

**A+**  
**Colorado**  
SHARPENING  
PUBLIC  
EDUCATION

MAPLETON PUBLIC SCHOOLS | APRIL 2016

# RADICAL CHANGE, MODEST GAINS



## MAPLETON PUBLIC SCHOOLS: Radical change, modest gain

As education reform goes, it's a dramatic story. Small, inner-ring suburban school district lands \$2.6 million Bill and Melinda Gates Foundation grant and national attention<sup>1</sup>. District's model of radical restructuring causes constructive disruption, and attracts top talent.

Where does Mapleton Public Schools stand just over a decade into its "Choices for Learning" reform effort? Have reforms significantly changed district and school culture and performance? This report looks at slow gains taking hold in the Mapleton school district, and highlights where the district should redouble its efforts.

### A Quick History:

Let's start with some context. Mapleton Public Schools is a working-class, inner-ring suburban school district encompassing 25 square miles immediately north of Denver. The district draws students from seven suburban, industrial, and semi-rural communities. While large swaths of metro Denver are gentrifying, for the most part the communities comprising Mapleton seem to be bucking this trend.

About 77 percent of adults living within Mapleton's boundaries have a high school degree or higher, though just 14 percent have a four-year college degree or advanced degree. The median household income is around \$47,000, and 17 percent of families with children under 18 live below the poverty line.<sup>2</sup>

Mapleton, which served around 5,500 students at the turn of the millennium, launched an experiment in transformative education reform through massive structural change. To some extent that experiment continues to this day.

In 2001, when Charlotte Ciano took the reins as MPS superintendent, the district was ripe for an overhaul. Graduation rates at the district's comprehensive high school Skyview, were unstable, fluctuating from 80.5 percent in 1997 to 75 percent in 1999 to 85 percent in 2001.<sup>3</sup> Student demographics were shifting as well, with

the proportion of Latino students growing from 34 percent in Fall 1996 to 47 percent in Fall 2001, and the proportion of white students dropping from 60 percent to 45 percent in that same six-year period.<sup>4</sup>

It was clear to Ciano and her leadership team the district and its schools needed restructuring, particularly at the secondary level, to serve this changing population. From the beginning, Ciano was transparent with the community that achievement was far too low, schools weren't serving students, and big changes were needed.

The major focus was Skyview, the district's one comprehensive high school at the start of Ciano's tenure. Through discussions at both the district and school level, Ciano's team developed a theory of change: increased personalized learning opportunities at the high school level could increase retention, achievement, and graduation. Mapleton's approach to reform built on a national discourse: small schools, particularly at the secondary level, could improve relationships between adults and students, and ultimately drive academic achievement and attainment. Cities like New York were leading a movement to replace big, comprehensive high schools with small schools that would improve teacher-student relationships, provide rigorous and more personalized instruction, and boost student outcomes.<sup>5</sup> An early decision Ciano and her team made was to phase out the comprehensive high school program, a process that ended when the class of 2007 graduated.

Mapleton replaced Skyview with several programmatically varied small schools, a structure that remains in place today, and which has spread throughout the district from kindergarten through 12th grade. Mapleton students now have options at all ages: expeditionary learning schools; a K-12 International Baccalaureate school; an early college model; an online school. (See Appendix A for a current list of Mapleton schools.)

1 <http://www.gatesfoundation.org/Media-Center/Press-Releases/2005/12/College-Readiness-for-Mapleton-Public-School-Students>

2 ACS Estimates 2009. [http://proximityone.com/acs/dpco/dp1\\_0805550.htm](http://proximityone.com/acs/dpco/dp1_0805550.htm)

3 Colorado Department of Education Graduation Statistics: <http://www.cde.state.co.us/cdereval/rvprioryeargraddata>

4 Colorado Department of Education. Pupil Membership Statistics. See five-year enrollment trends for Class of 2001 and Class of 2000. <http://www.cde.state.co.us/cdereval/rvprioryearpmdata>

5 There are varied outcomes and competing opinions about the efficacy of the small schools movement across the country. However, a rigorous evaluation of the "Small Schools of Choice" (SSC) reforms in New York City by Manpower Development Research Corporation showed SSC improved on-track to graduate rates and graduation rates for a broad and inclusive range of students. For more information see Bloom et. al (2010) "Transforming the High School Experience. How New York City's New Small Schools Are Boosting Student Achievement and Graduation Rates." [http://www.mdrc.org/sites/default/files/full\\_589.pdf](http://www.mdrc.org/sites/default/files/full_589.pdf)

Mapleton's vision was to be a true district of choice, though choice would be limited to district-operated schools, rather than bringing in charter operators. Small schools would be allowed to define their own focus and culture as long as it aligned to district-led initiatives at the high school level, each student would be required to choose the school that fit her or him best, and the district would provide transportation for every student to any school.

With this "Choices for Learning" vision of small schools of choice, Superintendent Ciancio and her team intended to boost student achievement through a new version of the 'three R's': improving the relevance of schools, deepening relationships between teachers and students, and increasing the rigor of coursework.

## Changes And Progress:

### Enrollment:

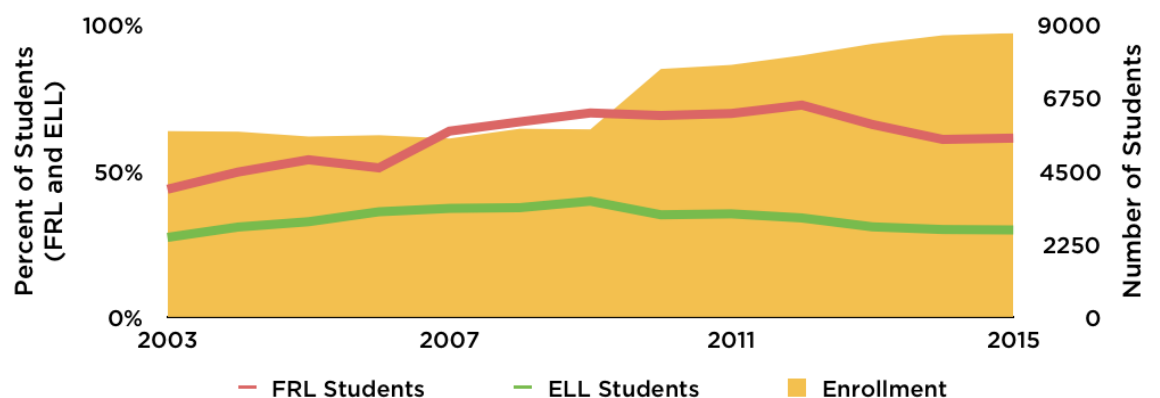
Since its transformation started in 2003, Mapleton has experienced enrollment growth, a trend that accelerated when Connections Academy, an online-only school, opened in 2010. The composition

of the student body has changed as well. Today, more Mapleton students are Latino, and more qualify for free or reduced lunch (a proxy for poverty), peaking in 2012 at 72 percent.

