

2016 PARCC RESULTS

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Measuring
College
and
Career
Readiness

Tuesday, October 18, 2016

District Overview of PARCC Results

SUCCESS!



Out of 19 total PARCC data points (9 grade levels for ELA and 10 for Math), 15 data points show increases in proficiency percentages.

The average percentage of increase in proficiency across the 15 data points was an 11% increase per grade level/subject test.

ELA PARCC Proficiency Percentages by Grade METUCHEN 2016 vs 2015

| ELA | Count of Valid Test Scores | District % >= Level 4 2016 | District % >= Level 4 2015 |
|----------|----------------------------|----------------------------------|----------------------------------|
| Grade 3 | 159 | 59% | 64% |
| Grade 4 | 162 | 72% | 68% |
| Grade 5 | 178 | 76% | 65% |
| Grade 6 | 197 | 68% | 67% |
| Grade 7 | 193 | 77% | 77% |
| Grade 8 | 174 | 80% | 70% |
| Grade 9 | 162 | 73% | 56% |
| Grade 10 | 166 | 65% | 44% |
| Grade 11 | 101 | 40% | 49% |

MATH PARCC Proficiency Percentages by Grade METUCHEN 2016 vs 2015

| Math | Count of Valid Test Scores | District % >= Level 4 2016 | District % >= Level 2015 |
|---------------|----------------------------|-------------------------------|-----------------------------|
| Grade 3 | 161 | 63% | 67% |
| Grade 4 | 163 | 68% | 57% |
| Grade 5 | 180 | 60% | 50% |
| Grade 6 | 183 | 52% | 45% |
| Grade 7 | 203 | 55% | 50% |
| Grade 8 | 83 | 42% | 14% |
| Algebra I EMS | 96 | 94% | 85% |
| Algebra I MHS | 87 | 25% | 13% |
| Geometry | 146 | 47% | 35% |
| Algebra II | 158 | 34% | 30% |

ELA PARCC Proficiency Percentages by Grade New Jersey 2016 vs 2015

| ELA | NJ % \geq Level 4 2016 | NJ % \geq Level 4 2015 |
|----------|-----------------------------|-----------------------------|
| Grade 3 | 48% | 44% |
| Grade 4 | 54% | 51% |
| Grade 5 | 53% | 52% |
| Grade 6 | 52% | 49% |
| Grade 7 | 56% | 52% |
| Grade 8 | 55% | 52% |
| Grade 9 | 49% | 40% |
| Grade 10 | 44% | 37% |
| Grade 11 | 40% | 41% |

MATH PARCC Proficiency Percentages by Grade

New Jersey 2016 vs 2015

| Math | NJ % >= Level 4 2016 | NJ % >= Level 2015 |
|------------|-------------------------|-----------------------|
| Grade 3 | 52% | 45% |
| Grade 4 | 47% | 41% |
| Grade 5 | 47% | 41% |
| Grade 6 | 43% | 41% |
| Grade 7 | 39% | 37% |
| Grade 8 | 26% | 24% |
| Algebra I | 41% | 36% |
| Geometry | 25% | 22% |
| Algebra II | 27% | 24% |

What does the research point to as root causes for dramatic increases in student achievement?

1. Utilizing Data to Drive Instruction
2. Improving Teacher Quality through Professional Learning and Development
3. Socio-Emotional Learning (SEL)

1. What does research say about utilizing data?

Using Data to Guide Instruction and Improve Student Learning

by [Dale Lewis](#), [Robyn Madison-Harris](#), [Ada Muoneke](#), and [Chris Times](#)

Published in *SEDL Letter* Volume XXII, Number 2, Linking Research and Practice

Research has shown that using data in instructional decisions can lead to improved student performance (Wayman, 2005; Wayman, Cho, & Johnston, 2007; Wohlstetter, Datnow, & Park, 2008). No single assessment can tell educators all they need to know to make well-informed instructional decisions, so researchers stress the use of multiple data sources.

Using Data to Drive Instruction: Metuchen Teachers and Administrators

Teachers

Benchmark data:

CES: Study Island

EMS: LinkIt!

