are continuing**

## Changes that could impede in-migration:

- **Closing of Hanscom/Lincoln Labs (rumored) would affect enrollment at BHS by about 130 students, however would have little effect on new in-migration if the closing did occur**
- **New zoning has replaced “mixed-use” - previously included residential which is now excluded**

# Conversations with Realtors and Town Planner

- **Trulia (on-line realty) has labeled Middlesex County as one of the top-ten real estate markets in the U.S. ...effect is uneven, yet Bedford is a top priority for many young families**
- **Often there are multiple offers on homes in the \$400-\$800,000 range**
- **Inventory is low, although properties are now coming on the market, very recent sales have been slow due to the difficult winter, yet open houses are packed and sales are up in the last few years**
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# **Conversations with Realtors and Town Planner (con't)**

- **Many apartments have been added (Avalon and Hartwell Farms rent for \$3,000 per month), families with children sometimes move in**
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- **In a 2 BR condo development, some owners have created a third BR**
- **Who moves in? ... people who work in Cambridge, along Route 128 toward Burlington, in Boston...home prices are lower than Lexington, the Bedford Public Schools are a draw...Bedford is becoming a part of “Greater Cambridge” bio-tech employees, Harvard, MIT are coming**
- **Frequently Boomers and Millennials are looking for smaller housing units – apartments, condos, etc.**
- **Buildable land is becoming scarce and expensive to develop**

# FACTORS AFFECTING NUMBER OF SCHOOL CHILDREN IN MULTI-FAMILY HOUSING

- **Location within the community, scale, density (sidewalks? near playground? near school?)**
- **Number and percentage of dwelling units sized for family households (low-rise v. high-rise, etc.)**
- **Reputation of the community's public schools**
- **Composition, age and character of existing housing stock**
- **Price; and units for low/moderate-income households (housing that yields 10 students at market rate, as affordable units may yield 16 students...1.6 ratio)**

*Source: CHAPA, "Housing the Commonwealth's School – Age Children" (2003)*

# TABLE 7 NUMBER OF K-12 STUDENTS PER DWELLING UNIT

## STATE OF MASSACHUSETTS:

		# OF HOUSING UNITS	PUBLIC K-12 ENROLLMENT	K-12 STUDENTS PER UNIT
1990		2,472,711	828,816	0.34
2000		2,621,989	959,655	0.37
2010		2,808,254	926,940	0.33

2010 Number of Households with individuals under 18: 784,853

2010 Percentage of Households with individuals under 18: 30.8%

## TOWN OF BEDFORD:

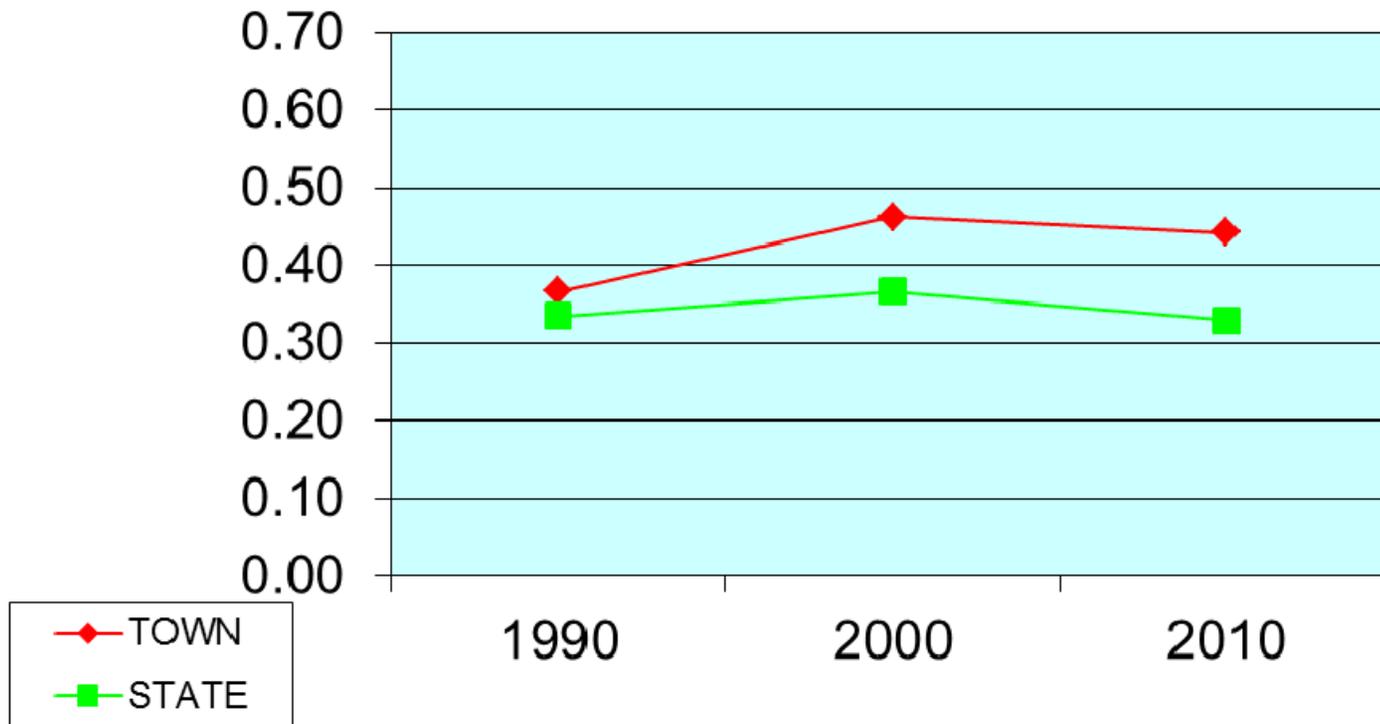
		# OF HOUSING UNITS	BPS K-12 ENROLLMENT	K-12 BPS STUDENTS PER UNIT
1990		4,602	1,686	0.37
2000		4,708	2,177	0.46
2010		5,368	2,371	0.44

