



**PRIME CENTER**  
SAINT LOUIS UNIVERSITY



# Missouri Education Profile



# | Letter from the Directors |

Dear Readers,

The SLU PRiME Center is pleased to share the 2019 Missouri Education Profile, presenting a 30,000 foot overview of Missouri's schools and students and the resources supporting them. In the pages that follow, we present important student success indicators including student test scores, college readiness, and graduation rates. You'll find information on school spending and teacher pay. For each of these, we'll show you how Missouri compares to our border states and to the rest of the country and we'll also examine how these numbers vary for different types of districts within the Show-Me State.

The 2017-18 academic year marked the first year of Missouri using its new MAP tests aligned to the state's new, more rigorous standards and an end to years of changes for the state's tests and standards. We, along with many in the state, look forward to the consistency provided by the new Missouri Learning Standards and redesigned MAP and End-of-Course assessments so that we can get a better grasp of year-to-year progress for our schools and students.

Since the 2019 Missouri Education Profile is the PRiME Center's first of what we plan to be annual releases, we will provide a bit of historical context on the schools and students in Missouri. These data, of course, cannot tell the whole story, but instead provide a snapshot. We hope that the data on these pages can be useful to parents, practitioners, and policymakers by providing some background and leading to more questions. And, when these questions are generated, the PRiME Center at SLU will be here to help you ask and answer them!



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## Table of Contents

Letter from the Directors	2
Missouri Fast Facts	3
Executive Summary	4
Missouri Student Demographics	5
Per Pupil Expenditures	6-7
Teacher Pay	8-9
MAP Testing	10-11
ACT Scores	12
AP Participation	13
Graduation Rates	14
NAEP Performance	15
Sources & Staff	16



# | Missouri Fast Facts 2017-18 | >> 883,609 students >> 2,698 public schools

29

High Schools ranked top 10% in nation by U.S. News (2018/U.S. News)

50%

Missouri students who qualify for the federal Free/Reduced-Price Lunch Program

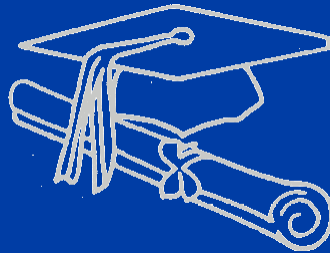
19.9

Composite ACT Score (Class of 2018)



17:1

Student to Teacher ratio



66,413

Certified teachers in public schools in Missouri

\$11,342

K-12 per pupil spending

Average enrollment of school district

1,637



36

Public Charter School LEAs in Missouri

518 Traditional Public School Districts



217

National Merit Semi-Finalists (Class of 2019)

3.8%

Students identified as Gifted & Talented

97%

Districts meeting accreditation standards in Feb. 2019

## | Executive Summary |

In the pages that follow, we describe the students who attend schools across the state of Missouri and the resources to support them. We then spend the rest of the pages in our 2019 Missouri Education Profile describing student performance and student success.

***Who are Missouri's Students?*** Students in Missouri are not as diverse as students across the United States. While fewer than half of the students across the nation identify as White, more than 70% of Missouri students are White. Nevertheless, Missouri's student population has grown more diverse over the past 15 years; in 2003, 78% of the state's students were White. With respect to poverty, as measured by student eligibility for free- or reduced-price school lunches, students in Missouri (50% FRL) are slightly more advantaged than their peers in the border states (54% FRL) and their peers across the nation (52% FRL).

***How Much Do Missouri Schools Spend?*** With regard to per pupil expenditures, Missouri schools spend approximately \$11,000 per pupil, which is roughly \$500 less than border states spend and about \$1,600 less than the national average. Similarly, average teacher pay in Missouri is about \$3,000 less than in border states, and about \$10,000 less than the national average. There are clear differences between types of districts in the state as well:

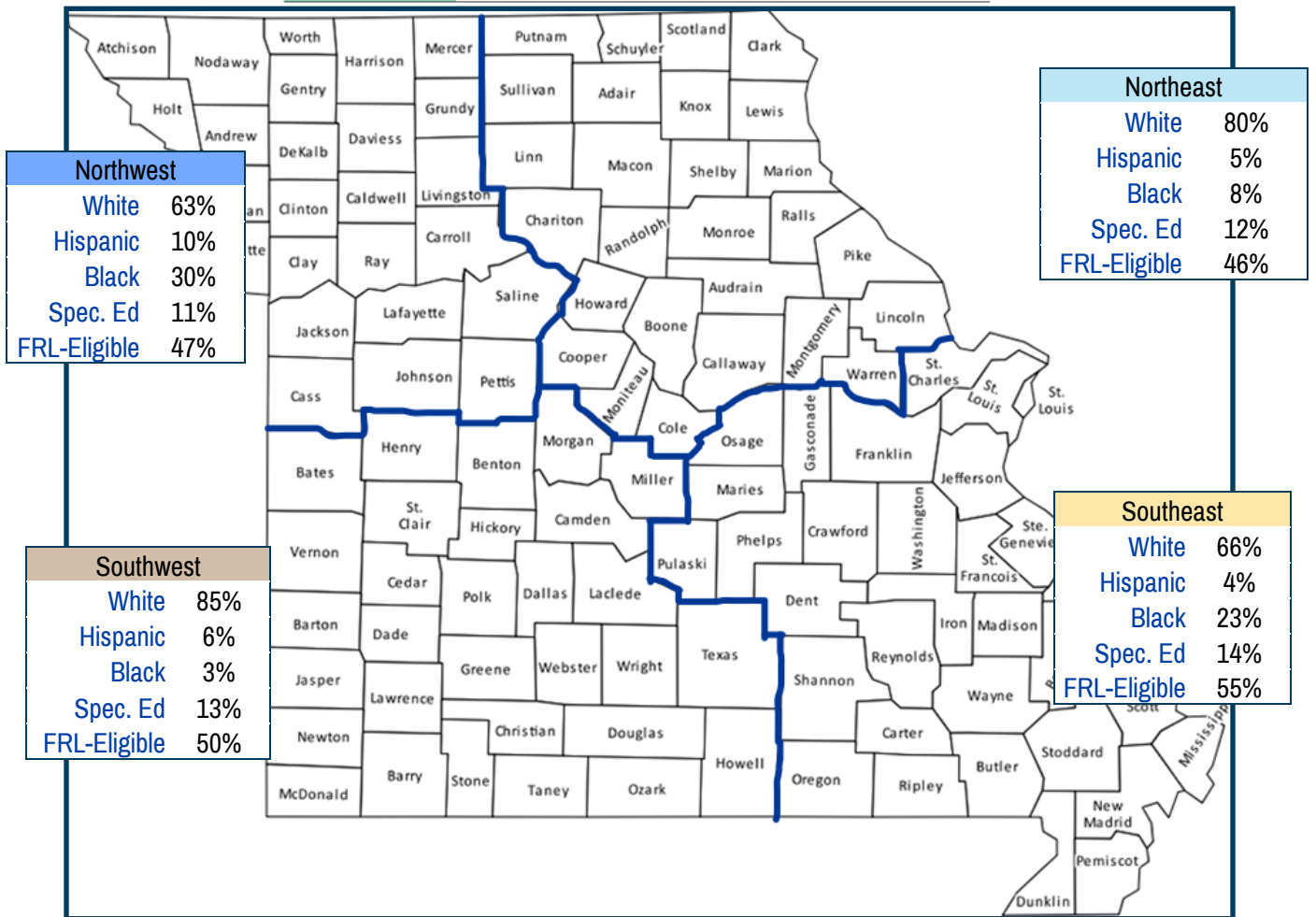
teachers in the largest districts and teachers in districts serving more diverse student bodies earned the highest salaries.

