

# North Reading Public Schools Performance Report

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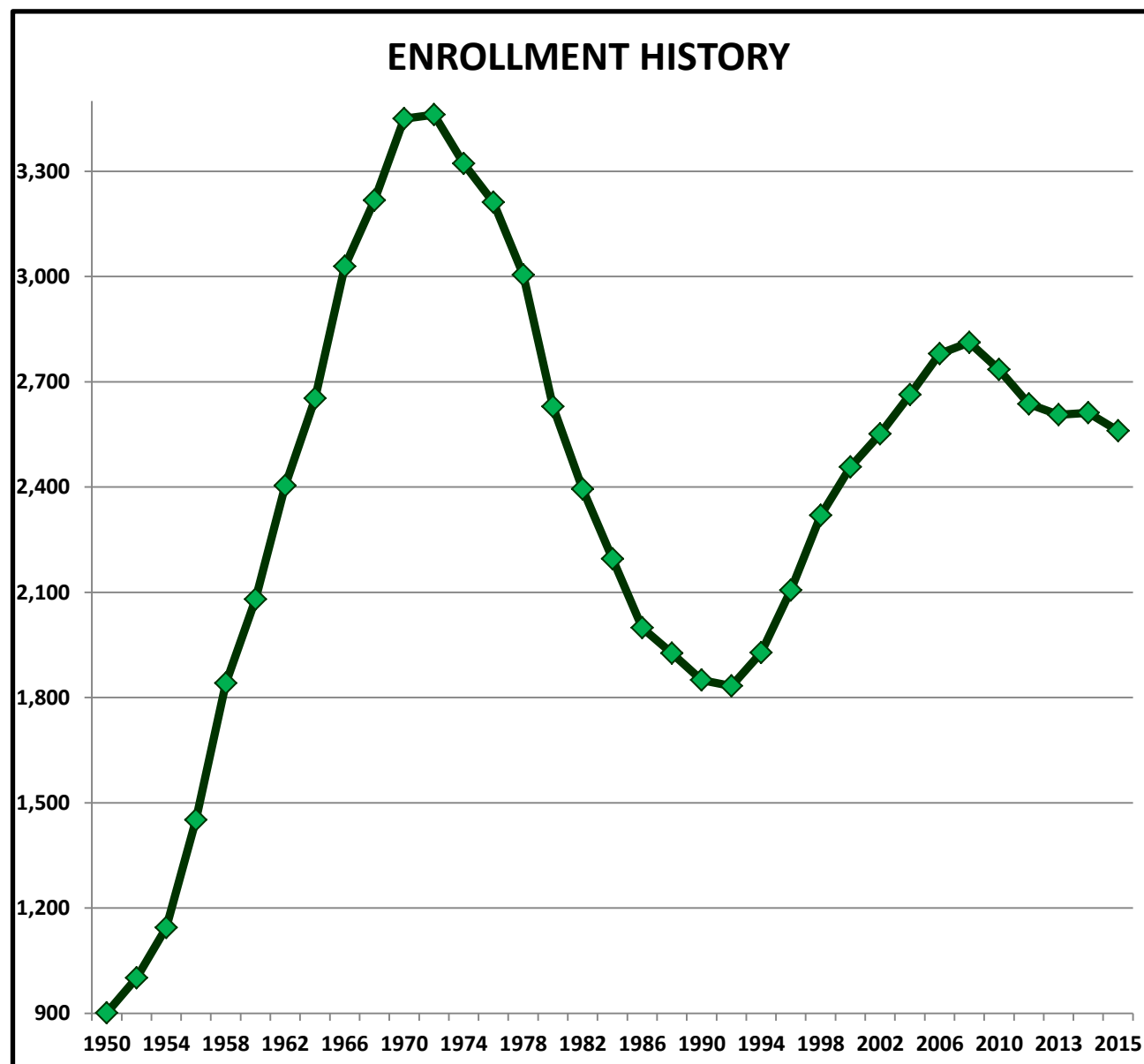


*Pursuit of Excellence*

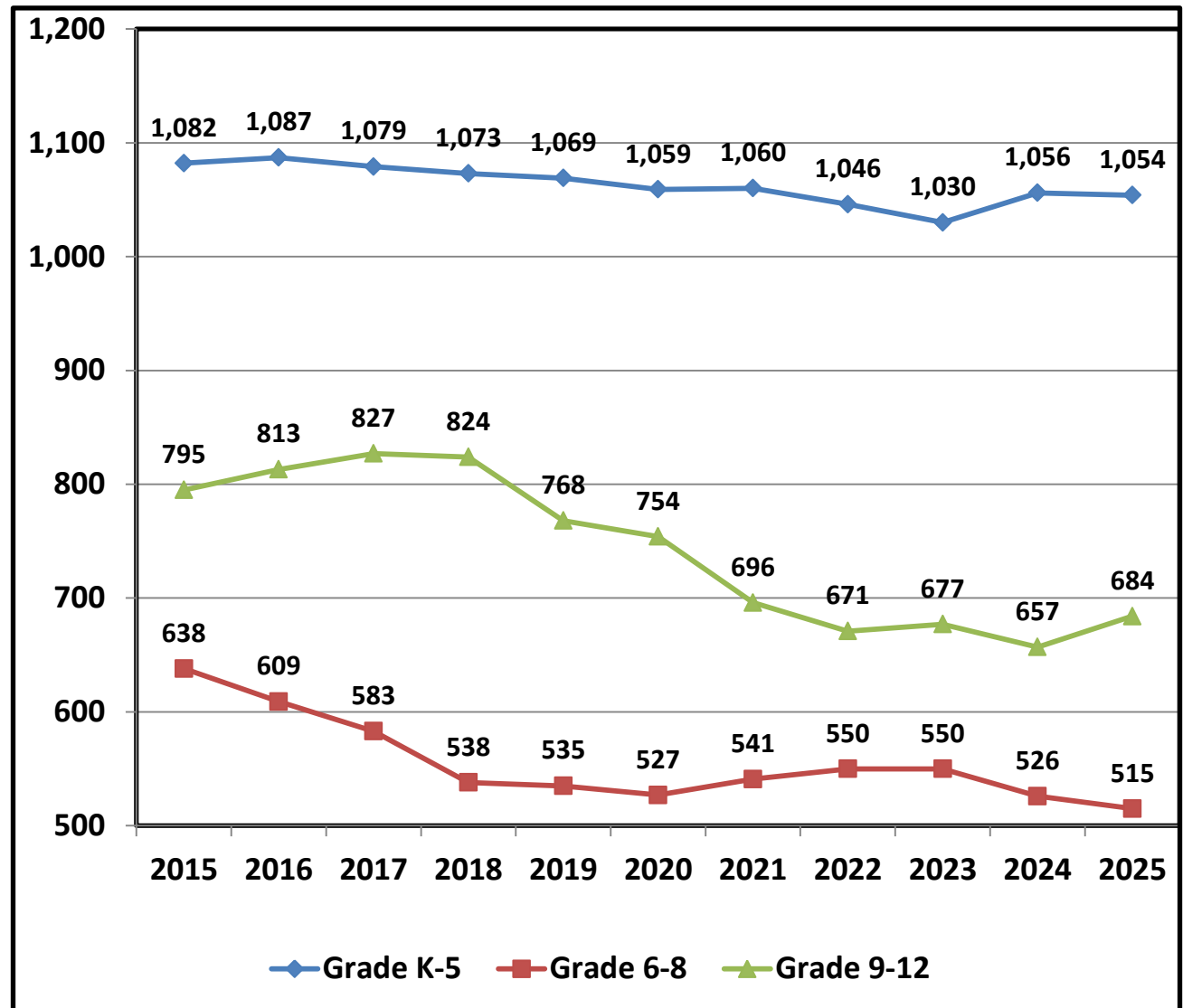
# This Report

This report compares student performance data of North Reading to neighboring and peer districts. Comparative information from Massachusetts Department of Elementary and Secondary Education is referenced throughout this report (<http://profiles.doe.mass.edu>). Where available, data from the 2014-2015 school year is used.

North Reading's total student enrollment has been cyclical. In the early fifties enrollment grew quickly from 900 to 1,841 students. The 1960's saw the numbers rise to 3,217. In the 1970's enrollment grew as high as 3,461. In the 1980's enrollment decreased to 1,926 only to rise again during the 1990's, peaking at 2,319. The period since then has seen a growth back to 2,812 in 2008 with a steady decline since then. Currently, student enrollment stands at 2,560.



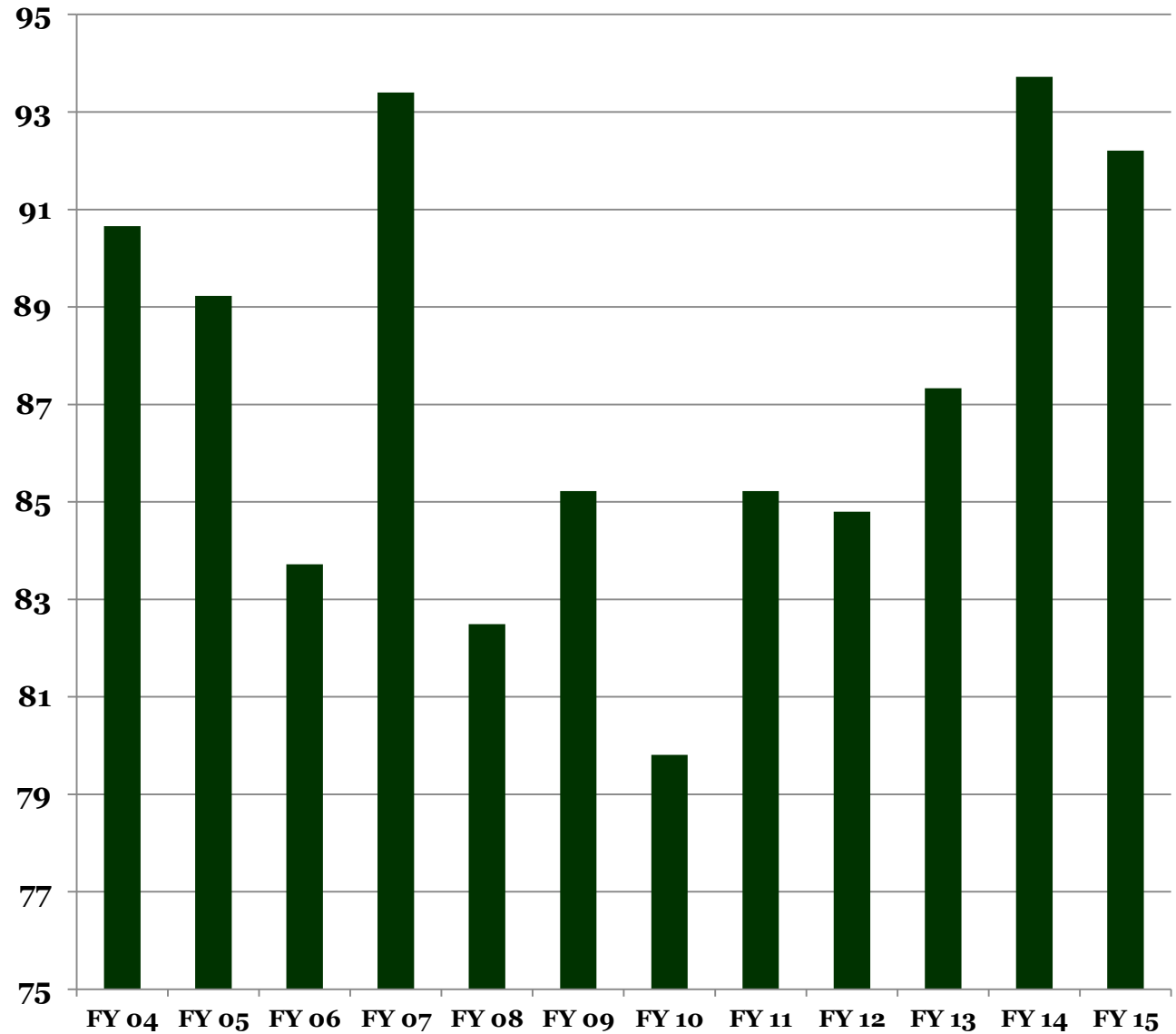
This graph portrays the enrollment trends between each level. Over the next three years, K-5 enrollments are forecasted to remain relatively stable. Grades 6-8 are expected to decrease by 100 students; and the high school level to increase by about 29 students all within the next three years. The opening of the new high school is seen as a contributing factor to a higher percentage of 8<sup>th</sup> grade students moving into ninth grade. Next year it is anticipated the high school will have an additional 18 students.