**By 2000,  
Bedford  
"discovered"**

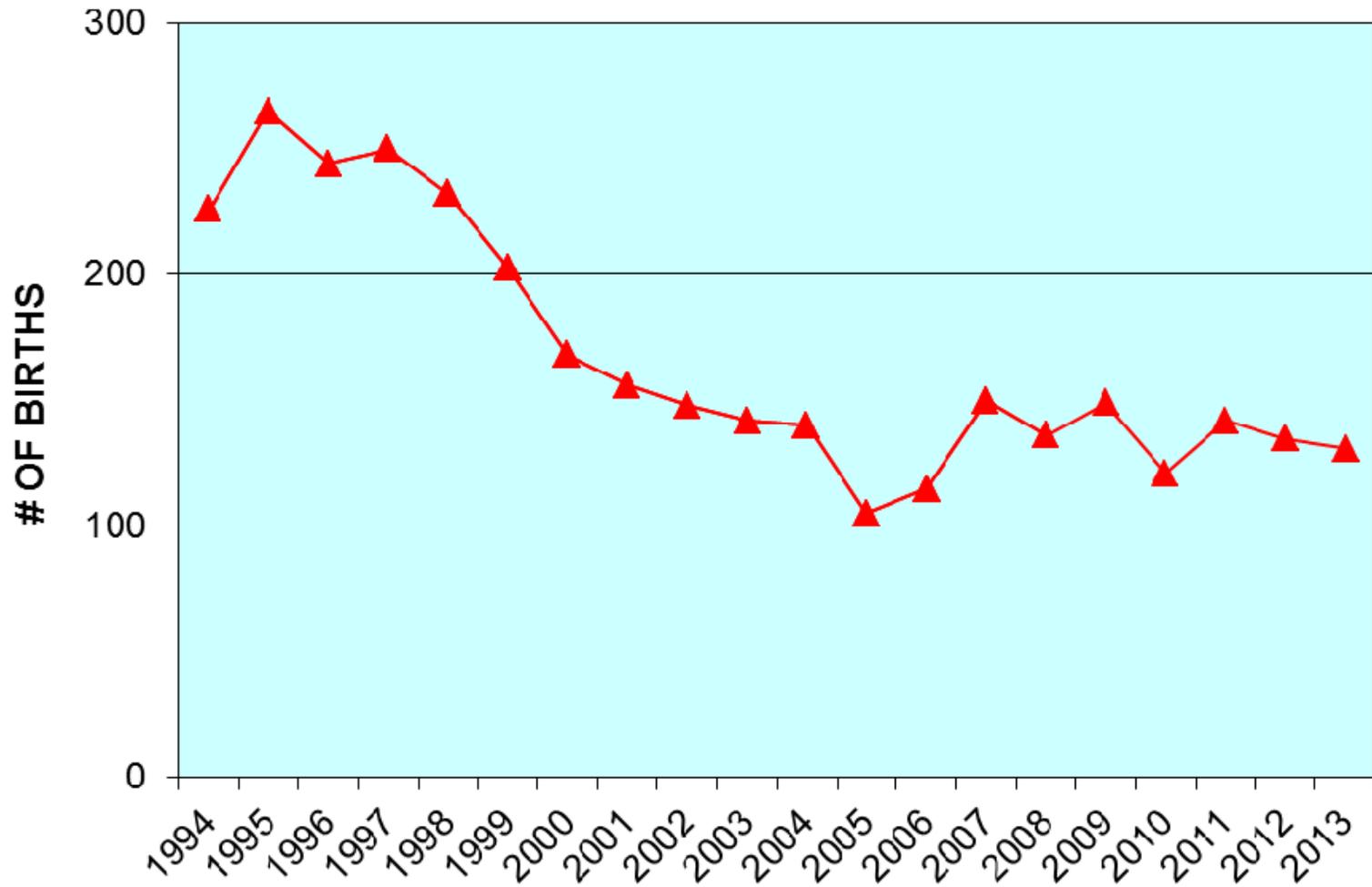
2010 Number of Households with individuals under 18: 1,744

