2018 TEL Highlights

NAEP ARKANSAS
NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS

NAEP is an integral part of education in the United States.

- NAEP provides a **common measure** of student achievement that elected officials, policymakers, and educators use to develop ways to **improve** education.

- NAEP data can be used to compare and understand the performance of **demographic** groups within your state, the nation, other states, and select urban districts.

- Teachers can use **sample** NAEP **questions** and scoring guides as a resource for understanding student performance.

- Participating in NAEP allows students with disabilities and English language learners to experience a large-scale assessment administration **without** high-stakes consequences. Since NAEP **does not** produce scores for individual students or results for schools, participation in NAEP is not tied to grades or evaluations of students, teachers, or schools.
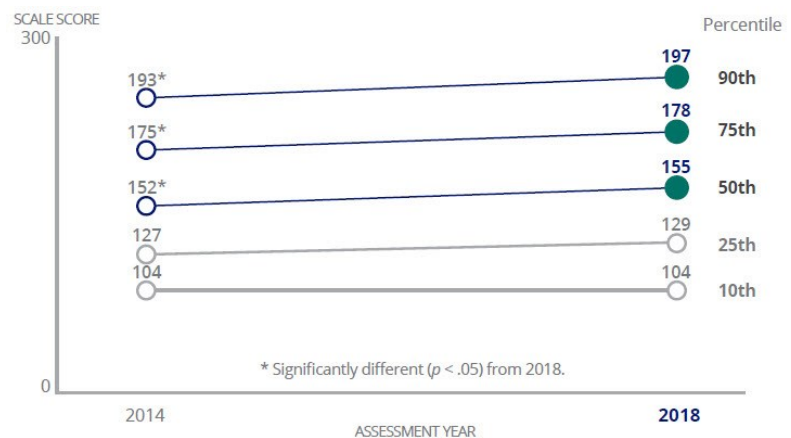
In spring 2018, NAEP was given across the nation for the area of **Technology & Engineering Literacy (TEL)** for approximately 15,400 **eighth-grade** students in 600 schools. The NAEP TEL assessment scores between 0-300 points. The TEL assessment was given once before in 2014 and is planned next in 2022.

TEL is completely **computer-based** and includes **real-world** problems and **interactive scenario-based** tasks. A random sample of students are selected to participate from a nationally representative sample of school and asked to solve **technology and engineering** problems.

TEL Results

Compared to 2014, there was a statistically significant 2-point **increase** in the overall TEL score in 2018 and 46% of eighth-graders scored at or above *Proficient* **improving** 3 percentage points from 2014.

- Students scored **higher** in all three TEL content areas and in all three practices in 2018
- There were **increases** in overall TEL scores for mid– and higher-performing eighth-graders similar to the NAEP 2017 mathematics and reading results:

SCALE SCORE	2014	2018	Percentile
	193*	197	90th
	175*	178	75th
	152*	155	50th
	127	129	25th
	104	104	10th

* Significantly different (*p* < .05) from 2018.

ASSESSMENT YEAR

In 2018, female students scored **higher** than their male peers in TEL overall and in all of the TEL content areas and practices. White, Black and Hispanic females **outperformed** their male counterparts (**no** gender difference was observed in Asian students).

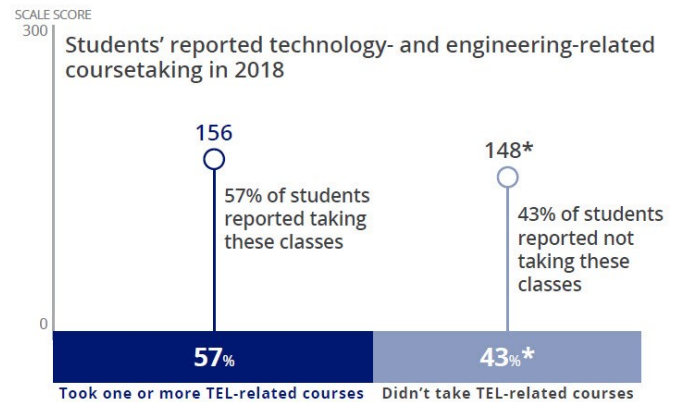|	2014	2018
Female	151*	155
Female-male Score gap	**3** point significant score gap	**5** point significant score gap
Male	149	150