Science: ASSA

Timed Writing

CCR: AP, SAT, ACT, PSAT

PARCC

Diagnostic (Pre Testing)

DRA2

SGOs

Administrators

Benchmark data

PARCC

Achievement:

Proficiency

Growth:

SGPs

mSGPs

SGOs

Administrator Goals

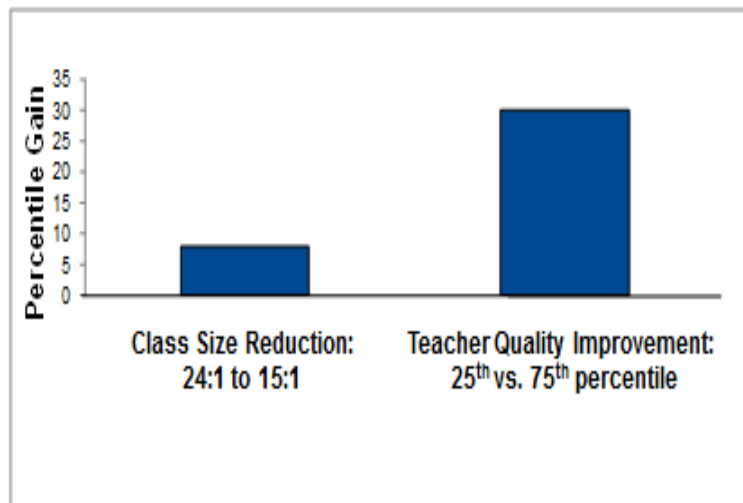
Whole Child Survey Data

2. What does the research say about investments in Professional Learning and Development?

Research on the Value of Professional Learning



Annual Student Achievement Gains



Barber, M., & Mourshed, M. (2007). *How the world's best-performing school systems come out on top*. London: McKinsey & Company. Retrieved from http://www.mckinsey.com/locations/ukireland/publications/pdf/Education_report.pdf; Stronge, J.H., Ward, T.J., Tucker, P.D., & Grant, L.W., in preparation

Metuchen's investments in Professional Development

- Instructional Coaches:
 - ELA and Math
 - Executive Functioning
 - Workshop Model
 - Curriculum Mapping
 - Understanding CCSS and NGSS
- Collaborative Curriculum Writing and Mapping
 - K-8 Hands-on Science Kits
- Whole Child
 - Socio-Emotional Learning

3. What does the research say about SEL and dramatic student achievement increases

Metuchen's SEL Efforts

2011 Meta-analysis

“Research supports... that students who receive SEL instruction have academic scores an average of 11 percentile points higher than students who did not participate in SEL programs.”

Source: The Missing Piece: A National Teacher Survey on How Social and Emotional Learning Can Empower Children and Transform Schools

- Whole Child District
- Grit and Growth Mindset
- Mindfulness
- BrainSTREAM
 - Perseverance
- Social Problem Solving

METUCHEN HIGH SCHOOL'S 2015-2016 PARCC GRADE LEVEL OUTCOMES English Language Arts / Literacy

| Grade | District % > = Level 4 2016 | District % > = Level 4 2015 | NJ % > = Level 4 2016 | NJ % > = Level 4 2015 |
|--------------|---|---|---|---|
| Grade 9 | 73% | 56% | 49% | 40% |
| Grade 10 | 65% | 44% | 44% | 37% |
| Grade 11 | 40% | 49% | 40% | 41% |

METUCHEN HIGH SCHOOL'S 2015-2016 PARCC GRADE LEVEL OUTCOMES Mathematics

| Grade | District % > = Level 4 2016 | District % > = Level 4 2015 | NJ % > = Level 4 2016 | NJ % > = Level 4 2015 |
|--------------|---|---|---|---|
| Algebra I | 25% | 13% | 41% | 36% |
| Geometry | 47% | 35% | 25% | 22% |
| Algebra II | 34% | 30% | 22% | 24% |

2 Year Comparison of Scores (2015 to 2016)

**Edgar
Middle
School**

Grade 5 & 6

2 year Comparison

| Grade 5: ELA | | | | | | |
|--------------|----|----|-----|-----|-----|-------|
| | 1 | 2 | 3 | 4 | 5 | % 4&5 |
| 2016 | 2% | 4% | 17% | 62% | 14% | 76% |
| 2015 | 4% | 9% | 22% | 58% | 7% | 65% |

| Grade 5: Math | | | | | | |
|---------------|----|-----|-----|-----|-----|-------|
| | 1 | 2 | 3 | 4 | 5 | % 4&5 |
| 2016 | 1% | 12% | 27% | 45% | 15% | 60% |
| 2015 | 2% | 14% | 33% | 40% | 10% | 50% |

| Grade 6: ELA | | | | | | |
|--------------|----|-----|-----|-----|-----|-------|
| | 1 | 2 | 3 | 4 | 5 | % 4&5 |
| 2016 | 3% | 8% | 21% | 40% | 28% | 68% |
| 2015 | 4% | 11% | 19% | 43% | 24% | 67% |

| Grade 6: Math | | | | | | |
|---------------|----|-----|-----|-----|-----|-------|
| | 1 | 2 | 3 | 4 | 5 | % 4&5 |
| 2016 | 4% | 14% | 30% | 42% | 10% | 52% |
| 2015 | 3% | 20% | 32% | 36% | 9% | 45% |

