Assessment Task Force 3.0

Meeting #3: February 26, 2018

Welcome

Goals

- Make recommendations for further improvements, including a review of 11th grade testing
- Review of the first full year (2016-17) of grades 3-8 and EOC TNReady exams, including timeline and results
- Review of the first year of the optional grade 2 TNReady exam
- Review of current year testing and progress
- Review of district formative assessment and alignment to standards and TNReady expectations

Agenda

Time	Agenda
8:30	Continental breakfast and coffee available
9:00	• Welcome and agenda overview
9:05	• Recap of last month's meeting
9:20	• Review of possible recommendations for high school Testing
9:50	• Small group discussion
10:15	Break
10:30	• Whole group report out and discussion
11:00	• Grades 3-8 Assessments
11:30	• Small group discussion
12:00	Break for lunch
12:30	• Whole group report out and discussion
1:00	• Wrap-up and next steps
1:30	Adjourn

Norms

- Be present
- Speak in facts as much as possible
- Listen and value the ideas and feedback of others
- Contribute, but monitor air time
- Seek to understand, not just to be understood
- Be solutions oriented
- Ask questions
- Do your homework

Reminders: Meetings are recorded and media will be present

Recap from our last meeting

11th grade testing: TNReady EOCs and ACT/SAT

What are your priorities for an 11th grade summative assessment program?

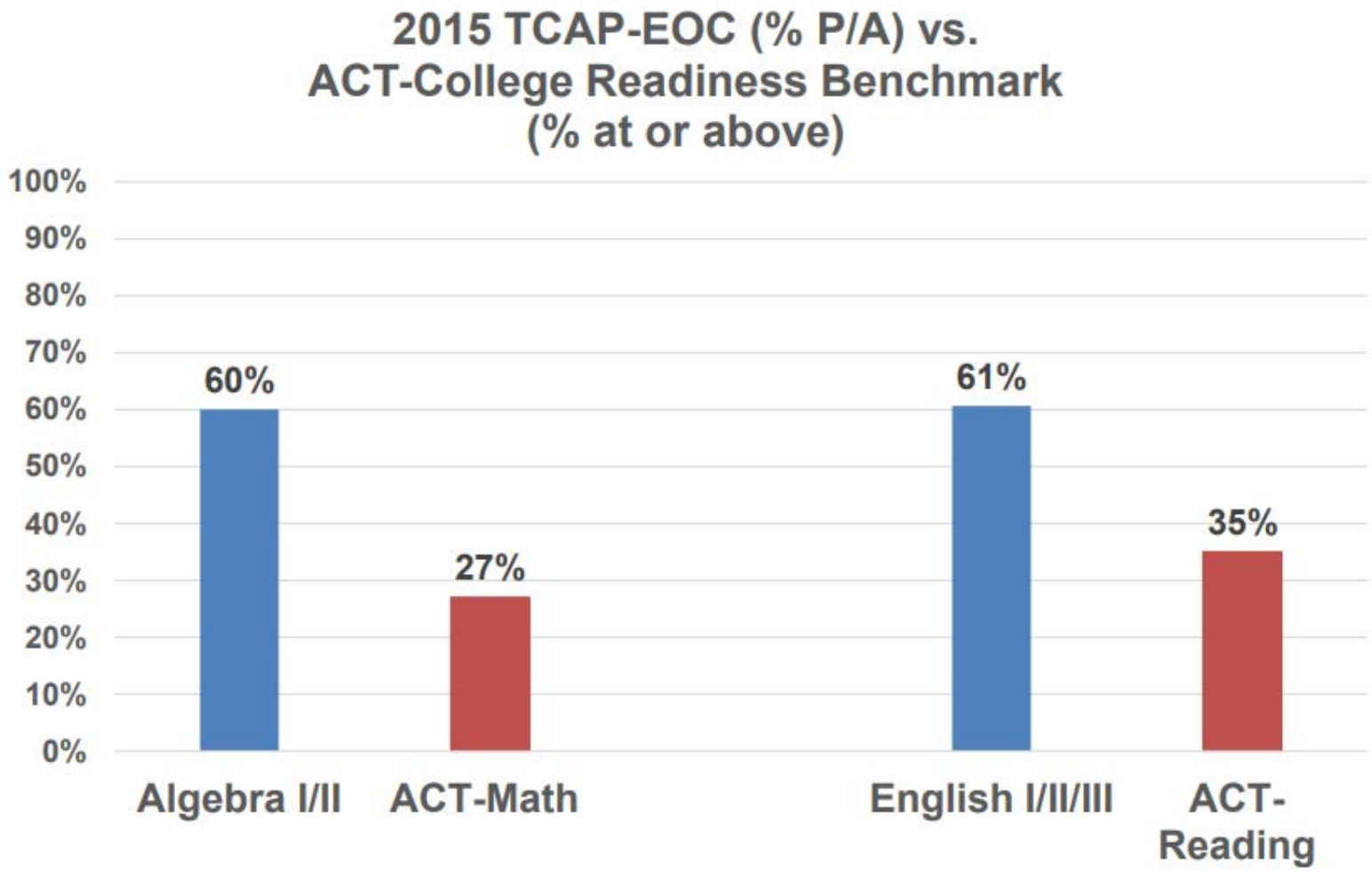
- Different assessment programs serve different functions.
- Possible functions:
  - Make instructional decisions for students
  - Make course placement decisions for students
  - Predict college readiness
  - Make teacher professional development decisions
  - Measure student achievement on state standards
  - Hold schools and districts accountable
  - Measure state performance against other states
  - Evaluate teachers
  - Evaluate school or district programs and/or policies

In addition to taking the ACT in the junior year, most students take multiple EOC tests.

