

# *Massachusetts Comprehensive Assessment System (MCAS)*

## *Arlington Public Schools MCAS Analysis 2015*

*Presented by: Dr. Laura Chesson, Assistant Superintendent*

# *Agenda*

- ELA Results: District and Grade-Level
- Math Results: District and Grade-Level
- Science Results: District and Grade Level
- Plans for the 2015 - 2016 School Year

# Student Growth Percentile By Grade

## Median SGP for ELA and Math by Grade

|          | ELA  | Math |
|----------|------|------|
| Grade 4* | 59   | 59   |
| Grade 5* | 58   | 55   |
| Grade 6  | 59   | 49.5 |
| Grade 7  | 53.5 | 54   |
| Grade 8  | 68   | 65.5 |
| Grade 10 | 48.5 | 50   |

\* District median

# Elementary SGP By School

| School   |      |      | Grade 5 |      |
|----------|------|------|---------|------|
|          | ELA  | Math | ELA     | Math |
| Bishop   | 48   | 64.5 | 56      | 55   |
| Brackett | 69   | 79   | 44.5    | 42.0 |
| Dallin   | 54   | 53   | 58.5    | 62.5 |
| Hardy    | 58   | 38   | 61.5    | 54.5 |
| Peirce   | 59   | 79   | 64      | 59.5 |
| Stratton | 57   | 54   | 58      | 41   |
| Thompson | 82.5 | 38   | 31.5    | 59   |
| Median   | 59   | 59   | 58      | 55   |

