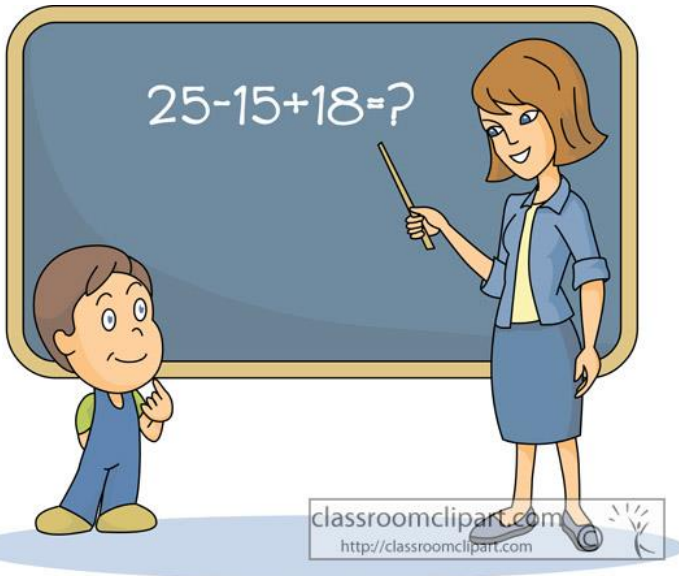


# *Enrollment Projection Thornton Central School February 2019*



**Applied Economic Research  
Laconia, New Hampshire**



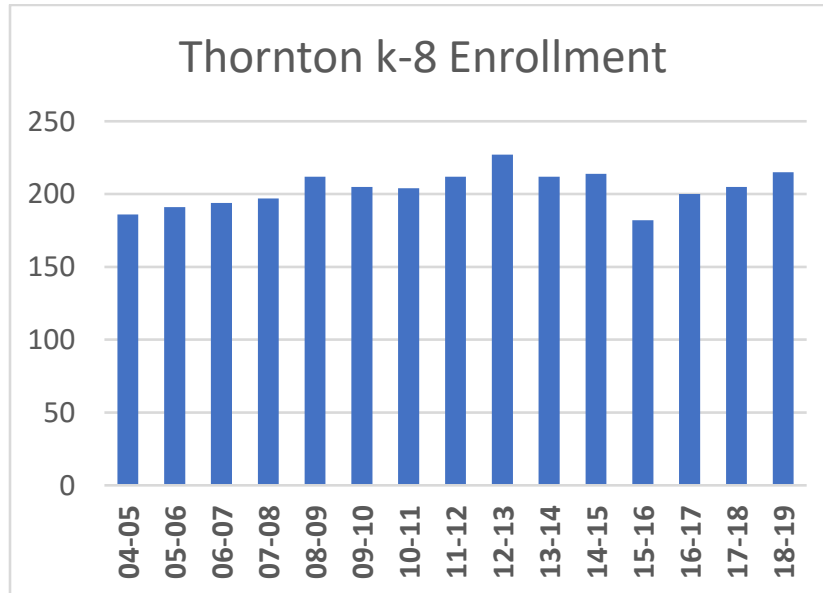
# Projected Enrollment Thornton Central School

## February 2019

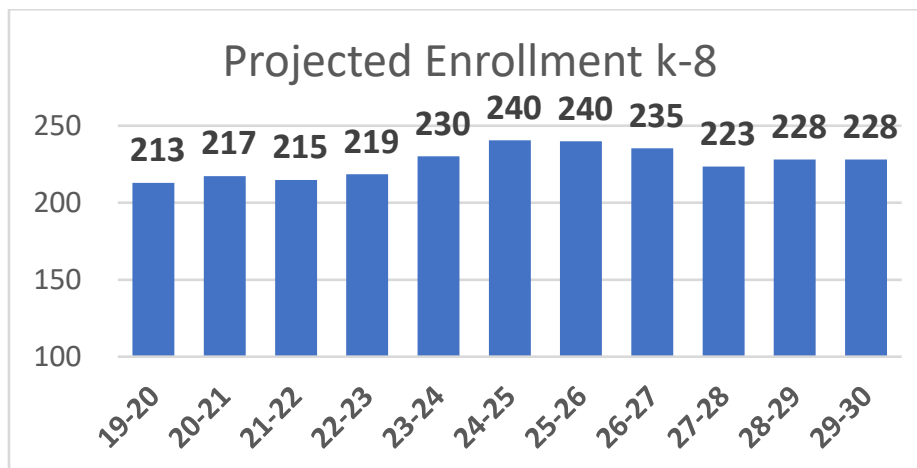
### Summary

This analysis was prepared by Applied Economic Research (AER) at the request of the regional SAU, to help with overall planning at the Thornton Central Elementary School. Its purpose is to provide a projection of school enrollment at Thornton Elementary School, Grades k-8.