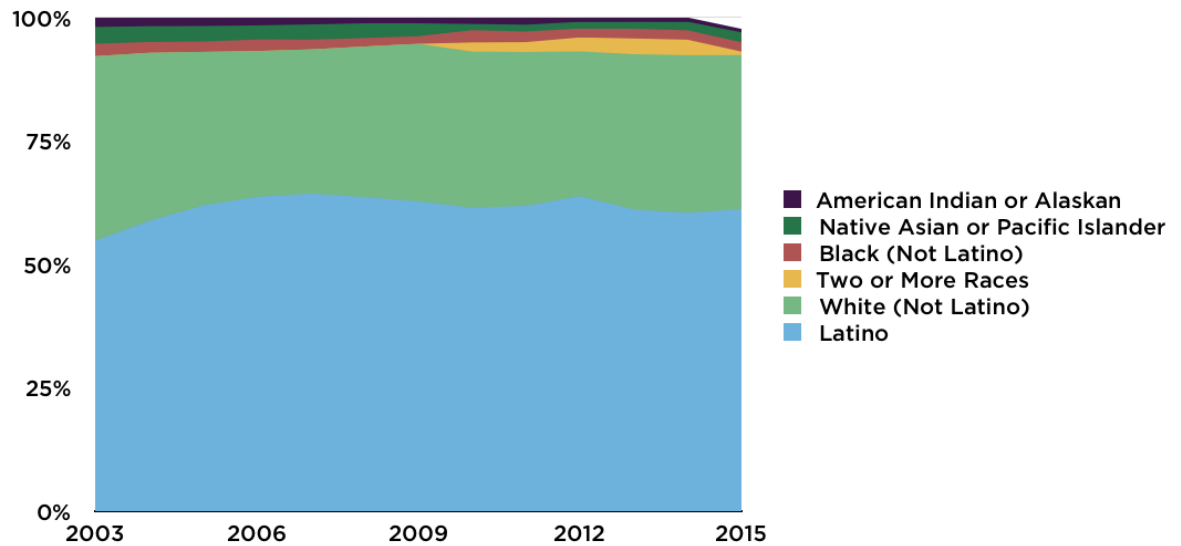
Much of this enrollment growth has been driven by students who live outside of Mapleton and have been attracted by the district's plethora of brick-and-mortar choices, and by Connections Academy. As more students take advantage of Colorado's open enrollment policy (under which families can choose to attend any school in any district that has space), Mapleton has been able to attract more students than they lose to other districts. That's a reversal of an earlier trend.

In 2000 more students opted out of the Mapleton district (763) than opted in (466). Fifteen years later, for every one student who choiced out of Mapleton, two students choiced in. It's notable that by becoming a district in which all students must choose the school they wish to attend, Mapleton has become more attractive to students from outside its boundaries.

**Mapleton's PK-12 Student Enrollment 2003-2015**



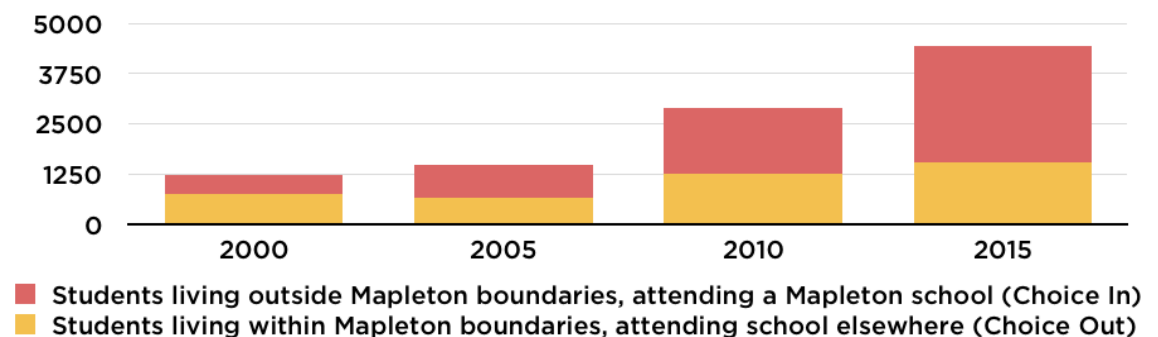
### Race and Ethnicity of Mapleton Students, 2003-2015



Mapleton schools not only attract students outside the district, but also attract students from all corners of the Mapleton district boundary. Each Mapleton School serves students from each of the neighborhoods in Mapleton. This suggests that students can actually access all of the choices provided by Mapleton Public Schools. In fact, through Mapleton's enrollment process, where students preference three schools they

would like to attend, 98 percent get placed in their first or second choice. Lotteries are only run when the number of applicants exceeds the number of slots, which generally happens at York International for entry at the elementary level, for Mapleton Expeditionary School Of The Arts at the middle school level, and Mapleton Early College at the high school level.<sup>6</sup>

### Students Choosing In and Out of Mapleton



<sup>6</sup> Intra-district choice information provided by Mapleton Public Schools.

### Student Achievement:

It's apparent that choice attracts students, a benefit to the district in and of itself. But the "Choices for Learning" reforms were aimed at boosting student achievement. How successful have they been in that regard?

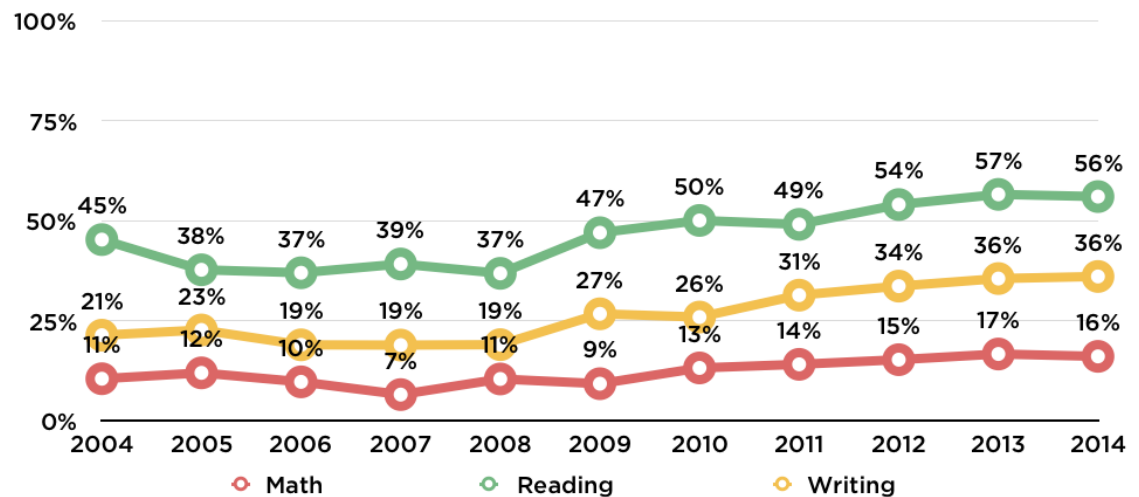
Despite an initial drop in proficiency rates in core academic subjects in the reforms' early years, Mapleton shows improvement particularly at the middle and high school levels.

After the final class graduated from Skyview in 2007, and high school program choices for Mapleton students increased to six, high school proficiency has improved, particularly in reading and in writing. Specifically, the proportion

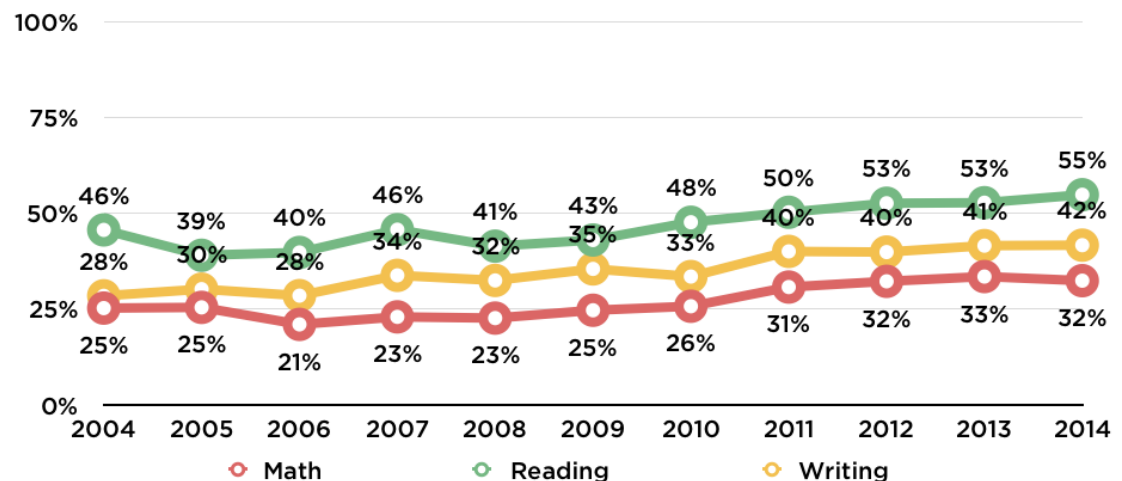
of high schoolers scoring proficient or advanced grew 19 percentage points in reading, 17 percentage points in writing, and 5 percentage points in math between 2008, the first year the "Choices for Learning" structure was fully implemented, and 2014.