**Enrollment Attributed to Each Level**

In the ten year span between 2003 to 2013, on average 86% of North Reading 8<sup>th</sup> graders moved from the middle school to the high school. This trend, as a result of the new building project has changed in recent years. In October of 2013 almost 94% of 8<sup>th</sup> graders chose to attend the high school and in 2014 over 92% moved on to the high school.

Partly due to the investment in the middle/high school project this trend has changed which has helped contribute to an increase in enrollment at the high school level.



**Percent of 8th Grade Enrollment  
Entering NRHS as 9th Graders**

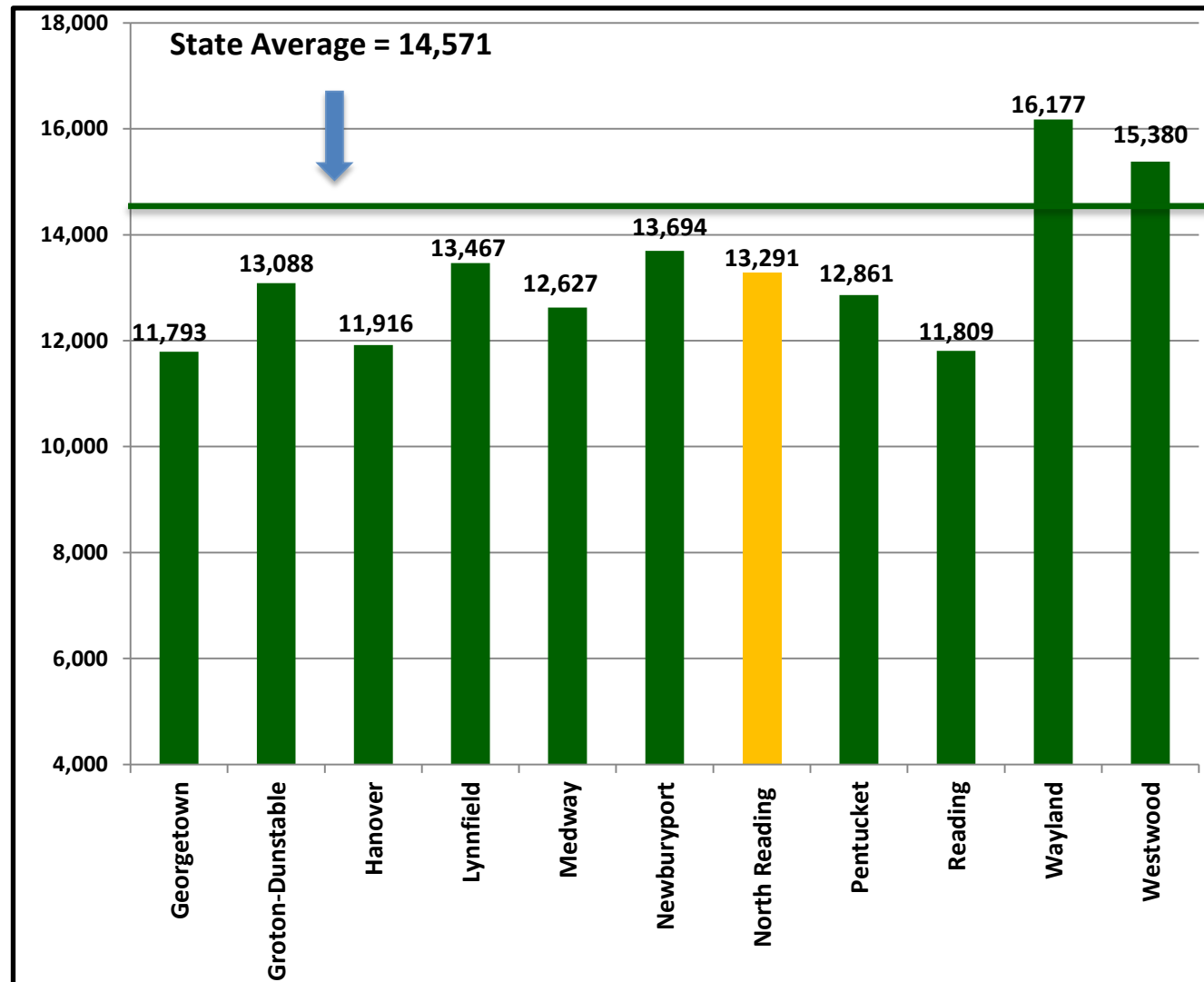
# Finance

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## PER PUPIL SPENDING

**“Expenditures Per Pupil”** presents Massachusetts school spending data in a way that is comprehensive, comparable, and transparent to the general public. These calculations show **all** school operating expenditures including those outside the general fund such as grants, private donations, and revolving accounts. They include payments for local resident pupils who are being educated in schools outside of the district, as well as the overall cost per pupil. Data provides detail about how much schools spend in specific functional areas such as teaching, maintenance, and administration.

Of these 10 peer communities, North Reading falls in the middle of this grouping in per pupil spending. Historically, North Reading has remained considerably lower than the state average per pupil spending total. In 2014, North Reading's per pupil cost was 9% lower than the state average. Over the last three years, North Reading per pupil expenditures have averaged 8% lower than the state's average.



**Comparative 2012-2013  
Per Pupil Spending**

# Graduation

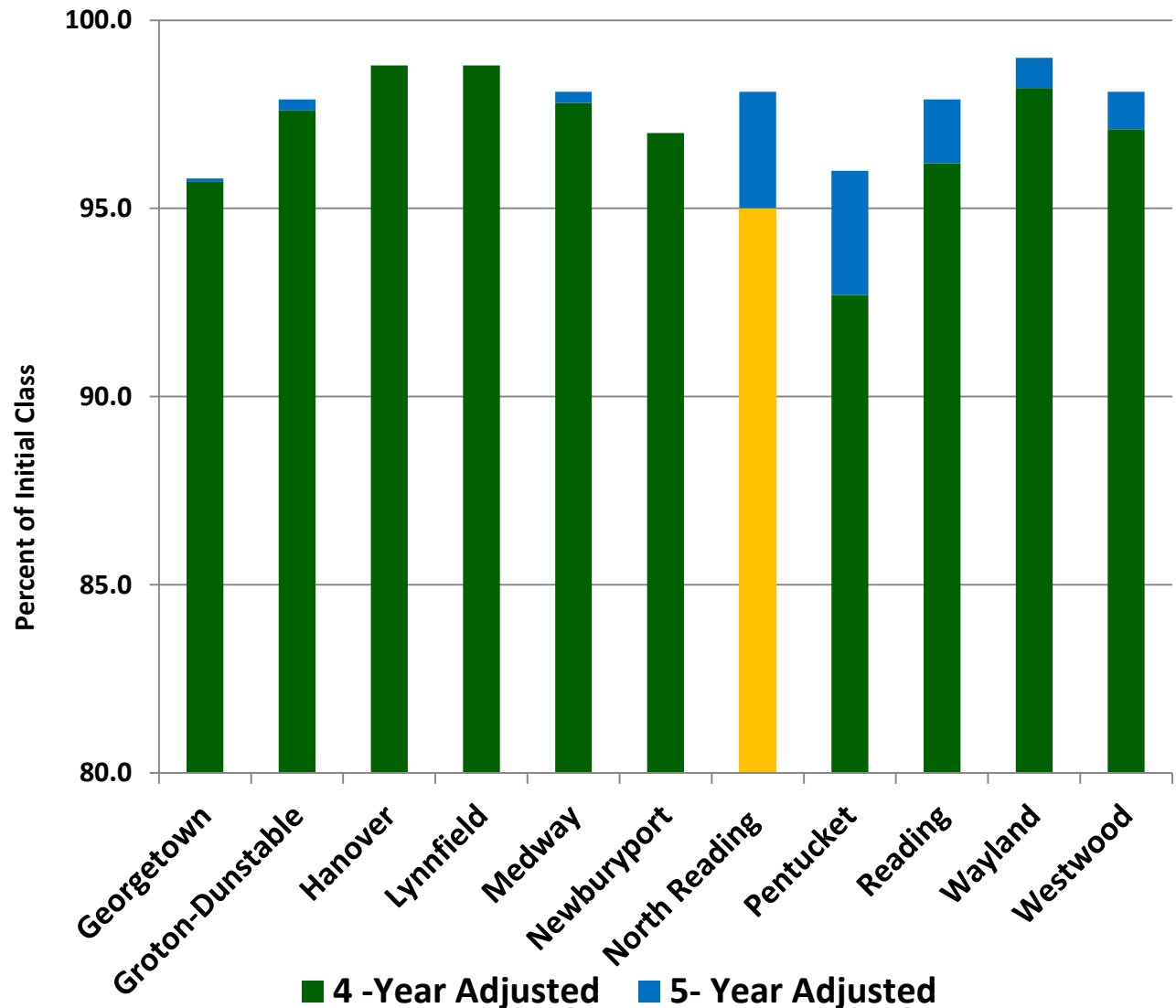
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**RATES AND PLANS**



North Reading's adjusted graduation rates are similar to other peer districts, where few students "drop out" of school.

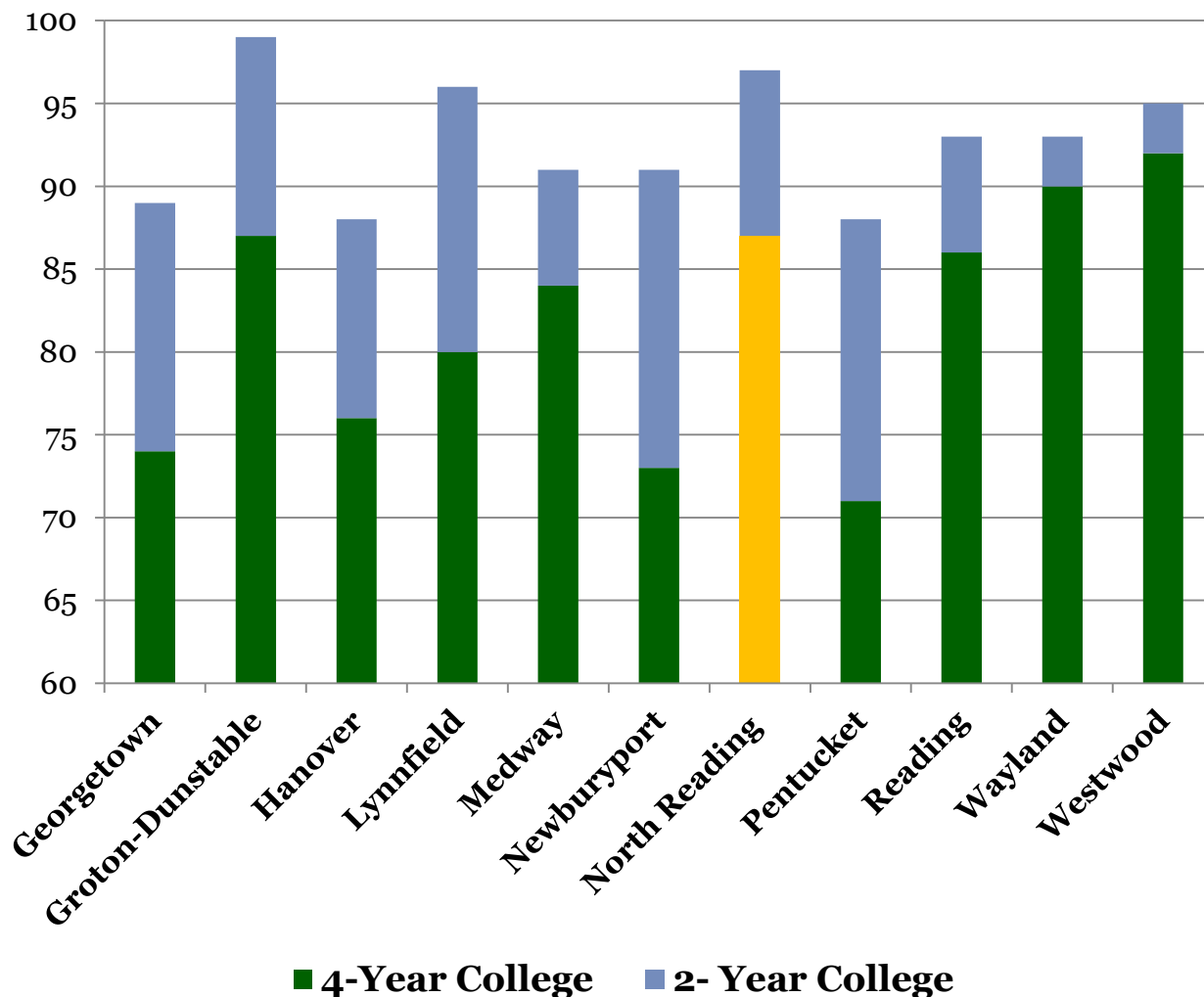
North Reading graduates over 98% of its students, which is significantly higher than the state average rate of 85%.