Enrollment over the past decade has been fairly stable:



We project that enrollment will remain fairly stable over the next several years and then rise as the impact of recent higher rates of home construction work their way through the system:



We recommend that the SAU continue to monitor enrollment and revisit this analysis in about three or four years. Enrollment could move beyond this projection if home construction in the town rises or falls beyond recent trends

//projected enrollment Thornton central school 2019

# Projected Enrollment

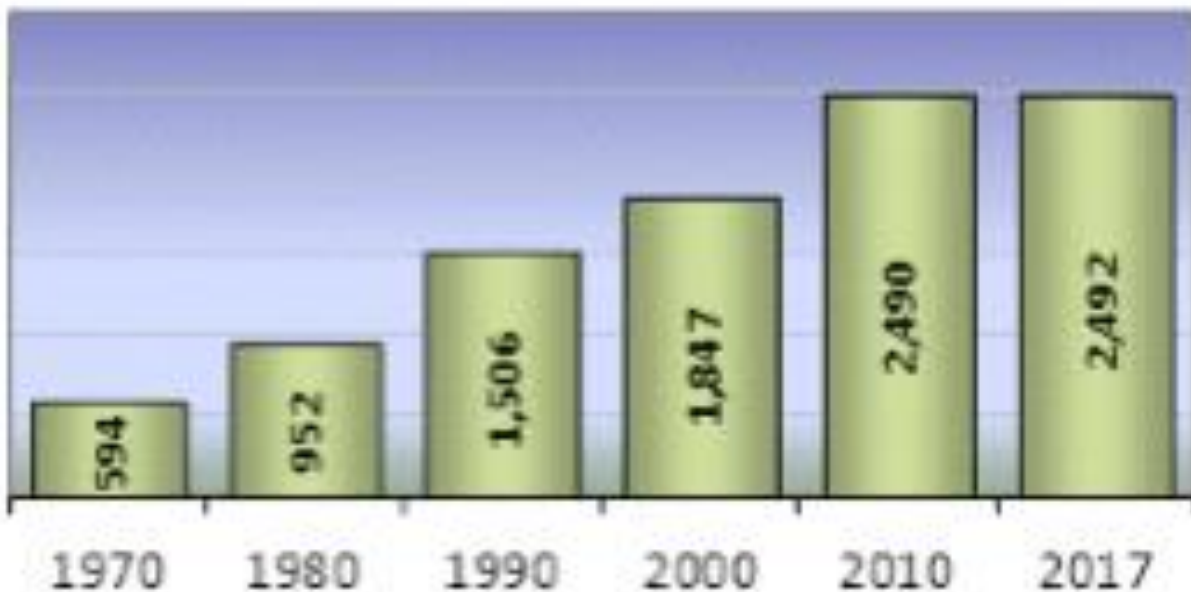
## Thornton Central School

### February 2019

This analysis was prepared by Applied Economic Research at the request of the regional SAU. Its purpose is to provide a 10-year projection of school enrollment at Thornton Elementary School, Grades k-8.

### Background Growth Factors

US Census figures indicate that Thornton has experienced rising overall population in recent decades, with an increase of nearly 650 residents between 2000 and 2010, a 35% rise. The town's current population is estimated to be just under 2,500 according to the US Census Bureau tallies and estimates:



This is well above the 9% increase experienced in Grafton County during the 2000-2010 decade.

Since 2010, the overall population of the town as estimated by the Census Bureau's American Community Survey has been stable, reflecting the pattern of slower growth at both the State and County level. This slower growth is a result of the 2008-2011 National economic recession and resulting subsequent slower population growth.

The underlying element driving population growth in Thornton is regional employment growth within the Plymouth Labor Market Area, which generally strides Interstate 93 including communities from Bristol to Lincoln and Wentworth to Waterville Valley. Recent trends indicate that jobs within the labor market area are on the rise, as the region recovers from the National economic recession. Plymouth State University, Freudenberg, Spear Memorial Hospital and the tourism industry are major factors in the region's job base.