Schools at the middle school level have also been driving gains in proficiency for Mapleton's students. Middle school proficiency levels in reading grew 9 percentage points between 2004 and 2014, 14 percentage points in writing, and 7 percentage points in math. These gains are seen primarily after the "Choices for Learning" initiative is fully implemented.

#### Mapleton High School Students: Percent Proficient on CSAP/TCAP



#### Mapleton Middle School Students: Percent Proficient on CSAP/TCAP



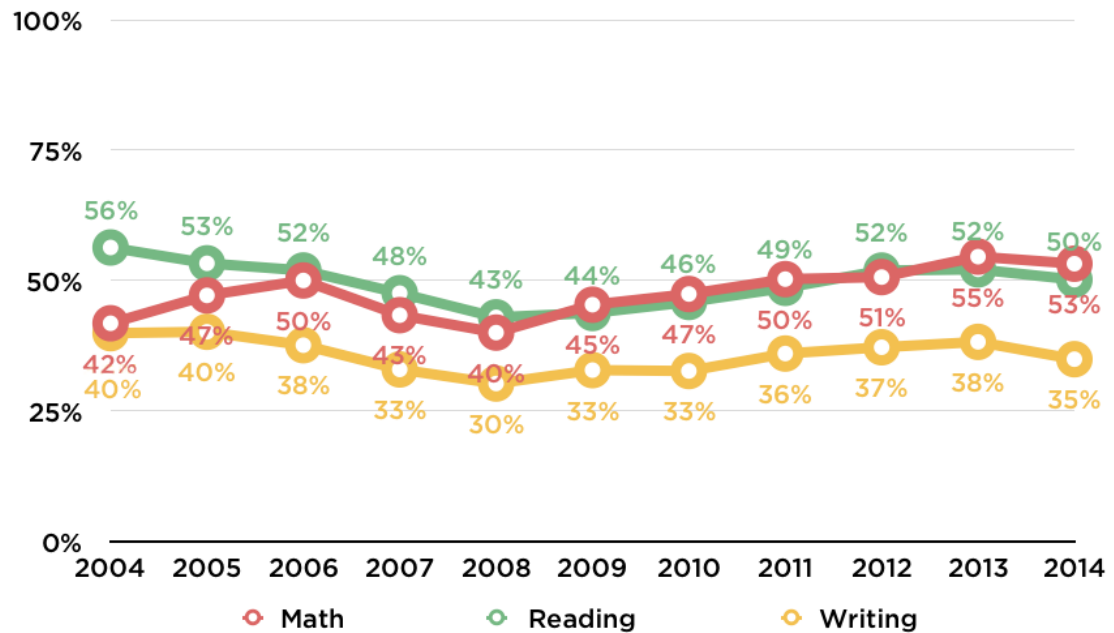
The story of academic achievement at the elementary level is much less promising. Mapleton saw significant decreases in the proportion of elementary students reaching proficiency in the early years of reform in reading and writing, and gains in improvement have yet to make up for those losses.

The Colorado Growth Model serves as a way for educators to understand how much growth a student makes relative to a student's "academic peers."<sup>7</sup> In a similar trend to proficiency rates, the district saw

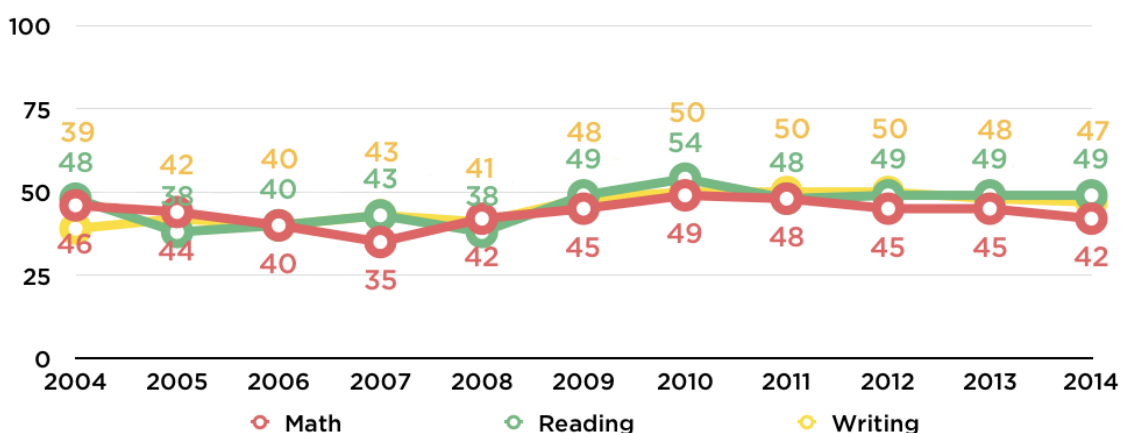
student growth percentiles that mirrored the dip in early years of reform implementation. After implementation, student growth in Mapleton has hovered around 50, meaning that by and large Mapleton students are showing average gains year to year, relative to similar students.

At the high school level, growth has been higher than the district has seen for younger students, which is aligned to the gains in proficiency seen at the secondary level.