### Comparative Adjusted Graduation Rates 4 and 5 Year - Class of 2013

Many peer high schools also send 85%+ of graduates to college.

North Reading's college attendance rates fall within the top of this peer group at 97% of graduating students attending either a 4 year or 2 year college. This rate is significantly above the state average of 81%.



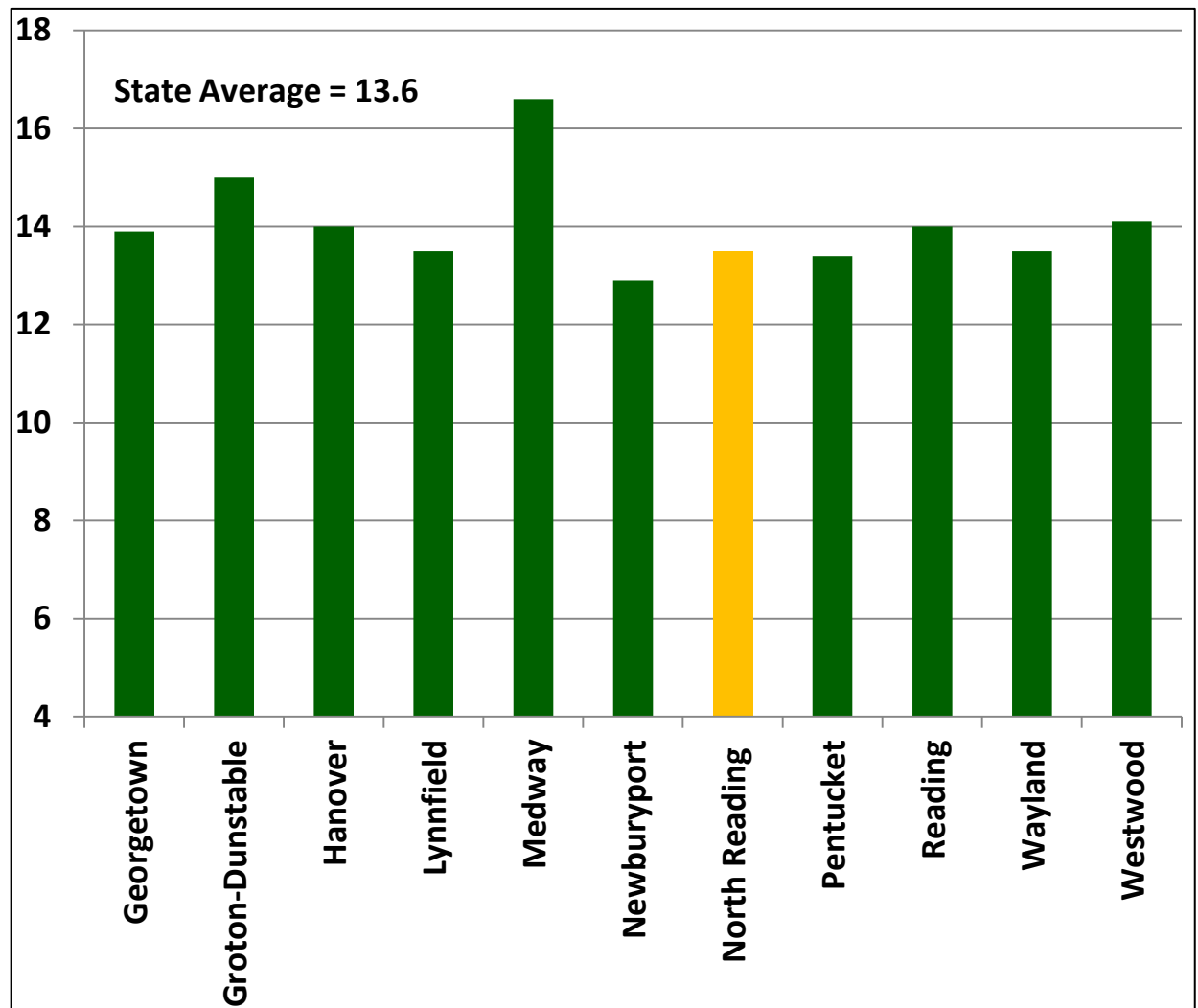
## Comparative College Plans Class of 2013

# Student:Teacher Ratio & Class Size

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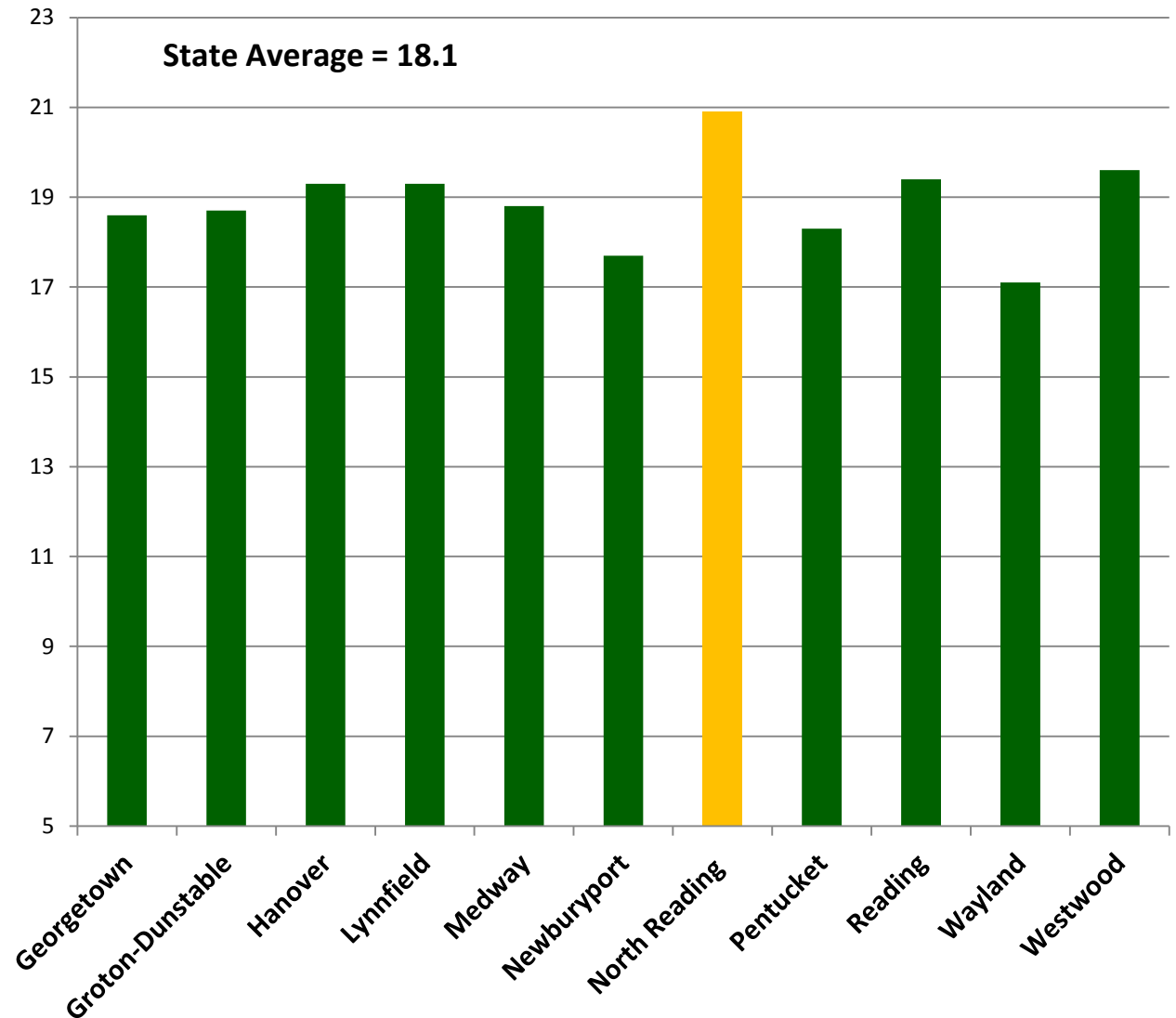
**TRENDS AND COMPARISONS**

North Reading's student: teacher ratio falls within the middle of the peer schools, and is right at the state average ratio of 13.6.



**Comparative Student:Teacher Ratio  
2013-2014\***

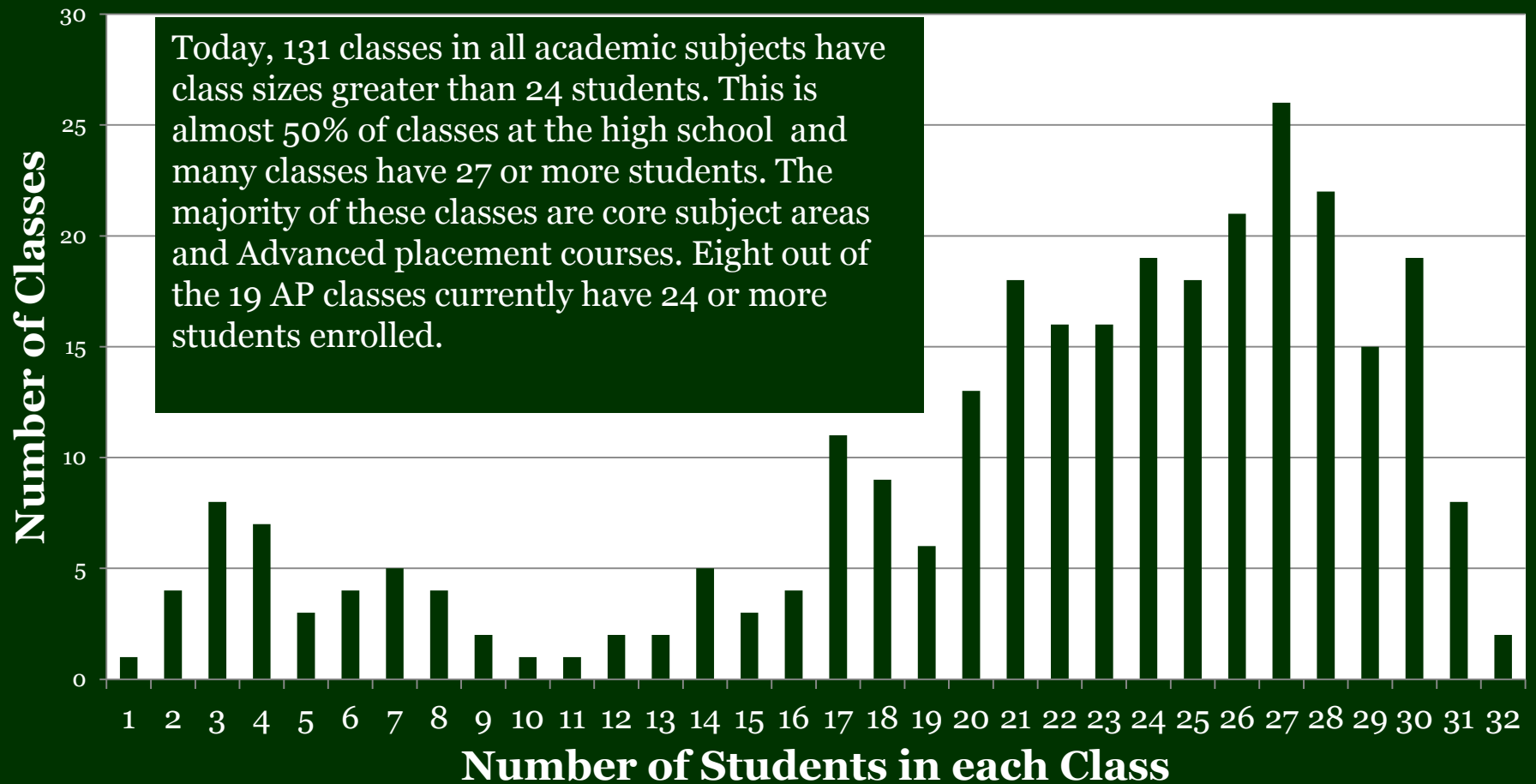
North Reading has the highest average class size (at all levels) of its peer communities of 20.9, and is well over the state average of 18.1



