



***Housing and School  
Enrollment  
In New Hampshire:  
A Decade of Dramatic Change  
Technical Appendix***



***June 2012***



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Housing Finance Authority***

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## **Enrollment In New Housing Units: Case Studies**

In addition to reviewing demographic trends and the State’s enrollment data, AER examined enrollment in new housing units built between 2005 and 2011 in four New Hampshire communities. Other enrollment indicators set forth in this study focus on the broad patterns of enrollment trends, generally including both new and existing housing. Planning boards have tended to be most interested in the enrollment impacts of *new* housing proposed in their communities.

### **Selection of Communities**

The case study communities were selected because (1) they experienced enough recent new housing construction to provide a statistical basis to reach conclusions about how many students new housing units generate, on average and (2) They are in different regions in the state, so as to avoid a regional bias in the conclusions.

Belmont was selected because it is located outside of the fast growth southern tier, but nonetheless experienced enough new housing construction to provide insight into enrollment in new housing units. Reported new units authorized by permit in Belmont included:

	<i>Students</i>	<i>Units</i>	<i>Students per Unit</i>
<b>Belmont</b>			
<b>Multi Family</b>	<b>29</b>	<b>39</b>	<b>0.74</b>
<b>Single Family</b>			
2 Bedroom or less	0	18	-
3 Bedroom	17	32	0.53
4+bedrooms	21	22	0.95
<b>Total Single Family</b>	<b>38</b>	<b>72</b>	<b>0.53</b>

The multi-family multiplier in Belmont was higher than in other communities because most of the surveyed units are in a single project with a preponderance of three bedroom units. This illustrates the need to not overly weigh the multiplier from any one community, particularly for multi family units. In contrast to the 0.74 multiplier in Belmont, the multi family multiplier in Windham was .02 students per unit, primarily because of a preponderance of smaller units and possibly also reflecting market conditions, wherein multi-family units in Windham may appeal primarily to young households without children.

Milford was selected because it is a fast growth southern New Hampshire community in the greater Nashua regions. Reported new units authorized by permit in Milford included:

	<i>Students</i>	<i>Units</i>	<i>Students per Unit</i>
<b>Milford</b>			
<b>Multi Family*</b>		<b>6</b>	<b>33</b>
<b>Single Family</b>			
2 Bedroom or less	0	10	-
3 Bedroom	42	95	0.44
4+bedrooms	74	75	0.99
<b>Total Single Family</b>	<b>116</b>	<b>180</b>	<b>0.64</b>

Rochester was selected because it is a rapidly growing community on the fringe of the state's Seacoast region. Unlike the other case study communities, it is more heavily populated and a city with a diverse economic base and Reported new units authorized by permit in Rochester included:

	<i>Students</i>	<i>Units</i>	<i>Students per Unit</i>
<b>Rochester</b>			
<b>Multi Family</b>			
2 Bedrooms or Less	12	149	0.08
3 Bedrooms or More	27	83	0.33
<b>Total Multi Family</b>	<b>39</b>	<b>232</b>	<b>0.17</b>
<b>Single Family</b>			
2 Bedroom or less	0	19	-
3 Bedroom	108	296	0.36
4+bedrooms	27	50	0.54
<b>Total Single Family</b>	<b>135</b>	<b>365.0</b>	<b>0.37</b>
<b>Manufactured Housing</b>	<b>29</b>	<b>113</b>	<b>0.26</b>

Windham was selected because it is a rapidly growing community in the I-93 corridor. Reported new units authorized by permit in Windham included:

<i>Windham</i>	<i>Students</i>	<i>Units</i>	<i>Students per Unit</i>
<b><i>Multi Family</i></b>			
2 Bedrooms or Less	3	132	0.02
3 Bedrooms or More	0	5	-
<b><i>Total Multi Family</i></b>	<b>3</b>	<b>137</b>	<b>0.02</b>
<b><i>Single Family</i></b>			
2 Bedroom or less	7	34	0.21
3 Bedroom	41	89	0.46
4+bedrooms	334	314	1.06
<b><i>Total Single Family</i></b>	<b>382</b>	<b>437</b>	<b>0.87</b>

## Case Study Enrollment Multipliers

On a combined basis the four case study communities represent just over 1,600 units housing 777 students, or an average of 0.48 students per unit. This figure is consistent with the demographic data set forth elsewhere in this report.

As to multipliers by unit type and bedroom count, the results are:

### *Case Study Community School Generation Multipliers*

	<i>Students</i>	<i>Units</i>	<i>Students per Unit</i>
<b><i>Multi Family*</i></b>			
2 Bedroom or Less	15	281	0.05
3 Bedroom+	27	88	0.31
<b><i>Total Multi Family</i></b>	<b><i>77</i></b>	<b><i>441</i></b>	<b><i>0.17</i></b>
<b><i>Single Family</i></b>			
2 Bedroom or less	7	81	0.09
3 Bedroom	208	512	0.41
4+bedrooms	456	461	0.99
<b><i>Total Single Family</i></b>	<b><i>671</i></b>	<b><i>1054</i></b>	<b><i>0.64</i></b>
<b><i>Manufactured Housing**</i></b>	<b><i>29</i></b>	<b><i>113</i></b>	<b><i>0.26</i></b>
<b><i>Total All Unit Types</i></b>	<b><i>777</i></b>	<b><i>1608</i></b>	<b><i>0.48</i></b>

\* Bedroom counts were not specified or there were an insufficient units to tabulate results by number of bedrooms in Belmont and Milford for multi family units. The multi family figures from these communities are, however, included in the multi family total figures.

\*\* Data from Rochester only

Note: All Figures Exclude Age-Restricted Units

These figures are consistent with prior research and with the updated demographic information in this current analysis. They reveal that on average a 3 bedroom single family home generates 0.41 students per unit, while a 4 bedroom single family unit generates .99 students per unit. Multi family units (including both rental and condo units) generate an average of .17 students per unit, primarily because this unit type consists mostly of smaller two-bedroom units. Manufactured housing generates an average of 0.26 students per unit<sup>1</sup>.

<sup>1</sup> Only Rochester provided sufficient data for manufactured housing in non-age restricted settings.

Examining the variation in generation among single family units across the four case study settings does show consistency among the case study communities with the exception of Rochester, which generated fewer students per unit than the less dense suburban (Milford and Windham) and rural (Belmont) communities:

***Students per Unit in New Single Family Units***

	<b><i>3 Bedroom</i></b>	<b><i>4 Bedroom</i></b>
<b><i>Belmont</i></b>	<b>0.53</b>	<b>0.95</b>
<b><i>Milford</i></b>	<b>0.44</b>	<b>0.99</b>
<b><i>Rochester</i></b>	<b>0.36</b>	<b>0.54</b>
<b><i>Windham</i></b>	<b>0.46</b>	<b>1.06</b>
<b><i>Combined</i></b>	<b>0.41</b>	<b>0.99</b>

***Excludes age-restricted units***

In the suburban and rural settings the 3 bedroom multiplier averaged 0.46 students per unit and the 4 bedroom averaged 1.04 students per units.

Individual case study community tallies are on the following page.