***How Are Missouri's Students Doing?*** Missouri has undergone a variety of testing and standards changes over the last decade but policymakers have finally settled on state-designed learning standards and re-designed MAP tests. For the 2017-18 school year, 48% and 40% of students statewide met the readiness benchmark in English and Math respectively. Because state-designed exams (like the MAP) do not allow for across-state comparisons, we also examine the National Assessment of Educational Progress (NAEP). Here, we find that Missouri students score right around the national averages in both Math and Reading and have for the past several administrations of these exams.

Most Missouri high school students also take the ACT, another national assessment. On this measure, Missouri students do pretty well as they outscore students in other states which encourage full participation. The story is mixed with respect to Advanced Placement: while a small fraction of Missouri students take AP exams, those students who do so pass the exams at a very high rate. Finally, the state's high school graduation rate continues to hover well above the national average and that of the border states, as nearly 9 in 10 Missouri students who start high school ultimately graduate.

# | Missouri Student Demographics, 2017-18 |

	White	Hispanic	Black	Receiving Special Education Services	Free/Reduced Lunch-Eligible
<b>Missouri</b>	71%	6%	16%	14%	50%
<b>Nation</b>	48%	28%	15%	13%	52%
<b>Border States</b>	64%	12%	15%	14%	54%



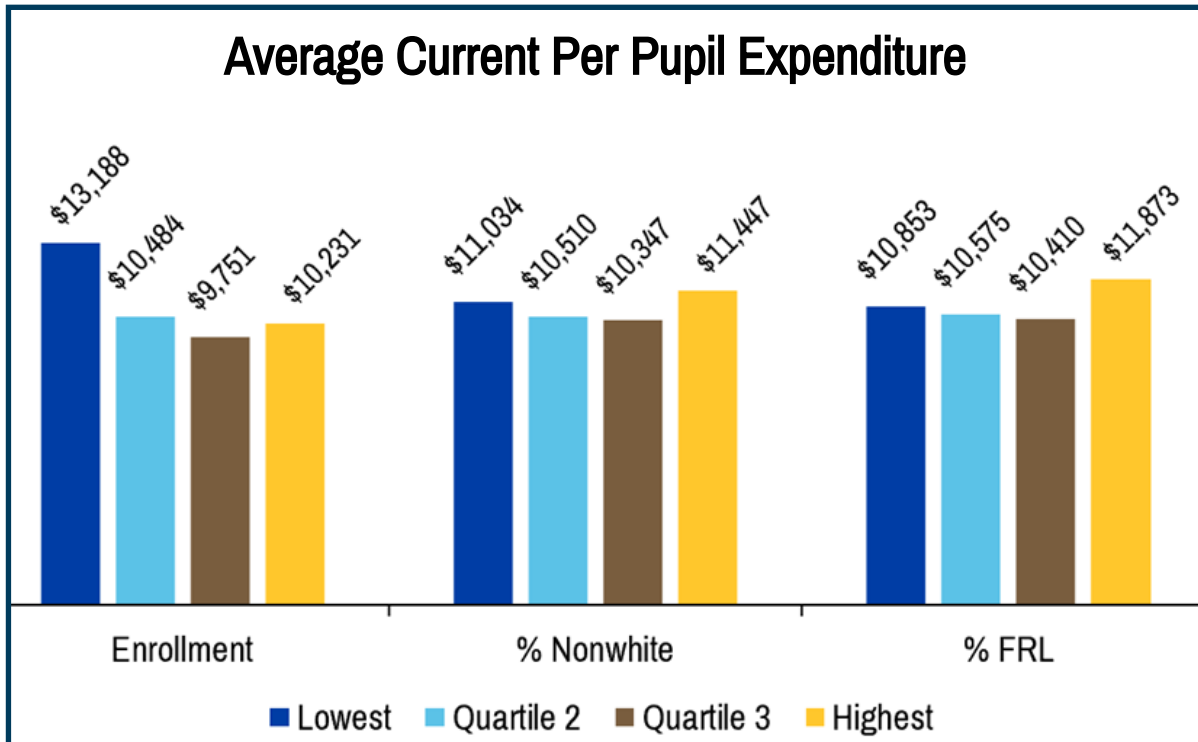
The fraction of Missouri students who are low-income (as measured by eligibility for free- or reduced-price lunches) and who receive special education services do not vary much from the national figures. However, schools in Missouri are far less racially diverse than are the schools across the nation as 71% of Missouri students are White. In the Northeast and Southwest regions of Missouri, 80% and 85% of the students are White.