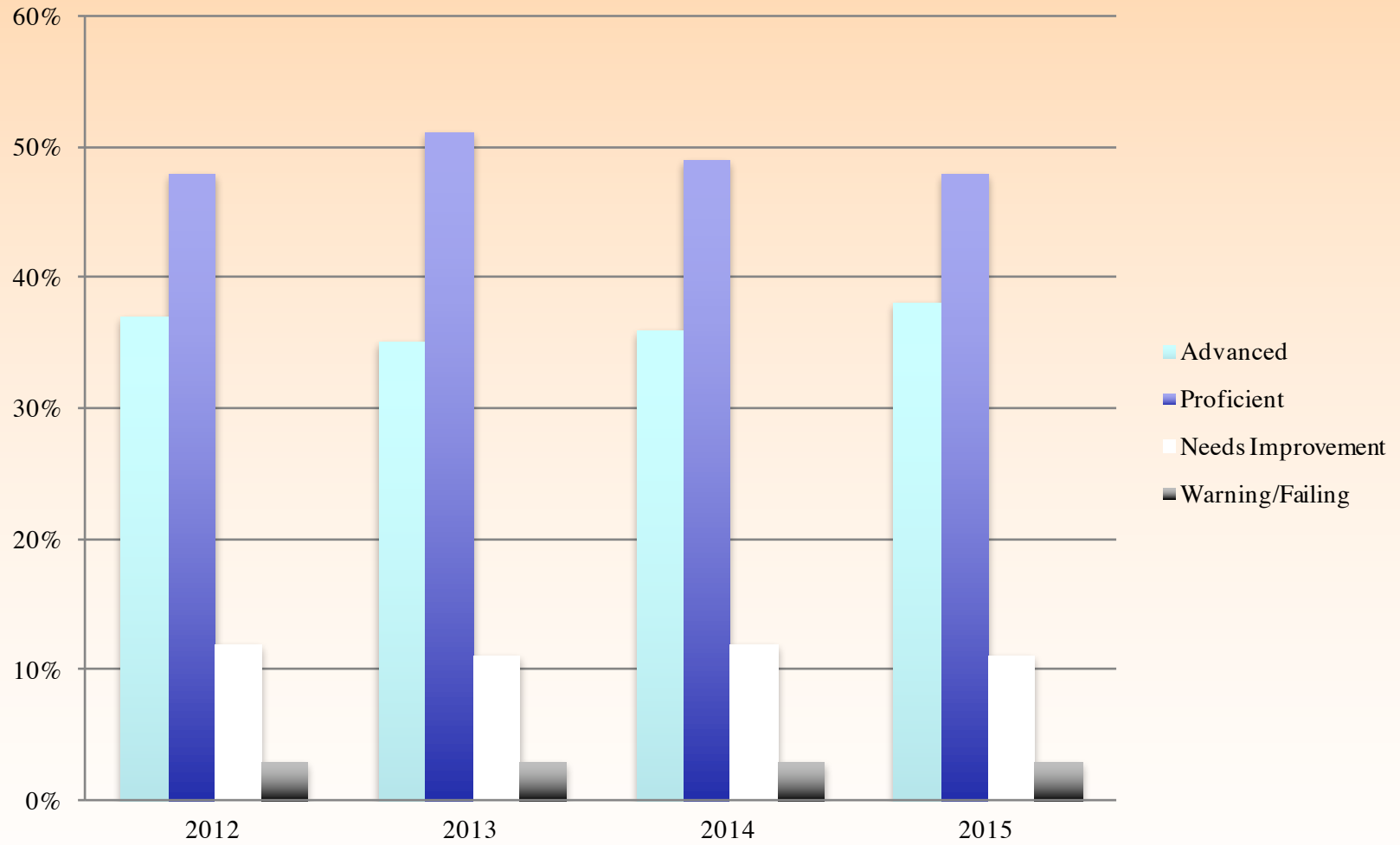
# *2015 District ELA*

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# Overall District Performance - ELA

|            | <b>2012</b> |       | <b>2013</b> |       | <b>2014</b> |       | <b>2015</b> |       |
|------------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|
|            | District    | State | District    | State | District    | State | District    | State |
| A & P      | 85%         | 69%   | 86%         | 69%   | 85%         | 70%   | 86%         |       |
| CPI        | 94.5        | 86.7  | 94.9        | 86.8  | 94.2        | 86.7  | 94.5        |       |
| Median SGP | 54.0        | 50.0  | 56.0        | 51.0  | 56.0        | 50.0  | 58          |       |

## District ELA Performance Over Time



# Students Scoring Advanced District vs. State

|             | Gr. 3      |            |                  | Gr. 4*     |            |                  | Gr. 5      |            |                  |
|-------------|------------|------------|------------------|------------|------------|------------------|------------|------------|------------------|
|             | District   | State      | Diff. with State | District   | State      | Diff. with State | District   | State      | Diff. with State |
| <b>2006</b> | <b>35%</b> | <b>18%</b> | <b>17%</b>       | <b>19%</b> | <b>8%</b>  | <b>11%</b>       | <b>30%</b> | <b>15%</b> | <b>15%</b>       |
| <b>2007</b> | <b>26%</b> | <b>14%</b> | <b>12%</b>       | <b>24%</b> | <b>10%</b> | <b>14%</b>       | <b>31%</b> | <b>15%</b> | <b>16%</b>       |
| <b>2008</b> | <b>37%</b> | <b>15%</b> | <b>22%</b>       | <b>18%</b> | <b>8%</b>  | <b>10%</b>       | <b>30%</b> | <b>13%</b> | <b>17%</b>       |
| <b>2009</b> | <b>27%</b> | <b>12%</b> | <b>15%</b>       | <b>31%</b> | <b>11%</b> | <b>20%</b>       | <b>37%</b> | <b>15%</b> | <b>22%</b>       |
| <b>2010</b> | <b>29%</b> | <b>14%</b> | <b>15%</b>       | <b>33%</b> | <b>11%</b> | <b>22%</b>       | <b>43%</b> | <b>16%</b> | <b>27%</b>       |
| <b>2011</b> | <b>22%</b> | <b>11%</b> | <b>11%</b>       | <b>20%</b> | <b>10%</b> | <b>10%</b>       | <b>40%</b> | <b>17%</b> | <b>23%</b>       |
| <b>2012</b> | <b>31%</b> | <b>15%</b> | <b>16%</b>       | <b>26%</b> | <b>13%</b> | <b>13%</b>       | <b>34%</b> | <b>17%</b> | <b>17%</b>       |
| <b>2013</b> | <b>26%</b> | <b>12%</b> | <b>14%</b>       | <b>23%</b> | <b>10%</b> | <b>13%</b>       | <b>41%</b> | <b>18%</b> | <b>23%</b>       |
| <b>2014</b> | <b>27%</b> | <b>12%</b> | <b>15%</b>       | <b>32%</b> | <b>13%</b> | <b>19%</b>       | <b>33%</b> | <b>18%</b> | <b>15%</b>       |
| <b>2105</b> | <b>23%</b> | <b>11%</b> | <b>12%</b>       | <b>37%</b> | <b>19%</b> | <b>18%</b>       | <b>42%</b> | <b>23%</b> | <b>19%</b>       |
| <b>Avg.</b> |            |            | <b>15%</b>       |            |            | <b>15%</b>       |            |            | <b>19%</b>       |