Grade 7 & 8

2 year Comparison

| Grade 7: ELA | | | | | | |
|--------------|----|----|-----|-----|-----|-------|
| | 1 | 2 | 3 | 4 | 5 | % 4&5 |
| 2016 | 5% | 6% | 12% | 40% | 37% | 77% |
| 2015 | 2% | 7% | 13% | 41% | 36% | 77% |

| Grade 7: Math | | | | | | |
|---------------|----|-----|-----|-----|-----|-------|
| | 1 | 2 | 3 | 4 | 5 | % 4&5 |
| 2016 | 6% | 8% | 31% | 40% | 15% | 55% |
| 2015 | 0% | 11% | 38% | 35% | 15% | 50% |

| Grade 8: ELA | | | | | | |
|--------------|----|----|-----|-----|-----|-------|
| | 1 | 2 | 3 | 4 | 5 | % 4&5 |
| 2016 | 1% | 6% | 13% | 49% | 31% | 80% |
| 2015 | 4% | 8% | 18% | 47% | 23% | 70% |

| Grade 8: Math | | | | | | |
|---------------|-----|-----|-----|-----|----|-------|
| | 1 | 2 | 3 | 4 | 5 | % 4&5 |
| 2016 | 7% | 14% | 36% | 42% | 0% | 42% |
| 2015 | 10% | 30% | 46% | 14% | 0% | 14% |

| Grade 8: Algebra 1 | | | | | | |
|--------------------|----|----|-----|-----|-----|-------|
| | 1 | 2 | 3 | 4 | 5 | % 4&5 |
| 2016 | 0% | 0% | 6% | 55% | 39% | 94% |
| 2015 | 0% | 1% | 14% | 74% | 11% | 85% |

Analysis & Reflection of Performance

Benchmarks

- Correlation to PARCC
- Analysis of LinkIt data
- Targeted instruction

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School-wide Data Initiative

- Data Leadership Team
- Teachers working with data
- PLC focus on data
- Use of data to drive instructional decisions

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- Semi-Departmentalized
Schedule in Grade 5