2010 Percentage of Households with individuals under 18: 34.0%

## K-12 PUBLIC SCHOOL STUDENTS (BPS) PER BEDFORD DWELLING UNIT



## BIRTHS TO BEDFORD, MA RESIDENTS



**TABLE 8**  
**BIRTHS TO RESIDENTS OF BEDFORD, MA**

YEAR	# OF BIRTHS	AVERAGE	% CHANGE
1994	226	243	-32.9%
1995	265		
1996	244		
1997	250		
1998	232		
1999	203	163	-20.9%
2000	168		
2001	156		
2002	148		
2003	142		
2004	140	129	5.0%
2005	105		
2006	115		
2007	150		
2008	136		
2009	149	136	
2010	121		
2011	142		
2012	135		
2013	131		

HS Seniors



Kindergarteners

Source: MA Department of Public Health

# Bedford, MA Historical Enrollment

School District: **Bedford, MA**

10/22/2015

Historical enrollments match the DESE/SIMS database, ie. all students registered for a seat as of October 1

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
2000	168	2005-06	11	162	172	166	180	167	193	159	159	152	221	189	173	178	0	2271	2282
2001	156	2006-07	5	149	167	174	169	187	167	194	163	160	192	216	180	162	0	2280	2285
2002	148	2007-08	9	153	171	171	181	168	190	174	195	166	210	183	208	163	0	2333	2342
2003	142	2008-09	33	143	160	181	186	185	176	200	182	195	213	193	170	203	0	2387	2420
2004	140	2009-10	30	189	153	166	186	185	193	176	196	186	221	197	189	162	0	2399	2429
2005	105	2010-11	12	148	196	142	170	183	181	190	183	195	197	218	186	182	0	2371	2383
2006	115	2011-12	20	157	166	190	147	174	180	199	189	186	236	197	215	187	0	2423	2443
2007	150	2012-13	34	157	166	168	204	152	180	181	199	195	223	245	186	224	0	2480	2514
2008	136	2013-14	34	202	171	169	173	206	154	183	180	199	231	211	238	188	0	2505	2539
2009	149	2014-15	32	186	202	179	164	174	202	145	177	180	230	220	204	227	0	2490	2522
2010	121	2015-16	31	190	199	198	183	171	180	201	154	175	221	226	207	205	0	2510	2541

Historical Enrollment in Grade Combinations									
Year	K-2	K-5	3-5	K-8	PK-5	6-8	7-8	7-12	9-12
2005-06	500	1040	540	1510	1051	470	311	1072	761
2006-07	490	1013	523	1530	1018	517	323	1073	750
2007-08	495	1034	539	1569	1043	535	361	1125	764
2008-09	484	1031	547	1608	1064	577	377	1156	779
2009-10	508	1072	564	1630	1102	558	382	1151	769
2010-11	486	1020	534	1588	1032	568	378	1161	783
2011-12	513	1014	501	1588	1034	574	375	1210	835
2012-13	491	1027	536	1602	1061	575	394	1272	878
2013-14	542	1075	533	1637	1109	562	379	1247	868
2014-15	567	1107	540	1609	1139	502	357	1238	881
2015-16	587	1121	534	1651	1152	530	329	1188	859