# Students Scoring Advanced District vs. State

|         | Gr. 6    |       |                  | Gr. 7*   |       |                  | Gr. 8    |       |                  |
|---------|----------|-------|------------------|----------|-------|------------------|----------|-------|------------------|
|         | District | State | Diff. with State | District | State | Diff. with State | District | State | Diff. with State |
| 206     | 20%      | 10%   | 10%              | 10%      | 10%   | 0%               | 23%      | 12%   | 11%              |
| 2007    | 21%      | 9%    | 12%              | 16%      | 9%    | 7%               | 29%      | 12%   | 17%              |
| 2008    | 32%      | 15%   | 17%              | 24%      | 12%   | 12%              | 23%      | 12%   | 11%              |
| 2009    | 31%      | 16%   | 15%              | 25%      | 14%   | 11%              | 35%      | 15%   | 20%              |
| 2010    | 30%      | 15%   | 15%              | 23%      | 11%   | 12%              | 42%      | 17%   | 25%              |
| 2011    | 39%      | 17%   | 22%              | 36%      | 14%   | 22%              | 45%      | 20%   | 25%              |
| 2012    | 40%      | 18%   | 22%              | 37%      | 15%   | 22%              | 38%      | 18%   | 20%              |
| 2013    | 28%      | 16%   | 12%              | 22%      | 12%   | 10%              | 46%      | 20%   | 26%              |
| 2014    | 29%      | 16%   | 13%              | 30%      | 11%   | 19%              | 37%      | 14%   | 23%              |
| 2015    | 38%      | 19%   | 19%              | 22%      | 9%    | 13%              | 55%      | 26%   | 29%              |
| Average |          |       | 16%              |          |       | 13%              |          |       | 21%              |