## | Per Pupil Expenditure, 2017-18 |

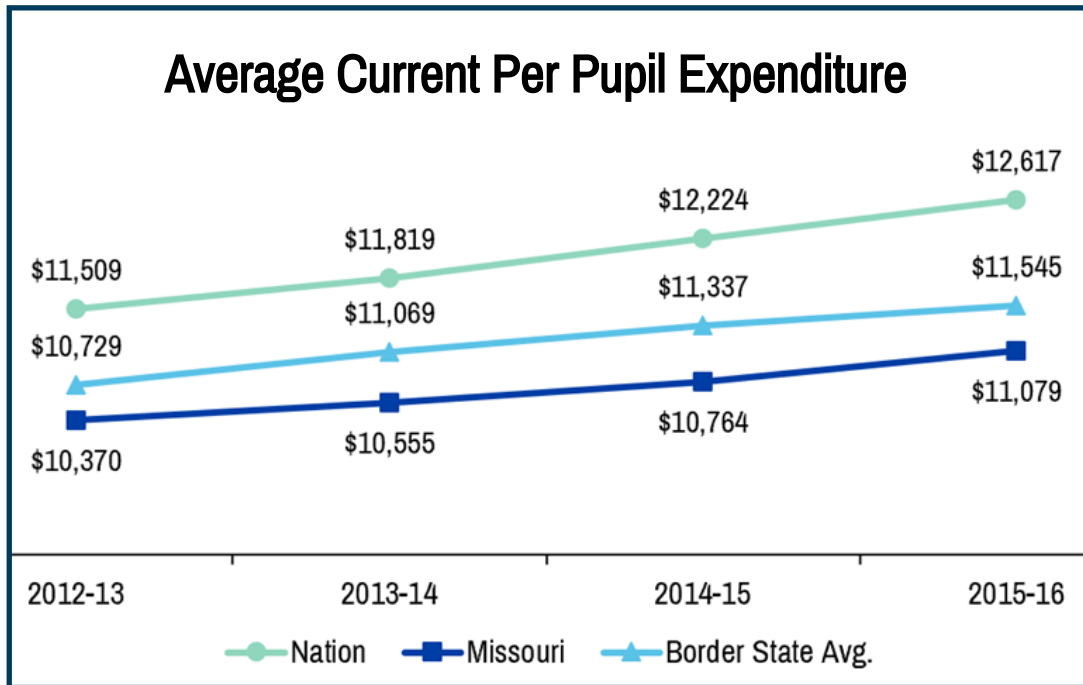
Average Current Per Pupil Expenditure by Achievement Quartile	
Lowest Achieving Quartile	\$11,374
Quartile 2	\$10,503
Quartile 3	\$10,501
Highest Achieving Quartile	\$10,896
<b>Missouri Average: \$10,927*</b>	

\*Calculated average current per pupil expenditure that is unweighted and excludes Spec. School District, as well as Juvenile Justice and Alternative Schools

In 2017-18, the average school district in Missouri used \$10,927 in current expenditures per pupil. Spending does not vary a great deal by student characteristics, but some patterns do emerge. Per pupil spending is greatest in the districts serving the students with the lowest test scores (\$11,374), in the districts with the lowest enrollment (\$13,188), in the districts serving the highest proportion of low-income students (\$11,873), and in the districts serving the most non-white students (\$11,447).



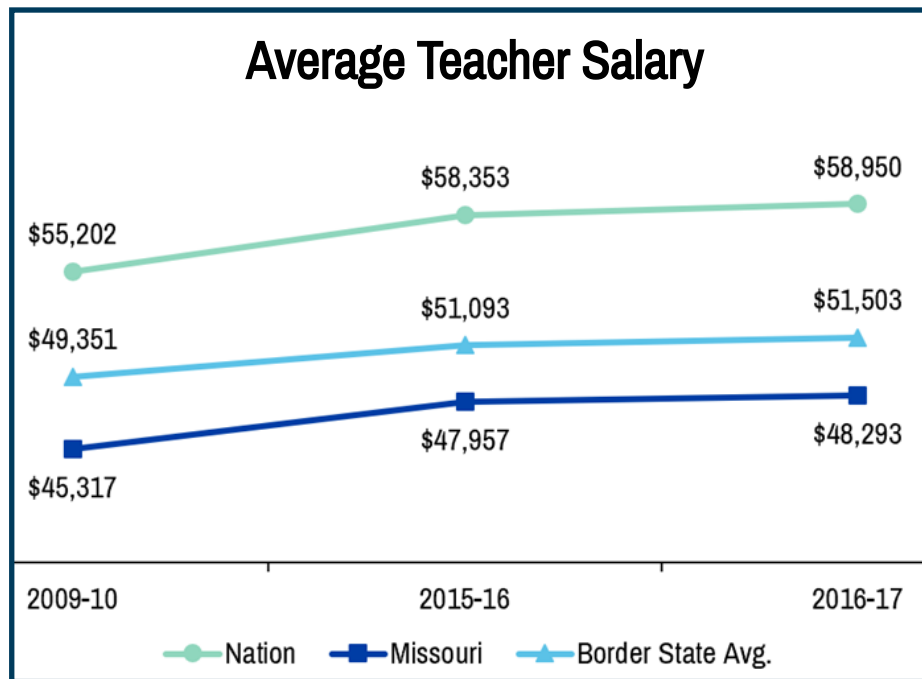
## | Per Pupil Expenditure: National Data Through 2015-16 |



To make national comparisons of school spending, we draw upon information from the National Center for Education Statistics to ensure comparability. Unfortunately, this means that data from the most recent school years are not yet available. Nevertheless, the pattern is clear: Missouri schools generally spend a bit less than schools in the border states and a substantial amount less than the national average.

<b>Missouri and Border States Average Current Per Pupil Expenditure</b>				
	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>	<b>2015-16</b>
<b>Nation</b>	<b>\$11,509</b>	<b>\$11,819</b>	<b>\$12,224</b>	<b>\$12,617</b>
<b>Missouri</b>	<b>\$10,370</b>	<b>\$10,555</b>	<b>\$10,764</b>	<b>\$11,079</b>
<b>Border State Avg.</b>	<b>\$10,729</b>	<b>\$11,069</b>	<b>\$11,337</b>	<b>\$11,545</b>
Arkansas	\$9,853	\$10,622	\$10,756	\$10,837
Illinois	\$13,808	\$14,682	\$15,473	\$15,909
Iowa	\$10,915	\$11,359	\$11,698	\$11,846
Kansas	\$10,789	\$11,180	\$11,106	\$10,815
Kentucky	\$10,269	\$10,248	\$10,659	\$10,912
Nebraska	\$12,374	\$12,502	\$12,825	\$13,700
Oklahoma	\$8,450	\$8,526	\$8,633	\$8,624
Tennessee	\$9,370	\$9,431	\$9,549	\$9,719