Math/Science

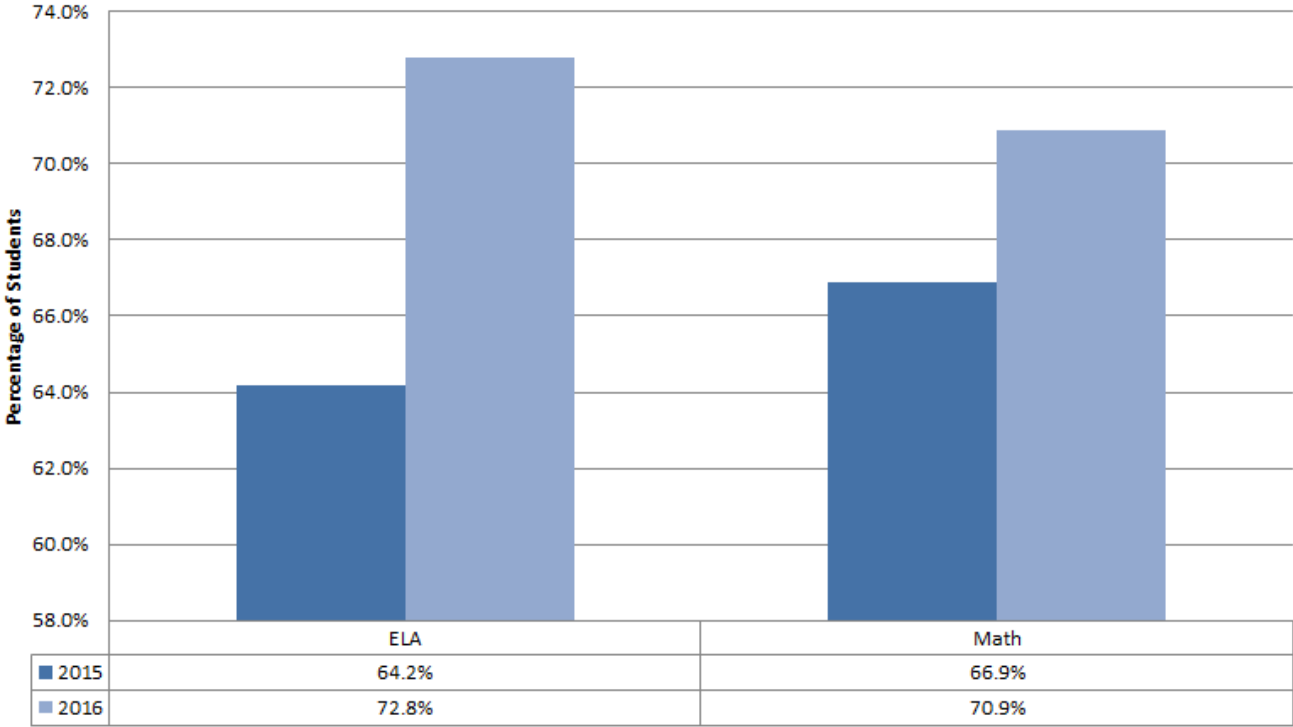
English Language Arts

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Middle
School**

Examination of the Data Grade Analysis Cohort Analysis

**CAMPBELL
ELEMENTARY
SCHOOL**

Campbell Elementary School Cohort Proficiency Rate Analysis 2015 and 2016 Comparisons



**CAMPBELL
ELEMENTARY
SCHOOL**

Celebrating Successes

**CAMPBELL
ELEMENTARY
SCHOOL**

Balanced Literacy
Framework
Curriculum Mapping
Interdisciplinary Articulation

English
Language
Arts

- Teacher comfort level/confidence with the workshop model (EMS and CES)
- 1st year with Math Coach - Ms. Vorensky (EMS)
- Department meeting time dedicated to data analysis and data-driven instruction (All schools)

PARCC Math 6 - 2016

- 15 accelerated students took PARCC Math 7 without causing a negative impact on PARCC Math 6 scores

Average score 2015: 749

Average score 2016: 750

PARCC Algebra MHS - 2016

- 31% of MHS Algebra students raised 1 or more performance levels

Math

NJ State Science Assessment Data Set