Davis
Lane
Glenn
BHS

Historical Percentage Changes			
Year	K-12	Diff.	%
2005-06	2271	0	0.0%
2006-07	2280	9	0.4%
2007-08	2333	53	2.3%
2008-09	2387	54	2.3%
2009-10	2399	12	0.5%
2010-11	2371	-28	-1.2%
2011-12	2423	52	2.2%
2012-13	2480	57	2.4%
2013-14	2505	25	1.0%
2014-15	2490	-15	-0.6%
2015-16	2510	20	0.8%
Change		239	10.5%

# Bedford, MA Projected Enrollment

School District: **Bedford, MA**

10/22/2015

Projections assume that the real estate market, currently strong, continues at this general pace; at some point it may slow, although births may again increase due to the new "move-in's"

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
2010	121		2015-16	31	190	199	198	183	171	180	201	154	175	221	226	207	205	0	2510	2541
2011	142		2016-17	31	199	200	202	199	187	173	178	203	153	208	212	217	206	0	2537	2568
2012	135		2017-18	32	189	210	203	204	203	189	171	179	202	182	200	203	216	0	2551	2583
2013	131	(prov.)	2018-19	32	183	199	213	205	208	205	187	172	178	240	175	192	202	0	2559	2591
2014	136	(est.)	2019-20	33	190	193	202	215	209	210	203	188	171	212	230	168	191	0	2582	2615
2015	133	(est.)	2020-21	33	186	200	196	204	219	211	208	205	187	203	204	221	167	0	2611	2644
2016	135	(est.)	2021-22	34	189	196	203	197	208	221	209	210	204	222	195	196	220	0	2670	2704
2017	134	(est.)	2022-23	34	188	199	199	205	201	210	219	211	209	243	213	187	195	0	2679	2713
2018	134	(est.)	2023-24	35	187	198	202	200	209	203	208	221	210	249	233	204	186	0	2710	2745
2019	134	(est.)	2024-25	35	188	197	201	204	204	211	201	210	220	250	239	224	203	0	2752	2787
2020	134	(est.)	2025-26	36	188	198	200	203	208	206	209	203	209	262	240	229	223	0	2778	2814

\*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	K-2	K-5	3-5	K-8	PK-5	6-8	7-8	7-12	9-12
2015-16	587	1121	534	1651	1152	530	329	1188	859
2016-17	601	1160	559	1694	1191	534	356	1199	843
2017-18	602	1198	596	1750	1230	552	381	1182	801
2018-19	595	1213	618	1750	1245	537	350	1159	809
2019-20	585	1219	634	1781	1252	562	359	1160	801
2020-21	582	1216	634	1816	1249	600	392	1187	795
2021-22	588	1214	626	1837	1248	623	414	1247	833
2022-23	586	1202	616	1841	1236	639	420	1258	838
2023-24	587	1199	612	1838	1234	639	431	1303	872
2024-25	586	1205	619	1836	1240	631	430	1346	916
2025-26	586	1203	617	1824	1239	621	412	1366	954

Davis                      Lane                      Glenn                      BHS

Projected Percentage Changes			
Year	K-12	Diff.	%
2015-16	2510	0	0.0%
2016-17	2537	27	1.1%
2017-18	2551	14	0.6%
2018-19	2559	8	0.3%
2019-20	2582	23	0.9%
2020-21	2611	29	1.1%
2021-22	2670	59	2.3%
2022-23	2679	9	0.3%
2023-24	2710	31	1.2%
2024-25	2752	42	1.5%
2025-26	2778	26	0.9%
Change		268	10.7%