## | Teacher Pay: National Data Through 2016-17 |



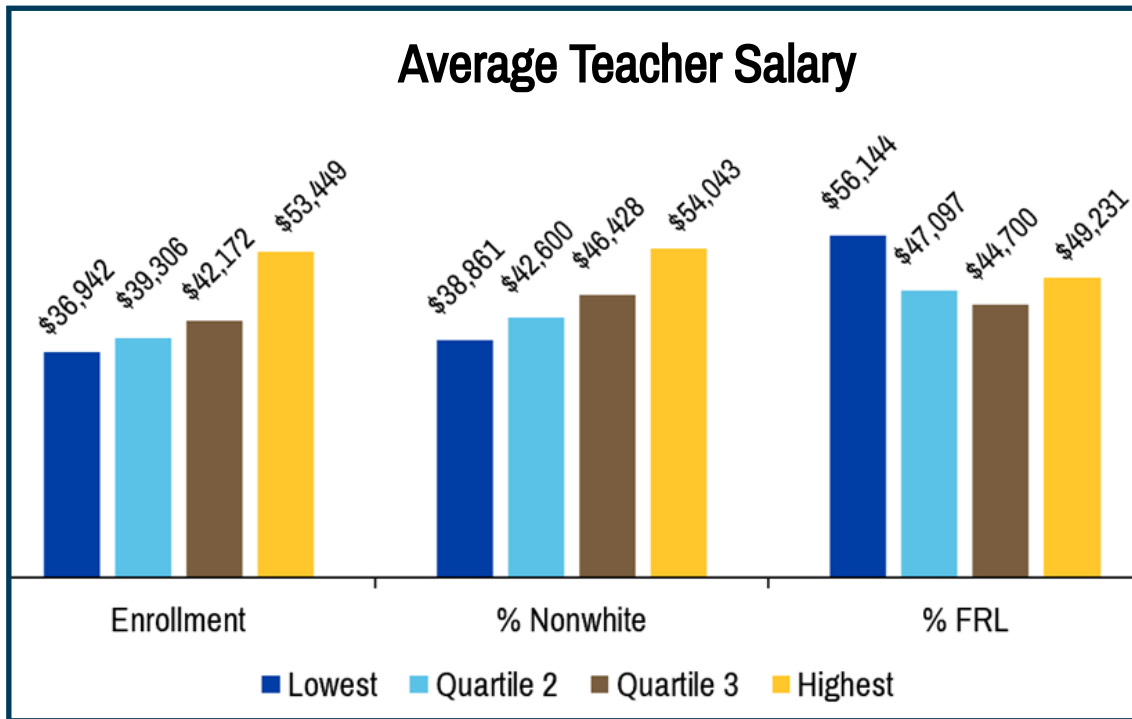
Across-state comparisons of teacher pay also must rely on the National Center for Education Statistics. We find that Missouri's average teacher salary increased over the last decade at a rate greater than the rate in border states. Nevertheless, the average teacher pay in Missouri still lags behind the nation by about \$10,000 and behind its neighbors by roughly \$3,000. In fact, Missouri's average teacher salary is lower than all the border states except for Kansas and Oklahoma.

<b>Missouri and Border State Average Teacher Salary</b>			
	2009-10	2015-16	2016-17
Nation	\$55,202	\$58,353	\$58,950
Missouri	\$45,317	\$47,957	\$48,293
Border State Avg.	\$49,351	\$51,093	\$51,503
Arkansas	\$46,700	\$48,218	\$48,616
Illinois	\$62,077	\$61,342	\$61,602
Iowa	\$49,626	\$54,416	\$55,443
Kansas	\$46,657	\$47,755	\$47,984
Kentucky	\$49,542	\$52,134	\$52,339
Nebraska	\$46,227	\$51,386	\$52,338
Oklahoma	\$47,691	\$45,276	\$45,245
Tennessee	\$46,290	\$48,217	\$48,456

In order to make accurate comparisons across states, we use the average teacher salary as reported in the National Center for Education Statistics *Digest of Education Statistics, 2017*.



## | Teacher Pay, 2017-18 |

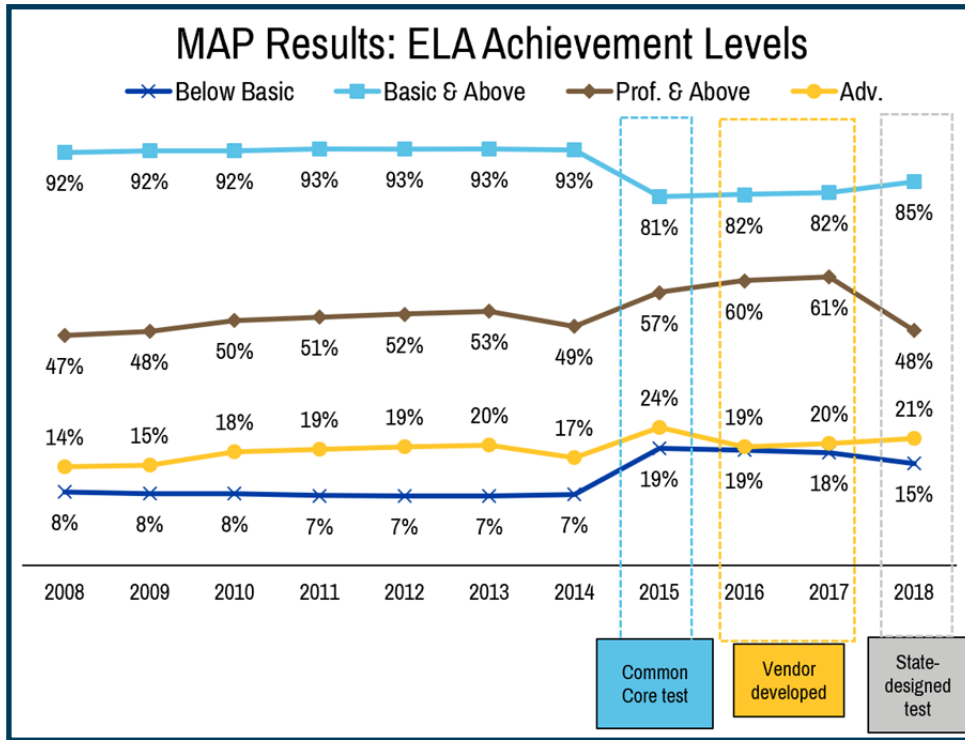


In 2017-18, according to DESE, the teacher salary in Missouri was \$50,105, and this figure varies a great deal across districts serving different types of students. Teacher salaries are highest in the districts serving the students with the highest test scores (\$56,449), in the districts with the highest enrollment (\$53,449), in the districts serving the lowest proportion of low-income students (\$56,144), and in the districts serving the most non-white students (\$54,043).