# Students Scoring Advanced District vs. State

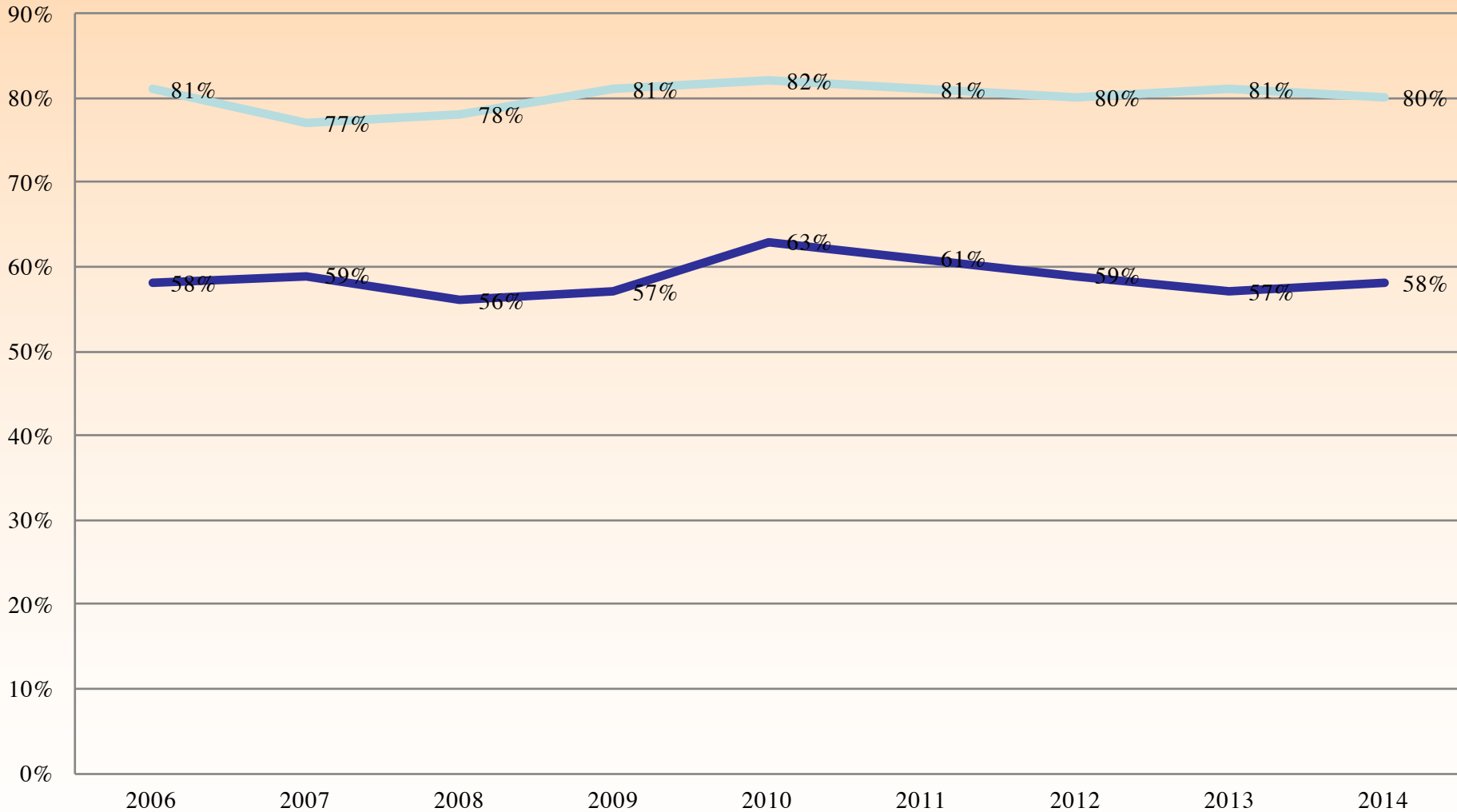
|      | Gr. 10*  |       |                  |
|------|----------|-------|------------------|
|      | District | State | Diff. with State |
| 2006 | 39%      | 16%   | 23%              |
| 2007 | 41%      | 22%   | 19%              |
| 2008 | 48%      | 23%   | 25%              |
| 2009 | 54%      | 29%   | 25%              |
| 2010 | 53%      | 26%   | 27%              |
| 2011 | 62%      | 33%   | 29%              |
| 2012 | 65%      | 37%   | 28%              |
| 2013 | 68%      | 45%   | 23%              |
| 2014 | 72%      | 41%   | 31%              |
| 2015 | 75%      | 49%   | 26%              |