	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12
Algebra I	11%	60%	7%	**2%**	
Algebra II		2%	24%	**55%**	4%
Geometry	1%	11%	54%	**11%**	4%
Biology I		39%	47%	**9%**	1%
Chemistry		1%	30%	**47%**	5%
English I		92%	2%		
English II		2%	91%	**3%**	
English III			2%	**79%**	2%
US History			5%	**70%**	6%

*Students that participate in EPSOs (ex. AP Chemistry or dual enrollment English) are not included in these percentages, because they do not take the EOC exam.

The old TCAP assessments painted a different "readiness" picture than the ACT.



According to a concordance study: TNReady EOCs provide similar rigor to the ACT.

- As part of the state's TNReady standard setting process, the TDOE completed a **quantitative** analysis of student performance in relationship to a national benchmark – the **ACT**/Plan/Explore series.
  - This relationship is called a concordance study where the scale scores from TNReady EOC tests are **linked** to scale scores from ACT tests.
  - TDOE psychometricians used the **equipercentile** method for creating the concordance tables, which entails a cohort-level comparison of the **percentile distribution** of ACT subtests to the distribution on the TNReady test most closely aligned in content.

The concordance study compared the performance distribution on the ACT subtests to TNReady EOC tests.

- When the TDOE uses **equipercentile linking,** we are looking for cutoff scores on the relevant ACT subtest that result in **approximately the same proportion** of students selected by the TNReady. However, these are not necessarily the same students.

- For example, suppose approximately 24% of 11th grade students in the 2016 scored at or above the ACT math CRB benchmark. A concordant score on ACT-Math would typically result in selecting approximately the same proportion of 2016 juniors scoring at or above “On Track” on Algebra II.

The English III standards more closely align with the ACT-Reading subtest than the ACT-English subtest.

- 95% of English III testers are in the 11th grade.
- In spring 2016, 11th graders completed the ACT assessment.
  - The ACT-Reading subtest is better proxy for the TNReady English III exam than the ACT-English subtest.
  - The College Readiness Benchmark (CRB) for the Reading subject test is 22.

ACT Subject-Area Test	ACT Explore Benchmark Grade 8	ACT Explore Benchmark Grade 9	ACT Plan Benchmark	The ACT Test Benchmark
English	13	14	15	18
Reading	16	17	18	22
Mathematics	17	18	19	22
Science	18	19	20	23

The English III EOC cut score of 333 is concordant to the ACT-Reading CRB score of 22.

Concordance Summary ACT and TNReady		EOC English III	ACT Reading	Statewide % Students
Level 4	Mastered	347-450	29-36	7.5%
Level 3	On track	333-346	**22**-29	18.7%
Level 2	Approaching	314-332	15-21	40.5%
Level 1	Below	200-313	1-15	33.3%

- The table above summarizes the concordance study results comparing 2016 English III scale scores to ACT-Reading scale scores, using 11th grade cohort results from 2016.
- The English III EOC cut score of 333 is concordant to the ACT-Reading CRB score of 22, meaning the proportion of students scoring between a 22 and 29 was approximately the same as the proportion of students scoring “On Track”.

A look at accountability

The department uses both ACT and TNReady data to hold schools and districts accountable.

- TNReady proficiency data and growth data for ELA, math, and science counts in a school's accountability grade.
  - Schools receive grades based on the better of their absolute performance or improvement in proficiency and growth (TVAAS).
  - 11th graders who do not participate in an EOC tested ELA or math course do not take the EOC **per state board policy**.
    - However, they **are included** in the data used for accountability determinations.
    - Additionally, most of these students take **rigorous summative assessments** like AP or statewide dual credit challenge exams.

The department uses both ACT and TNReady data to hold schools and districts accountable.

- ACT achievement and growth data count in a school's accountability grade.
  - An ACT score at or above 21 is one way that a student may show readiness as part of the "Ready Graduate" indicator, which counts towards a school's grade.
  - ACT data is also included in a school's achievement and growth grade.

Example of district with 61% of 11th graders meeting math benchmark on ACT

High School Course	% of 11th Graders Participating (n = 2,800)	% On Track or Mastered	% Meeting CR Benchmark
ACT	99%	n/a	**61%**

Example of district with 46% on track in EOC, but 60% proficient in accountability

High School Course	% of 11th Graders Participating (n = 2,800)	% On Track or Mastered	% Meeting CR Benchmark
High School Math EOC	65%	46%	n/a
Advanced course	35%	n/a	89%

46% of 1,900 students + 89% of 900 students equates to **60%** on track overall for accountability

*Students participating in advanced coursework that are not captured in school- or district-level math proficiency, are included in accountability by using the college readiness benchmark data as a proxy for proficiency

There is close alignment between district accountability and ACT results.