**Case Study Community Enrollment Multipliers**

	<b>Students</b>	<b>Units</b>	<b>Students per Unit</b>
<b>Belmont</b>			
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<b>Single Family</b>			
2 Bedroom or less	7	34	0.21
3 Bedroom	41	89	0.46
4+bedrooms	334	314	1.06
<b>Total Single Family</b>	<b>382</b>	<b>437</b>	<b>0.87</b>

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Note: All Figures Exclude Age-Restricted Units

## Literature Review

As part of this research effort, AER endeavored to search the literature for recent articles and research monographs addressing the relationship between housing and school enrollment. It is somewhat of a surprise that relatively few recent/directly relevant articles surfaced in the course of that effort. This suggests that the relationship between new housing and school enrollment may be more prominent in New Hampshire than in other areas. This higher profile could be a reflection of:

- During the 1990s enrollment in New Hampshire grew by 41,000; only to decline by 21,700 in the ensuing decade. In some New Hampshire communities the memory of rapid enrollment growth remains a powerful policy consideration in reviewing new housing applications, even though most communities experienced enrollment declines in the past decade. There is a continuing concern in some New Hampshire communities that new housing will generate higher school enrollment requiring new or expanded school facilities.
- Education funding in New Hampshire is more dependent on local property taxes than in many other states. This means that when a new housing development is proposed, particularly in small and medium sized communities, planning boards are very sensitive to the local school costs (real or imagined) that may be imposed by the new units, than would be the case if schools were funded primarily at the county or state level, as is the case in many other states.
- Many areas have only begun to digest and interpret data from the 2010 US Census. As time goes on, more researchers could focus on the housing, demographic and enrollment data therein, particularly as more school districts face the difficult issue of closing or consolidating schools and districts.

It is also relevant to note that enrollment declines in New Hampshire reflect a regional pattern of declining enrollment, which is not nearly as evident nation-wide—states with strong overall population growth and/or immigrant migration were experiencing rising enrollment. Between 2000 and 2008 four of the six states experiencing the steepest enrollment declines nationally were in New England (Maine, New Hampshire, Rhode Island and Vermont), as seen in the table on the following page. Among these New England states, however, New Hampshire had the most pronounced enrollment growth during the 1990s, meaning the sharpest contrast between the decade of the 90s and the 2000s.

With the above thoughts and limitations in mind, we offer the following snapshots of what our search has revealed. While there are numerous news accounts of declining enrollment, there are relatively few research efforts to highlight the underlying issues, how communities are addressing enrollment shifts and the effect of new construction and aging in place on enrollment in different community settings.



**US Census Bureau: "School Enrollment in the United States: 2008". Current Population Reports P20-564, 2011.**

<http://www.census.gov/prod/2011pubs/p20-564.pdf>

This report examines school enrollment trends from pre-school to college relying primarily on the American Community Survey Data. The report notes:

"Overall enrollment in Grades 1 through 12 fell slightly from 50 million in 2000 to 49.3 million in 2008...Data from 2000 to 2008 showed that while 13 states saw an increase in enrollment for Grades 1 through 12, 37 states experienced a decrease. Of the 13 states with an apparent increase in enrollment, only 7 had a statistically significant increase."

State figures are set forth in the table on the following page.

**Press Tribune, Roseville California "Local School Districts Struggle with Declining Enrollment" June 9, 2010.**

<http://rosevillept.com/detail/151825.html>

This article highlights several important issues. Among the relevant observations cited in the article are:

The school superintendent attributed the declining enrollment to a slower pace of housing construction and an ageing population. "We are aging out quicker than we are bringing in new families....Even when these (older) families move out, new families can't move in because they can't afford it. Declining enrollment wouldn't be a problem if funding wasn't tied to that...Because funding is tied to enrollment, when you lose students, you lose money faster than you're able to cut expenses."

In California at the time of this article, about 60 percent of a district's operating funds came from the State.

## Public School Enrollment (000)

	2000	2008	Change Number	Change %
North Dakota	109	95	-14	-13.3%
Montana	155	142	-13	-8.4%
Vermont	102	94	-8	-8.3%
Louisiana	743	685	-58	-7.8%
Rhode Island	157	145	-12	-7.6%
Maine	207	193	-14	-6.8%
New Hampshire	208	198	-11	-5.0%
New York	2,882	2,741	-142	-4.9%
Michigan	1,721	1,660	-61	-3.5%
Wyoming	90	87	-3	-3.1%
Hawaii	184	179	-5	-2.6%
Pennsylvania	1,814	1,775	-39	-2.2%
Minnesota	854	836	-18	-2.1%
Alaska	133	131	-3	-2.0%
South Dakota	129	126	-2	-1.7%
Massachusetts	975	959	-16	-1.7%
Iowa	495	488	-8	-1.5%
West Virginia	286	283	-4	-1.3%
Mississippi	498	492	-6	-1.2%
Maryland	853	844	-9	-1.1%
Ohio	1,835	1,817	-18	-1.0%
Wisconsin	879	874	-6	-0.7%
District of Columbia	69	69	0	-0.4%
Kansas	471	471	0	0.1%
Missouri	913	918	5	0.6%
Kentucky	666	670	4	0.6%
Alabama	740	746	6	0.8%
Connecticut	562	567	5	0.9%
Nebraska	286	293	6	2.2%
California	6,141	6,323	182	3.0%
New Mexico	320	330	10	3.1%
Washington	1,005	1,037	32	3.2%
Illinois	2,049	2,120	71	3.5%
Oklahoma	623	645	22	3.5%
<b>United States</b>	<b>47,204</b>	<b>49,266</b>	<b>2,062</b>	<b>4.4%</b>
New Jersey	1,313	1,381	68	5.2%
Oregon	546	575	29	5.3%
Indiana	989	1,046	57	5.7%
South Carolina	677	718	41	6.0%
Arkansas	450	479	29	6.4%
Tennessee	909	972	63	6.9%
Virginia	1,145	1,236	91	7.9%
Florida	2,435	2,631	196	8.1%
Delaware	115	125	11	9.4%
Idaho	245	275	30	12.2%
Colorado	725	818	94	13.0%
Georgia	1,445	1,656	211	14.6%
North Carolina	1,294	1,489	195	15.1%
Utah	481	560	78	16.3%
Texas	4,060	4,752	693	17.1%
Arizona	878	1,088	210	23.9%
Nevada	341	433	93	27.2%

Source: U.S. National Center for Education Statistics, Digest of Education Statistics, annual.

**Pioneer Institute, Center for School Reform, “Enrollment Trends in Massachusetts”, September, 2008.**

**[http://www.pioneerinstitute.org/pdf/080924\\_ardon\\_enrollment\\_trends.pdf](http://www.pioneerinstitute.org/pdf/080924_ardon_enrollment_trends.pdf)**

This report briefly analyzes enrollment trends in Massachusetts public schools and notes that enrollment fell by 24,000 students (2.5%) in the 2002-07 period. The report goes on to anticipate steeper enrollment declines going forward. The report indicates “The primary cause of the decline is demographics—the population of Massachusetts is aging and the children of Baby-Boomers are rapidly moving through the schools.” The implications of this are seen as creating a challenging school funding situation because of declining state aid (which is partly based on enrollment) and rising per student costs—as it is not possible to reduce spending proportionate to enrollment declines. **“Housing Aid Offered to Stop Enrollment Decline” [Education Week](#). June 8, 2012.**

**<http://www.edweek.org/ew/articles/2007/08/15/45portland.h26.html>**

This is an account of a very interesting approach addressing the relationship between school enrollment and housing. Portland, Oregon has been experiencing declining enrollment, primarily as a result of high housing costs, which price young families out of the city’s housing market. As a result, the City has been losing millions of dollars in school aid, which is stressing local funding sources. To counteract this declining enrollment and aid, ...”the City has launched a program to help families with housing costs so they can afford to rent or buy homes and—city officials hope—send their children to city schools.”