### Mapleton Elementary Students: Percent Proficient on CSAP/TCAP

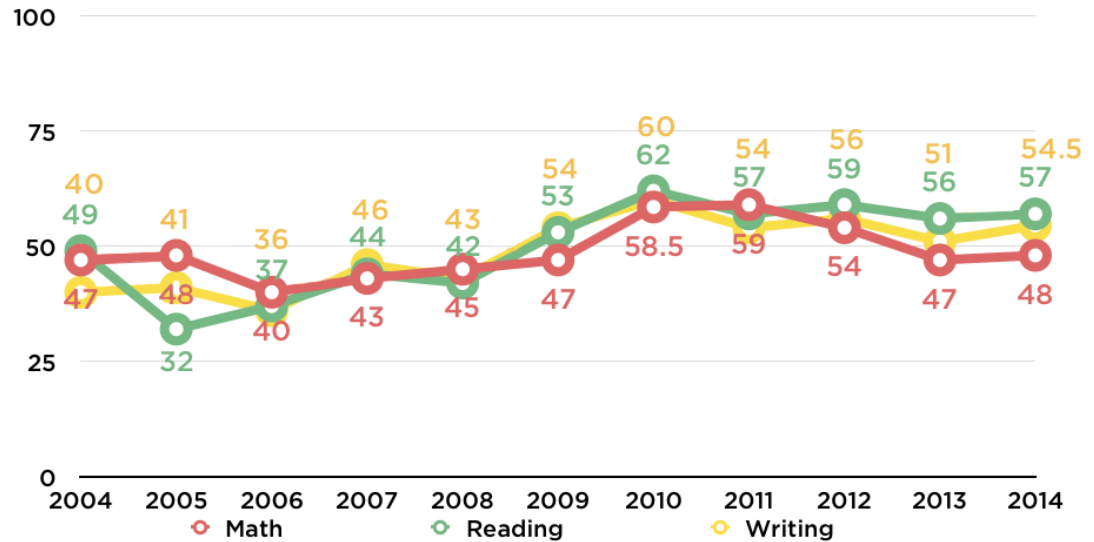


### Mapleton Median Growth Percentile on CSAP/TCAP (all students)



<sup>7</sup> The Colorado Growth Model compares each student's current achievement as measured by the CSAP or TCAP, and compares this achievement to students in the same grade who had similar scores to the student last year (their "academic peers"). This comparison generates a percentile score for that student (meaning that if a student has a growth percentile of 50, they scored better than 50% of their "academic peers" from the year before). A school or district's median growth percentile is then calculated by taking the median of all students' growth percentile scores. For more information, see FAQs from the the Colorado Department of Education: <http://www.cde.state.co.us/schoolview/generalgrowthmodelfaq>

### Mapleton Median Growth Percentile on CSAP/TCAP (High School Students)



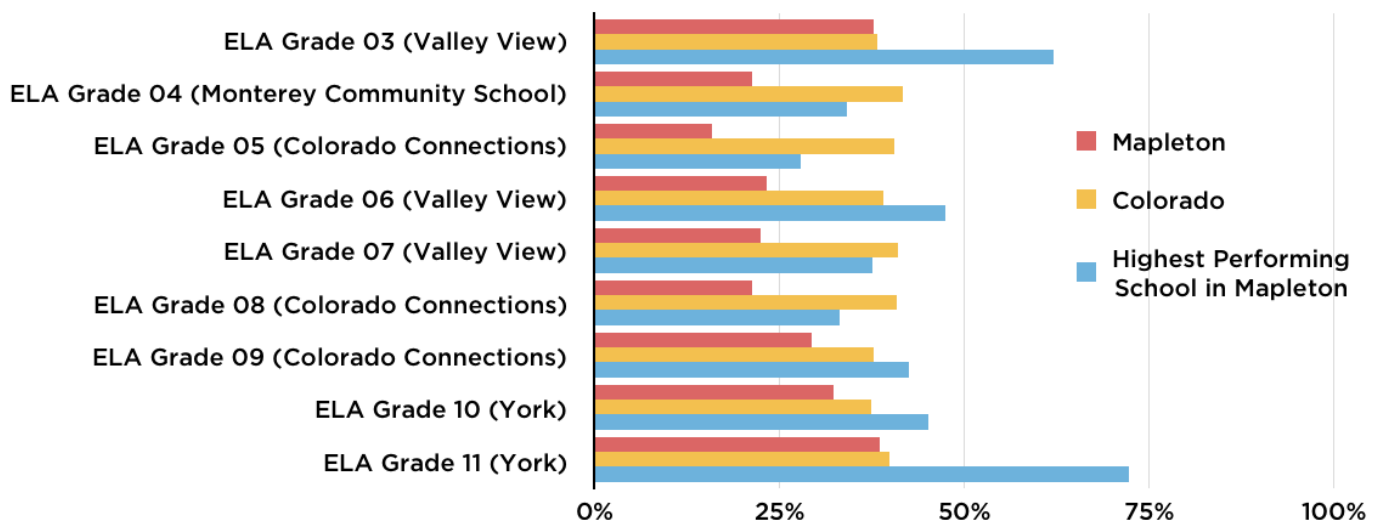
Last year the state transitioned to a new assessment to test student proficiency. This new test, PARCC, sets a higher bar for proficiency and is more closely aligned to the Colorado Academic Standards than the previous CSAP/TCAP tests.

PARCC results show that Mapleton continues to underperform the state; that gap is narrowest in 3rd grade English Language Arts. The chart below shows the students at benchmark in

English Language Arts in a grade in Mapleton, across the state of Colorado, and in the Mapleton school with the best performance on the test.

It's notable that there is not a single standout school that outperforms other Mapleton schools on PARCC, showing that all Mapleton schools are serving students similarly. In fact, seven different schools ranked as the district's top performer on at least one of the 18 tests.