ACT	Accountability
61% meeting benchmark	60% considered on track or mastered

Comparing content of TNReady and ACT

Although the two tests measure similar constructs at a rigorous level, they evaluate different standards.

TNReady Subject Tests	What TNReady Measures	Why it's Important
ELA Four subparts, including writing, multiple item types	Grade-level state academic standards in reading comprehension, writing, vocabulary, and language conventions	Assessing literacy provides educators a view of student progress toward 21st century communication skills. Two-thirds of salaried positions require extensive writing (*report of the National Commission on Writing*), so this skill should be assessed annually.
Math Three subparts, calculator and non-calculator	Grade-specific math expectations, including application of formulas and multi-step problems	Assessing grade-specific mathematics standards each year provides educators valuable information on students' progress in problem solving application and procedural fluency.
Science One to two subparts, based on grade	Grade-specific scientific content knowledge, as well as embedded engineering and technology skills	Information on specific content knowledge affords teachers the ability to identify and address gaps in understanding that may limit student success in STEM-related occupational fields.
Social Studies Three parts for U.S. History	Grade-specific social studies content knowledge and analytical skills	Assesses student understanding of American history and their ability to analyze interconnectivity of historical events.

Although the two tests measure similar constructs at a rigorous level, they evaluate different standards.

ACT Subtests	What ACT Measures (not grade specific, measures K-12 standards)	Why it's Important
English 75 questions 45 minutes	Conventions of language, organization of ideas, and word choice and sentence elements	Recognizing and using standard English is key to effective communication
Reading 40 questions 35 minutes	Use and comprehension of complex text	Reading comprehension is a required skill for all occupations, as a cornerstone of training, development and communication
Science 40 questions 35 minutes	Reasoning: Ability to find information, interpret data, and synthesize different viewpoints	Ability to quickly locate and synthesize information is typical of problem solving skills required in the workforce and postsecondary
Math 60 questions 60 minutes	Basic numerical computation and problem solving skills	Demonstrating basic numeracy skills and applying those skills in context is a typical requirement for workforce and postsecondary

Current use of assessment

TNReady measures Tennessee standards.

TNReady and ACT measure similar constructs but **not equivalent standards.**

- TNReady End-of-Course tests measure Tennessee standards.
  - In the 11th grade year, most students participate in EOCs that **align** with and measure the **breadth and depth** of Tennessee standards taught that year.
- ACT is a survey test that measures academic readiness for college based on ACT standards.

Use of TNReady Data

Student-level

- Assess true student knowledge; not basic memorization and test-taking skills
- Measure student understanding of our state standards
- Measure how much a student grows academically in a particular content area
- Included in student grades

Use of TNReady Data

School and District-level

- Evaluate programs and policies
- Evaluate teachers
- Plan changes and improvements in the curriculum

State-level

- Measure mastery and growth on state standards
- Determine state supports and professional development offerings
- Evaluate schools
- Hold districts accountable

Use of ACT Data

Student-level

- Assist students with college and career planning

School and District-level

- Informs course placement decisions
- Measures value-add of high schools

Use of ACT Data

State-level

- Included in “Ready Graduate” indicator for school and district accountability
- Determine HOPE lottery scholarship eligibility
- Compare Tennessee readiness to other states

Post-secondary

- Make admissions, course sectioning, and student placement decisions
- Allocate financial aid and scholarships

Possible Recommendations for High School EOCs

Potential Options Discussed to Date

- **U.S. History:**
  - Create a dual credit pathway based on score earned

- **Chemistry EOC:**
  - Eliminate chemistry EOC **or**
  - Make it optional for district use

- **English III:**
  - Maintain English III EOC, but use for TBR for placement **or**
  - Replace with SAT or ACT subtests (English, reading and writing); add required writing component

Use U.S. History EOC Score for Dual Credit

- TBR is considering setting a TNReady score that would be considered for dual credit for HIST 2020

- TDOE and TBR are working with TBR faculty this winter and spring to compare TNReady expectations to TBR learning outcomes in U.S. History, specifically Modern United States History (HIST 2020)

- TBR would follow the process for development of statewide dual credit (SDC) examinations that includes collaboration between post-secondary and secondary faculty

Eliminate Chemistry EOC

Pros	Cons
• Most students taking chemistry are enrolled in the 11th grade year, thus reducing testing in a year with multiple EOCs	• There would be no state level data for success in chemistry; parents and students will not receive information regarding “on track”
• Eliminating an EOC reduces Tennessee’s overall testing program	• Districts are responsible for local EOC test aligned to standards
• There is no physics EOC so these would be seen as more parallel	• No value-added data for teacher evaluation in chemistry
• Some students participate in EPSOs for chemistry	

Eliminate English III EOC/Add ACT Writing

Pros	Cons
• Many students participate in EPSOs for English instead of the ENG III EOC	• Standards-level information from ENG III EOC can/should be used to inform instruction and intervention during the 12th grade year
• Eliminating an EOC reduces Tennessee's overall testing program	• ACT Writing costs an additional $16.50 per test and adds 40 minutes • SAT Essay costs an additional $14.00 per test and adds 50 minutes
	• No value-added data for teacher evaluation in ENG III
	• Could turn ENG III into ACT "test prep"

TBR Placement for English and Math

Pros	Cons
• English III and Algebra II used for placement at TBR	• There will be a phase-in for use by TBR
	(more information on timeline will be available in April)

Small Group Discussion

Questions for Discussion

- What are the pros and cons of eliminating the **Chemistry** EOC?
- What are the pros and cons of eliminating **the English III** EOC? And, requiring ACT writing?
- What does your small group **recommend**? Did you come to **consensus or majority**?
- **Other recommendations** on high school testing, including usage of EOCs for senior year remediation/acceleration or college placement?