This is quite a contrast to the policies in many New Hampshire communities, wherein empty nester housing is encourage and family housing often is discouraged. This indicates that school funding is a factor in housing policies—in Oregon, the state provides funding based on enrollment, which tends to encourage policies favoring family housing. In New Hampshire, higher enrollment is seen (rightly or wrongly) as increasing the local cost of funding schools. Therefore policies tend to discourage family housing.

**Vermont Housing Finance Agency, [Housing and Vermont’s School Enrollment](#), January 2007.**

**[http://www.vhfa.org/documents/housing\\_education.pdf](http://www.vhfa.org/documents/housing_education.pdf)**

This is the second in a series of issue papers produced by the Vermont Housing Finance Agency. The report cites the NHHFA enrollment analysis prepared by AER and both the scope of the investigation and the study’s findings parallel that of the NHHFA study. The study’s major conclusions are:

- Contrary to concerns that new housing will spawn rising enrollment, new housing is unlikely to quickly trigger a jump in school enrollment for most Vermont communities;
- The number of school-aged children in a community is more dependent on the demographics of the households already there than on whether new homes have been built recently;
- For the average Vermont community, demographic trends have led to a steady decline in school enrollment since 2000 that was expected to continue until 2014;

- Reiterating the Portland, Oregon analysis cited above the study notes “Some communities concerned about declining school enrollments and a declining population of young adults may want to try to attract families who have children or may have them in the future. In these cases, affordability is an important factor.”

**AZCentral.com “Enrollment Down in Arizona’s Public Schools”, 2008**

<http://www.azcentral.com/news/articles/2008/04/21/20080421enrollment0421.html>

This article is one of the earlier articles addressing the financial impact of declining school enrollment on local school district financing. At the time of this article Arizona was paying districts on a per student basis. Mesa Arizona experienced a one-year decline of 1,500 students, resulting in a loss of \$9 million in state aid, which the district had not budgeted. The district was considering school closings. Similarly Tucson was considering closing four schools in the face of declining enrollment and lower state aid.

**Zoningplan.org “Are School Taxes Heading to \$45,000 per Year?, Discovering Missing Links Between Zoning, School Enrollment and Housing.” May 12, 2012.**

<http://zoningplan.org/>

This is the most recent in a series of reports posted by a citizen of Rye, New York, who has expended considerable effort in researching the implications of new housing development and school enrollment in a built-up suburb located 20 miles northeast of New York City. The article is rather lengthy and is premised on an assumption (without supporting data) that each housing unit generates 2.5 students. Based on that premise, it concludes that property taxes per home could rise from their then current \$15,011 to \$45,163 based on current trends and average class size could rise from its current 22 to a revised 66 (or the number of classrooms would have to triple in the face of enrollment rising from its current 3,180 to a projected 9,568.

In fact, there were 5,500 occupied housing units in Rye New York in 2010, indicating that each occupied unit generated 0.58 students per units—very close to the NH average.

The article has a limited purpose—it demonstrates that the in the minds of some the true relationship between occupied housing and school generation remains elusive and an erroneous presumption remains active—that for some, a typical housing unit is occupied by more than two children.

**Hudson Valley Pattern for Progress, Closed Schools, Open Minds: Hudson Valley’s School Enrollment Dilemma and Opportunities For Adaptive Reuse, March 2012.**

<http://pattern-for-progress.org/sites/default/files/SCHOOL%20REPORT%20FINAL.pdf>

As noted on its website, Hudson Valley Pattern for Progress is a not-for-profit policy, planning, advocacy and research organization whose mission is to promote regional, balanced and sustainable solutions that enhance the growth and vitality of the Hudson Valley. The organization focuses on a broad nine county region lying north of New York City along the Hudson River

The report focuses on the issue of school closings arising in the face of a lack of enrollment growth and recession-stressed budgets that forced 19 school closings just since 2009 in the nine county region. School superintendents anticipate saving \$1 million per year for each closed school. The report paints a rather alarming picture:

“The implications of declining enrollment stretch beyond the closure of school buildings themselves. The absence of growth leads to an increased tax burden for the remaining residents, the loss of a

portion of the middle class, as well as the loss of jobs and community volunteers...Many school superintendents fear that the trend toward fewer students could make it more difficult to pass their annual budgets. If fewer school district voters have a connection to the school through their children, the argument goes, fewer will be compelled to vote in favor of the school budget.”

The report goes on to note possible adaptive reuse options for closed schools including courthouses, a town hall, farmer’s market, medical clinic, apartments, business incubator, community fitness center, etc.

**Palm Beach Sun Sentinel, “Enrollment Gains Forecast for Palm Beach County Schools During Next Five Years”, March 27, 2012**

[http://articles.sun-sentinel.com/2012-03-27/news/fl-enrollment-palm-schools-20120327\\_1\\_charter-schools-school-choice-options-manager-of-school-enrollment](http://articles.sun-sentinel.com/2012-03-27/news/fl-enrollment-palm-schools-20120327_1_charter-schools-school-choice-options-manager-of-school-enrollment)

This article illustrates that not all districts are experiencing enrollment declines. Rapidly growing Palm Beach County, Florida, with 174,900 students, is adding about 2,500 students per year. This growth is projected to continue. Of note, however, is that this enrollment growth is about half that of the recent past. Moreover, Florida has an active charter school movement with is syphoning off students from public schools—in fact, charter schools are expected to accommodate most of the coming enrollment growth. During the 1990s and early 2000s, the district built 85 new and replacement schools. In contrast, the district believes it can accommodate the projected slower enrollment growth without building new school capacity. However, of note and import, the district has identified \$1.4 billion in needed school construction, indicating that even when growth subsides, schools need to be built to accommodate new programs and replace ageing facilities.

**Palo Alto Online “School Board Wrestles With Enrollment Data”. January 11, 2012**

[http://www.paloaltoonline.com/news/show\\_story.php?id=23926](http://www.paloaltoonline.com/news/show_story.php?id=23926)

This article highlights some of the issues surrounding the relationship between enrollment, housing construction and demographics. In contrast to prior projections, a new enrollment projection anticipated declining enrollment, but demonstrated that some of the subareas in the community would experience rising enrollment. Board members raised concern that:

1. The projected enrollment decline may not have adequately factored in demographic changes, “If aging parents start selling their homes there could be a generational shift that could affect our assumptions going forward...because if these houses turn over—even if they become rentals—our history is that young families move in.”
2. On the other hand some members expressed concern that the anticipated rising enrollment in some subareas may overstate likely future enrollment because of an over-weighting of recent housing construction in the subarea.

The school superintendent cautioned not to over-react to the projected district-wide enrollment decline, citing prior boards’ decision to close schools and sell the real estate in the 1980s when enrollment declined, only to have to build new schools in the 1990s as enrollment began to rise.