**Average**

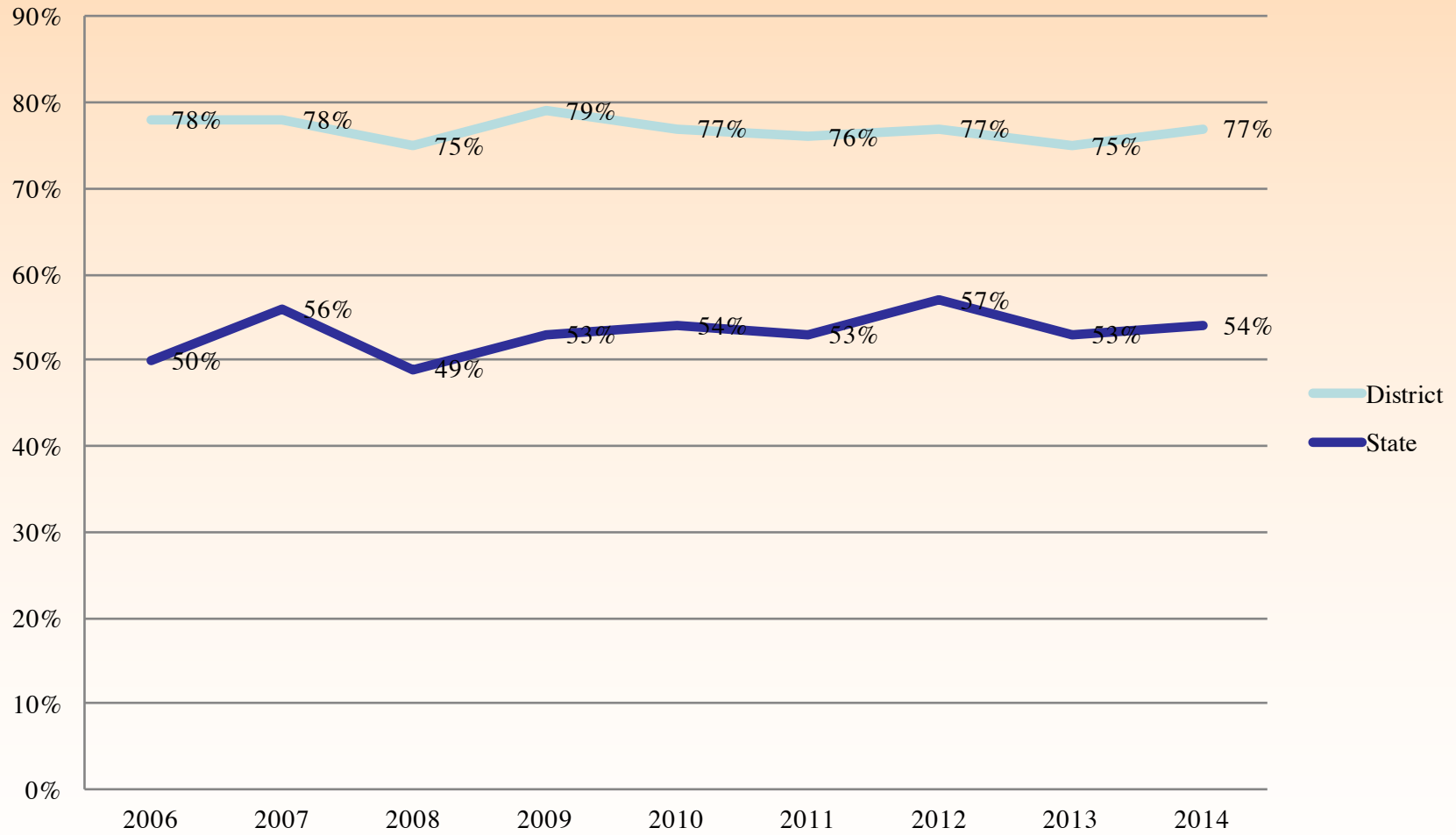
**26%**

# ELA Performance By Grade Level