Small Group Discussion

Commissioner McQueen/ H. Knudson	Dr. Ailshie/ Casey Haugner-Wrenn	Dr. Kirk/ S. Gast (room 109)	Dr. Shelton/M. Batiwalla (room 109)
Sen. Gresham	Rep. Forgety	Rep. Brooks	Rep. White
Wayne Blair	Audrey Shores	Sharon Roberts	Barbara Gray
Dale Lynch	Sara Morrison	Gini Pupo-Walker	Lisa Wiltshire
Trey Duke	Shawn Kimble	Mike Winstead	Jennifer Cothron
Lara Charbonnet	Michael Hubbard	LaToya Pugh	Bill Harlin
Jolinea Pegues	Kevin Cline	Tim Childers	Kim Herring
Cicely Woodard	Stacey Travis	Josh Rutherford	Virginia Babb
		Jennifer Frazier	

Break

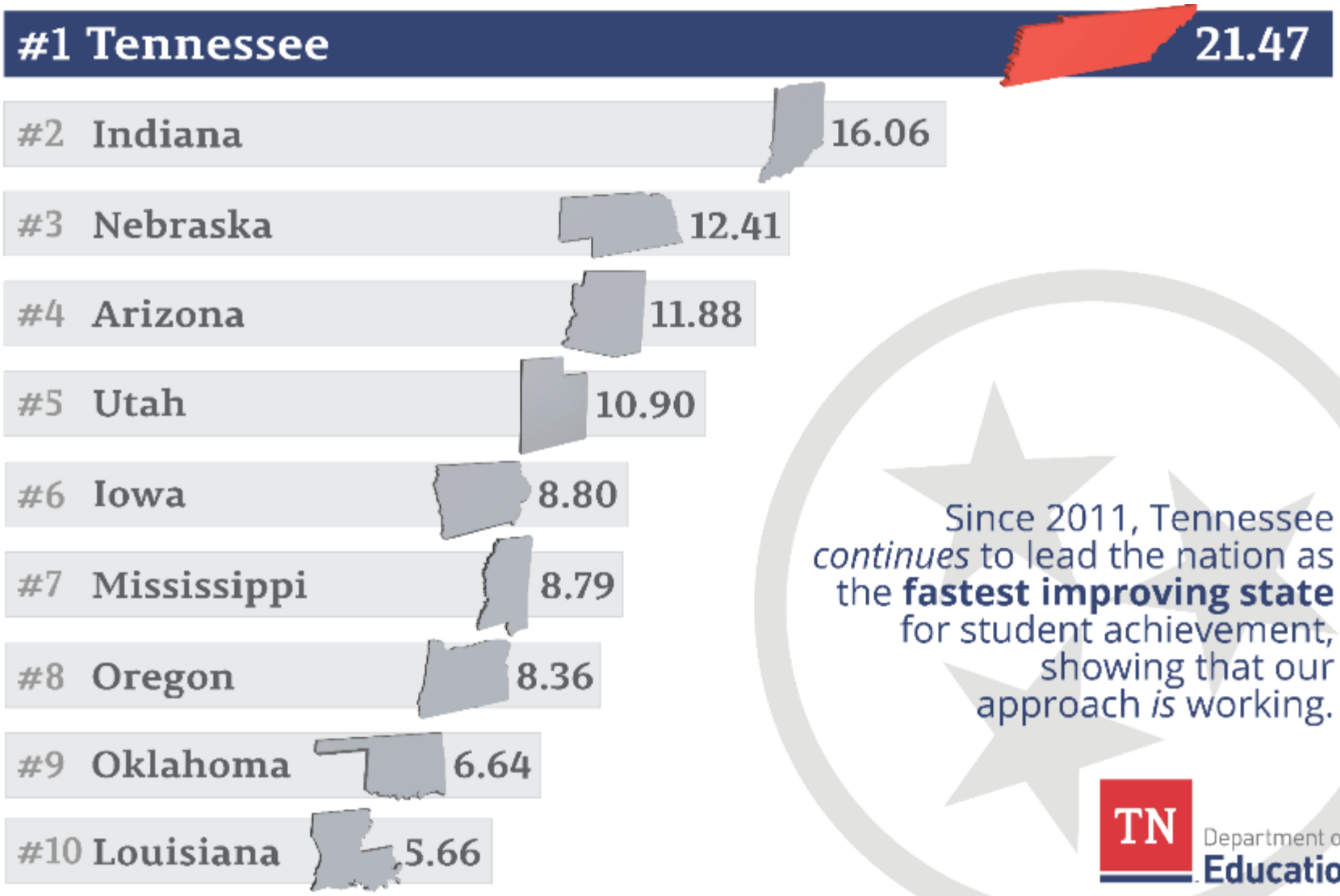
Whole Group Report Out

Options for Grades 3-8 Testing

What are your priorities related to grades 3-8 assessment?