**Rutgers University Center for Urban Policy Research, “Residential Demographic Multipliers” June 2006.**

<http://branfordconservation.org/pdfs/rdm.pdf>

This is one of a series of similar reports prepared by the Center for Urban Policy Research. The reports address housing occupancy and school enrollment—in this case within Connecticut. The reports draw on PUMS data from the year 2000 Census and set forth population and school enrollment by unit type, bedroom count and price. The multipliers by unit type and bedroom count are similar to the NHHFA multipliers in the current and prior studies of enrollment sponsored by NHHFA. The addition of value is not addressed in the NHHFA studies. In general, as value rises, the number of school age children declines noticeably in 3 bedroom units, but rises slightly (probably not statistically significant) within four bedroom units. The authors do not offer an explanation:

Single Family Detached	School Age Children
3 Bedroom	
Less Than \$257,500	0.78
\$257,500-356,500	0.65
Over \$356,500	0.58
4 Bedroom	
Less than \$435,000	1.03
\$435,000-554,500	1.06
Over \$554,500	1.11

## ***ENROLLMENT PROJECTION METHODOLOGY***

There is a growing awareness of declining school enrollment in New Hampshire. The sense of whether recent trends will continue, however, is less concrete. Many factors influence school enrollment, the principal ones being births and migration. Just how these factors interact is not transparent.

To get a sense of future enrollments in NH schools, AER subcontracted with Thomas Duffy, the recently retired NH Office of Energy and Planning demographer. Mr. Duffy has prepared the state's population estimates and projections for several decades. In the following paragraphs he discusses the methodology utilized and the background of factors structuring the projections he prepared as part of this analysis.

### ***About the Projection Method***

These projections of school enrollment are based on a technique called, The Grade-Progression Ratio Method. The method uses births and existing and past enrollment *patterns* in an attempt to render likely enrollment trends by grade.

The concept of the method is simple. It is based on the premise that if an area has 100 first graders in one year, and no one moves in or out of that area, there will be 100 second graders the next year. If, in fact, the area has 115 second graders in the succeeding year, it can be assumed that people are moving into the area with second graders. The difference between first and second grades is called a ratio. In the example given above the ratio would be 1.15. The ratio is greater than one, because the number of second graders increased. Had there been fewer second graders in the succeeding year the ratio would have been less than one.

The Grade-Progression Ratio Method calculates the ratio between all the grades from first to twelfth grade. Kindergarteners are progressed from the number of births five years earlier. Then the ratios are carried forward in time in three different ways. First the ratios in the last available year of enrollment are used, then the average of ratios for the last five years is used. Finally the average of the last five years is used, but the last three years of available enrollment are given greater weight.

One common criticism of the method is that it does not include migration in or out of an area. It does. In fact, by using the bottom line (enrollments themselves) so to speak, the projections include all factors that impacted changes in enrollment – in recent years. What the method does not do is anticipate *changes* to migration or other factors in the future. The method does require a projection of births and this provides an opportunity to slant the projections in a desired direction (see below).



## **Projection Data**

### **Enrollment Data in the Projections**

The method requires a history of enrollment by grades. For this analysis the last five years of available data are used. The data are from the NH Dept. of Education publication, *State Totals – Enrollments by Grade*. These data are as of October for each year. The data include public, private, parochial enrollment and Home Schooled. The source of Home Schooled numbers is the NH Dept. of Education publication, *Home School Count by District*. Only grades 1 – 12 are included. Readiness, Pre-school, kindergarten, and Post- Graduate are not included. These numbers can fluctuate from year to year due to administrative changes, changes in definition and other factors not typically related to enrollment change. Remember the method is using enrollments from the last five available years.

### **Birth Data in the Projections**

*Resident* births were used. Resident births are those that occur to mothers that are residents of New Hampshire, no matter the location of the birth. The source is the Secretary of State, Vital Records Administration Division.

The method required births from 1999 to 2014. At this time the latest complete year of resident births is 2010. This means that births for 2011 to 2014 must be projected. It is here that the operator of the projections can bend the numbers to reflect changes thought most likely to occur in the future (see below)

### **Factors that Influence Enrollment Change**

The two principal factors that influence changes in enrollment include, births (fertility), and migration. Of course there is a plethora of factors and conditions that precipitate changes in these two variables. Here only a few will be mentioned. Economic conditions, which consist of countless interrelated factors play a crucial role in changes of both births and migration. Income, education levels, the age distribution of the broader population, cost of housing, employment patterns, unemployment, occupation mix and others all impact one another and combine to influence changes in the number of births.

### **Influence of Births**

The number of births depends on the *rate* (fertility) of births per women of childbearing years (15\_49) and the *number* of women in the childbearing age group. It is the latter component that has, by far, the greatest influence in an area the size of NH (1.3 million people). Fertility tends to change very slowly and in a relatively narrow range. The number of women in the fertile years can change significantly over a ten to twenty year time span.

Table 1 shows total population change for NH over a fifty year period, by age groups. From 1960 to 2000 NH was consistently one of the fastest growing states on a percentage basis. In that time period the state's population increased by over 700,000 and all age groups increased. Yet the population under five increased by less than 4,000. From 2000 to 2010 that age group decreased by almost 6,000. The table is meant to show, in simple terms, how age structure fluctuates over time and it is always in flux.

### *Influence of Fertility*

Fertility measures the rate of births per 1,000 women age 15-49 years old. New Hampshire has one of the lowest fertility rates in the country. In 2008 the state's rate was 52.8 births per 1,000 women in the childbearing years, only Vermont was lower at 52.4. Massachusetts, New Hampshire's chief supplier of in-migrants, was also among the lowest at 56.7. Educational attainment is strongly related to fertility patterns. Fertility generally decreases with increasing levels of education. In 2008 NH had the highest percentage of births to women with a bachelor's degree at 48%, followed closely by MA at 42%.

The number of women in the childbearing years can be a more powerful determinate of the number of births in a given time period. This is because it can change faster than fertility rates tend to do. Also the changes vary more widely than fertility. Notice that Table 1 shows a

<b>Table 1</b>					
<b>Age</b>	<b>Total Population</b>			<b>change</b>	
	<b>1960</b>	<b>2000</b>	<b>2010</b>	<b>1960 - 10</b>	<b>2000 - 10</b>
< 5	66,120	75,685	69,806	3,686	-5,879
05 - 09	59,945	88,537	77,756	17,811	-10,781
10 - 14	56,444	93,255	84,620	28,176	-8,635
15 - 19	44,360	86,688	93,620	49,260	6,932
20 - 24	34,671	68,766	84,546	49,875	15,780
25 - 29	34,488	71,355	73,121	38,633	1,766
30 - 34	37,778	88,706	71,351	33,573	-17,355
35 - 39	40,204	109,654	82,152	41,948	-27,502
40 - 44	38,479	111,525	97,026	58,547	-14,499
45 - 49	36,172	98,117	113,564	77,392	15,447
50 - 54	33,234	85,869	112,397	79,163	26,528
55 - 59	29,907	62,664	96,289	66,382	33,625
60 - 64	27,414	46,995	81,954	54,540	34,959
65 - 69	24,355	41,143	57,176	32,821	16,033
70 - 74	18,627	37,184	39,586	20,959	2,402
75 - 79	12,630	30,593	31,774	19,144	1,181
80 - 84	7,306	20,819	24,971	17,665	4,152
85 +	4,787	18,231	24,761	19,974	6,530
<b>Total</b>	<b>606,921</b>	<b>1,235,786</b>	<b>1,316,470</b>	<b>709,549</b>	<b>80,684</b>
<b>15 - 44</b>	<b>229,980</b>	<b>536,694</b>	<b>501,816</b>	<b>306,714</b>	<b>-34,878</b>
<b>Median Age</b>	<b>31.0</b>	<b>37.1</b>	<b>41.1</b>		
Source: U.S. Bureau of the Census					
25-29 is peak childbearing age group					

decrease of over 30,000 persons, in the childbearing years in a ten year period. Changes in age structure can increase or decrease enrollment while migration (in either direction) is at zero. Enrollments can even change in the opposite direction of migration. From 1977 to 1984 New Hampshire experienced enrollment declines while overall population growth was very strong. The reason for this seeming paradox was that the large post-war baby boom was leaving the public school age group and being replaced by a smaller generation.