**Comparative Average Class Size  
2013-2014**

# High School Class Sizes North Reading 2014-2015

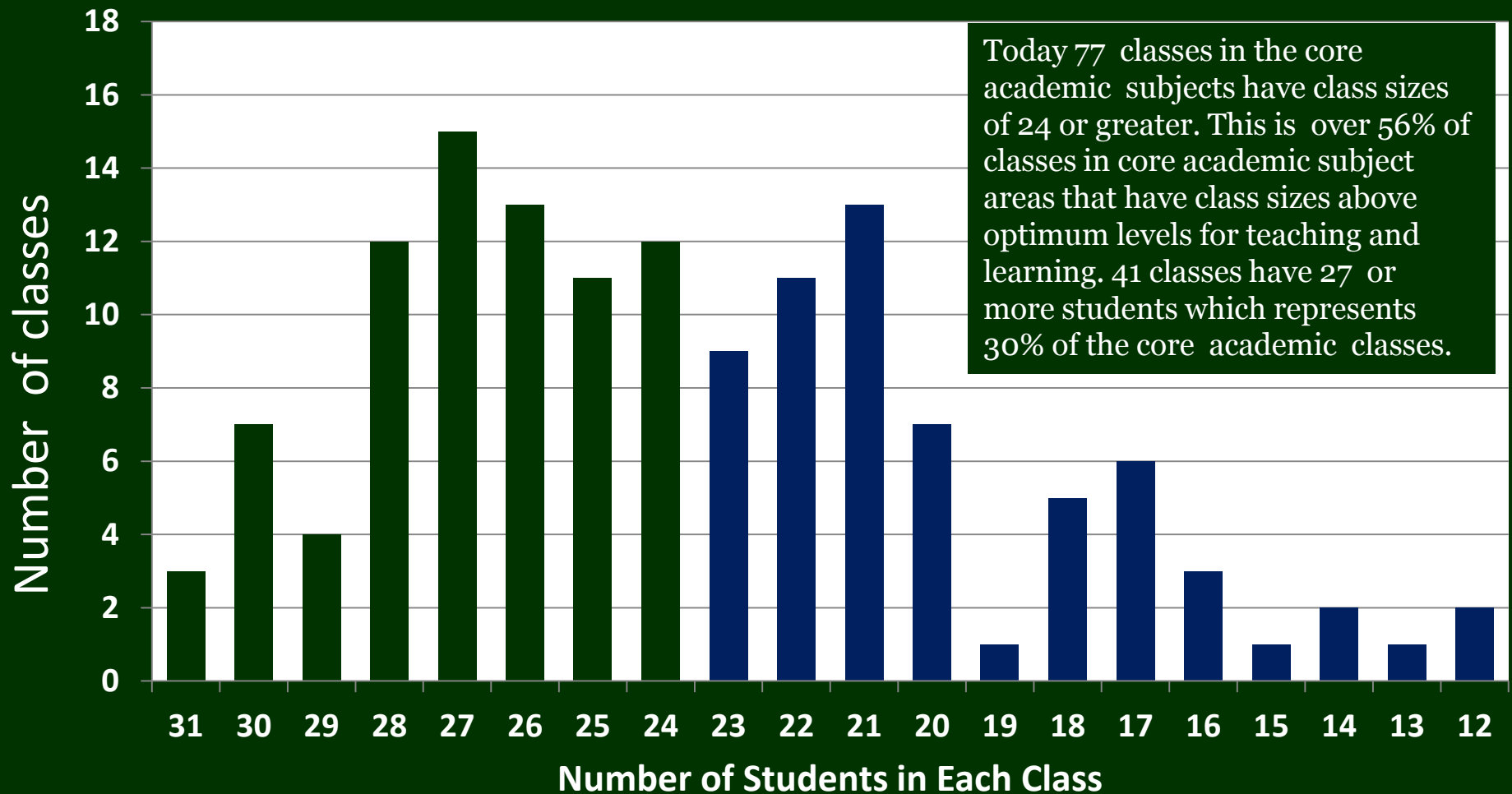
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# High School Class Sizes

## North Reading 2014-2015

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# MCAS

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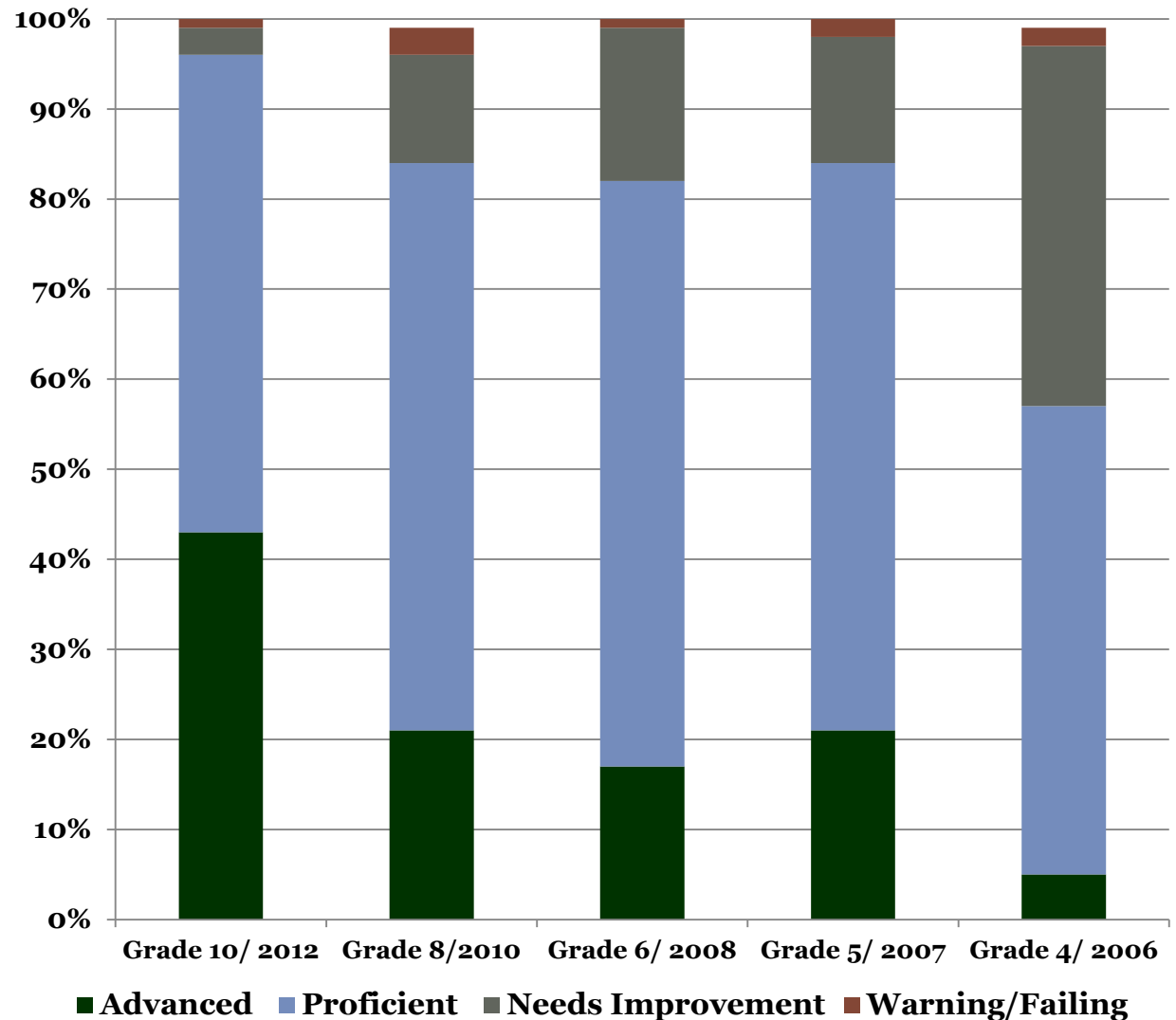
## TRENDS AND COMPARISONS

There are a number of indicators or benchmarks that are traditionally used to measure the performance of district. These include performance on the Massachusetts Comprehensive Assessment System (MCAS), the Scholastic Aptitude Tests (SAT), American College Testing (ACT), and Advanced Placement exams.

One way to measure student success is to compare the MCAS performance over a time of a given cohort of students. The following figures show MCAS performance by the current graduating class (Class of 2014) in English Language Arts, Mathematics, and Science & Technology in Grades 4, 6, 7, 8, and 10.

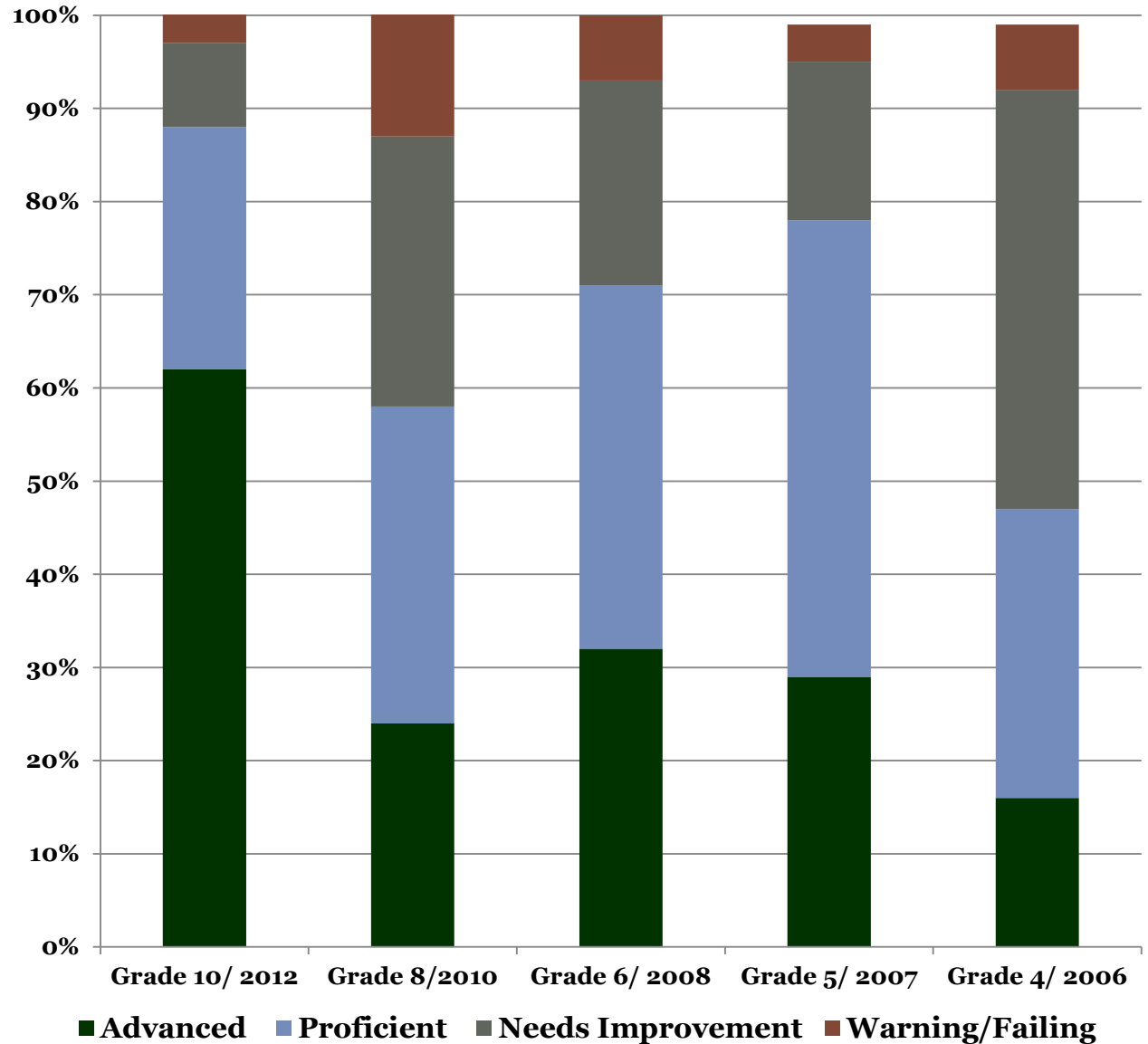


For the 2014 graduating class student performance improves quite dramatically between grade 4 and grade 10 for these students. The percentage of students scoring Advanced or Proficient increased from 57% to 96% in ELA.