The regional job base has been expanding, except for State employment, possibly reflecting declining employment at PSU

## Plymouth Labor Market Employment Changes

	2014	2017	Change	
			Number	Percent
Total Jobs	12060	12700	640	5%
Private Sector	9499	10193	694	7%
Federal Government	130	142	12	9%
State Government	1036	975	-61	-6%
Local Government	1394	1390	-4	0%

C:\Users\owner\Documents\thornton enrollment 2019\[employment changes lma.xlsx]Sheet1

Overall, however, the regional job base added 640 jobs between 2014-17, a growth rate of over 1% per year, indicating a healthy recovery from the recession. To a significant degree, the regional population base shows the same basic trend as population in Thornton: growth between 2000 and 2010, but relative stability since 2010:

### Plymouth, NH LMA - Population

Yea	Population
2000	25,834
2010	29,723
2017	29,571

Source: US Census Bureau (Census)

What has been happening is that recent job growth has been absorbed by the existing labor force in the form of falling unemployment rates, rather than population growth. In December of 2018 the Plymouth Labor Market Area's unemployment rate was 1.9% well below the national 3.9 % rate and the Labor Market Area's 2010 unemployment rate of over 6%. This absorption of job growth by greater employment of existing residents explains the stable total population at the regional and town level since 2010.

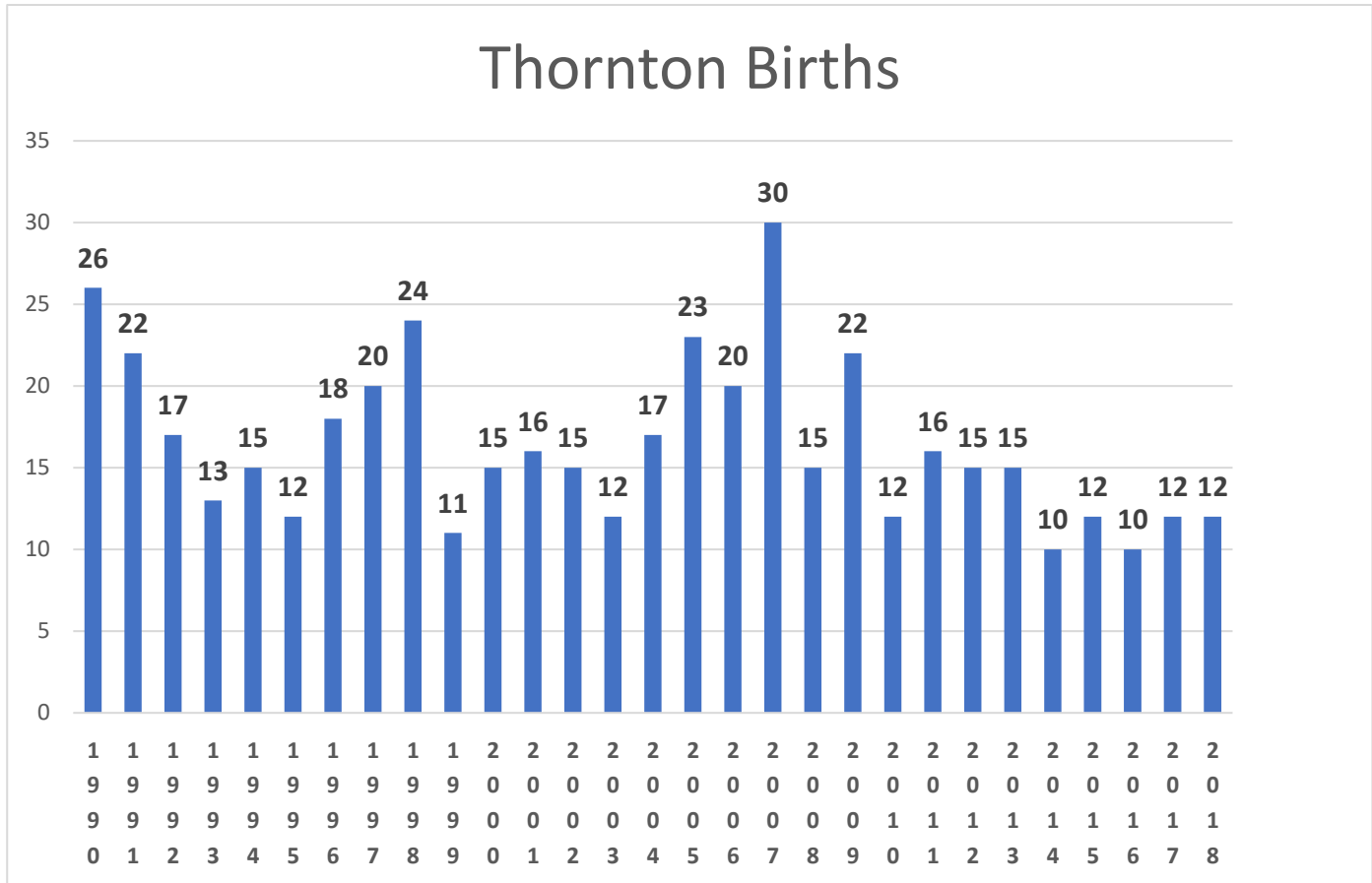
Overall, the regional economy is healthy, experiencing post-recession job growth and an extremely low unemployment rate.