At this time history is repeating itself. Now the “Echo” generation, the children of the post-war boom, those born about from the late the 70’s to about 1994 (15-35 in 2010), have graduated from the public school years. And – they are beginning to have children of their own. The Echo generation is highlighted in Table 1.

### *Influence of Migration*

Migration is the movement of people in or out of an area. Migration itself has an age structure. The state has typically attracted a bit more older post-war boomers than people in the younger age groups. From 1960 to 2000 New Hampshire experienced strong in-migration. During most that period the state was the second fastest growing state east of the Mississippi River. At one point it was the third fastest growing state in the country.

Since 2000 net in-migration has slowed greatly. This slowing of in-migration occurred mostly *during good economic conditions* in the 2000 – 2008 time frame. New Hampshire had experienced several down turns since 1960, one of them (1990) very severe. All the declines occurred during economic recessions or corrections and the state always returned to strong in-migration when the economy recovered. The 2000 – 2008 period may mark a new era for New Hampshire’s migration patterns.

In late 2007 the Great Recession struck the nation and New Hampshire. Technically that recession ended in mid 2009. However the housing and employment sectors of the economy have not recovered, or even improved much to date. Given the persistent difficulties in housing and employment, coupled with the substantial decline in population growth during a good economy, it is highly unlikely that New Hampshire will return to strong in-migration in the short to medium term.

### *Projecting Births*

Births from 2011 to 2014 must be projected for the Grade-Progression Ratio Method. Almost an infinite number of procedures are available for this task. Often when the method is used at the school district level, average births of the last three available years is simply carried forward in time. This technique alleviates the volatility inherent in small numbers.

At the state level, with births over 10,000, volatility is less of a concern. Nevertheless, carrying the three year average forward would still be a reasonable projection. A different tact has been taken for these projections, not only to achieve a scenario thought to be most likely, but for another reason as well.

Table 2 shows the birth projection. On the left side of the table the 2010 female population of the state is shown, according to the 2010 decennial census. The actual number of resident births is shown for 2010, according to the Vital Records Administration Division. The next column shows the number of births per female.

The right side of the table shows projected births for 2015. The projection is based on “ageing” the females by five years; the populations in the 2010 age groups were moved up one age bracket. Those females aged 20-24 in 2010 now appear as 25-29 females in 2015. Notice that the number of females of childbearing age actually *decreases* while the number of births *increases* by 450. The reason for this is the Echo generation moving into the prime childbearing years (25-29), during the five year period.

**Table 2**

Age	2010			2015		
	Number of Females	Resident Births	Births per Female	Females	Births per Female	Proj Births
< 5	34,220					
05 - 09	38,212					
10 - 14	41,026					
15 - 19	45,852	723	0.01577	41,026	0.01577	647
20 - 24	41,448	2638	0.06365	45,852	0.06365	2,918
25 - 29	36,183	3627	0.10024	41,448	0.10024	4,155
30 - 34	36,050	3717	0.10311	36,183	0.10311	3,731
35 - 39	41,596	1,749	0.04205	36,050	0.04205	1,516
40 - 44	49,004	397	0.00810	41,596	0.00810	337
45 - 49	57,497	18	0.00031	49,004	0.00031	15
50 - 54	56,533					
55 - 59	48,530					
60 - 64	41,701					
65 - 69	29,250					
70 - 74	20,888					
75 - 79	17,463					
80 - 84	14,913					
85 +	16,710					
<b>Total</b>		<b>12,869</b>				<b>13,319</b>
<b>15 - 49</b>	<b>307,630</b>			<b>291,159</b>		

Female Population, Source: U.S. Bureau of the Census  
 Births, NH Sec of State, Bureau of Vital Records.

In 2010 there were 36,000 females in the 25-29 bracket, this was replaced by the 41,000 females in 20-24 bracket. This change increased the births for the 25-29 year olds by over 500.

This “ageing” of the females is based on following assumptions:

1. No females move into or out of the state.
2. No females will die during the five year period.
3. Females will have the same birth rate in 2015 as in 2010.

Migration, in both directions, will occur. However given recent history, which includes good economic conditions and the present depressed economy, migration will likely be at a low level. Some females will die; but given the young age group it will be few. Fertility is fairly stable and if anything, is likely to decline slightly.

The numbers used in the grade progression method are:

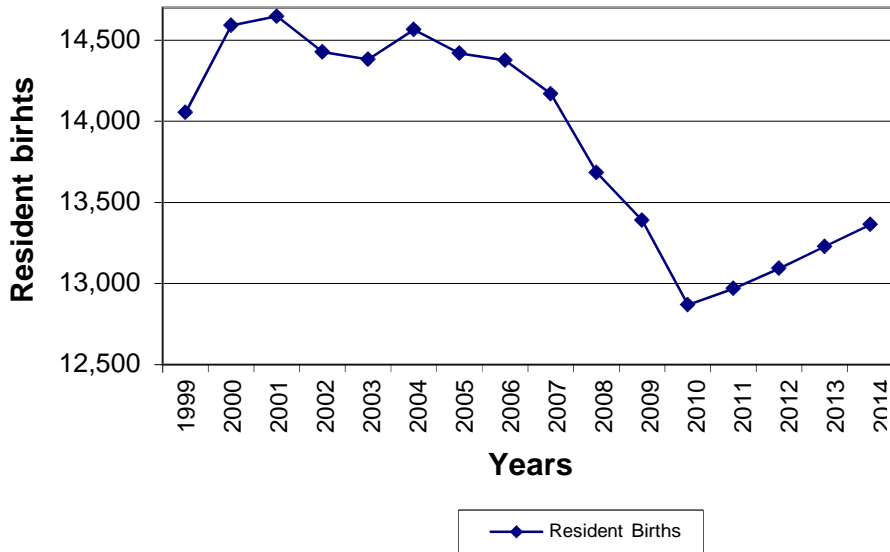
2011	12,969
2012	13,094
2013	13,229
2014	13,364

This projection reverses the trend of declining births, that has been continuous since 2004. Given the ageing pattern of the Echo generation, the projection is thought to be reasonable. In the near term it is highly likely that the number of prime childbearing females will increase. Also a reasonable reversal of the negative trend builds some caution into the enrollment projections. This, because of the asymmetrical consequences of any enrollment projection. The consequences for building one classroom too many are much less than building one too few.