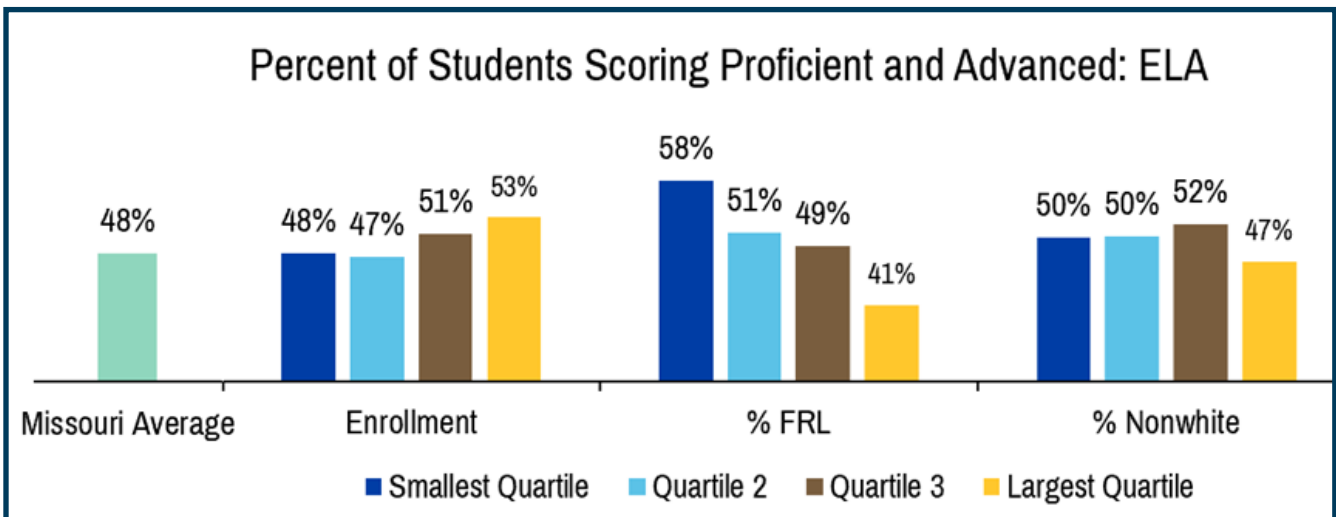
Average Teacher Salary by Achievement Quartile	
Lowest Achieving Quartile	\$49,465
Quartile 2	\$44,685
Quartile 3	\$46,577
Highest Achieving Quartile	\$56,449
<b>Missouri Average: \$50,105*</b>	

\*Calculated average teacher salary is weighted by teacher FTE excludes districts that do not report % FRL, achievement, and/or % nonwhite

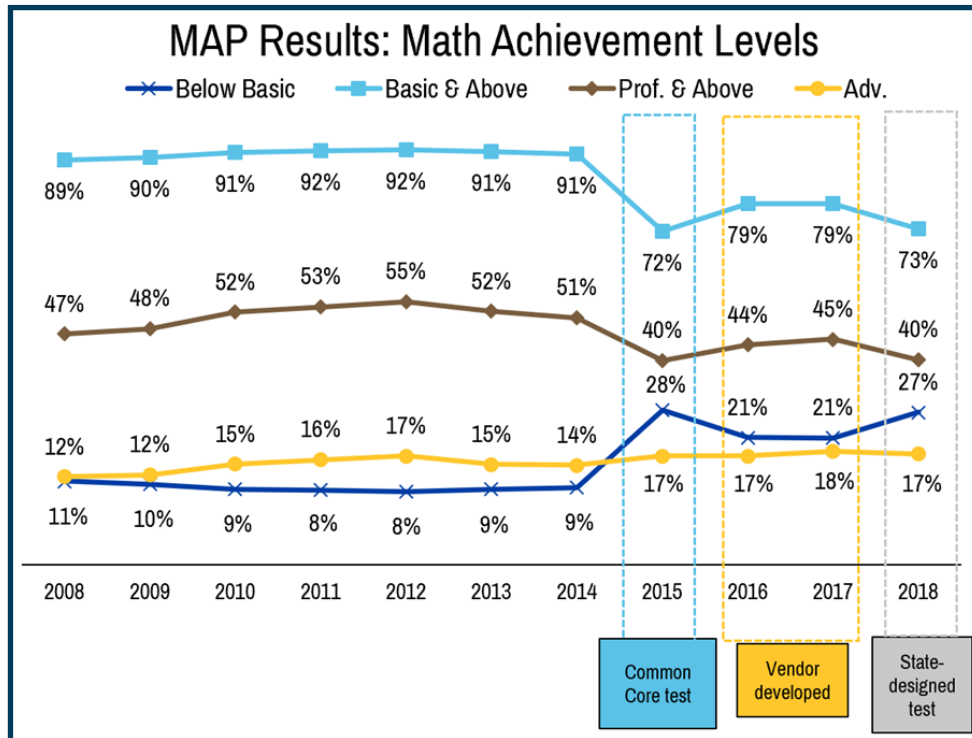
# | 2017-18 MAP Testing: ELA |



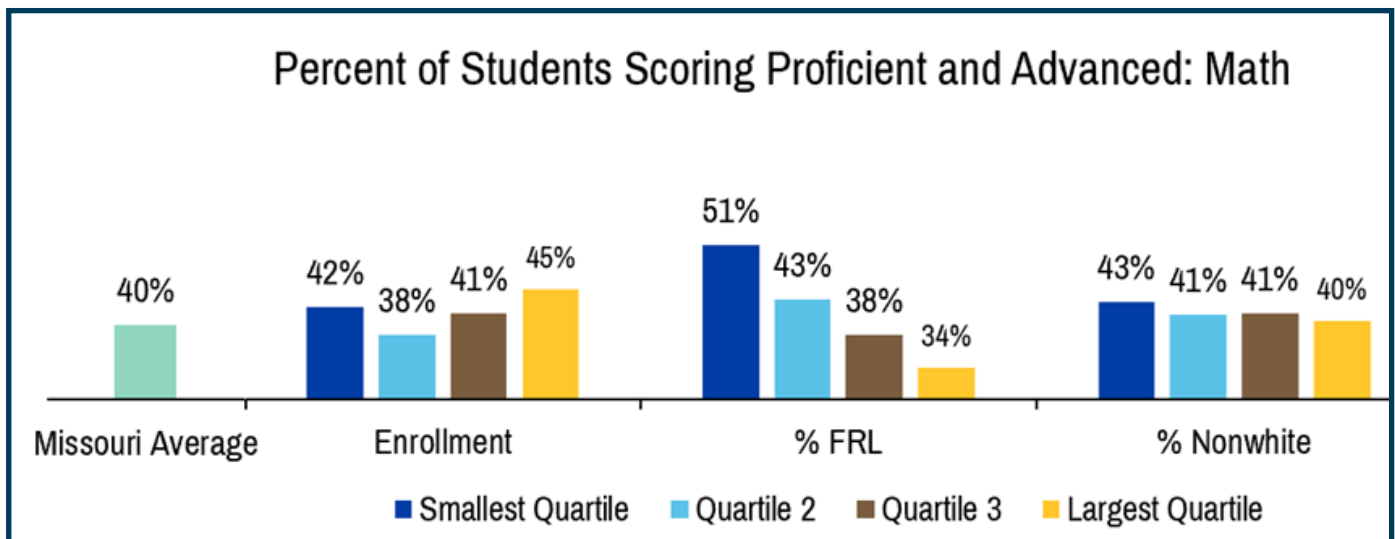
Missouri’s testing and standards have undergone some dramatic changes over the last 4 years, in which students have taken four different year-end exams. While state policymakers now have settled on the new MAP exam to assess student progress on the state’s new standards, the testing volatility has made it difficult to assess the progress of districts and schools in recent years. In the most recently-announced results for English Language Arts (ELA), only 48% of Missouri students scored proficient or better on the exam. These scores were highest in the districts serving the fewest poor students (59% proficient or better) and were the lowest in the districts serving the most low-income students.