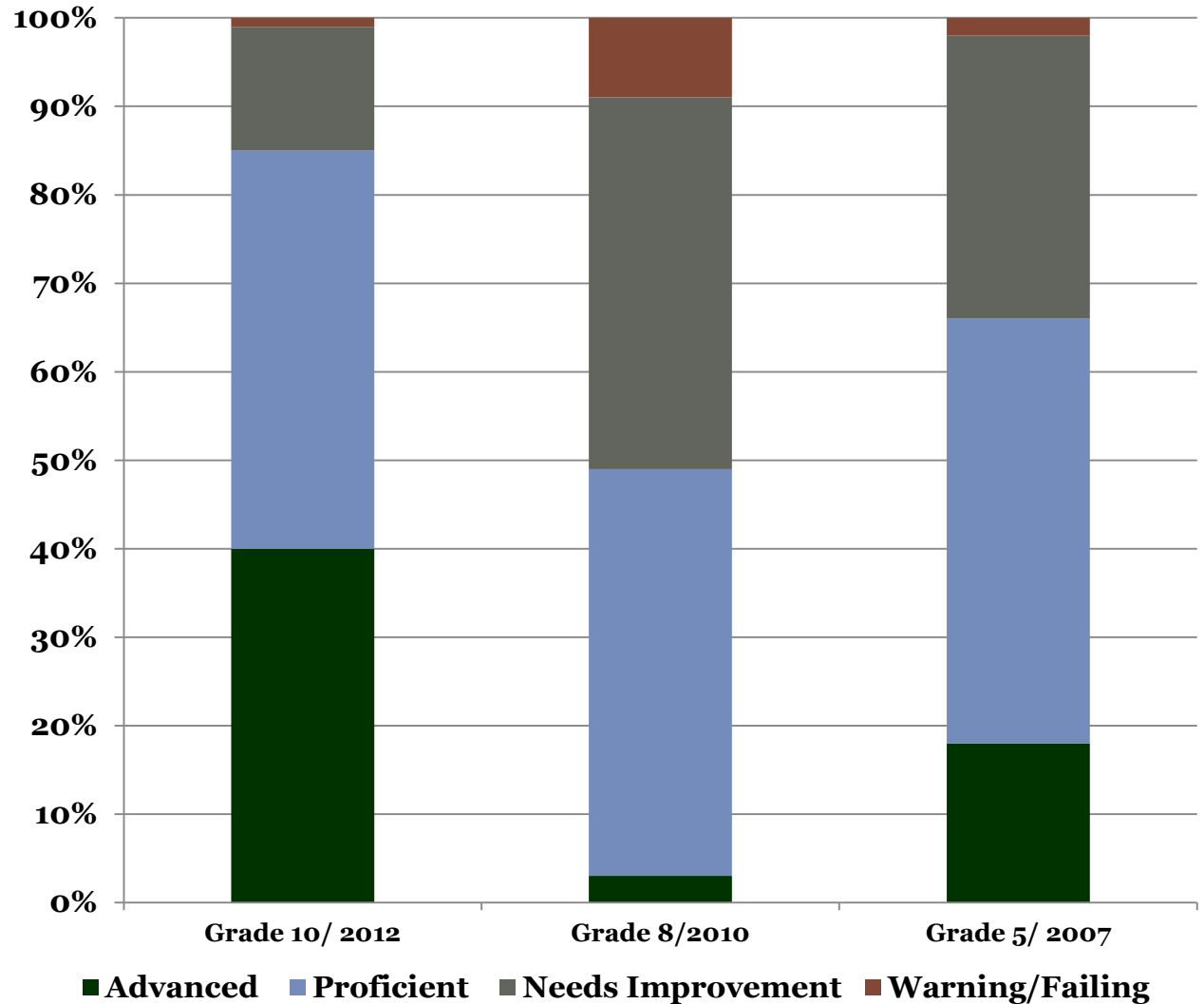
## English Language Arts MCAS Performance History, Class of 2014

A similar result can be stated for Mathematics as for ELA. Student performance improved dramatically between grade 4 and grade 10 for these students. The percent of students scoring Advanced or Proficient increased from 47% to 88% in Math.



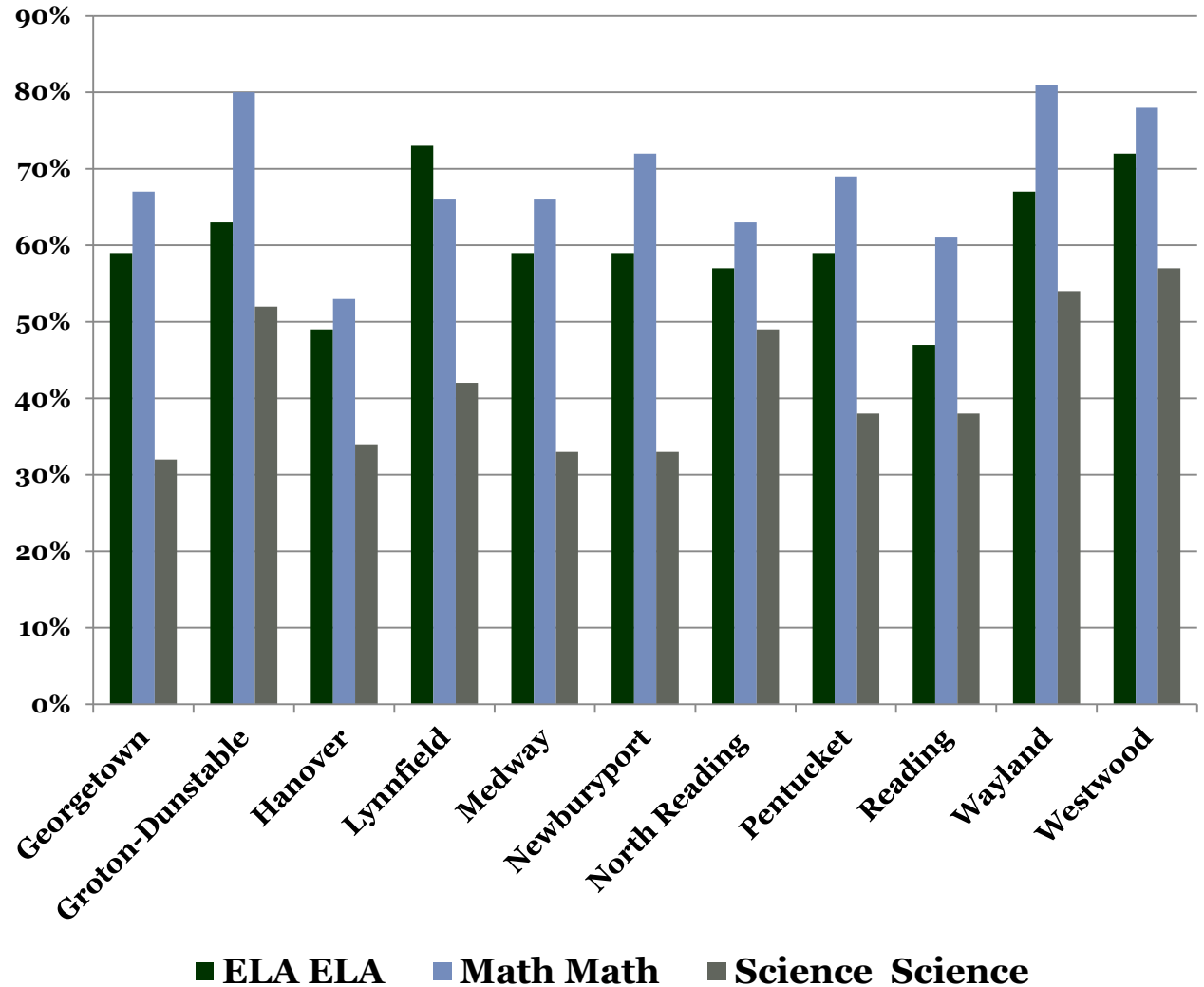
**Mathematics MCAS Performance History, Class of 2014**

The Science/Technology MCAS has been administered for the past several years. Performance in Science & Technology, which was administered three times to this class, reveals an increase in the percentage of students scoring Advanced or Proficient from 66% to 85%.



### Science & Technology MCAS Performance History, Class of 2014

Of our 10 peer districts, North Reading ranks in the middle of students scoring in the Advanced category in English Language Arts, Math, and Science/Technology exams.