**New data  
in October**

# Bedford, MA Projected Enrollment

School District: **Bedford, MA DESE database**

5/11/2015

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
2009	149		2014-15	32	186	202	179	164	174	202	145	177	180	230	220	204	227	0	2490	2522
2010	121		2015-16	34	202	195	207	183	167	176	200	143	179	213	225	212	204	0	2506	2540
2011	142		2016-17	34	183	212	200	212	186	169	174	197	145	211	209	217	212	0	2527	2561
2012	135		2017-18	34	174	192	217	205	216	188	167	172	199	171	207	201	217	0	2526	2560
2013	131		2018-19	34	169	182	197	222	208	218	186	165	174	235	167	200	201	0	2524	2558
2014	136	(est.)	2019-20	34	175	177	187	202	226	210	215	184	167	206	230	161	200	0	2540	2574
2015	133	(est.)	2020-21	34	171	184	182	192	205	228	207	212	186	197	202	222	161	0	2549	2583
2016	135	(est.)	2021-22	34	175	179	189	186	195	207	225	204	215	220	193	195	222	0	2605	2639
2017	134	(est.)	2022-23	34	173	184	184	194	189	197	205	222	207	254	215	186	195	0	2605	2639
2018	134	(est.)	2023-24	34	173	181	189	189	197	191	195	202	225	245	249	207	186	0	2629	2663
2019	134	(est.)	2024-25	34	173	181	186	194	192	199	189	193	205	266	240	240	207	0	2665	2699

\*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	K-2	K-5	3-5	K-8	PK-5	6-8	7-8	7-12	9-12
2014-15	567	1107	540	1609	1139	502	357	1238	881
2015-16	604	1130	526	1652	1164	522	322	1176	854
2016-17	595	1162	567	1678	1196	516	342	1191	849
2017-18	583	1192	609	1730	1226	538	371	1167	796
2018-19	548	1196	648	1721	1230	525	339	1142	803
2019-20	539	1177	638	1743	1211	566	351	1148	797
2020-21	537	1162	625	1767	1196	605	398	1180	782
2021-22	543	1131	588	1775	1165	644	419	1249	830
2022-23	541	1121	580	1755	1155	634	429	1279	850
2023-24	543	1120	577	1742	1154	622	427	1314	887
2024-25	540	1125	585	1712	1159	587	398	1351	953
	Davis	Lane				Glenn		BHS	

Projected Percentage Changes			
Year	K-12	Diff.	%
2014-15	2490	0	0.0%
2015-16	2506	16	0.6%
2016-17	2527	21	0.8%
2017-18	2526	-1	0.0%
2018-19	2524	-2	-0.1%
2019-20	2540	16	0.6%
2020-21	2549	9	0.4%
2021-22	2605	56	2.2%
2022-23	2605	0	0.0%
2023-24	2629	24	0.9%
2024-25	2665	36	1.4%
Change		175	7.0%

**S.C. in**  
**June**

## 40 Years of Bedford's Birth-to-Kindergarten Experience

Birth Year	Bedford Births	Kindergarten Year	# in Kind.	Net "move-out's/in's"	Birth-K Ratio
1970	251	1975-76	207	-44	0.82
1971	212	1976-77	161	-51	0.76
1972	193	1977-78	158	-35	0.82
1973	164	1978-79	132	-32	0.80
1974	145	1979-80	133	-12	0.92
1975	121	1980-81	109	-12	0.90
1976	118	1981-82	116	-2	0.98
1977	117	1982-83	94	-23	0.80
1978	125	1983-84	148	23	1.18
1979	116	1984-85	112	-4	0.97
1980	134	1985-86	134	0	1.00
1981	112	1986-87	117	5	1.04
1982	127	1987-88	112	-15	0.88
1983	130	1988-89	120	-10	0.92
1984	105	1989-90	144	39	1.37
1985	140	1990-91	109	-31	0.78
1986	131	1991-92	107	-24	0.82
1987	149	1992-93	120	-29	0.81
1988	155	1993-94	155	0	1.00
1989	193	1994-95	127	-66	0.66