## Enrollment Growth Generators

There are two important factors underlying enrollment at the local level: (1) births to households in the area and (2) increases in the housing inventory.

### Thornton Birth Trends

The number of births born to Thornton mothers over the long term is:



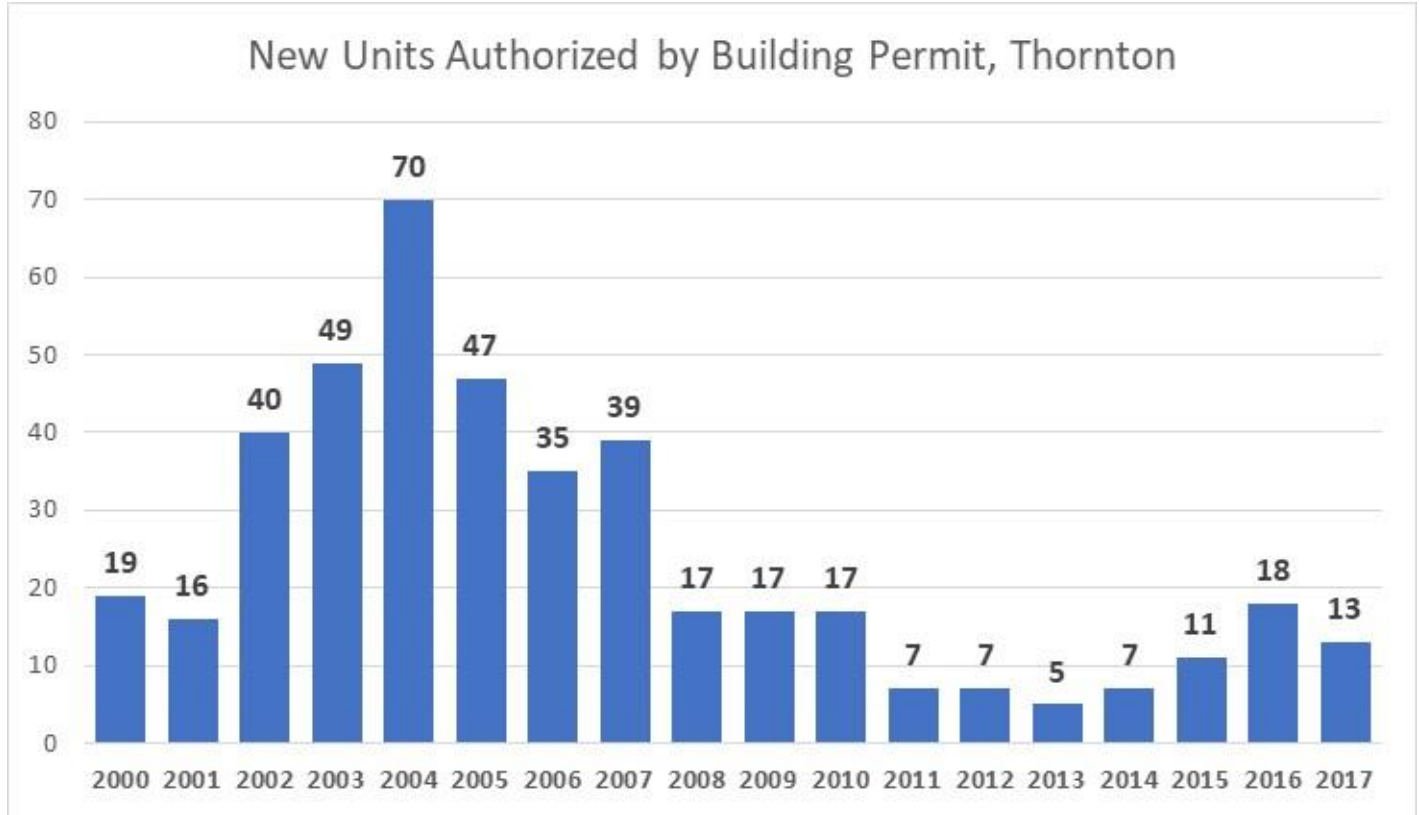
//Thornton enrollment 2019 projection

In terms of understanding current enrollment, the data from as long ago as 2009 continues to be relevant because in the absence of in migration or out migration, students born as long as nine years ago remain in the system.

The number of births were higher in the 1990s (averaging 18 per year) than in the current decade (averaging 12 per year) because the baby boomer generation (the largest on record) was still having babies in the 1990s but is now out of the child-bearing age brackets. Even though overall population in Thornton has risen, the number of births is now lower than in prior decades. This demographic factor—ageing of the baby boomer generation, explains the observation that school enrollment is declining State-wide and in most school districts.

## New Housing Units in Thornton

As previously noted, the regional job base is expanding. The impact of that is beginning to be evident in the number of new housing units authorized by building permit in Thornton:

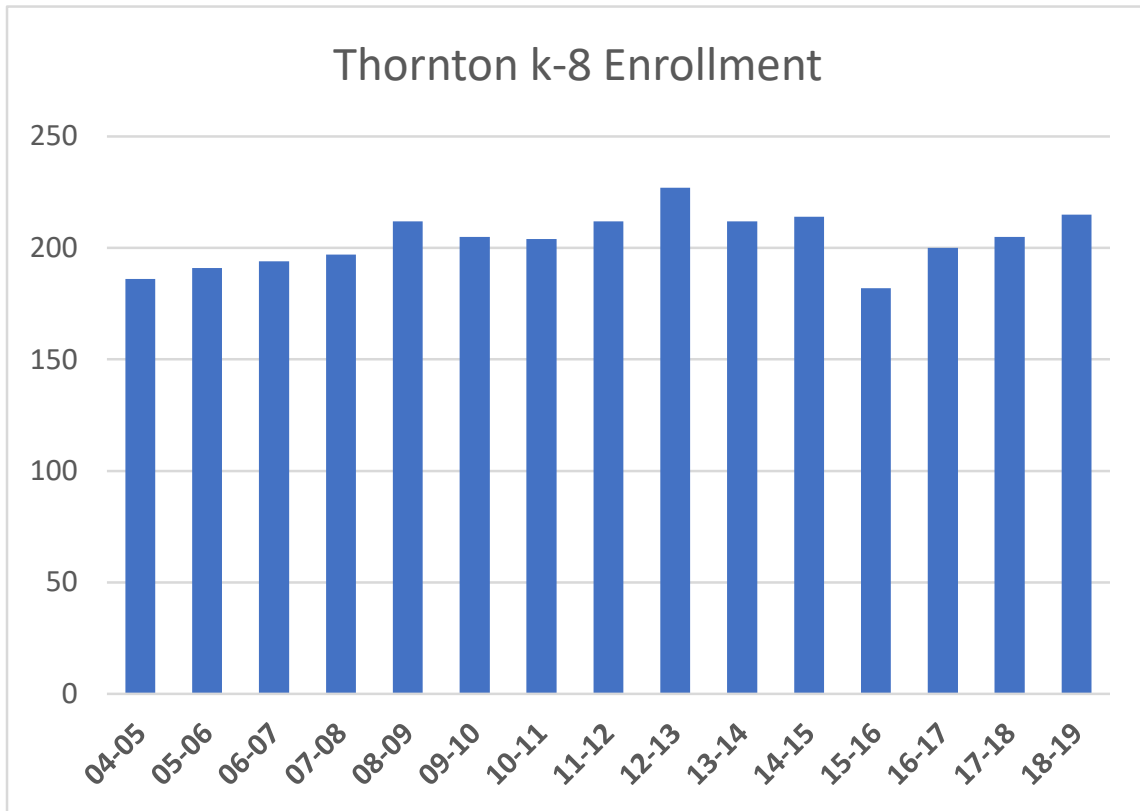


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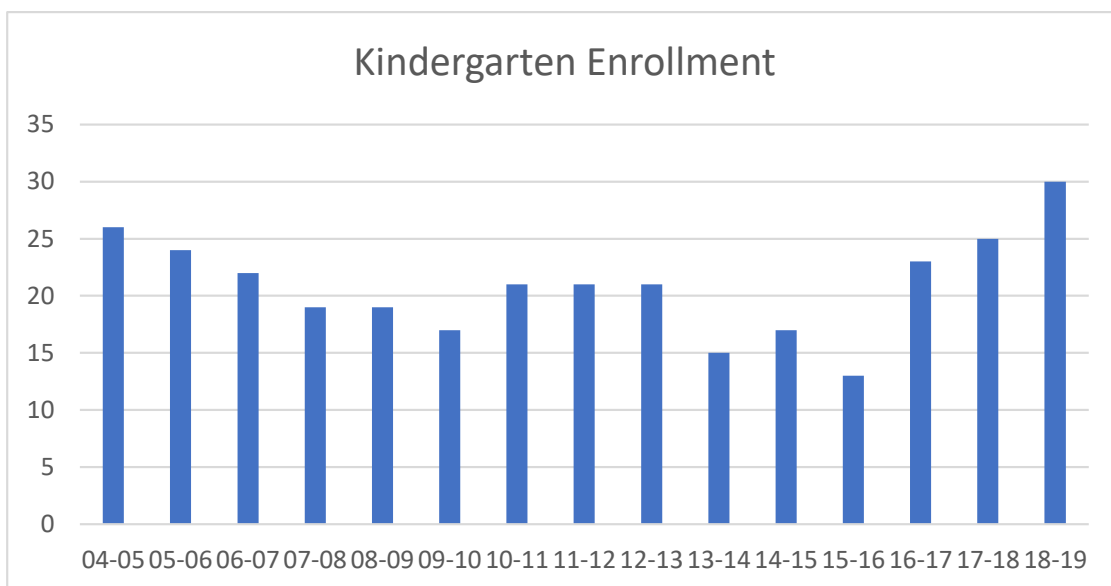
Construction activity peaked in the middle of the prior decade, then was suppressed between 2011 and 2014 as a result of the economic and real