- Possible functions:
  - Make instructional decisions for students
  - Make teacher professional development decisions
  - Measure student achievement on state standards
  - Hold schools and districts accountable
  - Measure state performance against other states
  - Evaluate teachers
  - Evaluate school or district programs and/or policies
  - Ensure that there is a focus for all students beyond math and English

We are Simply Outpacing Other States

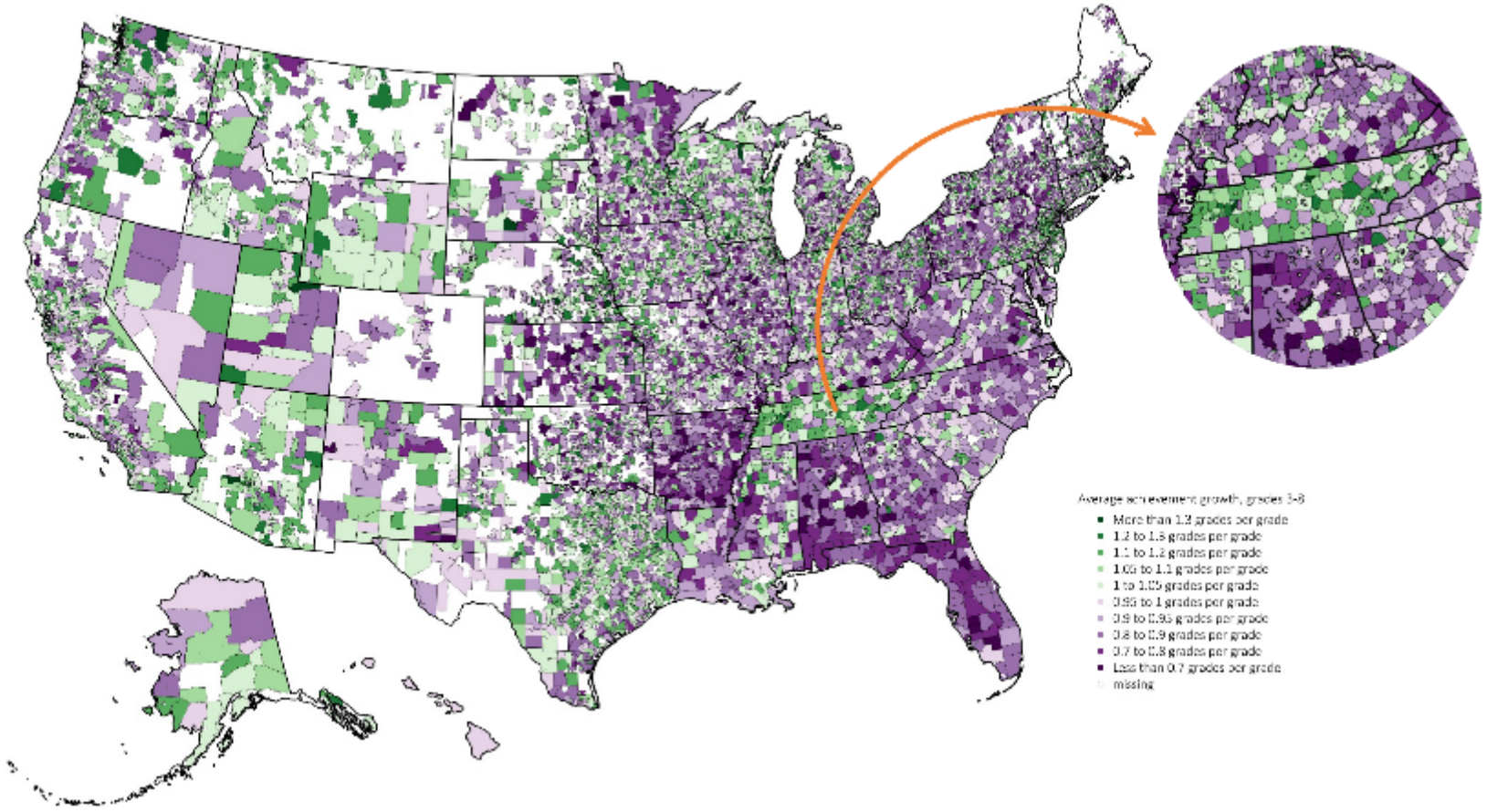


Since 2011, Tennessee *continues* to lead the nation as the **fastest improving state** for student achievement, showing that our approach *is* working.