### English Language Arts PARCC Performance- Percent at Benchmark (Highest Performing Mapleton School in parentheses)

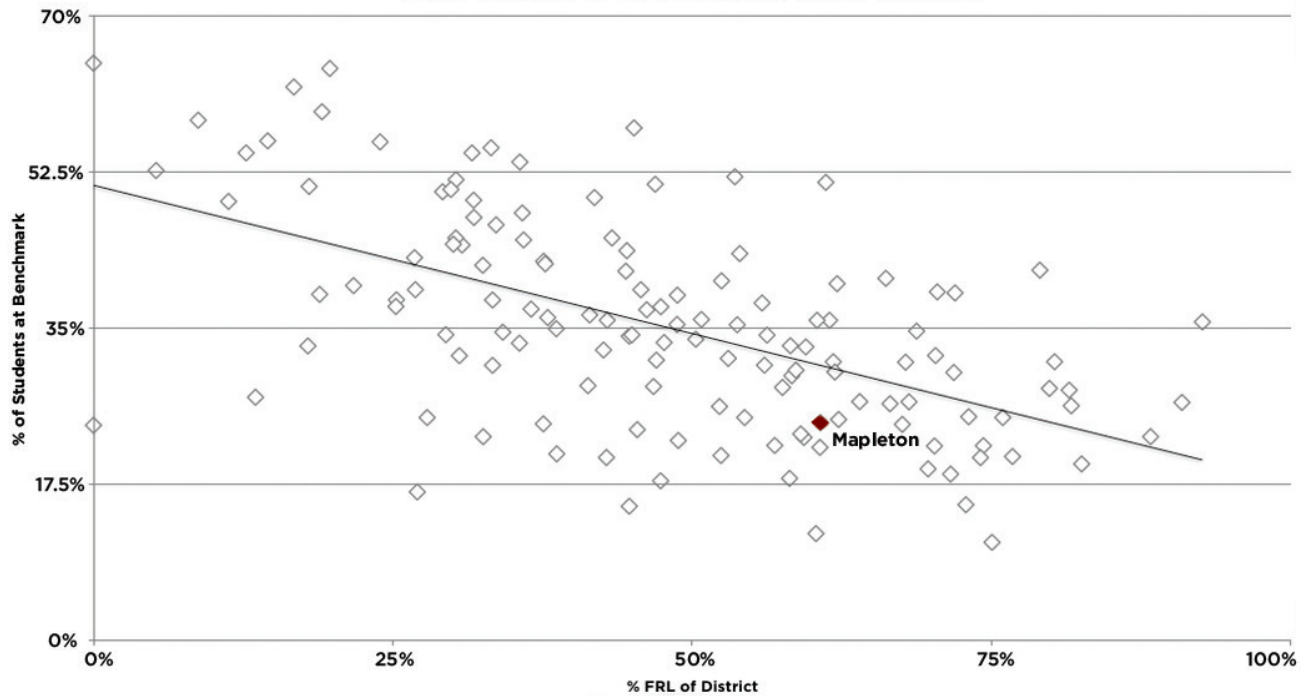




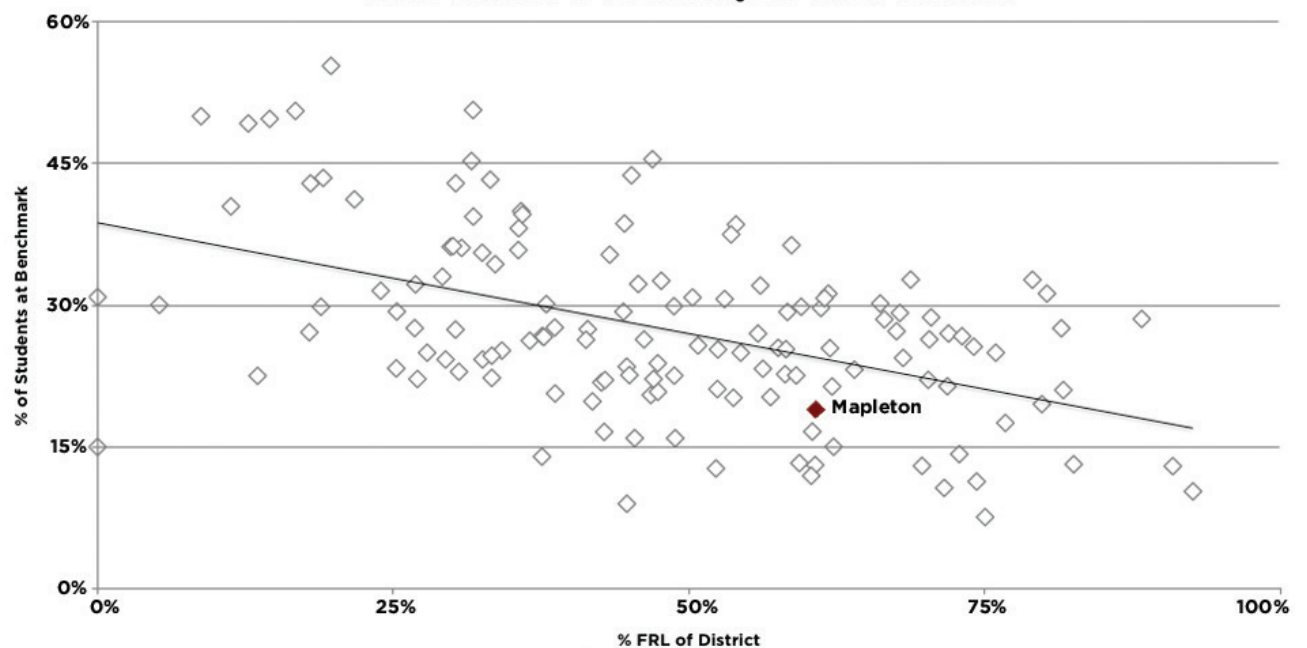
An even starker view of Mapleton's current performance compares the district to other, similar districts. The graphs below plot every Colorado school district's elementary

performance on PARCC by the percent of its students receiving free or reduced lunch. Mapleton falls below its predicted performance based on how all other districts in the state performed.

**2015 PARCC 3-5 ELA by %FRL of District**



**2015 PARCC 3-5 Math by %FRL of District**

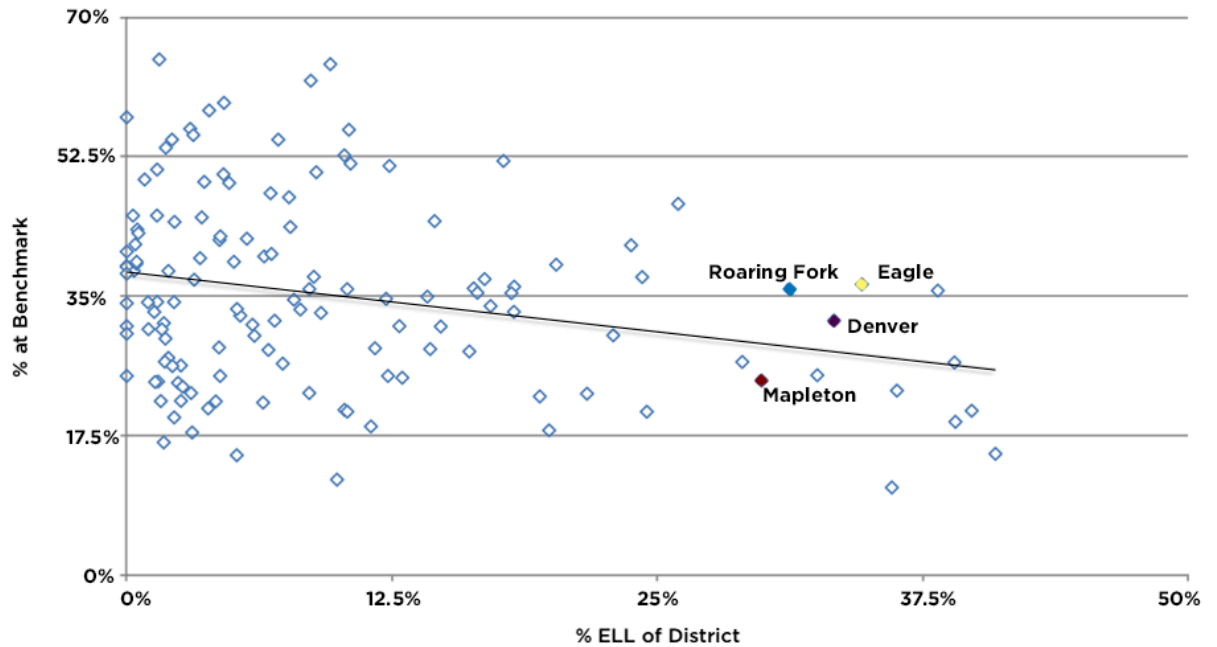




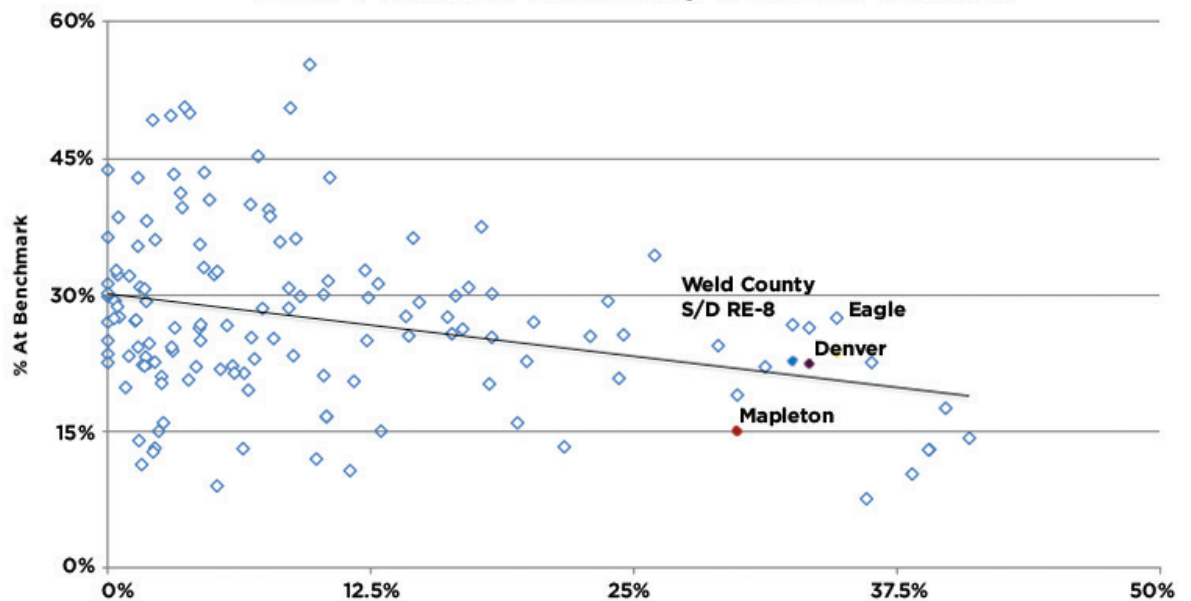
Mapleton serves a significant proportion of students classified as English Language Learners. When compared to other districts serving English Language

Learners, the proportion of students meeting benchmarks on PARCC also fell below the trend line.