**State of New Hampshire**

<b>Year</b>	<b>Resident Births</b>	<b>Annual Change</b>
1999	14,054	
2000	14,591	537
2001	14,647	56
2002	14,427	-220
2003	14,382	-45
2004	14,565	183
2005	14,419	-146
2006	14,376	-43
2007	14,170	-206
2008	13,684	-486
2009	13,389	-295
2010	12,869	-520
2011	12,969	100
2012	13,094	125
2013	13,229	135
2014	13,364	135

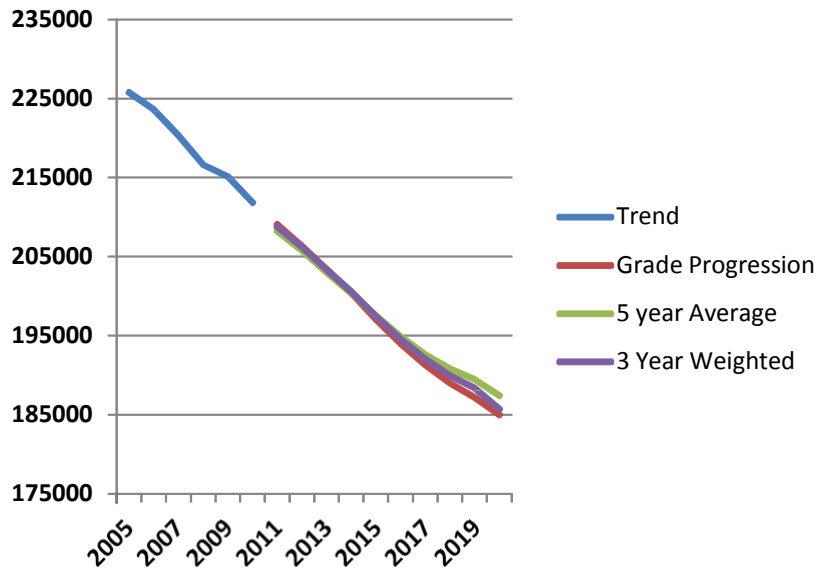
**Resident Births**



## Enrollment Projections

Year	Grade Progression	5 Year Average	3 Year Weighted
2005	225763		
2006	223625		
2007	220314		
2008	216646		
2009	215134		
2010	211841		
2011	209070	208218	208785
2012	206346	205760	206239
2013	203384	203027	203406
2014	200389	200355	200554
2015	197053	197501	197434
2016	193968	194869	194548
2017	191308	192627	192058
2018	189019	190818	189984
2019	187184	189436	188361
2020	185009	187421	185712

### Enrollment Trends and Projections Grades k-12, Public and Private Enrollment





***American Community Survey***  
***Public Use Microdata Sample (PUMS)***

*Note: Cells highlighted in yellow indicate that the sample is too small to be reliable*

Summary Table  
Average School Enrollment In New Hampshire (Public Enrollment only)

	1 Bedroom or Less	2 Bedrooms	3 Bedrooms	4 or More Bedrooms	Total
Grade K -12					
Single Family Detached	0.04	0.17	0.46	0.75	0.48
Single Family Attached	#N/A	0.22	0.48	0.82	0.33
Two to Four Unit Building	0.03	0.22	0.69	0.54	0.32
Five or More Unit Building	0.03	0.22	0.84	#N/A	0.17
Mobile Home	#N/A	0.12	0.52	0.74	0.26
All Structure Types	0.04	0.19	0.49	0.73	0.40
	1 Bedroom or Less	2 Bedrooms	3 Bedrooms	4 or More Bedrooms	Total
Grade K- 12 (All Unit Types)					
Owner Occupied	0.04	0.14	0.45	0.73	0.43
Renter Occupied	0.03	0.26	0.80	0.72	0.31
	1 Bedroom or Less	2 Bedrooms	3 Bedrooms	4 or More Bedrooms	Total
Grade K -12 (All Unit Types)					
Rural (Super PUMA 33100)	0.03	0.18	0.47	0.73	0.39
Urban (Super PUMA 33200)	0.04	0.20	0.50	0.73	0.40
	1 Bedroom or Less	2 Bedrooms	3 Bedrooms	4 or More Bedrooms	Total
Grade K -12 (All Unit Types)					
Units Built 1999 and Earlier	0.03	0.19	0.49	0.72	0.39
Units Built 2000 and Later	0.07	0.12	0.48	0.84	0.44

Source: American Community Survey, 2005 to 2009 PUMS Estimates

#N/A- Estimate not valid, too small, or margin of error approaches or exceeds estimate.

For margin of error estimates see detailed tables.

## Summary Table

(continued)

### Average Public School Enrollment Per Unit In New Hampshire

	1 Bedroom or Less	2 Bedrooms	3 Bedrooms	4 or More Bedrooms	Total: 2009	Total: 2000	Change
<b>Grade K -12 (All Unit Types)</b>							
PUMA 1 -Coos & Grafton Co.	0.03	0.20	0.47	0.59	0.35	0.40	-0.05
PUMA 2- Carroll & Belknap Co.	0.06	0.17	0.47	0.71	0.39	0.41	-0.02
PUMA 3- Strafford Co.	#N/A	0.19	0.49	0.65	0.36	0.43	-0.07
PUMA 4- Merrimack Co.	#N/A	0.18	0.47	0.75	0.38	0.45	-0.07
PUMA 5 - Sullivan & Cheshire Co.	#N/A	0.14	0.43	0.69	0.35	0.44	-0.09
PUMA 6- Hillsborough Co. Non-Metro	#N/A	0.20	0.51	0.86	0.50	0.57	-0.07
PUMA 7&8 -Manchester Metro Area	0.05	0.22	0.55	0.79	0.43	0.45	-0.02
PUMA 9- Nashua Metro Area	#N/A	0.19	0.49	0.74	0.39	0.46	-0.07
PUMA 10- Western Rockingham Co.	0.07	0.19	0.53	0.78	0.46	0.52	-0.06
PUMA 11 - Eastern Rockingham Co.	0.05	0.18	0.44	0.67	0.36	0.37	-0.01

	1 Bedroom or Less	2 Bedrooms	3 Bedrooms	4 or More Bedrooms	Total	
<b>Grade K - 12 (All Unit Types)</b>						
Public School Enrollment	2,040	27,621	96,521	73,226	199,408	211,149
Private School Enrollment	162	2,541	10,574	11,667	24,944	24,438
<b>Total</b>	<b>2,202</b>	<b>30,162</b>	<b>107,095</b>	<b>84,893</b>	<b>224,352</b>	<b>235,587</b>
Average Public School Enrollment	0.04	0.19	0.49	0.73	0.40	0.45
Average Private School Enrollment	0.00	0.02	0.05	0.12	0.05	0.05
<b>Total</b>	<b>0.04</b>	<b>0.21</b>	<b>0.54</b>	<b>0.85</b>	<b>0.45</b>	<b>0.50</b>

Source: American Community Survey, 2005 to 2009 PUMS Estimates

#N/A- Estimate not valid, too small, or margin of error approaches or exceeds estimate.

For margin of error estimates see detailed tables.