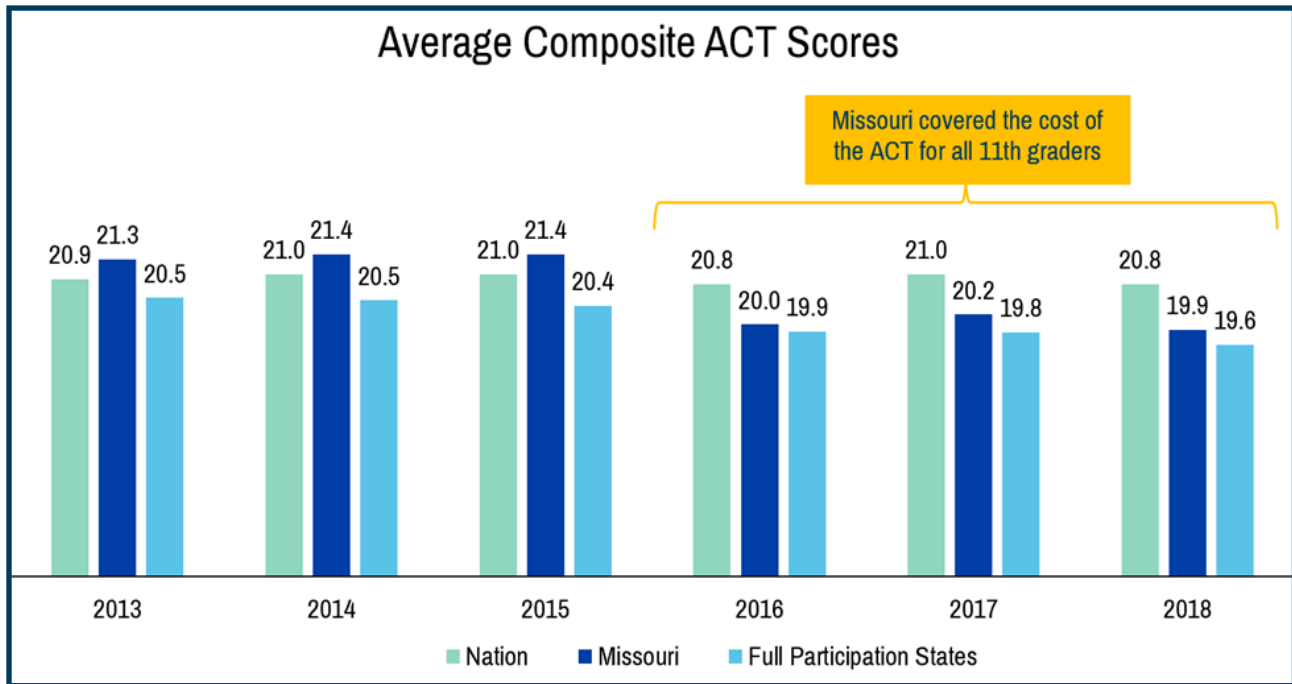
# | 2017-18 MAP Testing: Math |



Similar to the ELA results, Missouri's math results show similar dips and jumps. For the 2017-18 school year, only 40% of Missouri students scored proficient or better on the Math exam. As was the case with the ELA exams, the scores were highest in the districts serving the fewest poor students (51% proficient or better) and were the lowest in the districts serving the most low-income students.