### 2015 PARCC 3-5 ELA by % ELL of District



### 2015 PARCC 3-5 Math by % ELL of District



How do these PARCC results compare to Mapleton's performance on previous tests? It's impossible to answer that question with certainty, because PARCC and TCAP are dramatically different tests. It's helpful, however, to understand how Mapleton performs relative to the rest of the state, and to see if student results are improving relative to students in other districts.

The chart below shows how Mapleton performed relative to all other districts in the state on TCAP in 2013 and 2014, and on PARCC in 2015 (the district's percentile rank). This is based on the percent of students at benchmark in a particular grade level and in a particular subject. For example, if Mapleton performs in the 20th percentile, it is to say that they have a higher percentage of students at benchmark on a given test than 20 percent of other districts across the state.<sup>8</sup>

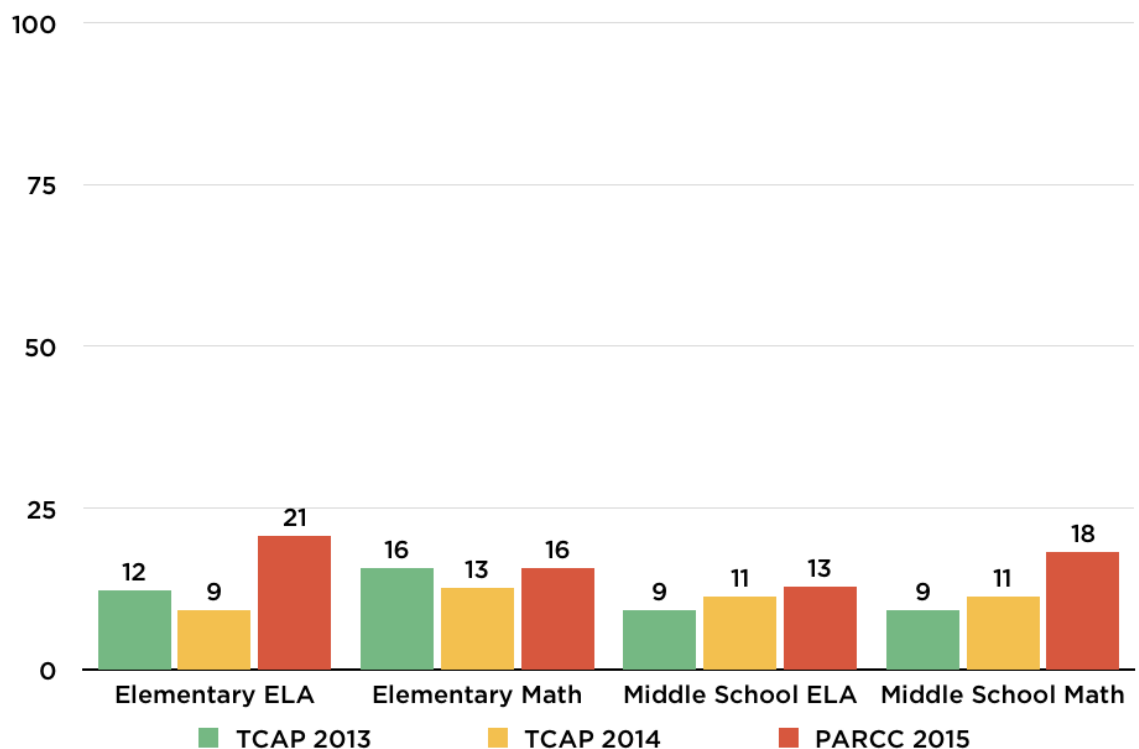
Mapleton's relative performance remained fairly consistent on elementary math and middle school English language arts tests over the past couple of years. District students outperformed about 15 percent of other Colorado districts in those two subjects.

Relative performance showed some improvement in elementary English language arts: here, Mapleton improved from about the 9th percentile in 2014 to the 21st percentile in 2015.

And in middle school math, Mapleton has made consistent gains over the past two years, moving from the 9th percentile in 2013 to the 18th percentile in 2015.

While these results are moderately heartening, there's clearly room to improve. Mapleton has an opportunity to accelerate the results it sees in elementary literacy. Practices that are working in some schools should be scaled.

### Mapleton's Percentile Performance (relative performance compared to all other districts in the state based on percent of students at benchmark)



<sup>8</sup> A+ conducted a percentile analysis ranking all schools in Colorado who reported data for more than 16 students in each grade level grouping and test on 2013 TCAP, 2014 TCAP, and 2015 PARCC assessments. Percentiles are based on percent of students meeting the proficiency benchmark at each school. For a complete explanation of methodology, see Appendix C.

### College-Readiness:

One key element of Mapleton's reform vision was that all students would experience post-secondary success. The district's small high schools were designed to improve access to and readiness for college and/or the workplace.

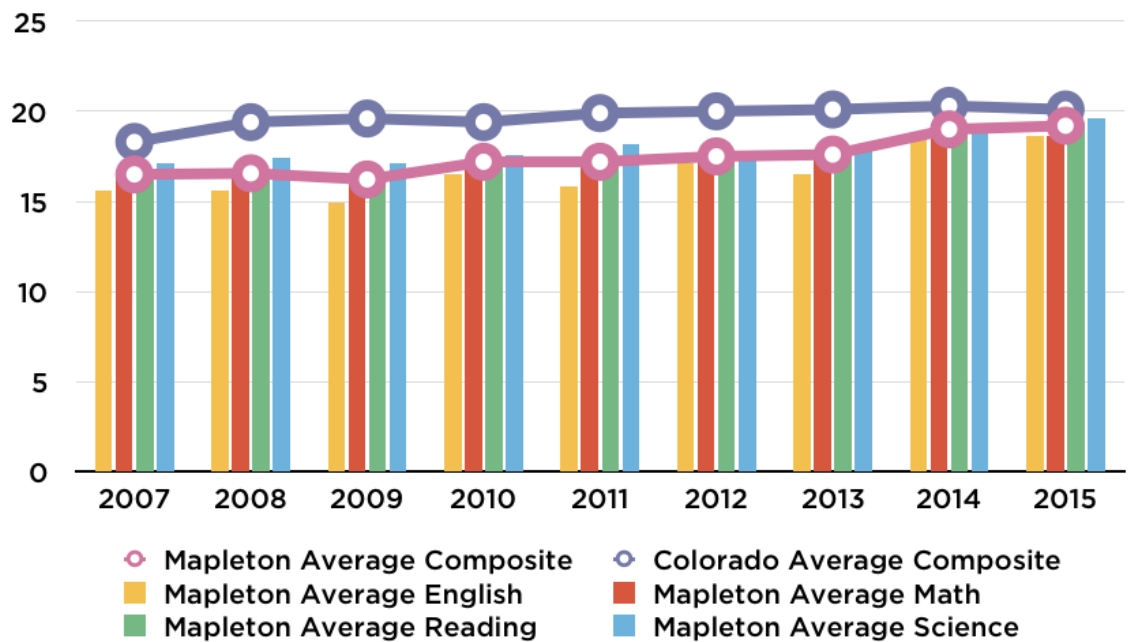
Mapleton does not offer Advanced Placement (AP) classes, so student performance on the ACT provides the best data point. The ACT is required by the state of Colorado for all juniors. It is arguably the highest stakes test a student takes as it is used in the college admissions process and is a nationally recognized measure of college readiness.