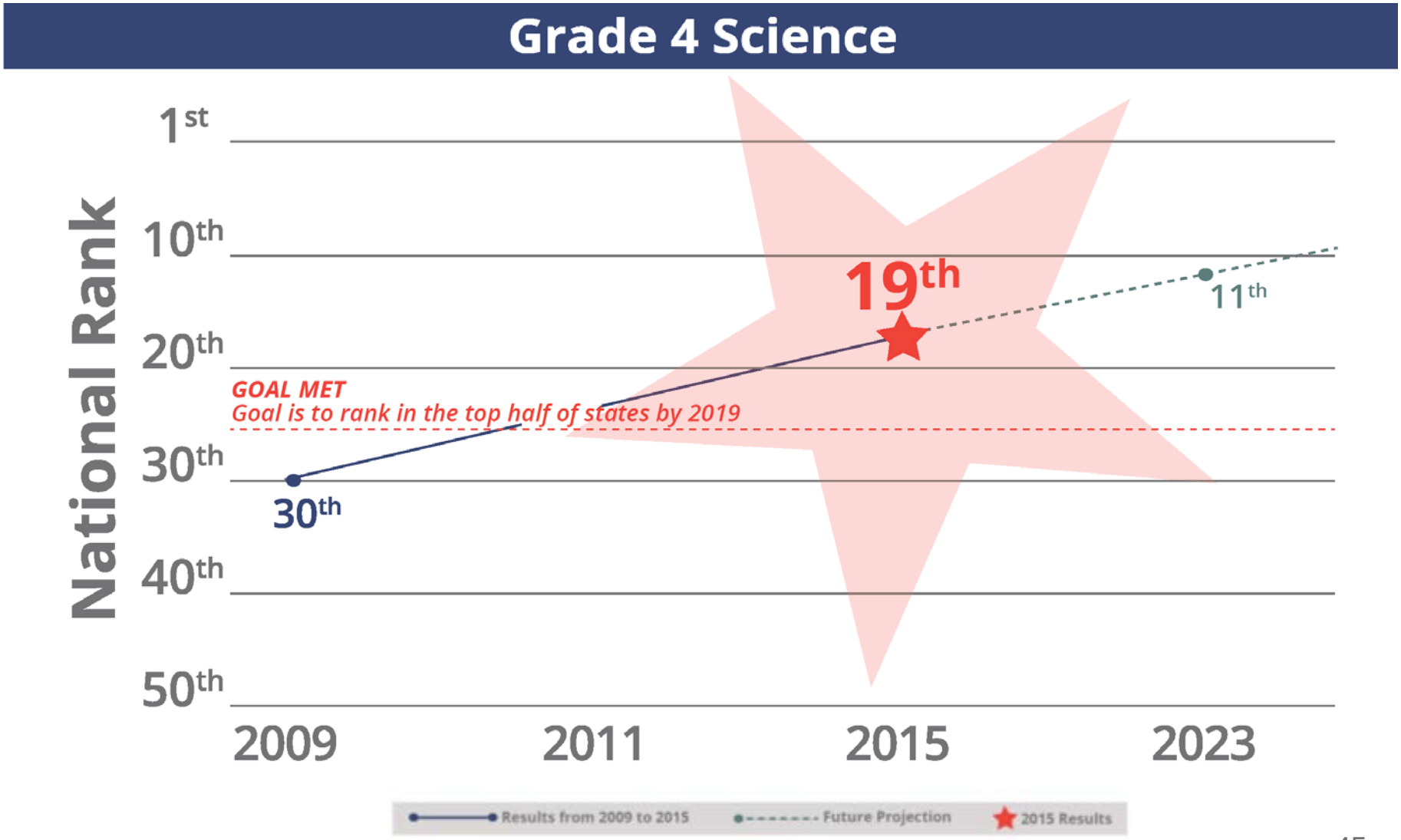
TN Department of Education

Tennessee's Progress Literally Stands Out

Average Test Score Growth Rates (Math and Reading Averaged), US Public School Districts, 2009-2015