2016 Results Presentation including:

NJASK 4 Science

NJASK 8 Science

NJBCT – New Jersey Biology Competency Test

5 Year Quantitative Analysis to identify trends in
Metuchen student performance as compared to:

- The District Factor Group – I students
- New Jersey students

METUCHEN'S 2016 ASK/NJBCT OUTCOMES: Percent Passing

| | Metuchen | | | | DFG | | | | State | | | |
|-------|-------------|--------|-------------|------------|-------------|--------|-------------|------------|-------------|--------|-------------|------------|
| | Part Profic | Profic | Adv. Profic | Total Pass | Part Profic | Profic | Adv. Profic | Total Pass | Part Profic | Profic | Adv. Profic | Total Pass |
| ASK 4 | 1% | 23% | 76% | 99% | 3% | 29% | 39% | 97% | 10% | 41% | 49% | 90% |
| ASK 8 | 11% | 37% | 53% | 90% | 12% | 46% | 43% | 88% | 27% | 47% | 26% | 73% |
| NJBCT | 34% | 46% | 20% | 66% | 21% | 50% | 29% | 79% | 43% | 41% | 16% | 57% |

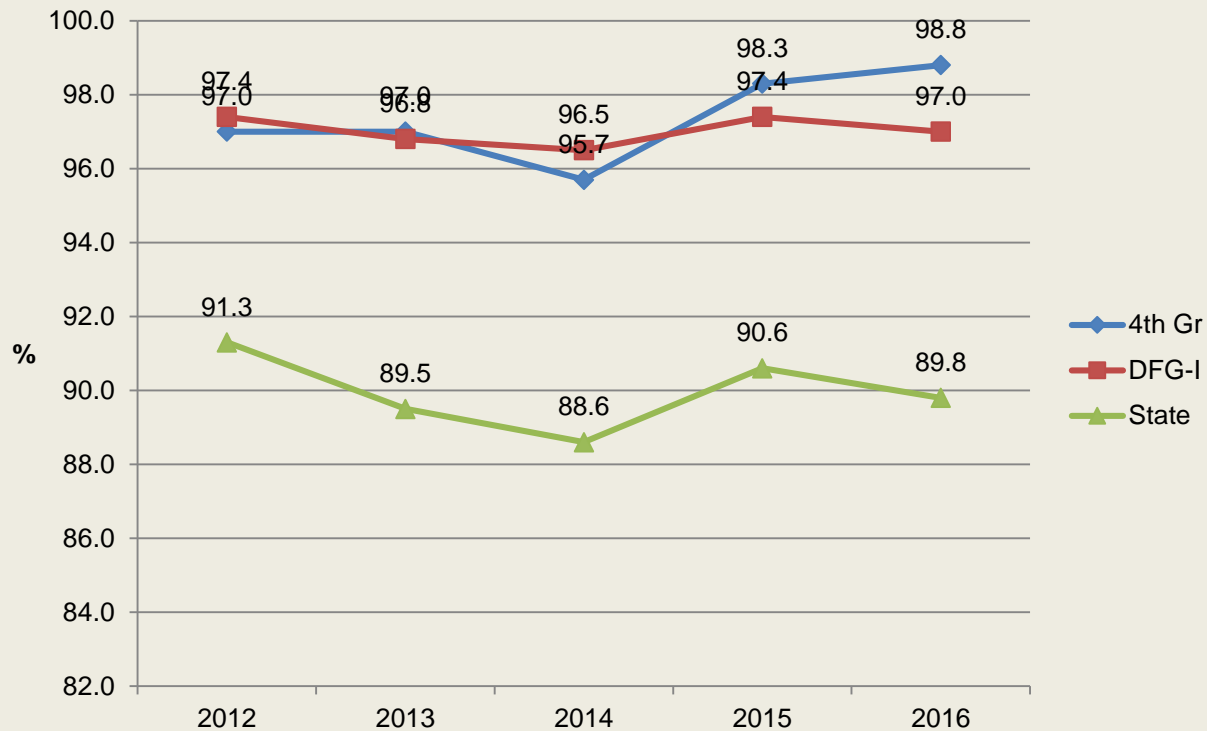
Note: Numbers may not sum to 100% due to rounding.