ACT scores have improved in Mapleton during the reform era. In 2007, Mapleton 11th grade students' average ACT score was a composite 16.2, well below the state average of 19.1. In the past eight years, Mapleton's average composite ACT score has climbed to 19.2. The state average has increased as well, to 20.1. But that's a slower rate of growth than Mapleton's, which means Mapleton has narrowed the gap from 2.9 points to 0.9 points.

#### ACT College Readiness Benchmark

English	18
Math	22
Reading	22
Science	23

### ACT Scores 2007-2015 (score out of 36)



This improvement is important for students because ACT scores play a big role in determining which schools will admit them. And despite the score increases, Mapleton students by and large are not reaching college-readiness levels as defined by the ACT.<sup>9</sup> Though Mapleton's average English score on the ACT is above the college-readiness benchmark, there are significant gaps between average scores and the college-readiness benchmarks in math, reading, and science.

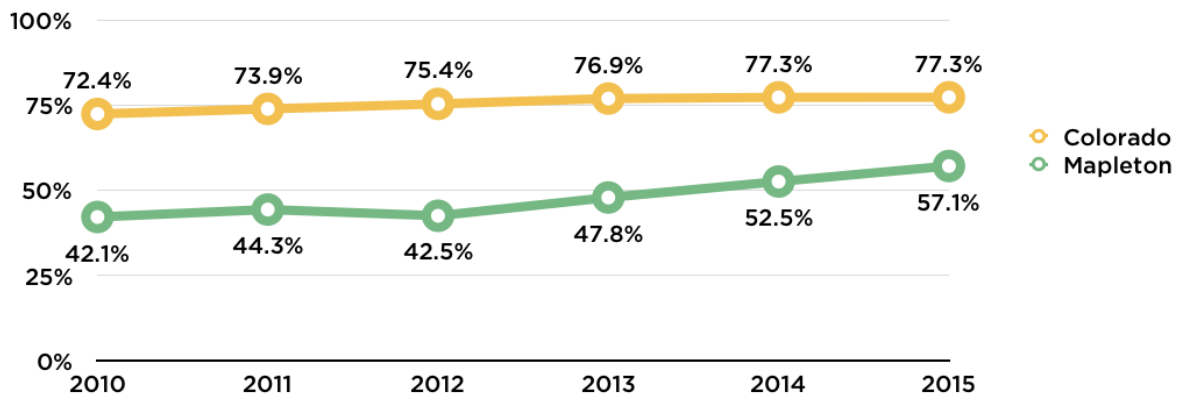
There's one significant caveat, however, when it comes to Mapleton's higher ACT scores. As the scores have climbed, the percentage of Mapleton students taking the ACT has declined markedly. Last year, just 75 percent of Mapleton juniors took the ACT, down from 85 percent in 2013.<sup>10</sup> This was driven by low participation at the online Colorado Connections Academy where 56 percent of 11th graders participated in 2015, compared to 79 percent in 2013.<sup>11</sup> Additionally, participation at York

International was lower: while 78 percent of 11th graders at York participated in the ACT in 2013, 66 percent participated in 2015.

Perhaps more significant is that Mapleton's ACT participation rate is 16 percentage points lower than Denver's, and 12 percentage points lower than Aurora's. Those two districts have higher poverty rates than Mapleton and similar student mobility rates. Mapleton should monitor these lower participation rates, how it might impact the data, and ensure all students are taking the test.

Another positive sign for the district is that Mapleton has boosted its graduation rate. Over the past six years, the graduation rate increased by 5 percentage points. Mapleton graduated 57 percent of the class of 2015. While this is still well below the state average and the rates of neighboring districts, (including Denver where the 2015 graduation rate was 65 percent), the rapid improvement is promising.

## Graduation Rate



<sup>9</sup> The ACT College Readiness Benchmarks are scores on the ACT subject-area tests that represent the level of achievement required for students to have a 50 percent chance of obtaining a B or higher or about a 75 percent chance of obtaining a C or higher in corresponding credit-bearing first-year college courses. For more information see: <https://www.act.org/solutions/college-career-readiness/college-readiness-benchmarks/>

<sup>10</sup> Participation in ACT was measured as number of 11th graders taking the ACT divided by the number of 11th graders enrolled (as measured during October Count). Given student mobility, one doesn't expect complete alignment between 11th graders enrolled in the Fall and 11th graders taking the ACT in the spring; however, one should expect similar participation rates to schools and districts with similarly mobile student populations.

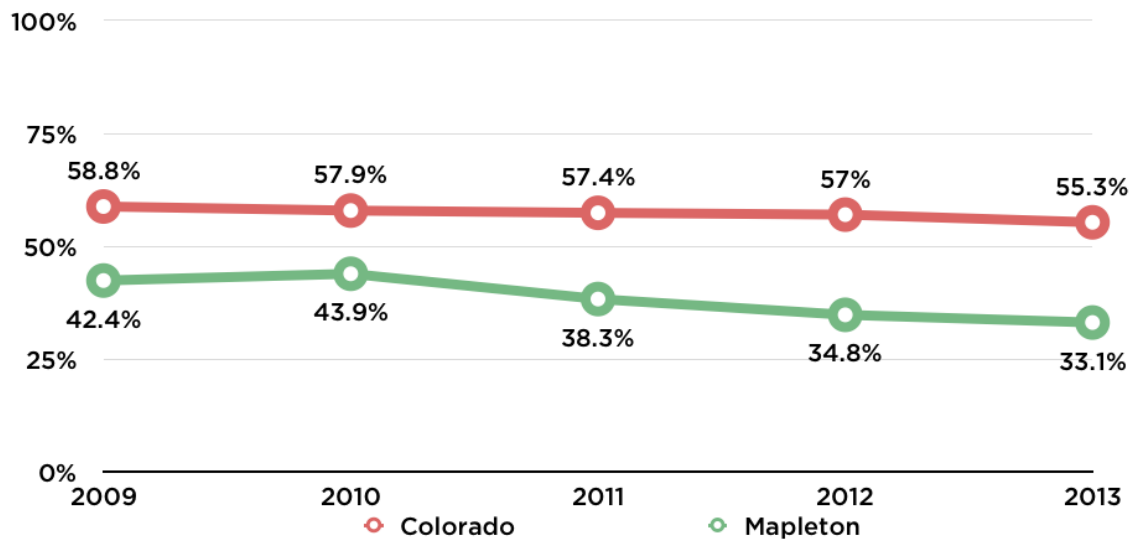
<sup>11</sup> As an online school Colorado Connections Academy does not administer the ACT like brick-and-mortar schools are required to do. Instead, Connections gives students vouchers to take the ACT test.

As graduation rates have improved, Mapleton has seen a declining proportion of graduates enroll in college. This may be because Mapleton is now getting more students a high school diploma than they would have in the past, but is not keeping pace with helping a similar proportion matriculate to a two or four year college afterwards.

Mapleton has one of the lowest college-going rates of any district in Colorado.<sup>12</sup>

Much of this low enrollment rate is driven by The New America School, a charter school focusing on former dropouts and young parents, and Mapleton's alternative school, North Valley School for Young Adults. Yet even Mapleton's other high school options, other than York International where 58 percent of graduates enroll in college, matriculate students at rates below the state average.