Exceeding Expectations in Science



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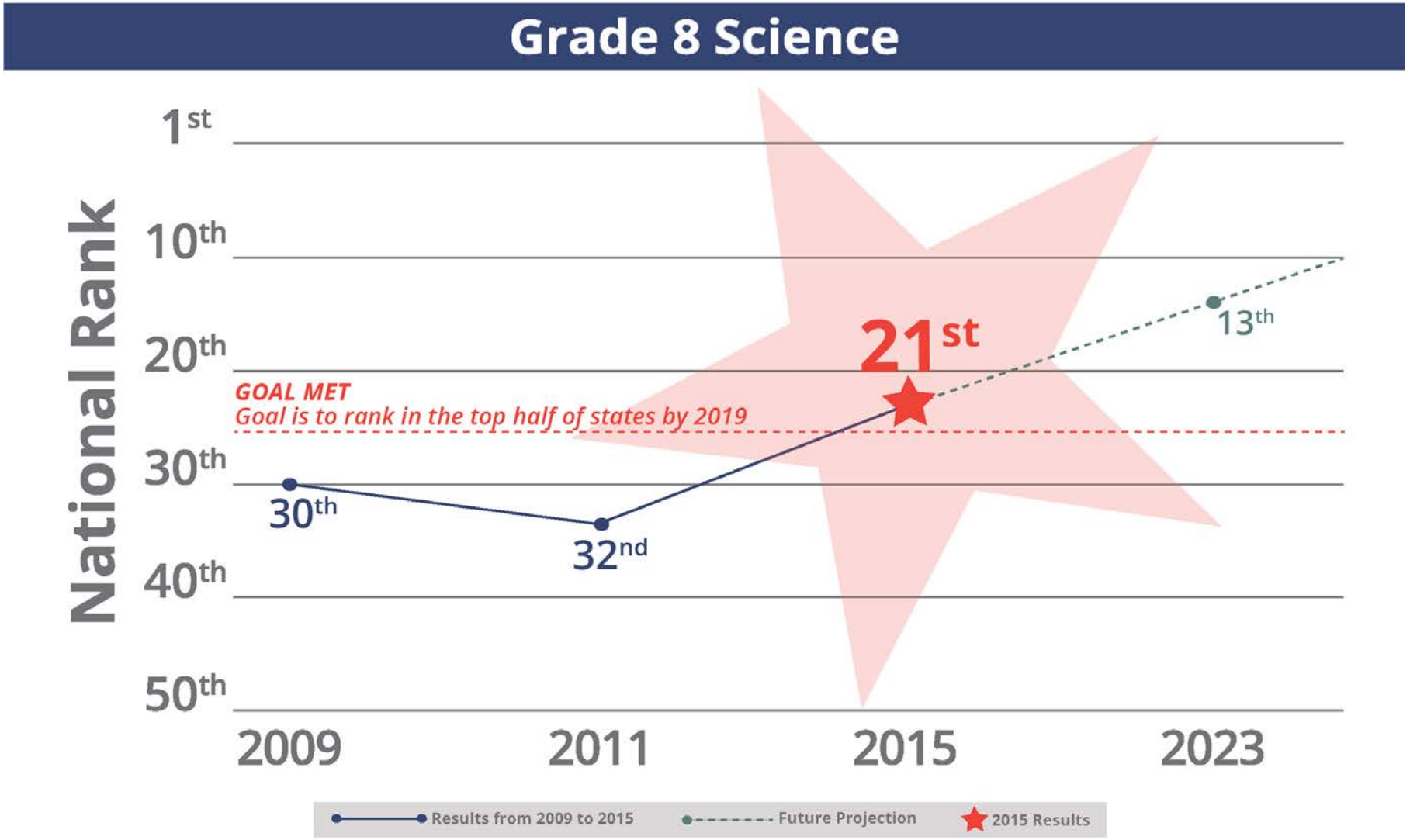
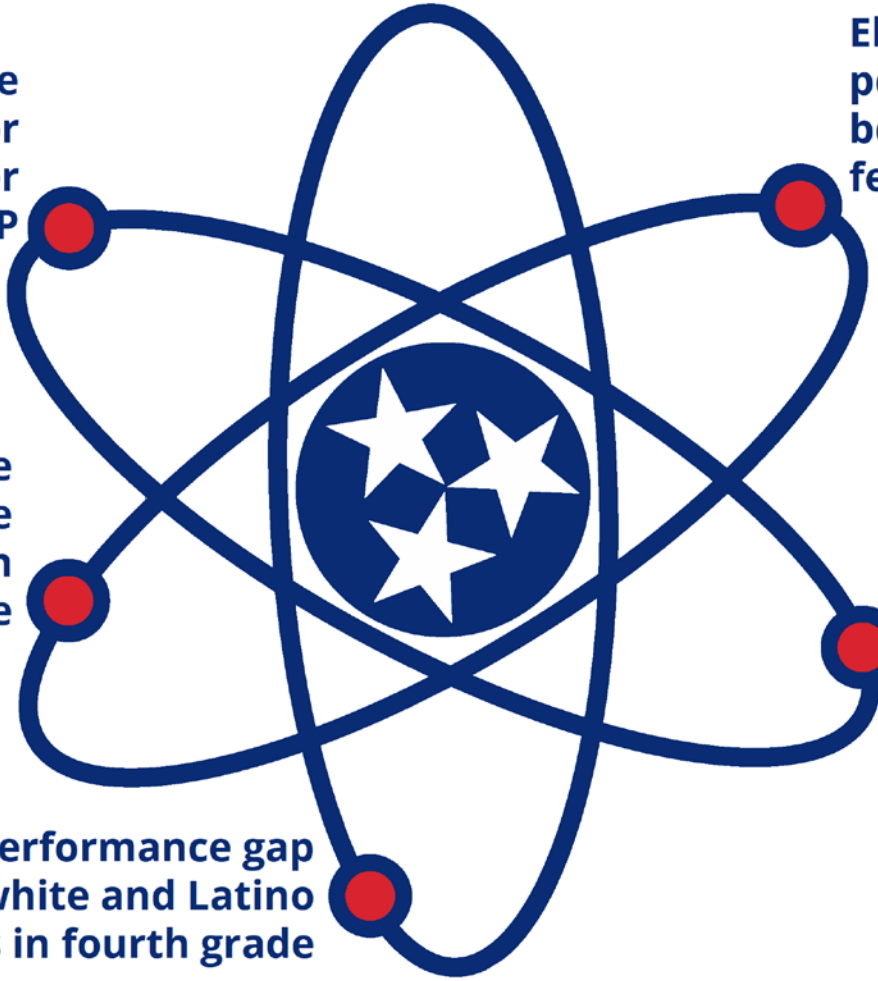


Out of This World Results

Tennessee is the only state in the nation with results of this magnitude.