# Statewide Public School Enrollment, Grades K through 12

## By Building Type and Number of Bedrooms

Source: American Community Survey, 2005 to 2009 PUMS Estimates

Building Type and Bedrooms							2000 PUMS
	Occupied Housing Units	Margin of Error	Students Enrolled	Margin of Error	Students Per Unit	Margin of Error	Students Per Unit
<b>Single-family detached</b>							
0 & 1 Bedroom	9,633	711	424	224	0.04	0.02	0.04
2 Bedrooms	55,761	1,812	9,443	917	0.17	0.02	0.21
3 Bedrooms	162,920	2,386	75,229	2,296	0.46	0.02	0.54
4+ Bedrooms	90,220	1,671	67,556	2,843	0.75	0.03	0.81
All Bedrooms	318,534	2,565	152,652	2,555	0.48	0.01	0.54
<b>Single-family attached</b>							
0 & 1 Bedroom	1,268	282	22	34	0.02	0.03	0.15
2 Bedrooms	15,490	945	3,385	647	0.22	0.04	0.22
3 Bedrooms	7,437	662	3,572	655	0.48	0.10	0.59
4+ Bedrooms	2,193	404	1,797	479	0.82	0.27	0.57
All Bedrooms	26,388	1,180	8,776	955	0.33	0.04	0.34
<b>2 to 4 Unit Apartments</b>							
0 & 1 Bedroom	14,067	1,182	480	261	0.03	0.02	0.07
2 Bedrooms	23,514	1,414	5,205	725	0.22	0.03	0.26
3 Bedrooms	13,738	1,133	9,472	1,558	0.69	0.13	0.68
4+ Bedrooms	5,799	666	3,149	652	0.54	0.13	0.73
All Bedrooms	57,118	2,120	18,306	1,580	0.32	0.03	0.36
<b>5 or More Unit Apartments</b>							
0 & 1 Bedroom	30,866	1,342	1,075	406	0.03	0.01	0.04
2 Bedrooms	34,703	1,444	7,541	996	0.22	0.03	0.24
3 Bedrooms	3,904	661	3,282	740	0.84	0.24	0.98
4+ Bedrooms	879	274	153	139	0.17	0.17	#N/A
All Bedrooms	70,352	1,860	12,051	1,418	0.17	0.02	0.21
<b>Mobile home or trailer</b>							
0 & 1 Bedroom	1,960	413	39	39	0.02	0.02	0.07
2 Bedrooms	17,501	900	2,047	414	0.12	0.02	0.17
3 Bedrooms	9,497	784	4,966	767	0.52	0.09	0.61
4+ Bedrooms	768	221	571	215	0.74	0.35	#N/A
All Bedrooms	29,726	1,252	7,623	870	0.26	0.03	0.34
<b>All Structure Types</b>							
0 & 1 Bedroom	57,875	1,629	2,040	540	0.04	0.01	0.05
2 Bedrooms	146,969	2,774	27,621	1,804	0.19	0.01	0.22
3 Bedrooms	197,496	2,937	96,521	2,640	0.49	0.02	0.57
4+ Bedrooms	99,859	1,829	73,226	2,796	0.73	0.03	0.81
All Bedrooms	502,199	1,793	199,408	1,973	0.40	0.00	0.45

<b>Building Type and Bedrooms</b>	<b>Occupied Housing Units</b>	<b>Margin of Error</b>	<b>Students Enrolled</b>	<b>Margin of Error</b>	<b>Students Per Unit</b>	<b>Margin of Error</b>
<b>Units Built 2000 or Later</b>						
Single-family detached						
0 & 1 Bedroom	486	143	0	486	0.00	#N/A
2 Bedrooms	3,964	454	487	268	0.12	0.07
3 Bedrooms	16,721	1,033	7,931	951	0.47	0.06
4+ Bedrooms	10,190	691	8,716	1,032	0.86	0.12
All Bedrooms	31,361	1,348	17,134	1,409	0.55	0.05
Single-family attached						
0 & 1 Bedroom	144	75	22	34	0.15	0.25
2 Bedrooms	2,379	350	166	110	0.07	0.05
3 Bedrooms	1,284	316	562	393	0.44	0.32
4+ Bedrooms	157	98	80	80	0.51	0.60
All Bedrooms	3,964	485	830	422	0.21	0.11
2 to 4 Unit Apartments						
0 & 1 Bedroom	371	177	27	43	0.07	0.12
2 Bedrooms	820	261	184	131	0.22	0.18
3 Bedrooms	271	182	128	192	0.47	0.78
4+ Bedrooms	110	80	0	486	0.00	#N/A
All Bedrooms	1,572	396	339	234	0.22	0.16
5 or More Unit Apartments						
0 & 1 Bedroom	1,813	382	124	114	0.07	0.06
2 Bedrooms	3,905	498	524	282	0.13	0.07
3 Bedrooms	156	96	221	175	1.42	1.42
4+ Bedrooms	83	62	0	486	0.00	#N/A
All Bedrooms	5,957	618	869	330	0.15	0.06
Mobile home or trailer						
0 & 1 Bedroom	70	68	18	24	0.26	0.42
2 Bedrooms	1,633	329	162	153	0.10	0.10
3 Bedrooms	1,585	315	757	344	0.48	0.24
4+ Bedrooms	116	100	114	97	0.98	1.20
All Bedrooms	3,404	460	1,051	376	0.31	0.12
All Structure Types						
0 & 1 Bedroom	2,884	452	191	136	0.07	0.05
2 Bedrooms	12,701	837	1,523	392	0.12	0.03
3 Bedrooms	20,017	1,089	9,599	1,062	0.48	0.06
4+ Bedrooms	10,656	692	8,910	1,037	0.84	0.11
All Bedrooms	46,258	1,528	20,223	1,395	0.44	0.03

<b>Building Type and Bedrooms</b>	<b>Occupied Housing Units</b>	<b>Margin of Error</b>	<b>Students Enrolled</b>	<b>Margin of Error</b>	<b>Students Per Unit</b>	<b>Margin of Error</b>
<b>Units Built 1999 and Earlier</b>						
Single-family detached						
0 & 1 Bedroom	9,147	697	424	224	0.05	0.02
2 Bedrooms	51,797	1,656	8,956	818	0.17	0.02
3 Bedrooms	146,199	2,343	67,298	2,102	0.46	0.02
4+ Bedrooms	80,030	1,634	58,840	2,733	0.74	0.04
All Bedrooms	287,173	2,409	135,518	2,635	0.47	0.01
Single-family attached						
0 & 1 Bedroom	1,124	270	0	486	0.00	#N/A
2 Bedrooms	13,111	857	3,219	632	0.25	0.05
3 Bedrooms	6,153	604	3,010	570	0.49	0.10
4+ Bedrooms	2,036	372	1,717	470	0.84	0.28
All Bedrooms	22,424	1,132	7,946	863	0.35	0.04
2 to 4 Unit Apartments						
0 & 1 Bedroom	13,696	1,153	453	261	0.03	0.02
2 Bedrooms	22,694	1,371	5,021	702	0.22	0.03
3 Bedrooms	13,467	1,136	9,344	1,516	0.69	0.13
4+ Bedrooms	5,689	659	3,149	652	0.55	0.13
All Bedrooms	55,546	2,058	17,967	1,557	0.32	0.03
5 or More Unit Apartments						
0 & 1 Bedroom	29,053	1,281	951	411	0.03	0.01
2 Bedrooms	30,798	1,420	7,017	960	0.23	0.03
3 Bedrooms	3,748	654	3,061	737	0.82	0.24
4+ Bedrooms	796	256	153	139	0.19	0.18
All Bedrooms	64,395	1,681	11,182	1,325	0.17	0.02
Mobile home or trailer						
0 & 1 Bedroom	1,890	409	21	30	0.01	0.02
2 Bedrooms	15,868	858	1,885	404	0.12	0.03
3 Bedrooms	7,912	742	4,209	732	0.53	0.11
4+ Bedrooms	652	221	457	189	0.70	0.37
All Bedrooms	26,322	1,238	6,572	848	0.25	0.03
All Structure Types						
0 & 1 Bedroom	54,991	1,600	1,849	523	0.03	0.01
2 Bedrooms	134,268	2,739	26,098	1,724	0.19	0.01
3 Bedrooms	177,479	2,776	86,922	2,427	0.49	0.02
4+ Bedrooms	89,203	1,870	64,316	2,691	0.72	0.03
All Bedrooms	455,941	2,292	179,185	2,111	0.39	0.01