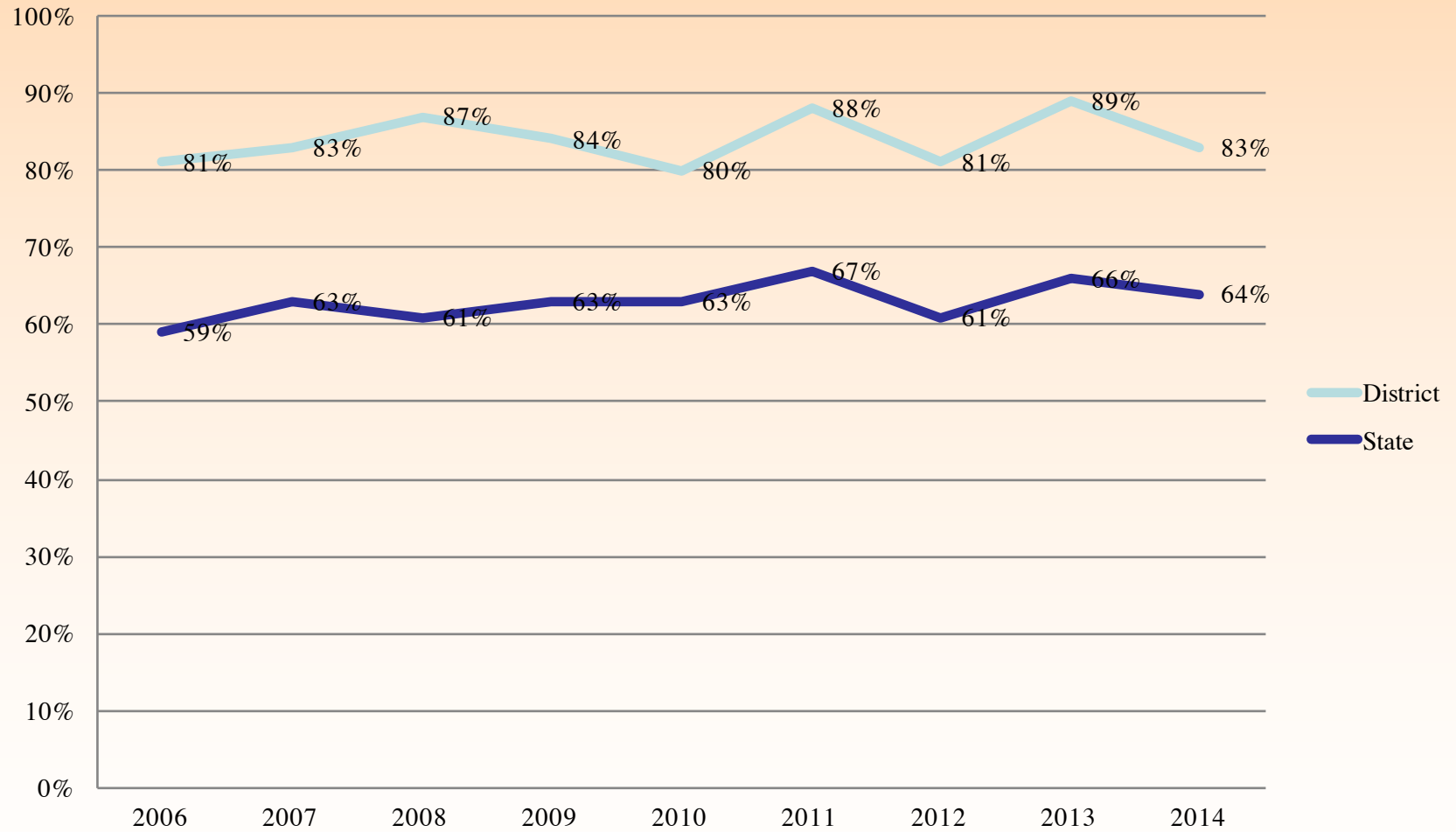
# District vs. State ELA Grade 3 Percent Proficient & Advanced