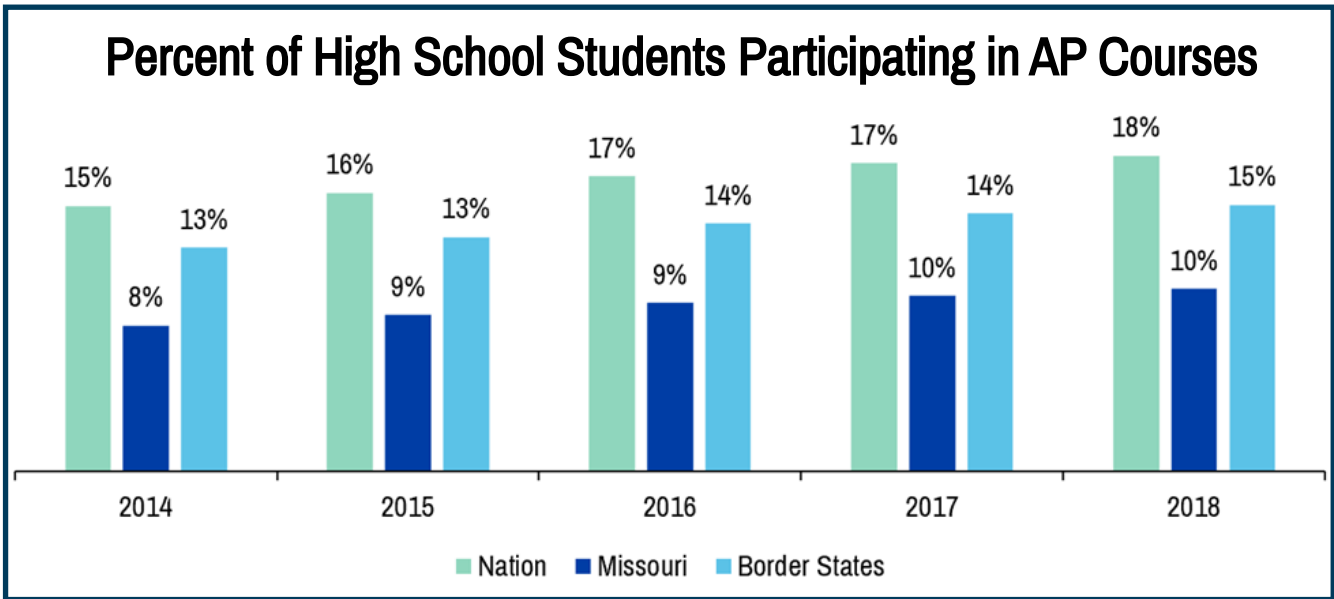
## | ACT Scores, 2013 through 2018 |



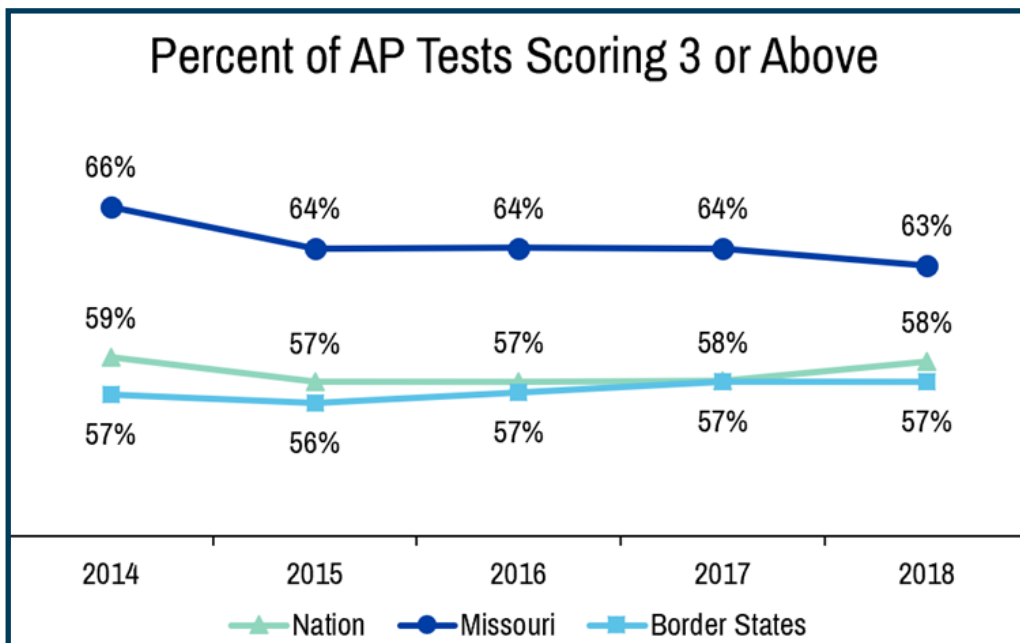
Student composite scores on the college entrance ACT exam are certainly meaningful, but state averages on this exam are not necessarily. The number of students actually taking this exam in many states can be low and unrepresentative. However, since 2016, Missouri covered the cost of ACT test participation for all 11th graders. As a result of the participation of students who would not previously have taken the exam, Missouri’s average score decreased. Nevertheless, when Missouri’s scores are compared appropriately to other full-participation states, Missouri’s average Composite ACT score is slightly higher.

	2016			2017			2018		
	MO	Border States	Nation	MO	Border States	Nation	MO	Border States	Nation
English	59%	61%	61%	59%	62%	61%	56%	64%	60%
Reading	40%	46%	44%	43%	45%	47%	41%	45%	46%
Math	35%	37%	41%	34%	36%	41%	33%	38%	40%
Science	32%	36%	36%	34%	35%	37%	32%	36%	36%
Met All	22%	25%	26%	23%	24%	27%	22%	25%	27%

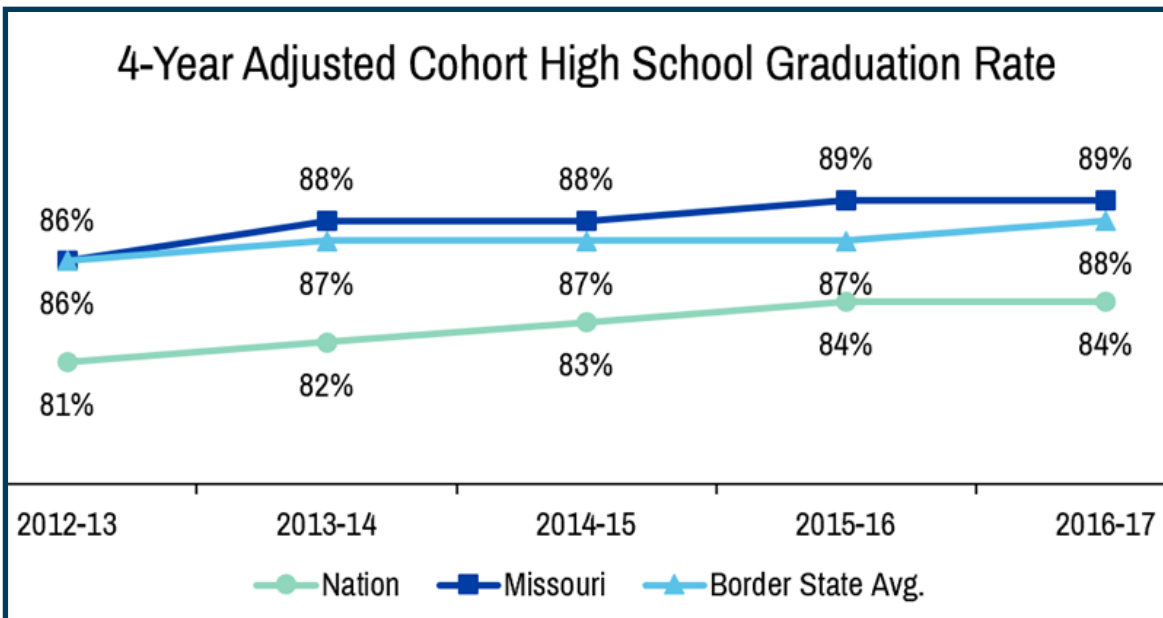
## | AP Participation, 2014 through 2018|



According to the College Board, Missouri has a relatively low percentage of high school students participating in AP courses, compared to participation rates in border states and in the rest of the nation. Conversely, the Missouri students who take AP exams earn higher scores than do their peers in border states or across the nation. Specifically, since 2014, over 63% of the AP exams taken by Missouri students have resulted in scores of 3 or better, which generally results in students earning college credit for the high school AP coursework.