The 3-point score gap is calculated based on unrounded scores between male and female students.
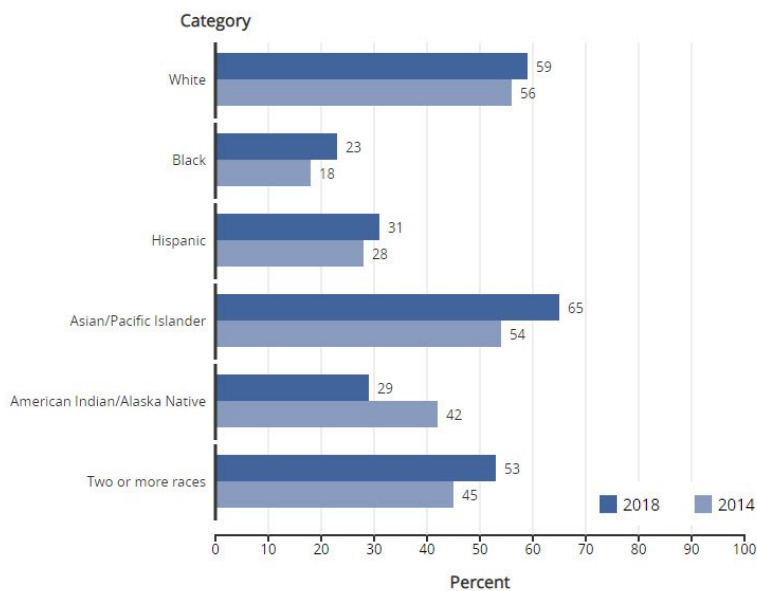
TEL Results

More students (57%) reported taking **at least one class related to technology** or engineering compared to 2014 (52%).

Students who reported taking at least one technology– or engineering-related class in 2018 scored **7-points higher**, on average, than those who reported not taking any of those classes.

Students' reported technology- and engineering-related coursetaking in 2018

SCALE SCORE
300

156
57% of students reported taking these classes

148*
43% of students reported not taking these classes

0

57%	**43%***
Took one or more TEL-related courses	Didn't take TEL-related courses

Cumulative Achievement Levels– At or above Proficient

Category

Category	2018	2014
White	59	56
Black	23	18
Hispanic	31	28
Asian/Pacific Islander	65	54
American Indian/Alaska Native	29	42
Two or more races	53	45

Percent

In comparison to 2014, the 2018 scores **increased** for students who are

- White, Black, Asian, female and in public school
- **Not** identified as English language learners
- **Not** identified with disabilities
- **Eligible** for the National School Lunch Program
- **Not** attending charter schools
- Whose parents did **not** finish high school
- Whose parents **graduated** from college.

TEL Content areas
- **Technology and Society** – considering the effects that technology has on society and the environment as well as the ethical questions raised by those effects
- **Design and Systems** – focuses on the nature of technology and the processes used to develop technologies, as well as basic principles for dealing with everyday technologies
- **Information and Communication Technology** – software and systems used for accessing, creating and communicating information, and for facilitating creative expression

TEL Practices
- **Understanding Technological Principles** – focuses on how well students are able to make use of their knowledge about technology
- **Developing Solutions and Achieving Goals** – systematic use of technological knowledge, tools and skills to solve problems and achieve goals presented in realistic contexts
- **Communicating and Collaborating** – use contemporary technologies to communicate for a variety of purposes and in a variety of ways, working individually or in teams, with peers and experts

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