METUCHEN'S 2016 ASK/NJBCT OUTCOMES: Mean Scale Scores

| | Metuchen | DFG I | State | |
|-------|----------|-------|-------|--|
| ASK 4 | 268 | 259 | 243 | |
| ASK 8 | 246 | 239 | 222 | |
| NJBCT | 216 | 228 | 208 | |

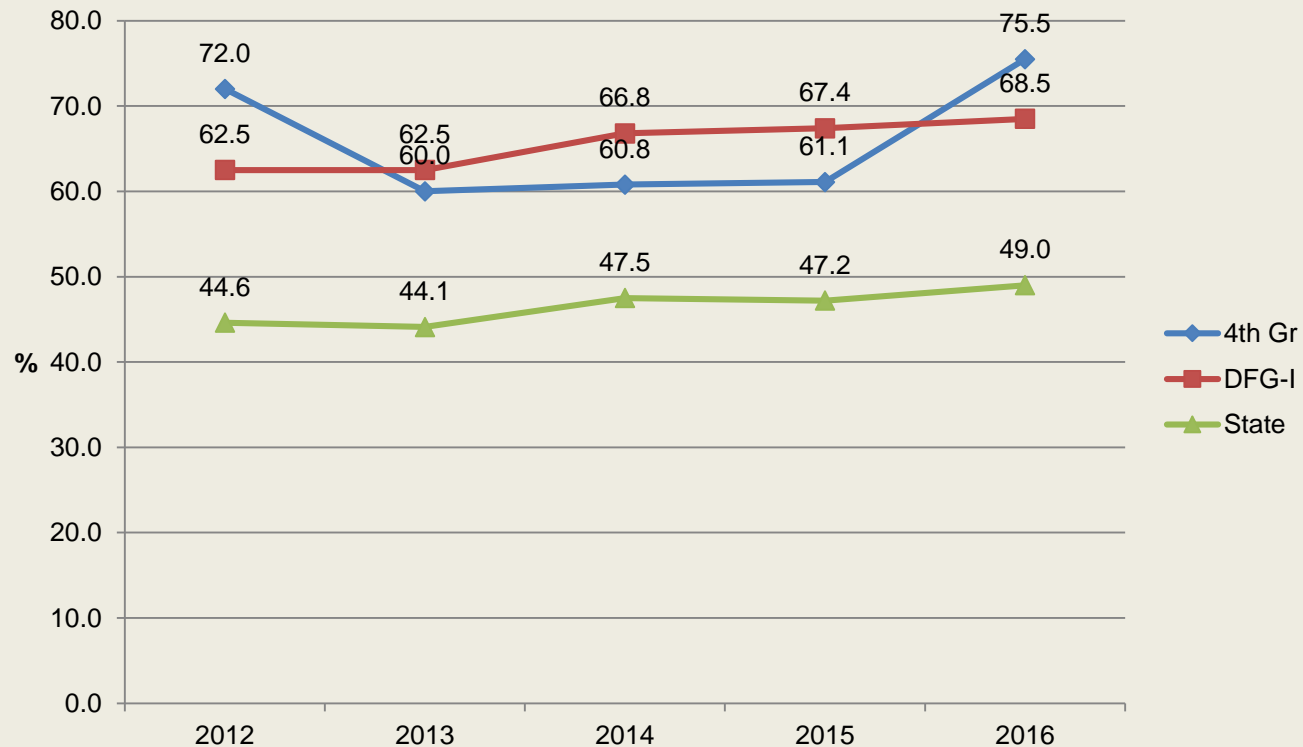
ASK 4 Total Proficiency Comparison

4th Grade Science Total Proficiency 2012-2016



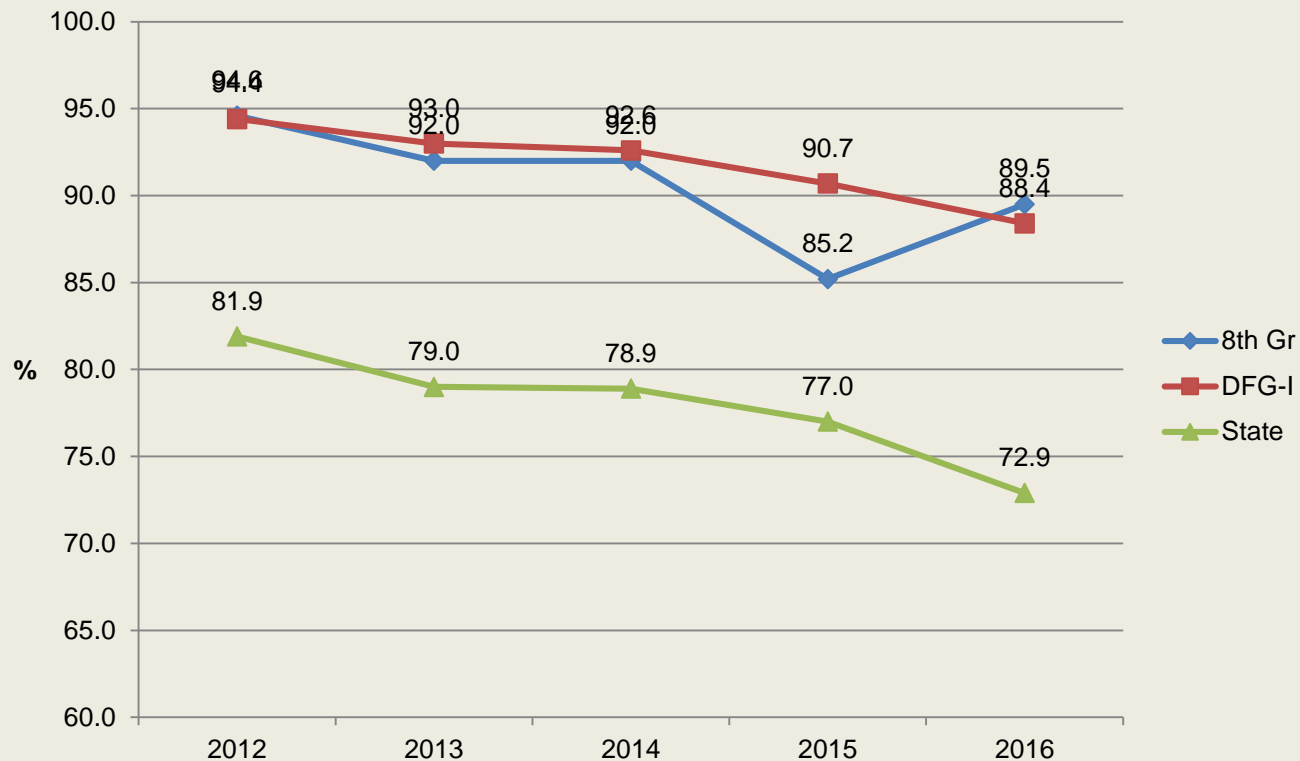
ASK 4 Advanced Proficiency Comparison

4th Grade Science Advanced Proficiency 2012-2016



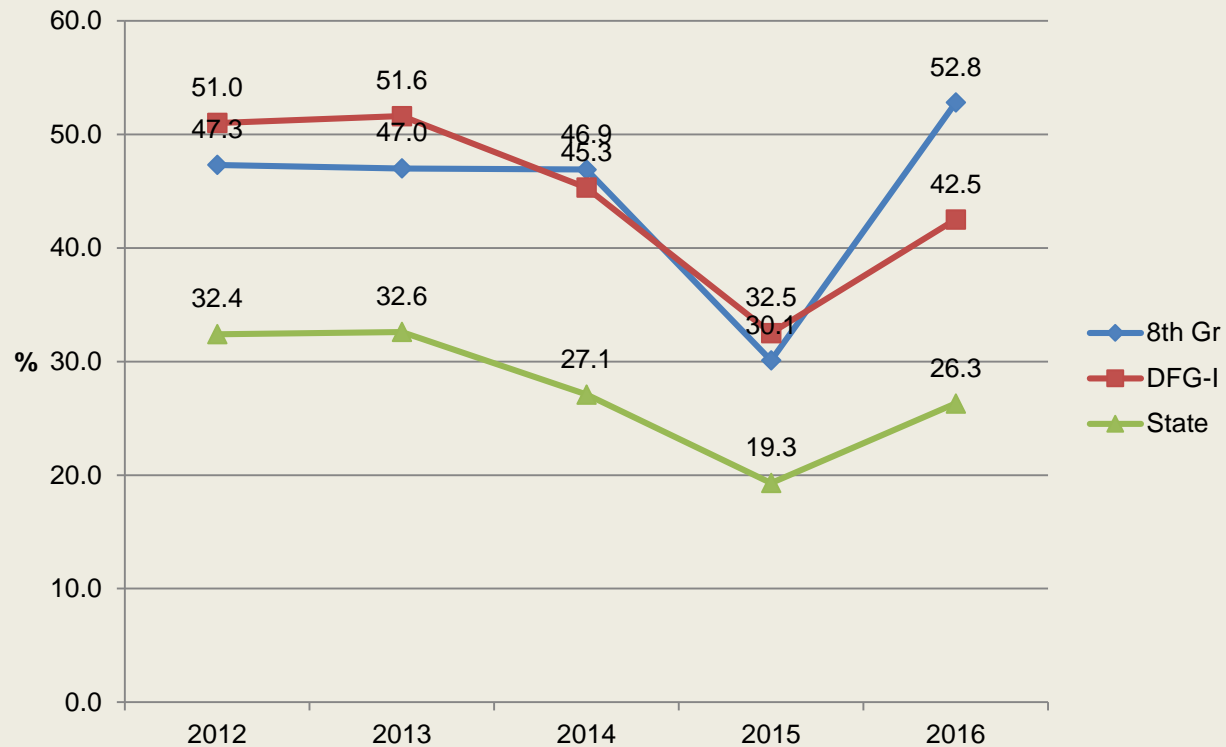
ASK 8 Total Proficiency Comparison