## | Graduation Rates, 2012 through 2017 |

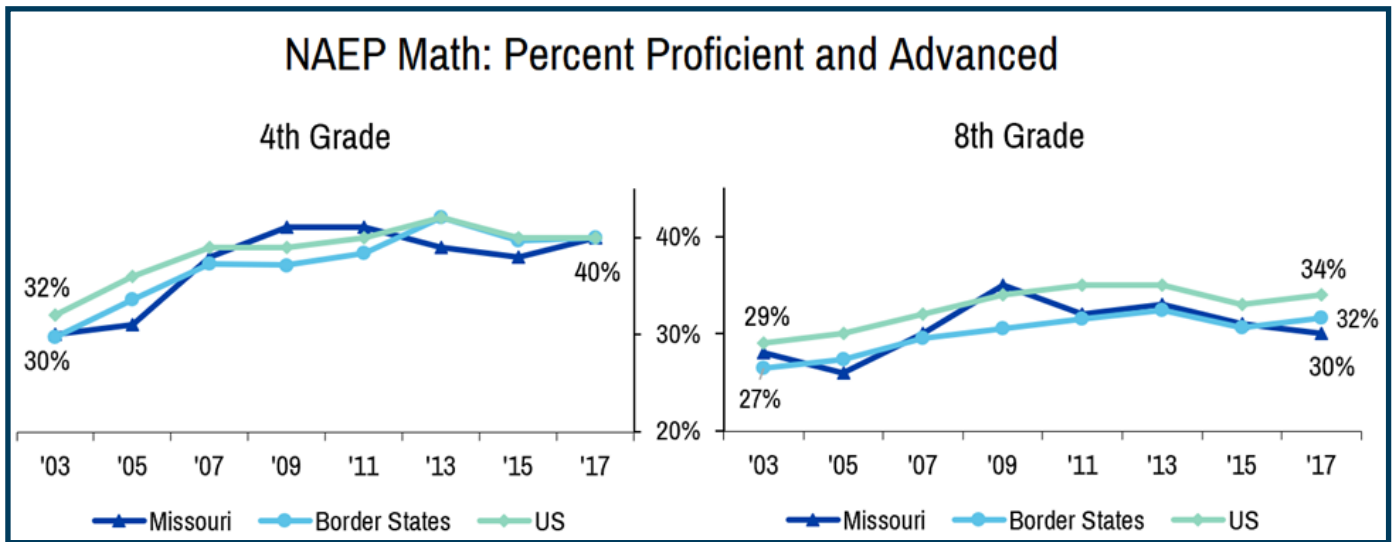


Missouri's four-year adjusted cohort graduation rate for high school students has consistently been higher than the national rate for the past half-decade. Since 2012-13 the high school graduation rate in Missouri has been roughly 5 percentage points higher than the national rate. In the most recent year, 89% of Missouri students who started high school in ninth grade successfully graduated. Several border states boasted similarly high rates, including Iowa, Kentucky, Nebraska, and Tennessee.

### Missouri and Border States Graduation Rates

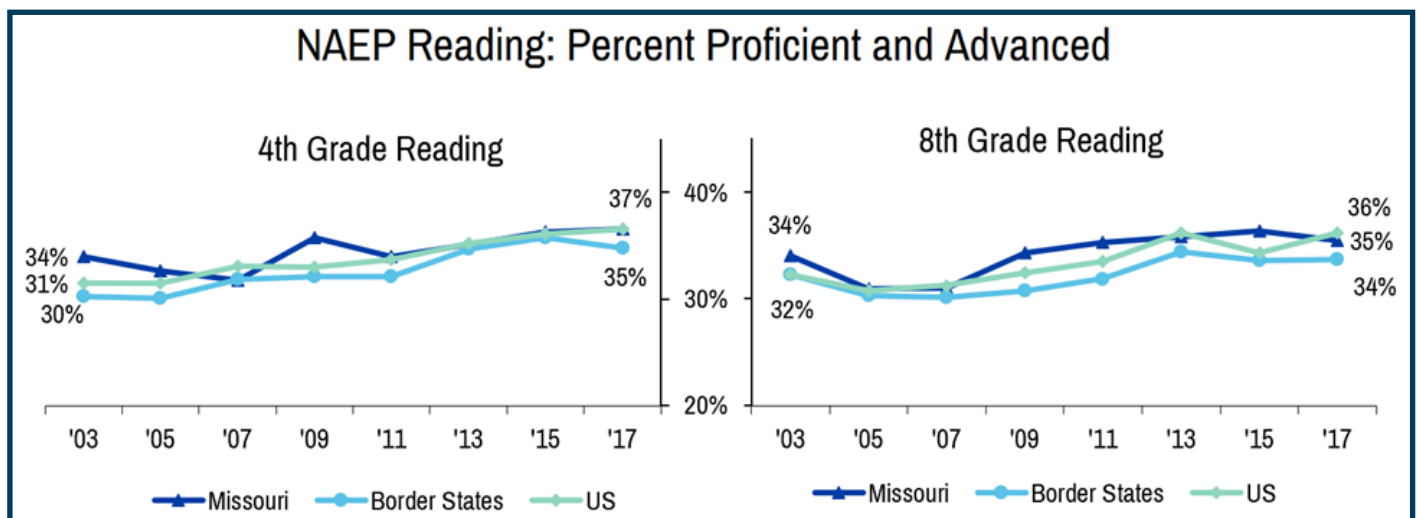
	2012-13	2013-14	2014-15	2015-16	2016-17
Nation	81%	82%	83%	84%	84%
Missouri	86%	88%	88%	89%	89%
Border State Avg.	86%	87%	87%	87%	88%
Arkansas	85%	87%	85%	87%	88%
Illinois	83%	86%	86%	86%	87%
Iowa	90%	91%	91%	91%	91%
Kansas	86%	86%	86%	86%	86%
Kentucky	86%	88%	88%	89%	89%
Nebraska	89%	90%	89%	89%	89%
Oklahoma	85%	83%	86%	82%	82%
Tennessee	86%	87%	88%	89%	89%

## | NAEP Results for Missouri Students through 2017 |



Every two years, the National Center for Education Statistics administers the National Assessment of Educational Progress (NAEP) in both mathematics and reading. These tests are not given to all students, but are instead administered to a representative sample of students (in grades 4 and 8) from each state to provide a common metric of student achievement across the nation. Because of this, the NAEP exam has become known as the “Nation’s Report Card” and can help us track the performance of Missouri’s students as compared to students from all over the U.S.

While Missouri’s scores have fluctuated a bit more than national trends, Missouri has seen relatively similar growth trends to the nation and surrounding states over the years. The most recent results (2017) show that Missouri’s 4th graders are scoring on par with the rest of the nation in both mathematics and reading. However, Missouri’s 8th graders have fallen slightly behind in both subjects.



# | Sources & Staff |

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## 2019 Missouri Education Profile



## Sources

We would like to reference the following sources for data used in this Education Profile. All graphs and tables used in this publication come from publicly-available data. If you have any questions, please contact our office.

*ACT.org, Missouri Department of Elementary and Secondary Education, Missouri Department of Higher Education, U.S. Bureau of Labor Statistics, Census.gov, U.S. Department of Education Institute of Education Sciences, U.S. News & World Report, College Board*