### High School Comparisons Percent Advanced on 2014 MCAS

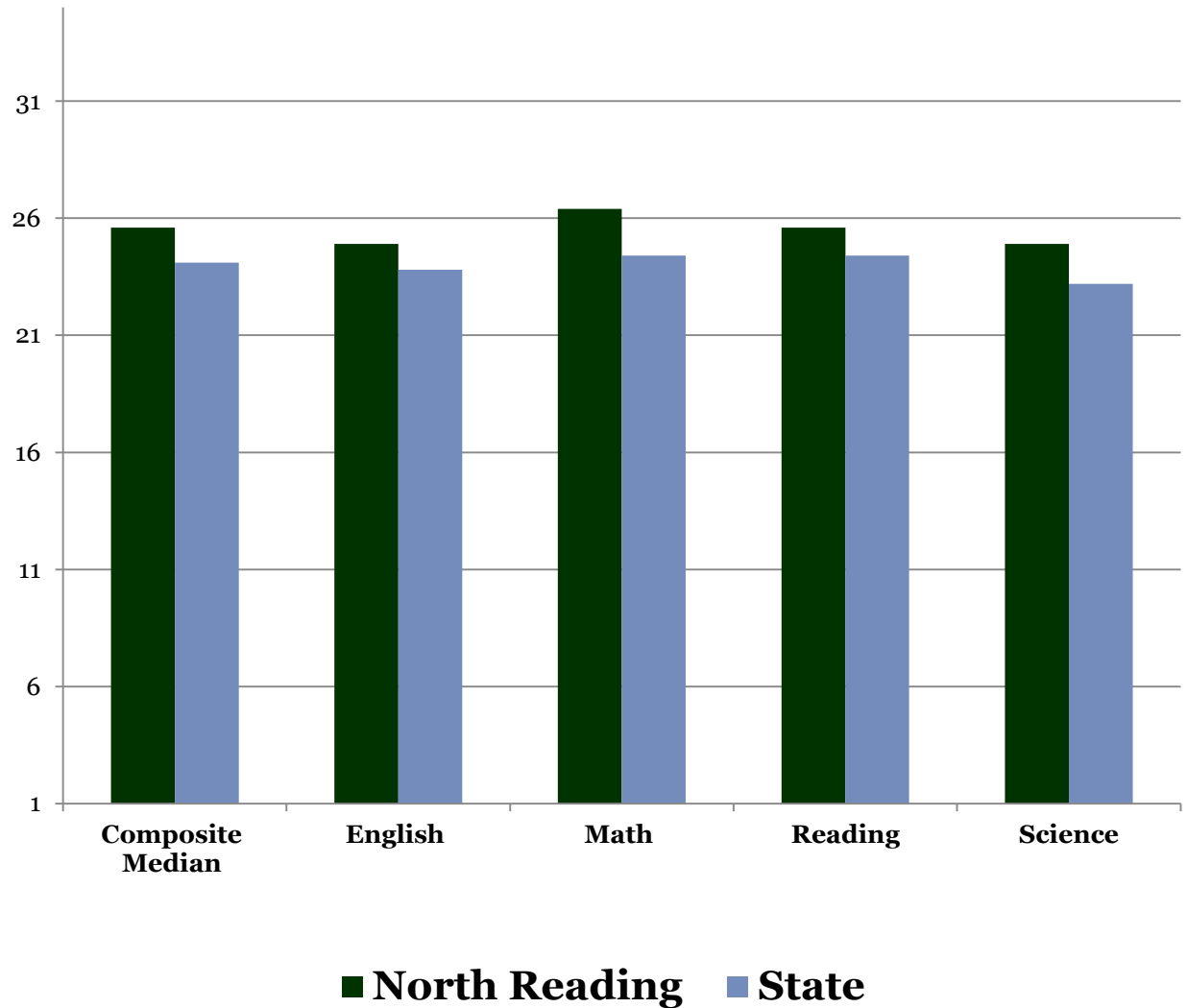
# ACT & SAT

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## TRENDS AND COMPARISONS

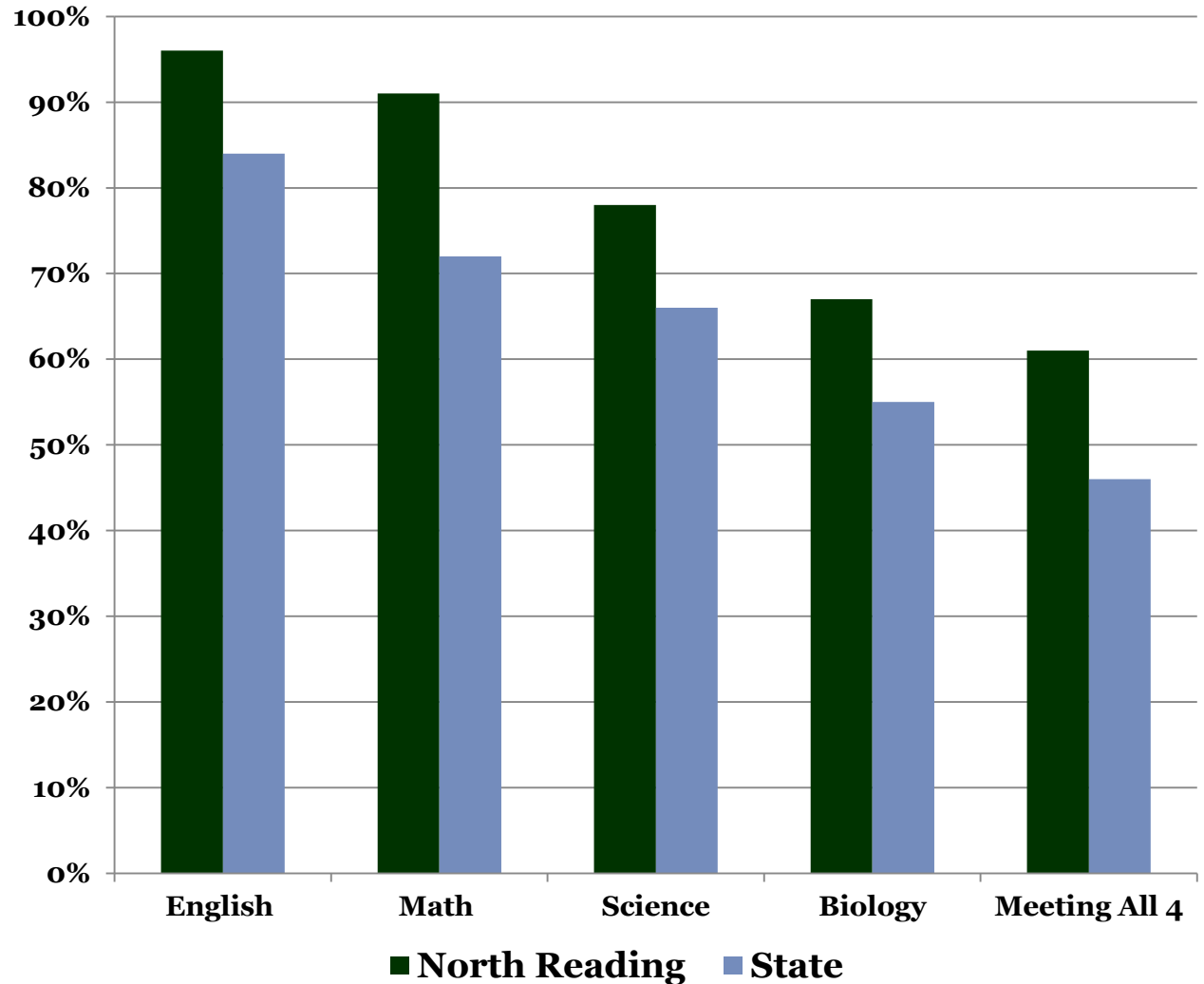
SAT and ACT tests are measures of academic readiness for college studies. North Reading students have had a strong record of performance on college entrance exams.

Median ACT scores for North Reading have consistently been strong and above the state average.



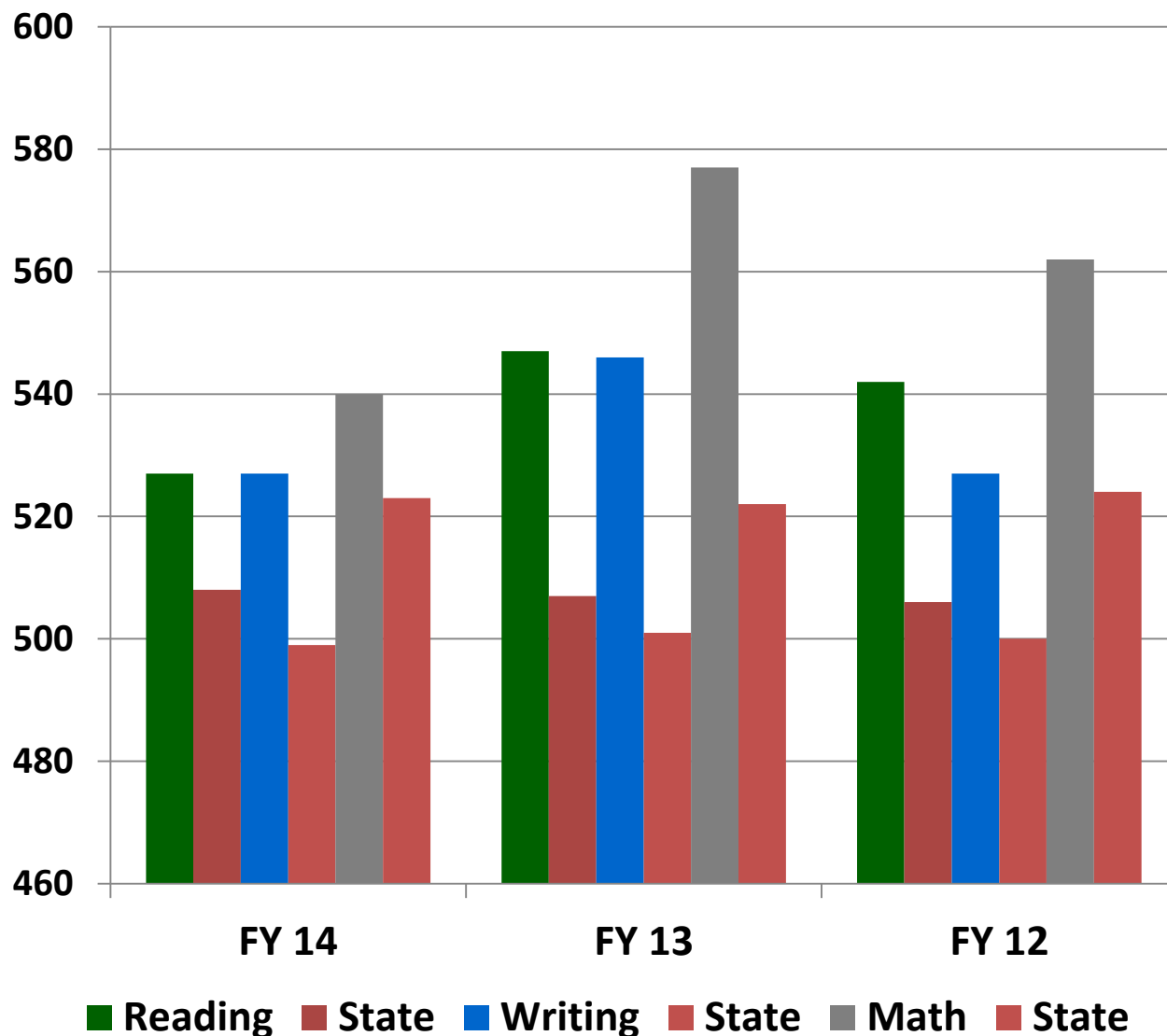
**Median ACT Scores  
Class of 2013**

A benchmark score is the minimum score needed on an ACT subject area test to indicate that the student is ready to achieve a grade of B or higher in a college level course. North Reading has consistently scored high in each subject area in this category, significantly outperforming the state.



**Percent of ACT-Tested Student Ready for College  
Level Coursework  
Class of 2013**

Median SAT scores for students from North Reading have been historically significantly higher than the state average and of its peer communities. North Reading students have performed very well on the SAT test.

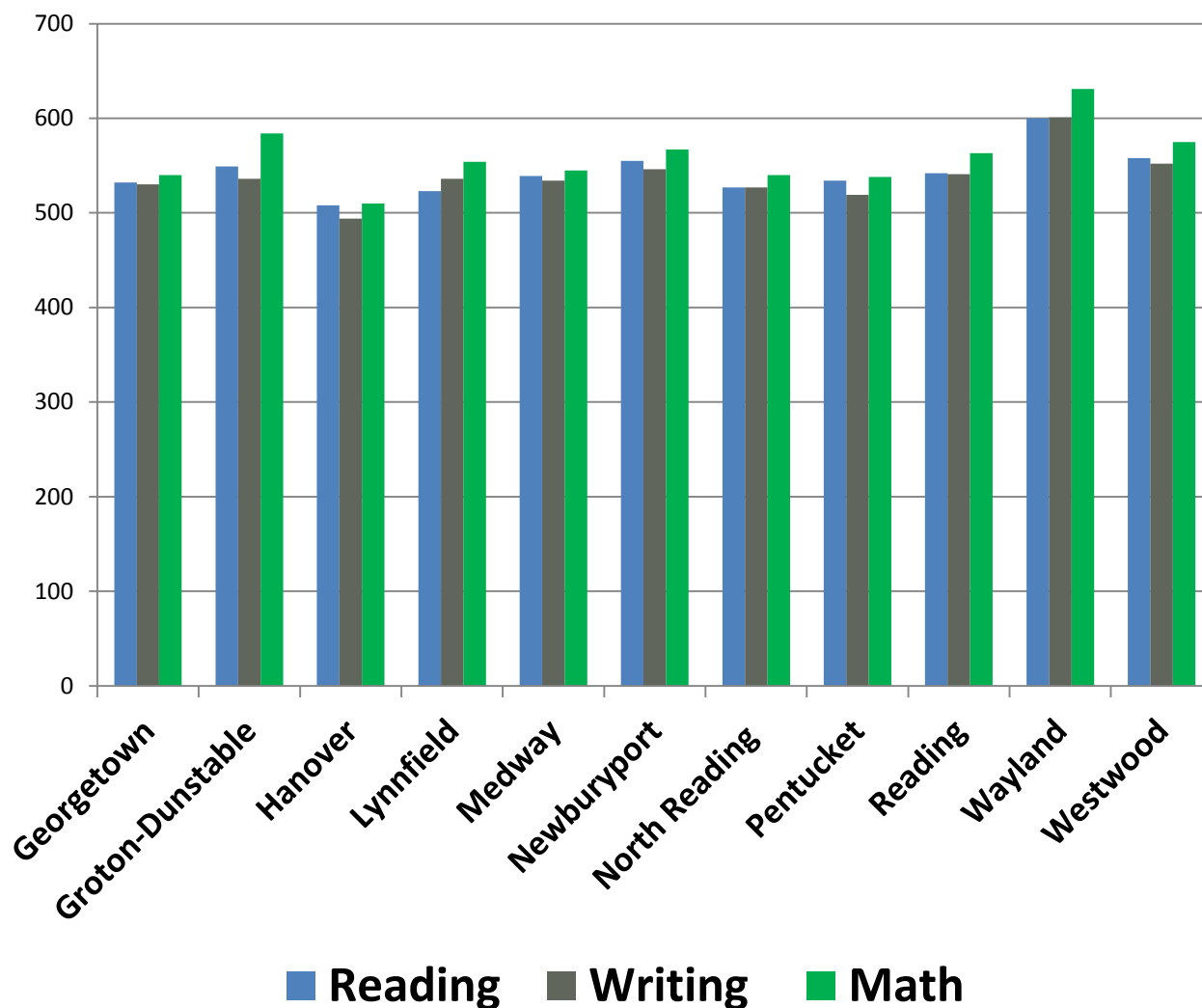


**Median SAT Scores  
Class of 2012, 2013 and 2014**



In 2014 North Reading had a median Reading SAT score of 527, Writing 527, and Math 540.

In this same year, among ten peer districts, North Reading has the 3<sup>rd</sup> lowest median Reading SAT score, 2<sup>nd</sup> lowest Writing median, and 3<sup>rd</sup> lowest Math median.