### Percent of Graduates Enrolling in College



### 10 Districts with Lowest College-Going Rates (Class of 2012)

District	College Enrollment Rate (%)
Englewood Schools	25.7
Plateau Valley School District	26.4
Adams School District	26.8
Sheridan School District	27.2
Weld RE-9 School District	32.8
Karval School District RE-23	33.3
Mapleton Public Schools	34.8
Weld County School District RE-8	35.2
Charter School Institute	35.5
Adams County School District 50	35.6

<sup>12</sup> 2014 Legislative Report on the Postsecondary Progress and Success of High School Graduates. May 1, 2014. [http://higher.ed.colorado.gov/Publications/Reports/Legislative/PostSecondary/2014\\_Postsecondary\\_Progress\\_rel20140505.pdf](http://higher.ed.colorado.gov/Publications/Reports/Legislative/PostSecondary/2014_Postsecondary_Progress_rel20140505.pdf)

## Mission Accomplished? A Path Forward

At the turn of the millennium, Mapleton was one of the lowest performing school districts in Colorado. Charlotte Ciano ascended to the superintendency with a strong mandate to improve the district. Clearly, there has been progress on Ciano's watch. Student achievement, while still far too low, is trending gradually in the right direction. This is most true for secondary students: the proportion of middle and high school students who are proficient in core academic subjects is growing, more students are graduating, and college readiness metrics are improving.

Structurally, Mapleton has fundamentally altered the way students and families interact with the public education system. Gone are the days of sitting by passively and waiting to be assigned to a school. Today, parents and students must be proactive in finding the right school for their learning needs.

Smaller schools have helped form close communities and strong relationships between staff, students, and their families.

The district has invested in transportation systems to enable students to attend the school of their choice. In short, key systems and structures are in place.

Now, the district's main imperative must be accelerating student achievement. A+ believes a path forward should include:

- » **Increasing academic rigor across all district schools. This might include ensuring all students have access to Advanced Placement—nationally recognized rigorous courses. The district should clarify what academic rigor looks like by having exemplars of student work and norming these high expectations across schools.**
- » **Rethinking school models. Mapleton should learn from exemplars across the country and in nearby metro area districts. These schools have been able to drive huge gains in academic achievement.**
- » **Diversifying providers. One strategy for creating exemplar schools within the district is to import schools that have demonstrated success in improving student achievement in similar contexts. Options for high-quality providers with capacity to serve Mapleton students didn't exist when Mapleton created its Choices for Learning. There are now high-performing, viable options, like KIPP or DSST, for the district to consider.**
- » **Re-visioning elementary options. Though the smallest gap between Mapleton students and their peers across the state on PARCC was in 3rd grade English language arts, other elementary grades and subjects had the largest performance gaps. Mapleton elementary schools underperform the state, and also similar districts, and should be a priority for additional change.**
- » **Creating a pipeline to college. Mapleton students need more support in reaching postsecondary options. One promising example is Oakland's program to help families plan for (and plan on) college.<sup>13</sup>**
- » **Conducting an annual audit of progress toward strategic goals. A clear strategic plan with associated metrics will enable Mapleton to both define what student outcomes and opportunities it expects to provide students, and track performance toward these outcomes. A more regular and continual reflection should drive continuous improvement.**

Mapleton has a lot of work to do to meet its lofty goals. But a huge opportunity exists for this small district. If Mapleton can get achievement results that match the ambitions of its radical restructuring, to really align relevance, relationships, and rigor through its "Choices for Learning" reform not just at the secondary level, but at the elementary level as well, people across the country should sit up and take notice.

<sup>13</sup> See the Oakland Promise:  
[www.theoaklandpromise.org](http://www.theoaklandpromise.org)

## APPENDIX A: List of Mapleton Public Schools

School	Grade Levels	Program/Focus <sup>14</sup>
Academy High School	9-12	STEM
Achieve Academy	PK-8	STEAM
Adventure Elementary	PK-6	Expeditionary Learning
Clayton Partnership School	K-8	University Partnership/Teacher Preparation
Colorado Connections Academy	K-12	Online
Explore Elementary	PK-6	Expeditionary Learning
Global Leadership Academy	PK-12	IB Candidate School
Mapleton Early College High School	9-12	Big Picture/ Early College
Mapleton Expeditionary School of the Arts	7-12	Expeditionary Learning and College Prep
Meadow Community School	PK-6	Coalition of Essential Schools (CES)
Monterey Community School	PK-8	Coalition of Essential Schools (CES)
Valley View	K-8	Back to Basics
Welby Community School	PK-6	Expeditionary Learning and Project based
York International	K-12	International Baccalaureate

## APPENDIX B: Fall 2015 Retrospective on Reform Meeting Conclusions

The Fall 2015 meeting culminated with a list of possible steps the district could take to accelerate its improvement, as compiled by the group at the end of the two-day meeting:

- More vocational options
- More access to mental health and other wraparound services
- Preparing parents as well as kids for college
- A process for reviewing, reflecting on, refining and renewing the vision
- A teacher induction program that spans two to three years
- More opportunities to take staff deeper in understanding rigor and what that looks like within each model
- Opportunities for high school teachers to visit colleges
- Succession planning for school and district leadership

<sup>14</sup> Program/Focus information provided by Mapleton Public Schools.



## Appendix C: Percentile Analysis Methodology

District-level percentile analysis methodology:

District percentile ranks are based on the percent of students at benchmark (calculation below) in a particular test and grade range on the 2013 TCAP, 2014 TCAP, and 2015 PARCC assessments.

$$\text{\% of students at benchmark} = \frac{\text{N students at benchmark}}{\text{N valid scores}}$$

This analysis relied on publicly available data. Districts are only included in the percentile analysis when the number of valid scores on the given test and within a given age range is greater than 16. Districts without sufficient data are excluded from the analysis.

TCAP data was accessed through Colorado Department of Education's Data Lab tool:

<http://bit.ly/1twS4Vw>

PARCC data was accessed through the Colorado Department of Education's Assessment unit:

<http://www.cde.state.co.us/assessment/newassess-parcc>

Given new data protection rules, CDE suppressed additional data in the publicly available PARCC data set. For all CDE approximations of number of students at benchmark, A+ used the approximated number (for example, if CDE reported >130 students were at benchmark on a test, A+ used 130 as the best approximation of the students at benchmark). CDE has verified that these numbers are rounded within 5-10 students of the actual observed data. This overestimates some

district data, and underestimates others. CDE has verified that, even with these approximations, the percentile analysis is directionally valid and closely aligned with the full non-publicly available data set.

Though administered separately, 2013 and 2014 TCAP Reading and Writing assessments were combined to provide a better comparison to 2015 PARCC English Language Arts exams:

$$\text{TCAP Reading and Writing \% at benchmark} = \frac{(\text{N students at benchmark in Reading} + \text{N students at benchmark in Writing})}{(\text{N Valid scores Reading} + \text{N Valid Scores Writing})}$$

Grade levels were grouped as follows. Separate percentiles were calculated for each grade level grouping for each subject area (Math, and Reading and Writing/ English Language Arts):

3-5 (Elementary students)

6-8 (Middle School students)

9-11 (High School students)

Middle School Math PARCC results include only 6th, 7th, and 8th grade math. However, 7th graders could take 7th Grade Math, Algebra I, or Integrated Math I, and 8th graders could take 8th Grade Math, Algebra I, Integrated Math I or II, or Geometry. Because publicly available data does not indicate grade level of test-takers these tests have been excluded from A+'s percentile analysis.