estate recession. Since 2015, the number of new units has increased, although still below the 2002-07 peak period.

## Enrollment Trends

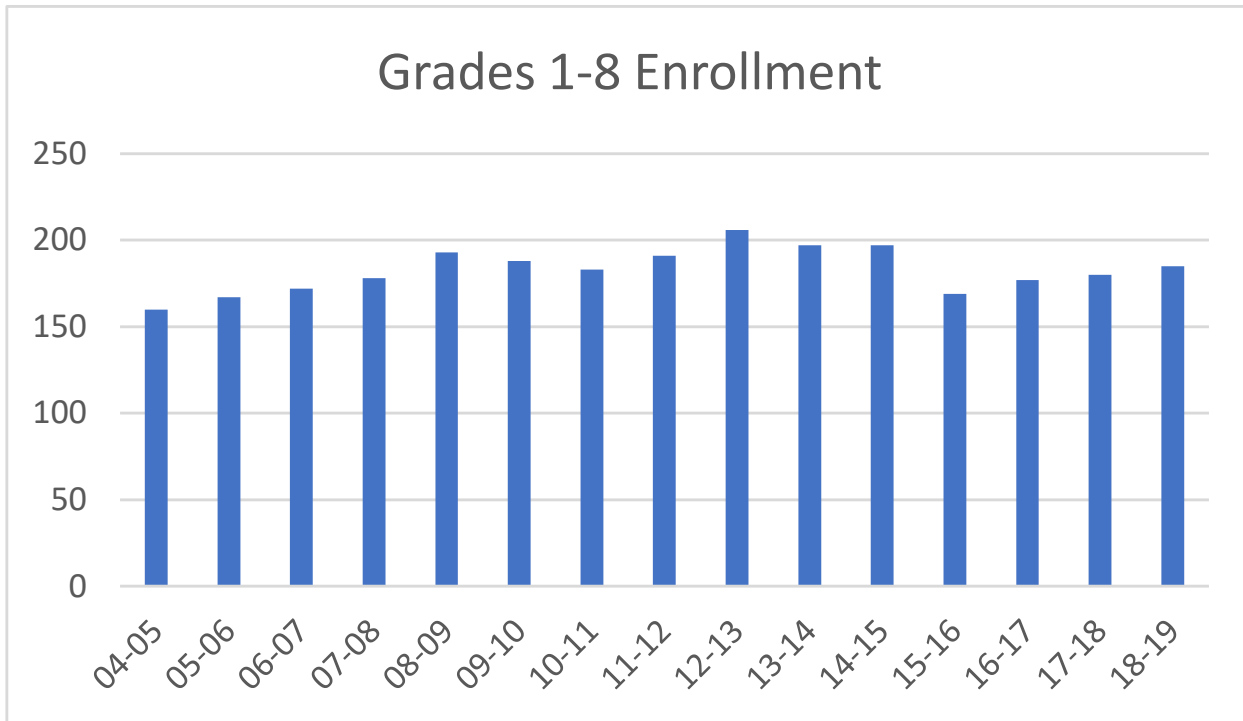
K-8 Enrollment in Thornton Central School has moved in a fairly narrow range in recent years:



Two factors are worthy of note. First, most school districts in the State experienced declining enrollment during this period. In contrast, Thornton enrollment has risen slightly. It is also significant to note that enrollment has risen since the 2015-16 period. Part of that recent enrollment growth is attributable to the District instituting all-day Kindergarten in the 2016-17 school year, which resulted in a jump in Kindergarten enrollment:

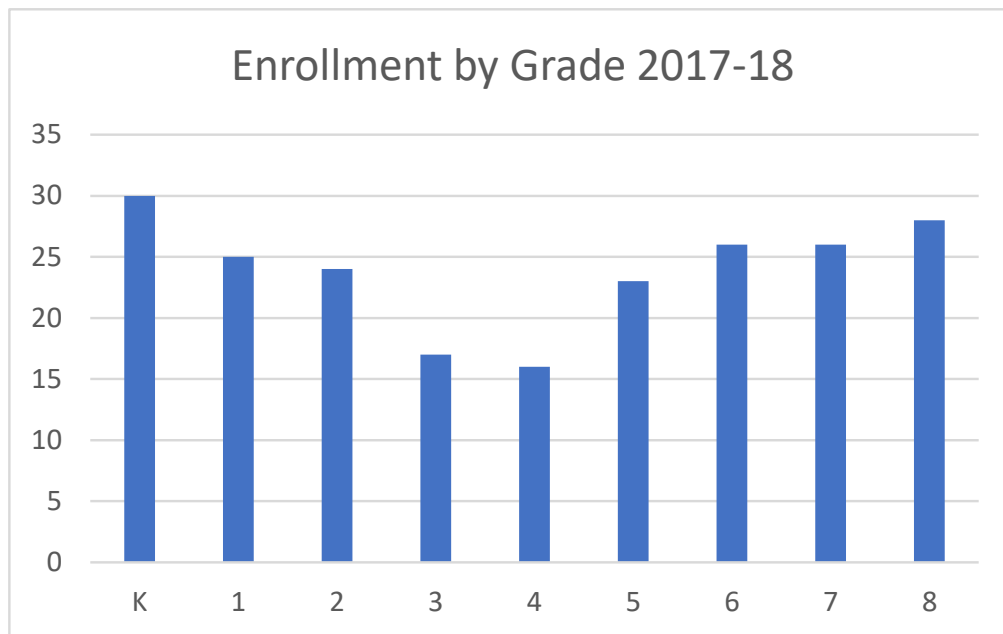


Even apart from the Kindergarten enrollment bump, however, Thornton enrollment has shown a modest increase in the past several years:



This increase is probably attributable to higher rates of regional job growth and home construction experienced in the past several years in Thornton.

To some degree, enrollment over the next several years is structured by current enrollment by grade:





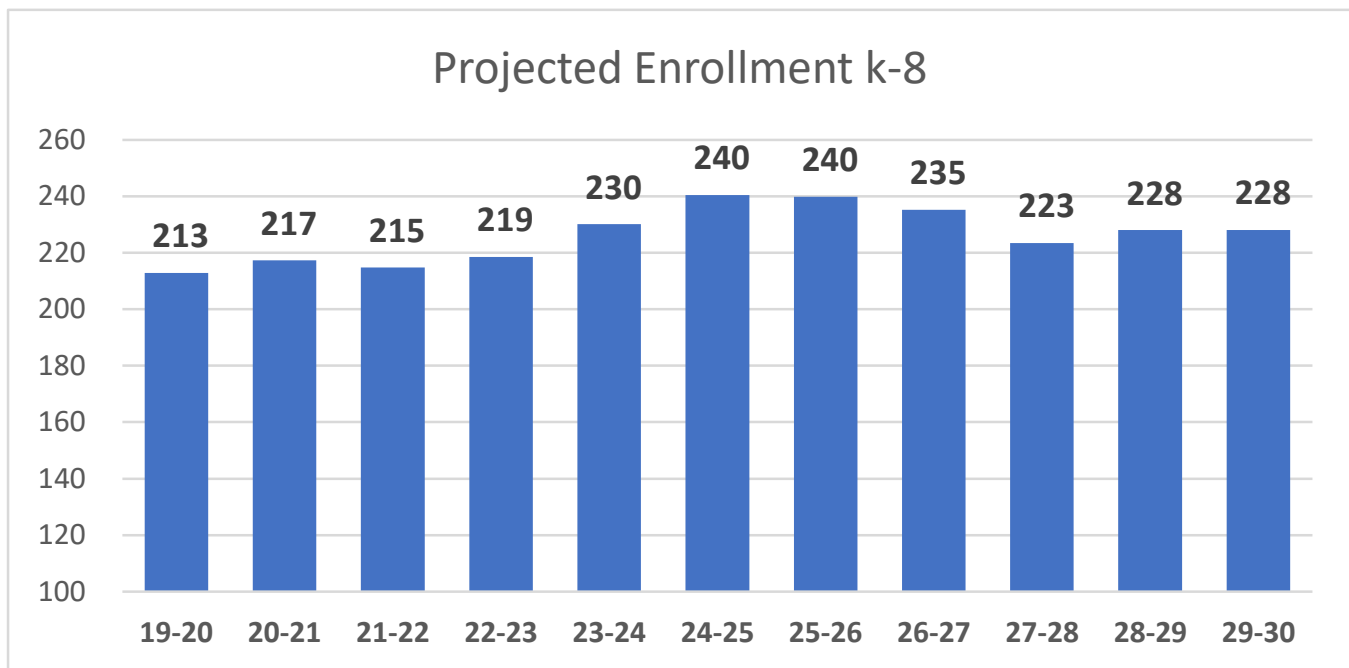
Current enrollment is somewhat bifurcated...with larger class sizes in the upper grades and lower grades, vis-a vis the third and fourth grades. This will have an impact on enrollment in the immediate future....probably helping to stabilize enrollment as larger eighth grades move on, but similarly sized kindergarten classes enter the system. This could be offset, should home building activity rise, as has been the case in the past several years.

### Projected Enrollment

We have utilized a grade progression methodology to project enrollment. This methodology calculates the rate that one grade progresses to the next grade in a subsequent year. For example in there were 20 students in the first grade in a given year and then in the subsequent year there were 22 students in the second grade, the ratio would be 22 divided by 20—1.10) Because data in any on year can be skewed by an unusual event, we have used a three year weighted average progression ratio, which weigh the most recent year most heavily, while still taking the ratio from the prior two years into account.

A second factor in the projection is that we assume births going forward will average 12 per year, has been the case in the past several years.

Enrollment under these assumptions will move in a narrow range over the next several years, and then rising as the impact of higher residential construction and rising entry level classes influence total enrollment;



//Thornton school enrollment 2019 projection

The grade by grade projection is on the following page.

Thornton is rural community. Enrollment can be influenced by comparatively small events, particularly in an increase or decrease in home construction and/or births. For this reason, we recommend that the District and SAU continue to monitor enrollment trends and revisit this analysis in about three or four years.

	19-20	20-21	21-22	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30
Five year Earlier Births	10	12	10	12	12	12	12	12	12	12	12
K	18	22	18	22	22	22	22	22	22	22	22
1	30	18	22	18	22	22	22	22	22	22	22
2	27	33	20	24	20	24	24	24	24	24	24
3	25	28	35	21	25	21	25	25	25	25	25
4	19	28	32	38	23	28	23	28	28	28	28
5	15	18	27	30	36	22	26	22	26	26	26
6	24	16	19	28	32	39	23	28	23	28	28
7	28	26	17	21	31	34	42	25	30	25	30
8	26	28	26	17	20	30	34	41	25	30	25
<b>Total k-8</b>	213	217	215	219	230	240	240	235	223	228	228