**2014 Average SAT Scores**

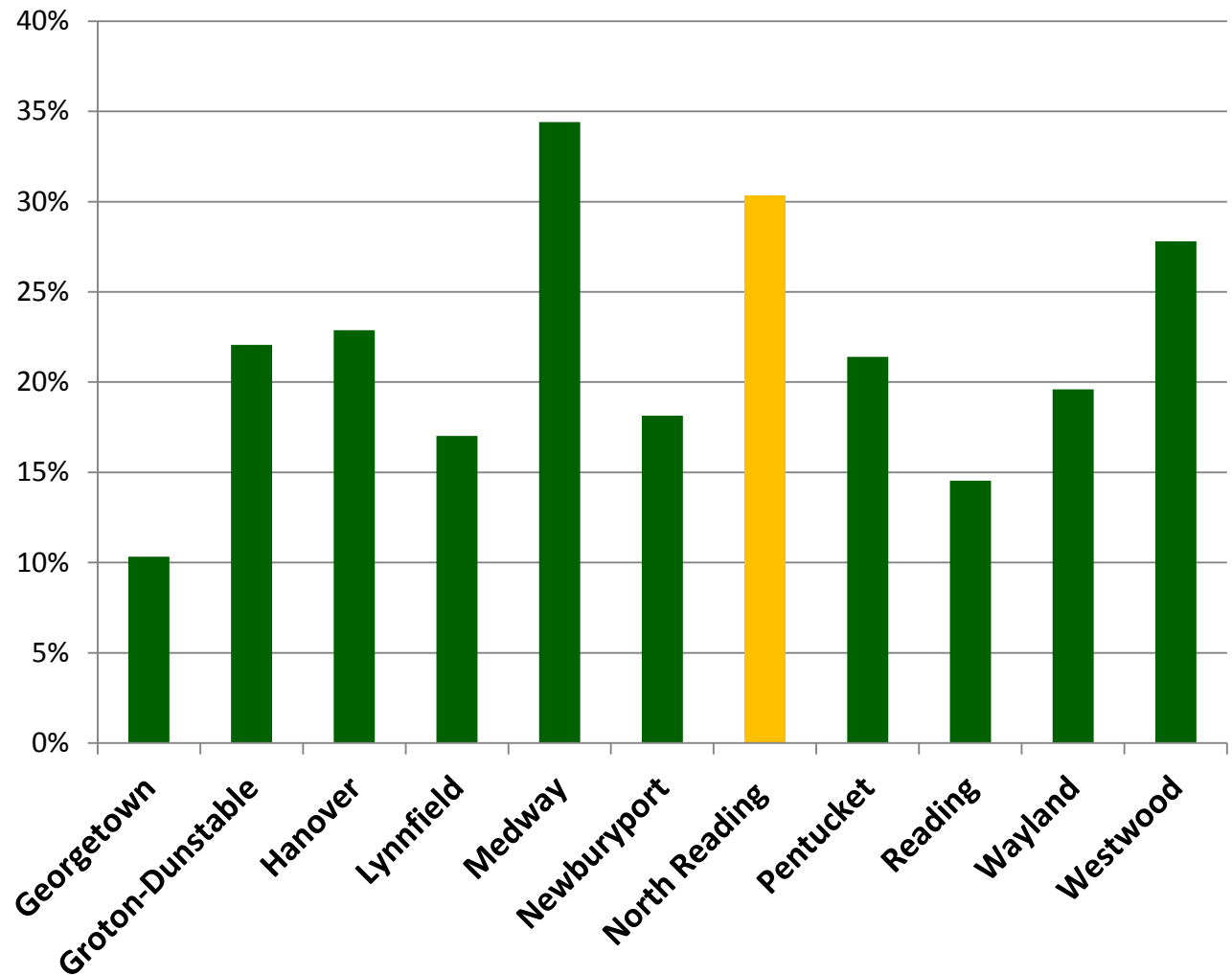
# Advanced Placement

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## RATES AND COMPARISONS

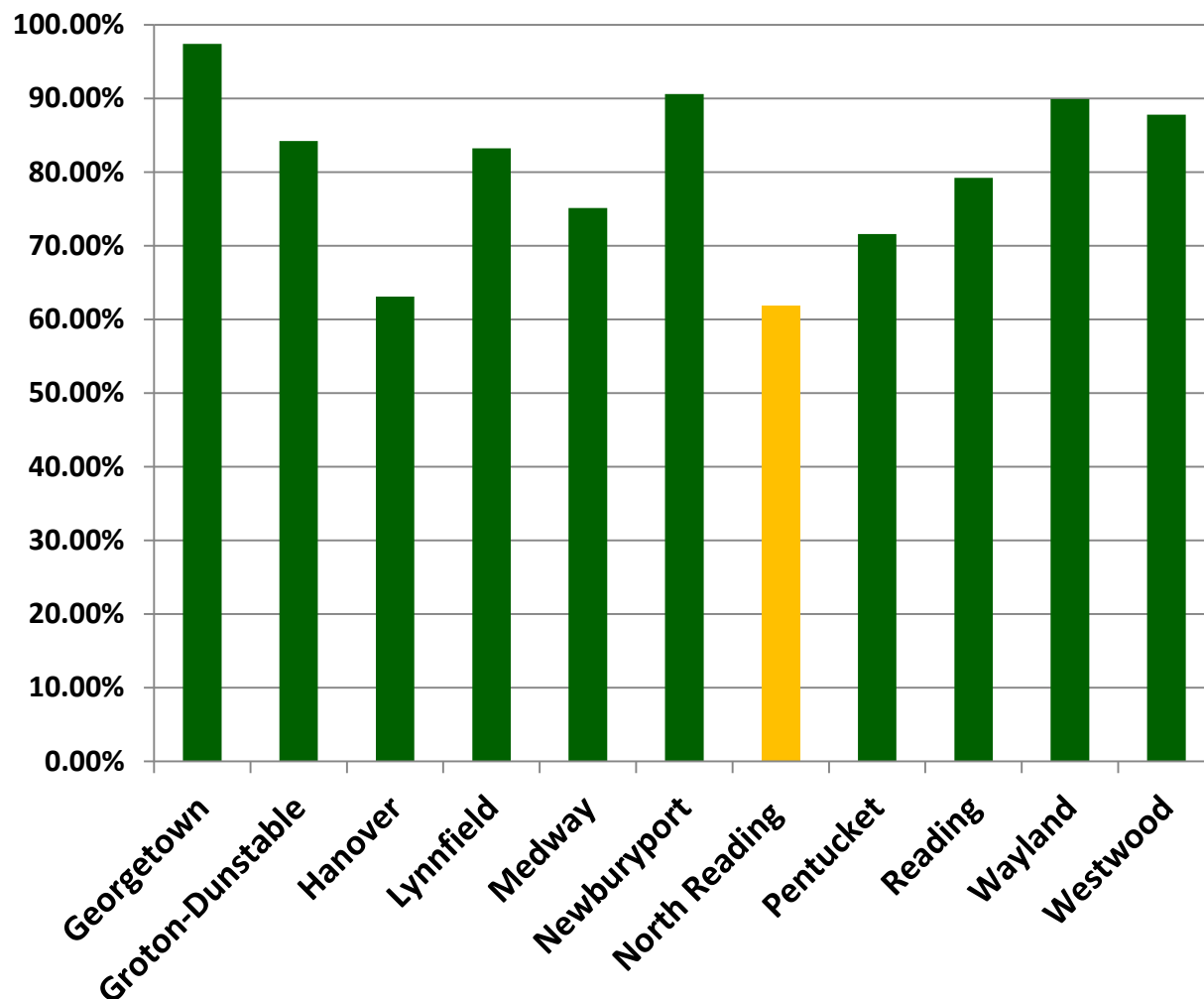
**North Reading's AP program has grown dramatically over a ten year period from 8 courses in 2004 to 17 courses in 2014. The number of AP exams administered has also significantly increased over this same ten year period from 87 to 399. Many of the high-level courses taught at North Reading during 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> grades rival those taught in liberal arts colleges.**

North Reading High School ranks among the highest of its peer high schools offering the most AP courses and subsequently have more students taking AP exams. For the Class of 2014, North Reading ranked 2<sup>nd</sup> out of 10 peer schools for the percent of each graduating cohort taking at least one AP exam while in high school.



**Class of 2014  
Percent of Enrollment  
Who Have Taken APs**

Scores on AP exams of 3, 4 or 5 are considered by the College Board as predictive of college success and college graduation. 61.7% of North Reading students taking AP tests received 3 or higher on their exams. North Reading ranked among the lowest out of 10 peer schools for percentage of AP tests with a score of 3 or higher. However, North Reading also significantly had the highest percent of test takers and tests taken than its peer districts.



**2014 Percent of AP Takers  
Scoring 3 or Higher**

# College Acceptance

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AN ANALYSIS

# College Application Process

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- In 2014, 192 seniors sent 1,172 applications to 264 colleges.
- 7 of these applications were Early Decision and 378 were Early Action.
- According to the Common Application, the average New England student applies to 5.0 colleges.
- **Each North Reading senior applied to an average of 6.7 colleges (35% more applications than the New England student average).**

# Top Colleges Most Applied to by North Reading Seniors

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## 2013

- UMass Amherst 71
- University of NH 45
- Salem State 39
- Northeastern University 33
- UMass Lowell 33
- University of RI 25
- UMass Dartmouth 23
- Bridgewater State 21
- Roger Williams 21
- Boston University 20
- Quinnipiac University 20

## 2014

- UMass Amherst 56
- UMass Lowell 48
- University of NH 43
- Salem State 38
- Northeastern University 33
- Westfield State 31
- Bridgewater State 29
- North Shore Community 28
- University of RI 27
- Framingham State 20
- Endicott College 19

# Special Populations

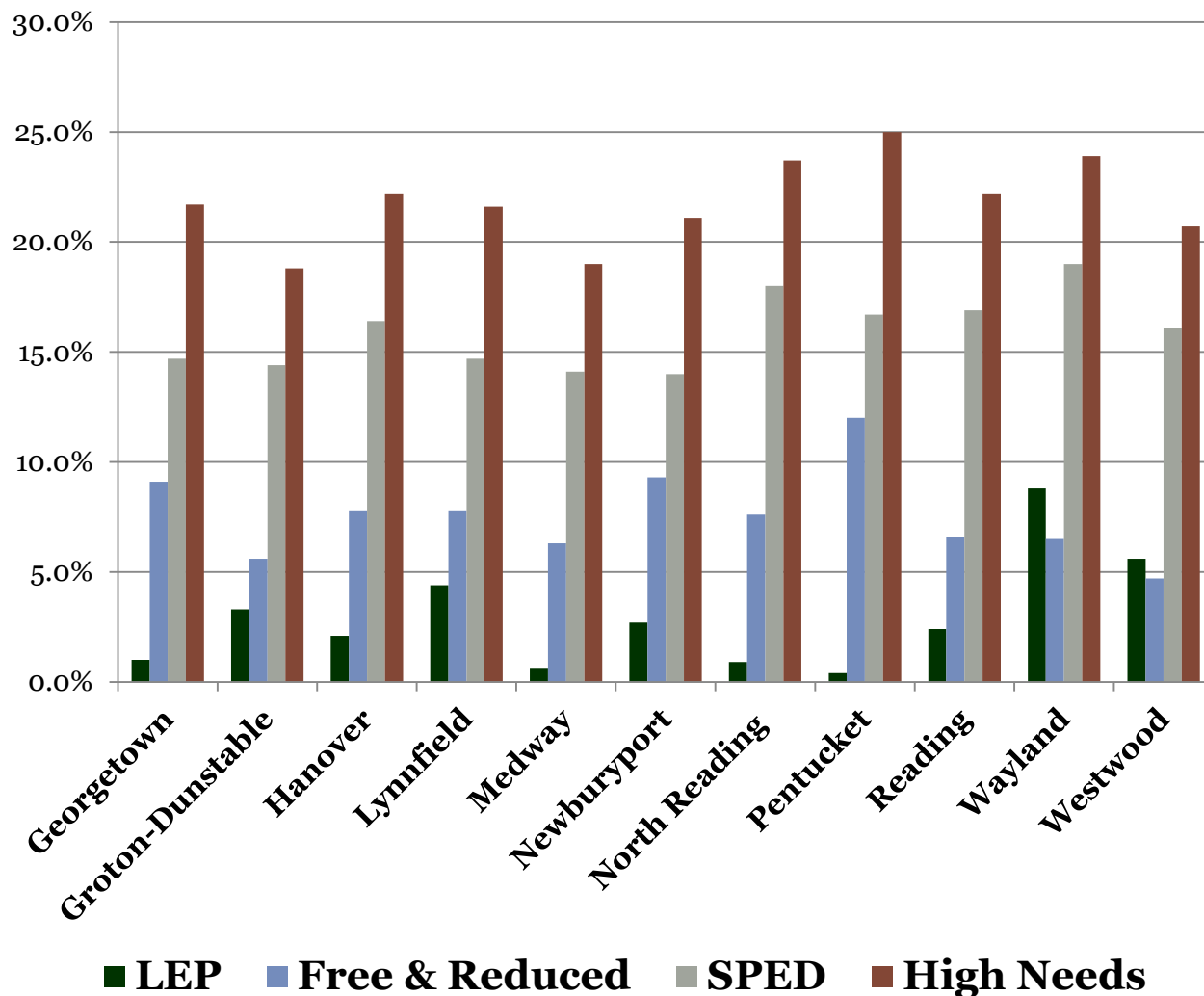
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AN ANALYSIS



Special populations often take additional resources to support student success. These special populations include Limited English Proficient (LEP) students, students from low-income families receiving free or reduced lunch, and students receiving special education (SPED) because of a disability. Collectively these are “high needs” students.