Scored above the national average for the first time ever on NAEP

Eliminated the performance gap between male and female students

Doubled the national average for student growth on NAEP science

Narrowed the performance gap between white and black students in both grades

Narrowed the performance gap between white and Latino students in fourth grade

Historical Context for Grades 3-8 Testing

- Tennessee has tested English, math, science and social studies every year since **1990 (tied to 1988 legislation)**
- Annual testing of **all four content areas** has provided information at the state, local, and student level to track improvement over time
- Annual testing has ensured that all four content areas are **prioritized** and taught in grades 3-8

What is required (at a minimum) under ESSA?

- **English and math** are required **every** year in grades 3-8, and at least once in 9-12

- **Science** must be tested **three times at a minimum**, at each grade span (once at 3-5, once at 6-8, once at 9-12)

- **Social studies** is not mentioned in ESSA

ATF 2.0 Recommendation on Grades 3-8

- ATF 2.0 did **NOT recommend** removing science/social studies testing, but recommended cutting time for 3rd/4th grade assessments in science/social studies

- This year (2017-18), 3rd/4th grade students in science and social studies will experience shorter tests, but will only receive “on track” or “not on track” information instead of results on all four proficiency levels

National Context on Science Statewide Assessments

- The majority of states only assess **science** by grade bands, with the exception of:
  - Arkansas: grades 3-10
  - Louisiana: grades 3-8 and biology
  - South Carolina: grades 4-8 and biology
  - Tennessee: grades 3-8 and biology and chemistry
  - Utah: grades 4-8 and EOCs

National Context on Social Studies Statewide Assessments

- Tennessee, South Carolina, and Louisiana **assess social studies** grades 3-8 and in high school
- Delaware, Georgia, Kansas, Kentucky, Michigan, Ohio, Virginia, and Wisconsin (8) test by grade band
- 9 states require one assessment (US Citizenship test, US history, etc.)
- 23 states do not require any social studies assessment
- The remaining states offer a unique combination of sampling, two tests, or EOC options

Science Assessment Overview

School Year 2018-19	• New science standards will be implemented • Field test (during operational window) for all grades 3-8 and EOCs in Spring 2019 • There will be no field tests for Fall Block EOCs in 2019
School Year 2019-20	• Operational test for all grades 3-8 and EOCs • Traditional Fall and Spring EOC testing

New Science Standards

- The new science standards represent a shift towards research based **three-dimensional science** instruction:
  - integrating crosscutting concepts
  - science and engineering practices
  - disciplinary core ideas

- The standards are designed to guide the development and delivery of educational experiences for all students that enable them to:
  - Develop an in-depth understanding of the **major science disciplines**
  - Recognize broad concepts/big ideas
  - Explore scientific phenomena and build science knowledge/skills
  - Think critically and logically to analyze and interpret data

New Science Standards

- Current standards in grades K-8 do not address scientific practices or develop a conceptual scientific understanding and present a very shallow amount of information across many disciplines each year.

- New standards in K-8 systematically and age appropriately address
  - Life Sciences
  - Physical Sciences
  - Earth & Space Sciences
  - Engineering & Technology

Science Assessment Options to Consider

- **Option 1 (current): TNReady in grades 3-8 and Biology and Chemistry**

- **Option 2: TNReady in grade 4/5, grade 7/8, and Biology ONLY**
  - Pro: Eliminating tests reduces Tennessee's overall testing program
  - Con: Not all state science standards are assessed, **10%** fewer teachers with individual TVAAS data (**633** Chemistry teachers, **1,585** middle grades science teachers)

- **Option 3: Other**

Social Studies Assessment Overview

2018-19 School Year	• Stand Alone Field test for grades 3-5 • Operational grades 6-8 and U.S. History
2019-20 School Year	• Revised social studies standards will be implemented in the 2019-20 school year • Operational grades 3-8 and U.S. History

Revised Social Studies Standards

- The revised social studies standards changed in some of the following ways:
  - addition of **Tennessee social studies practices**
  - the embedding of **primary sources** within their appropriate standards
  - a course in **Tennessee history** was placed in grade 5
- For grades 3-5, historical content was slightly shifted to include Tennessee history in grade 5
- For grades 6-8, historical content remained the same with slight tweaks to the order of the standards and language

Social Studies Assessment Options to Consider

- **Option 1 (current): TNReady in grades 3-8 and US History EOC**

- **Option 2: TNReady in grade 4/5, grade 7/8, and US History EOC**
  - Pro: Eliminating tests reduces Tennessee's overall testing program
  - Con: Not all state social studies standards and no World History standards are assessed, **1,286 (6% fewer)** middle grades social studies teachers no longer receive individual TVAAS scores

- **Option 3: Other**

Small Group Discussion

- Guiding Questions
  - What are the priorities for our elementary and middle school grades' testing program?
  - What are the pros and cons or grade span or touch point testing in science and social studies?
  - Is one content area for grade span or touch point testing preferable over another? If so, why?
  - What else would you like to know as we continue to review science and social studies testing in grades 3-8?

Small Group Discussion

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Cicely Woodard	Stacey Travis	Josh Rutherford	Virginia Babb
		Jennifer Frazier	

Whole Group

Wrap-Up

Next meeting: April 6

- Continue grades 3-8 discussion
- Revisit early grades (K-2)
- Begin setting context for district formative assessments