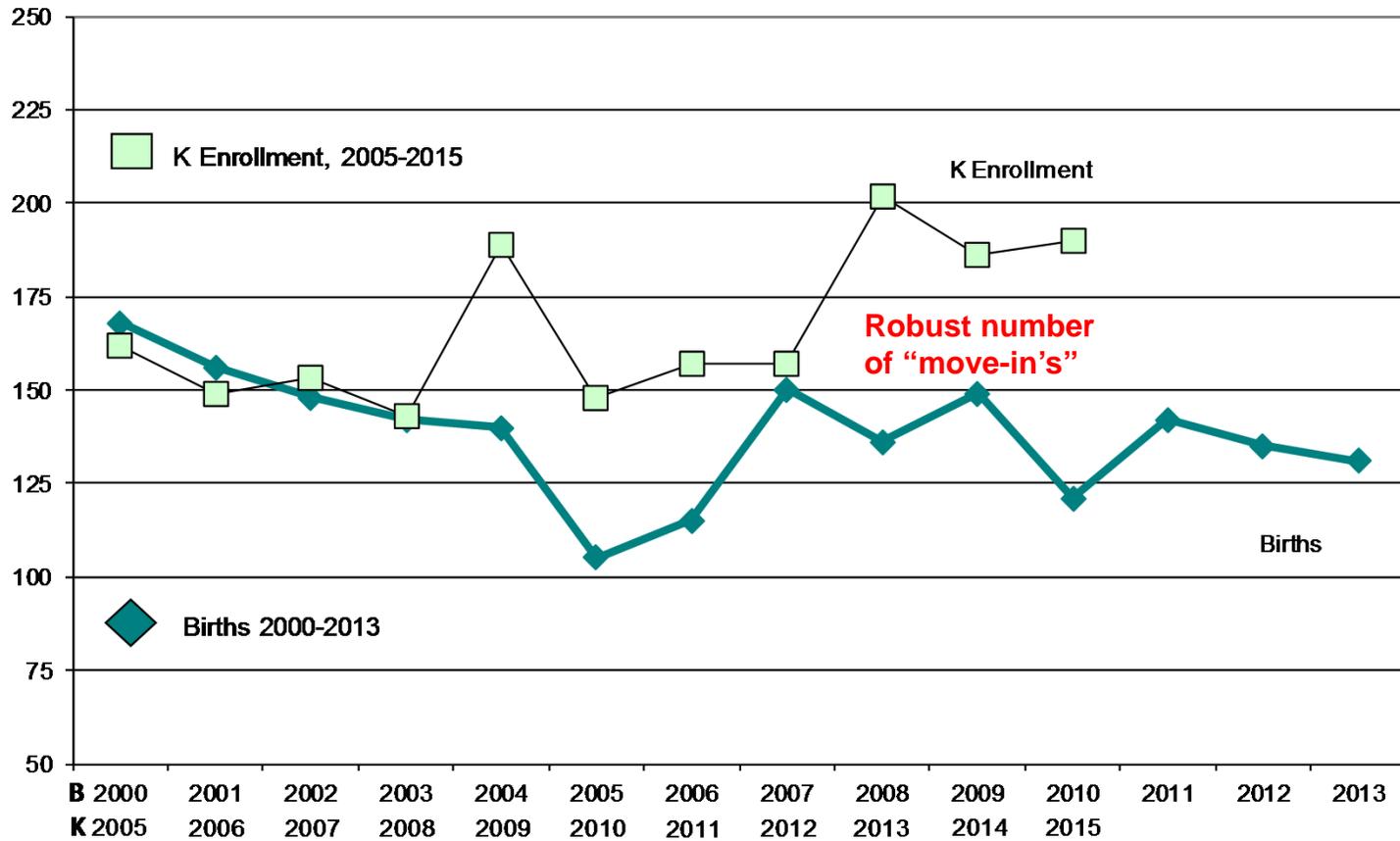
Birth Year	Bedford Births	Kindergarten Year	# in Kind.	Net "move-out's/in's"	Birth-K Ratio
1990	165	1995-96	133	-32	0.81
1991	218	1996-97	154	-64	0.71
1992	238	1997-98	140	-98	0.59
1993	222	1998-99	151	-71	0.68
1994	226	1999-00	150	-76	0.66
1995	265	2000-01	174	-91	0.66
1996	244	2001-02	143	-101	0.59
1997	250	2002-03	163	-87	0.65
1998	232	2003-04	156	-76	0.67
1999	203	2004-05	175	-28	0.86
2000	168	2005-06	162	-6	0.96
2001	156	2006-07	149	-7	0.96
2002	148	2007-08	153	5	1.03
2003	142	2008-09	143	1	1.01
2004	140	2009-10	187	47	1.34
2005	105	2010-11	148	43	1.41
2006	115	2011-12	157	42	1.37
2007	150	2012-13	157	7	1.05
2008	136	2013-14	202	66	1.49
2009	149	2014-15	186	37	1.25

Years of 30+ "net-move" in's in red

2010 121 2015-16 190 69 1.57

If the years 2012-13 and 2013-14 are averaged together, the most recent six years are generally consistent

# Bedford, MA Birth-to-Kindergarten Relationship



# Bedford, MA Additional Data

Building Permits Issued		
Year	Single-Family	Multi-Units
2005	29	181
2011	49	7
2012	55	0
2013	40	0
2014	38	0
2015	8 to Sep 30	89 to Sep 30