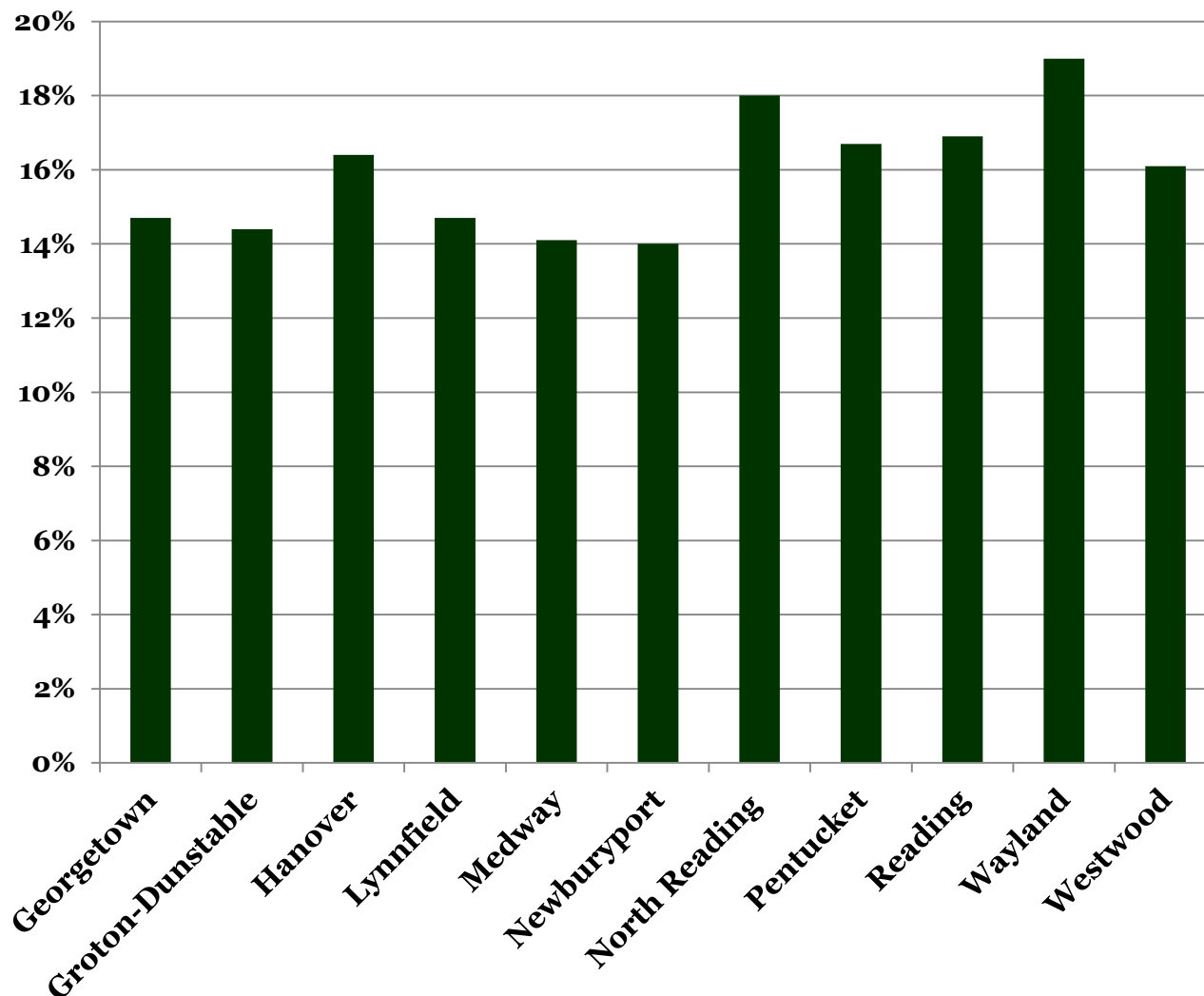
North Reading has one of the highest percentage of SPED and High Needs populations.



**Special Populations  
as Percent of Enrollment  
for 2013-2014**

Most students receiving Special Education services do so in North Reading's Learning Centers. These students are fully included in regular education classes. At the secondary level many students have one of the classes in their schedule dedicated to receiving IEP services.

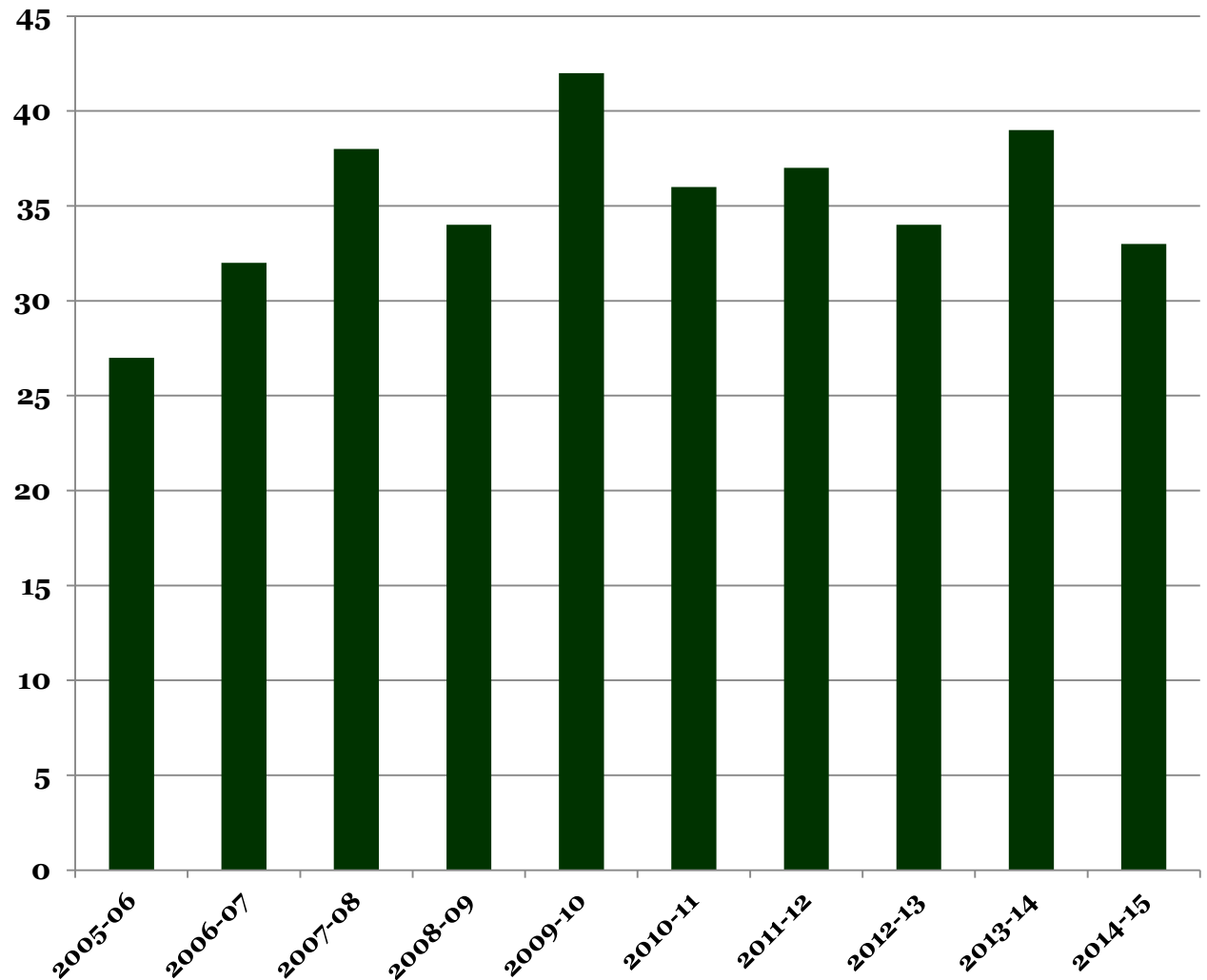
The percentage of North Reading students identified with a learning disability and receiving Special Education services is 18% which is generally higher than that of our peer districts, and slightly above the state average of 17%.



**Percentage of Enrollment  
Receiving SPED Services  
for 2013-2014**

The cost of out of district placements can be expensive, North Reading's out-of-district placements had hovered between 32-35 for years, and the ten year average out of district placements is 35. North Reading experienced an increase in out of district placements in recent years.

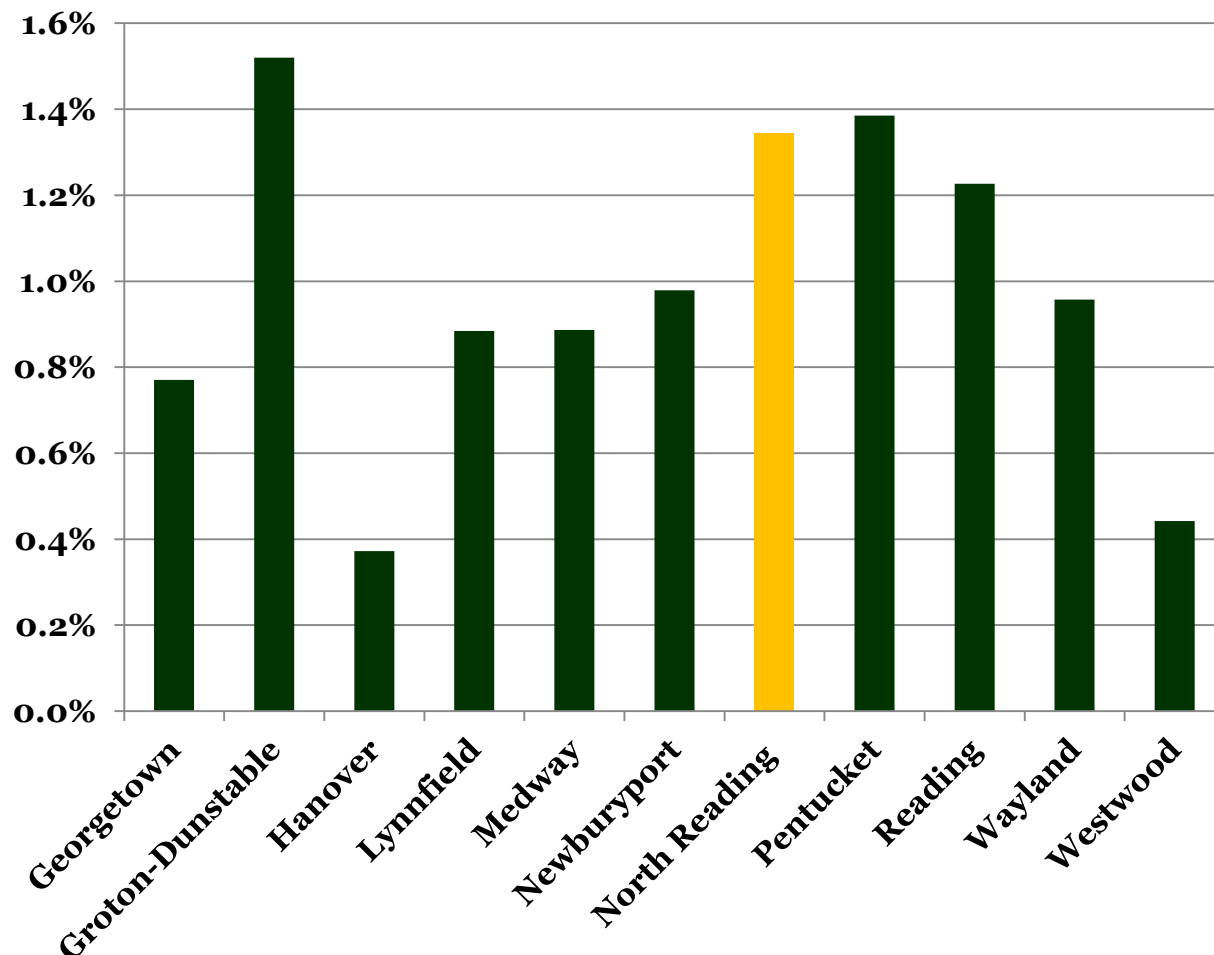
In FY14 out of district placements reached its highest point since FY 10. There is evidence this trend is changing in FY 15, as some students have begun to graduate programs and come back within district.



**Students  
in Out-of-District Placements**

North Reading has the 3rd highest percentage of students in out-of-district placements of its peer communities.

The district has been actively working toward decreasing the need for out-of-district placements. Support for “in district” students has been expanded by adding Language-Based Learning Disabilities programs and North Reading is working toward enhancing its social emotional programs and support.



**Percent of Students  
in Out-of-District Placements  
2012-2013**

The PowerPoint presentation can be found at:  
[North Reading Performance Report](#)