8th Grade Science Total Proficiency 2012-2016



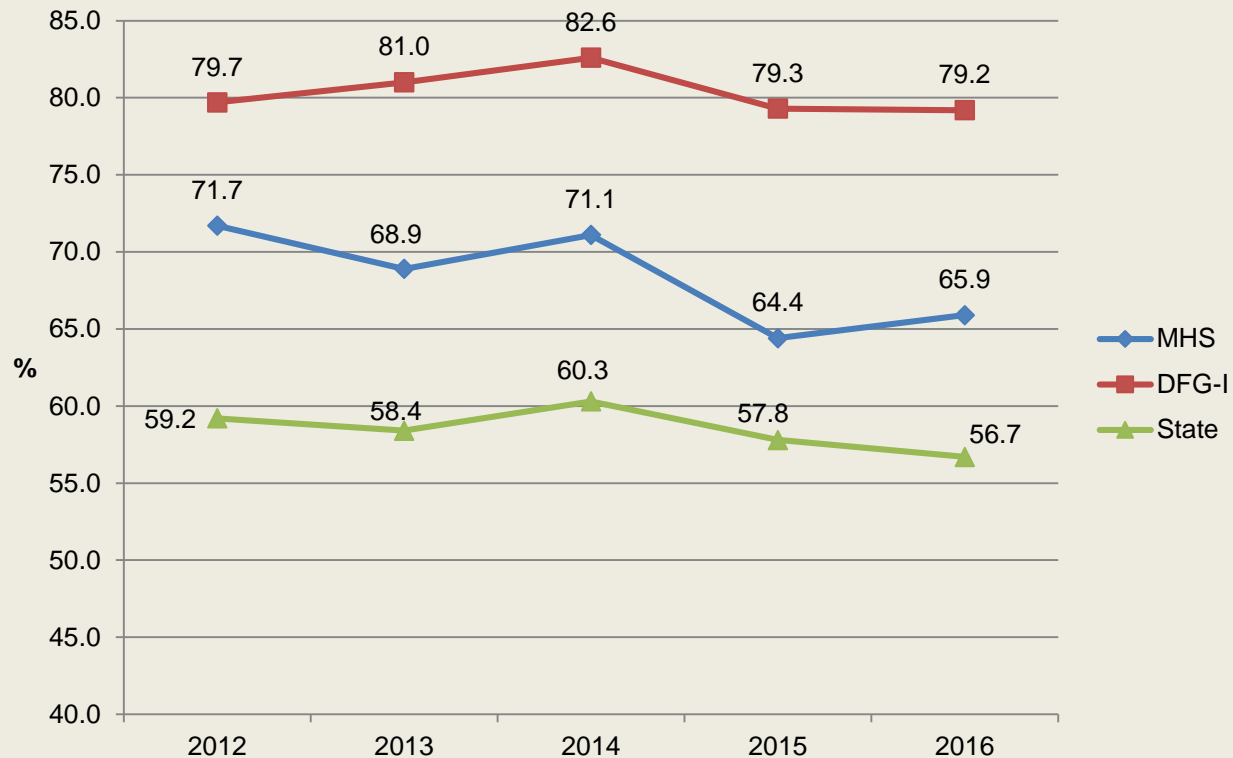
ASK 8 Advanced Proficient Comparison

8th Grade Science Advanced Proficiency 2012-2016



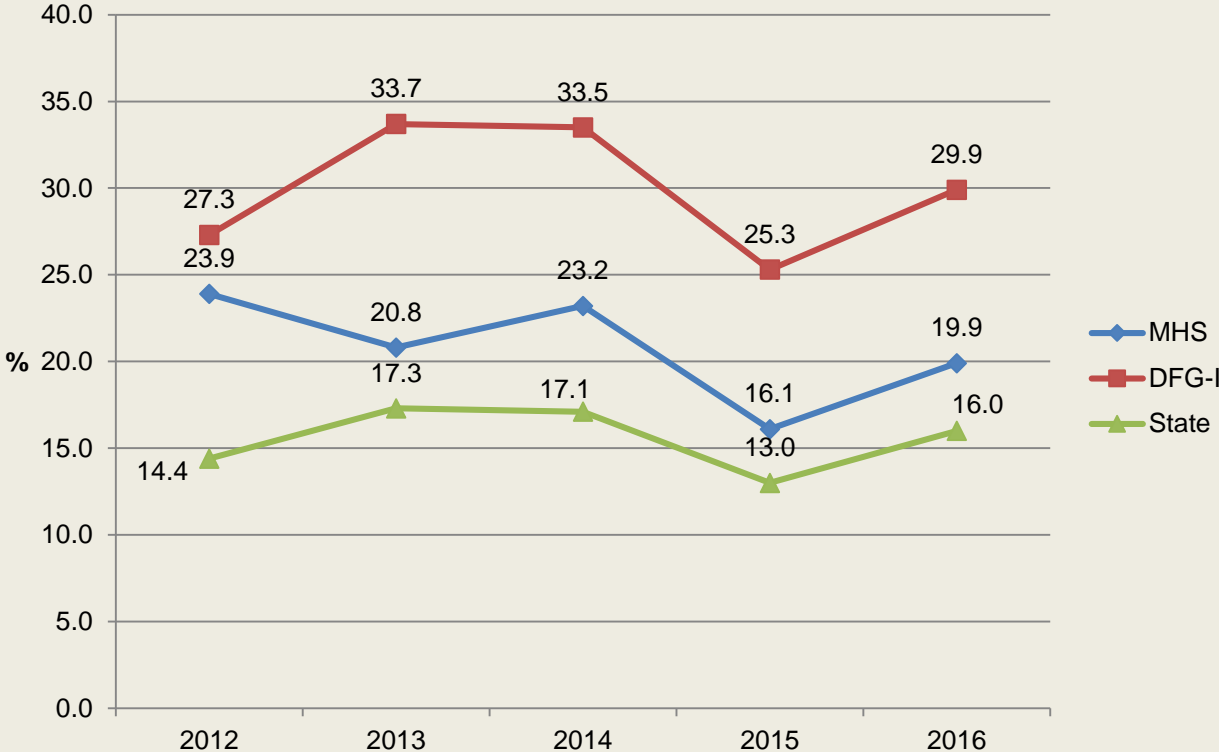
NJBCT Total Proficient Comparison

NJ Biology Competency Test Total Proficiency 2012-2016



NJBCT Advanced Proficient Comparison

NJ Biology Competency Test Advanced Proficiency 2012-2016



Next Steps: What will we focus on moving forward?

K-5: Upcoming implementation of NGSS, continued focus on reading in the content area, evidence based writing and student problem solving.

5-8: Ongoing transition to NGSS, AAAS Benchmarking, continued focus on reading, writing and math within science.

Biology: Ongoing transition to NGSS, evidence based writing, authentic application, AAAS assessments to target specific areas of difficulty.

Thank you:

- Students for your hard work and perseverance.
- Teachers for your work with data, professional learning and teaching the Whole Child.
- Administrators for all your leadership, coordination and informed and thoughtful decision making with PARCC and state tests.
- Board of Education members for your support.