Source: HUD and Building Department

Enrollment History		
Year	Voc-Tech 9-12 Total	Non-Public K-12 Total
2005-06	25	141
2011-12	n/a	119
2012-13	n/a	137
2013-14	n/a	142
2014-15	24*	121
2015-16	22	80

\* 18 Shawsheen; 4 Minuteman; 2 Voc/Agi

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
	3	3	2	1	8	3	6	3	7	12	9	14	9	80

K-12 Home-Schooled Students	
2015	19

K-12 Residents "Choiced-out" or in Charter or Magnet Schools	
2015	2

K-12 Special Education Outplaced Students	
2015	77

K-12 Choiced-In, Tuitioned-In, & Other Non-Residents	
2015	0

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

# Bedford, MA Historical Non-Public Enrollment

School District: **Bedford, MA Non-Public Parochial/Independent Schools**

6/1/2015

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
1999	203	2004-05	0	12	9	12	7	3	5	12	4	17	22	12	19	6	0	140	140
2000	168	2005-06	0	5	8	8	8	10	15	5	9	8	18	19	17	11	0	141	141
2001	156	2006-07	0	13	4	9	7	10	9	16	7	12	8	15	19	22	0	151	151
2002	148	2007-08	0	14	12	7	9	14	11	16	16	9	13	10	15	22	0	168	168
2003	142	2008-09	0	12	10	10	4	9	8	8	13	22	13	15	16	18	0	158	158
2004	140	2009-10	0	8	5	9	7	5	9	14	10	15	21	11	10	13	0	137	137
2005	105	2010-11	0	11	2	3	6	7	8	10	10	10	10	20	7	13	0	117	117
2006	115	2011-12	0	6	11	3	4	7	11	5	9	13	9	15	22	4	0	119	119
2007	150	2012-13	0	12	4	8	3	6	6	12	6	12	23	11	13	21	0	137	137
2008	136	2013-14	0	11	6	4	9	3	6	3	13	12	19	30	15	11	0	142	142
2009	149	2014-15	0	21	3	3	2	10	2	8	3	9	17	10	22	11	0	121	121

Source: "School Attending Children as of January 1" Report - district survey; 19 Bedford Montessori; 9 Lexington Montessori; 9 Fenn; 8 Rivers; 6 International School of Boston (IB); 5 Lawrence Academy; 5 Buckingham, Brown & Nichols; 4 Belmont Hill; 4 Arlington Catholic; 4 Waldorf Lexington; 3 BU Academy; 3 Concord Academy; 3 Mt. Hope Christian; 1-2 each in 26 additional schools

Historical Enrollment in Grade Combinations									
Year	K-2	K-5	3-5	K-8	PK-5	6-8	7-8	7-12	9-12
2004-05	33	48	15	81	48	33	21	80	59
2005-06	21	54	33	76	54	22	17	82	65
2006-07	26	52	26	87	52	35	19	83	64
2007-08	33	67	34	108	67	41	25	85	60
2008-09	32	53	21	96	53	43	35	97	62
2009-10	22	43	21	82	43	39	25	80	55
2010-11	16	37	21	67	37	30	20	70	50
2011-12	20	42	22	69	42	27	22	72	50
2012-13	24	39	15	69	39	30	18	86	68
2013-14	21	39	18	67	39	28	25	100	75
2014-15	27	41	14	61	41	20	12	72	60

Age of Davis      Age of Lane      Age of Glenn      Age of BHS

Historical Percentage Changes			
Year	K-12	Diff.	%
2004-05	140	0	0.0%
2005-06	141	1	0.7%
2006-07	151	10	7.1%
2007-08	168	17	11.3%
2008-09	158	-10	-6.0%
2009-10	137	-21	-13.3%
2010-11	117	-20	-14.6%
2011-12	119	2	1.7%
2012-13	137	18	15.1%
2013-14	142	5	3.6%
2014-15	121	-21	-14.8%
Change		-19	-13.6%

# **SUMMARY**

**Bedford Kindergartens are expected to follow their current rate of growth in 2015, then very slightly moderate their pace...yet still resemble the past six years. Increased real estate sales could alter this existing pattern.**

**Factors to watch include: # homes advertised for sale (especially “Boomers” downsizing); information on home sales;**

**“net in-migration” of new families; # building permits; # births; # of 4-year olds in feeder nursery schools; new employment opportunities**



*New England School Development Council*

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# **BEST WISHES FROM THE NESDEC BEDFORD TEAM**

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