<b>Building Type and Bedrooms</b>	<b>Occupied Housing Units</b>	<b>Margin of Error</b>	<b>Students Enrolled</b>	<b>Margin of Error</b>	<b>Students Per Unit</b>	<b>Margin of Error</b>
<b>Owner Occupied Units</b>						
Single-family detached						
0 & 1 Bedroom	7,142	592	261	133	0.04	0.02
2 Bedrooms	49,748	1,674	8,104	751	0.16	0.02
3 Bedrooms	155,372	2,463	70,157	2,274	0.45	0.02
4+ Bedrooms	86,224	1,676	64,383	2,821	0.75	0.04
All Bedrooms	298,486	2,528	142,905	2,674	0.48	0.01
Single-family attached						
0 & 1 Bedroom	605	176	22	34	0.04	0.06
2 Bedrooms	12,142	806	1,661	418	0.14	0.04
3 Bedrooms	5,149	539	1,493	346	0.29	0.07
4+ Bedrooms	1,726	338	1,256	424	0.73	0.28
All Bedrooms	19,622	978	4,432	653	0.23	0.04
2 to 4 Unit Apartments						
0 & 1 Bedroom	1,074	304	96	104	0.09	0.10
2 Bedrooms	5,324	674	622	325	0.12	0.06
3 Bedrooms	4,056	542	1,473	438	0.36	0.12
4+ Bedrooms	3,387	462	1,594	525	0.47	0.17
All Bedrooms	13,841	992	3,785	711	0.27	0.05
5 or More Unit Apartments						
0 & 1 Bedroom	2,120	351	42	47	0.02	0.02
2 Bedrooms	7,214	713	541	227	0.07	0.03
3 Bedrooms	537	220	48	46	0.09	0.09
4+ Bedrooms	175	137	0	486	0.00	#N/A
All Bedrooms	10,046	736	631	226	0.06	0.02
Mobile home or trailer						
0 & 1 Bedroom	1,531	344	39	39	0.03	0.03
2 Bedrooms	14,775	876	1,418	378	0.10	0.03
3 Bedrooms	8,061	715	3,971	695	0.49	0.10
4+ Bedrooms	730	219	501	210	0.69	0.35
All Bedrooms	25,097	1,172	5,929	762	0.24	0.03
All Structure Types						
0 & 1 Bedroom	12,537	861	460	182	0.04	0.01
2 Bedrooms	89,203	2,092	12,346	1,090	0.14	0.01
3 Bedrooms	173,175	2,806	77,142	2,421	0.45	0.02
4+ Bedrooms	92,242	1,722	67,734	2,777	0.73	0.03
All Bedrooms	367,157	2,734	157,682	2,658	0.43	0.01

<b>Building Type and Bedrooms</b>	<b>Occupied Housing Units</b>	<b>Margin of Error</b>	<b>Students Enrolled</b>	<b>Margin of Error</b>	<b>Students Per Unit</b>	<b>Margin of Error</b>
<b>Renter Occupied Units</b>						
Single-family detached						
0 & 1 Bedroom	2,491	483	163	181	0.07	0.07
2 Bedrooms	6,013	675	1,339	439	0.22	0.08
3 Bedrooms	7,548	760	5,072	829	0.67	0.13
4+ Bedrooms	3,996	627	3,173	815	0.79	0.24
All Bedrooms	20,048	1,484	9,747	1,302	0.49	0.07
Single-family attached						
0 & 1 Bedroom	663	203	0	486	0.00	#N/A
2 Bedrooms	3,348	563	1,724	502	0.51	0.17
3 Bedrooms	2,288	449	2,079	592	0.91	0.31
4+ Bedrooms	467	250	541	305	1.16	0.90
All Bedrooms	6,766	786	4,344	797	0.64	0.14
2 to 4 Unit Apartments						
0 & 1 Bedroom	12,993	1,164	384	233	0.03	0.02
2 Bedrooms	18,190	1,221	4,583	601	0.25	0.04
3 Bedrooms	9,682	1,021	7,999	1,521	0.83	0.18
4+ Bedrooms	2,412	499	1,555	449	0.64	0.23
All Bedrooms	43,277	1,935	14,521	1,514	0.34	0.04
5 or More Unit Apartments						
0 & 1 Bedroom	28,746	1,308	1,033	399	0.04	0.01
2 Bedrooms	27,489	1,380	7,000	1,021	0.25	0.04
3 Bedrooms	3,367	628	3,234	741	0.96	0.28
4+ Bedrooms	704	236	153	139	0.22	0.21
All Bedrooms	60,306	1,858	11,420	1,419	0.19	0.02
Mobile home or trailer						
0 & 1 Bedroom	429	182	0	486	0.00	#N/A
2 Bedrooms	2,726	479	629	302	0.23	0.12
3 Bedrooms	1,436	362	995	359	0.69	0.31
4+ Bedrooms	38	29	70	65	1.84	2.20
All Bedrooms	4,629	654	1,694	413	0.37	0.10
All Structure Types						
0 & 1 Bedroom	45,338	1,581	1,580	507	0.03	0.01
2 Bedrooms	57,766	1,989	15,275	1,422	0.26	0.03
3 Bedrooms	24,321	1,330	19,379	1,932	0.80	0.09
4+ Bedrooms	7,617	819	5,492	938	0.72	0.15
All Bedrooms	135,042	2,379	41,726	2,366	0.31	0.02



<b>Building Type and Bedrooms</b>	<b>Occupied Housing Units</b>	<b>Margin of Error</b>	<b>Students Enrolled</b>	<b>Margin of Error</b>	<b>Students Per Unit</b>	<b>Margin of Error</b>
<b>Private School Enrollment</b>						
All Structure Types						
0 & 1 Bedroom	57,875	1,629	162	129	0.003	0.002
2 Bedrooms	146,969	2,774	2,541	531	0.017	0.004
3 Bedrooms	197,496	2,937	10,574	1,111	0.05	0.01
4+ Bedrooms	99,859	1,829	11,667	1,195	0.12	0.01
All Bedrooms	502,199	1,793	24,944	1,604	0.05	0.00