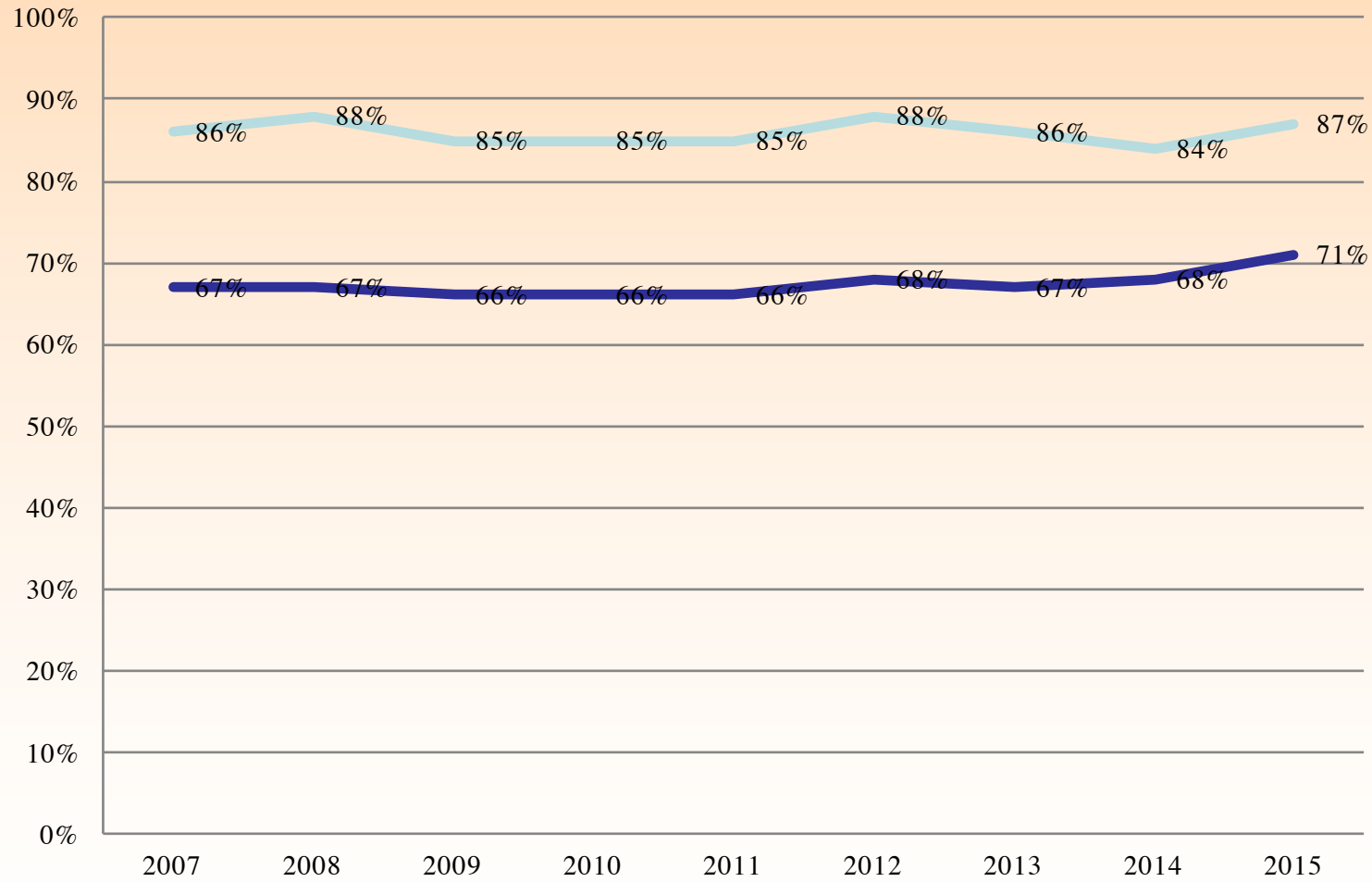
## District vs. State ELA Grade 4 Percent Proficient & Advanced



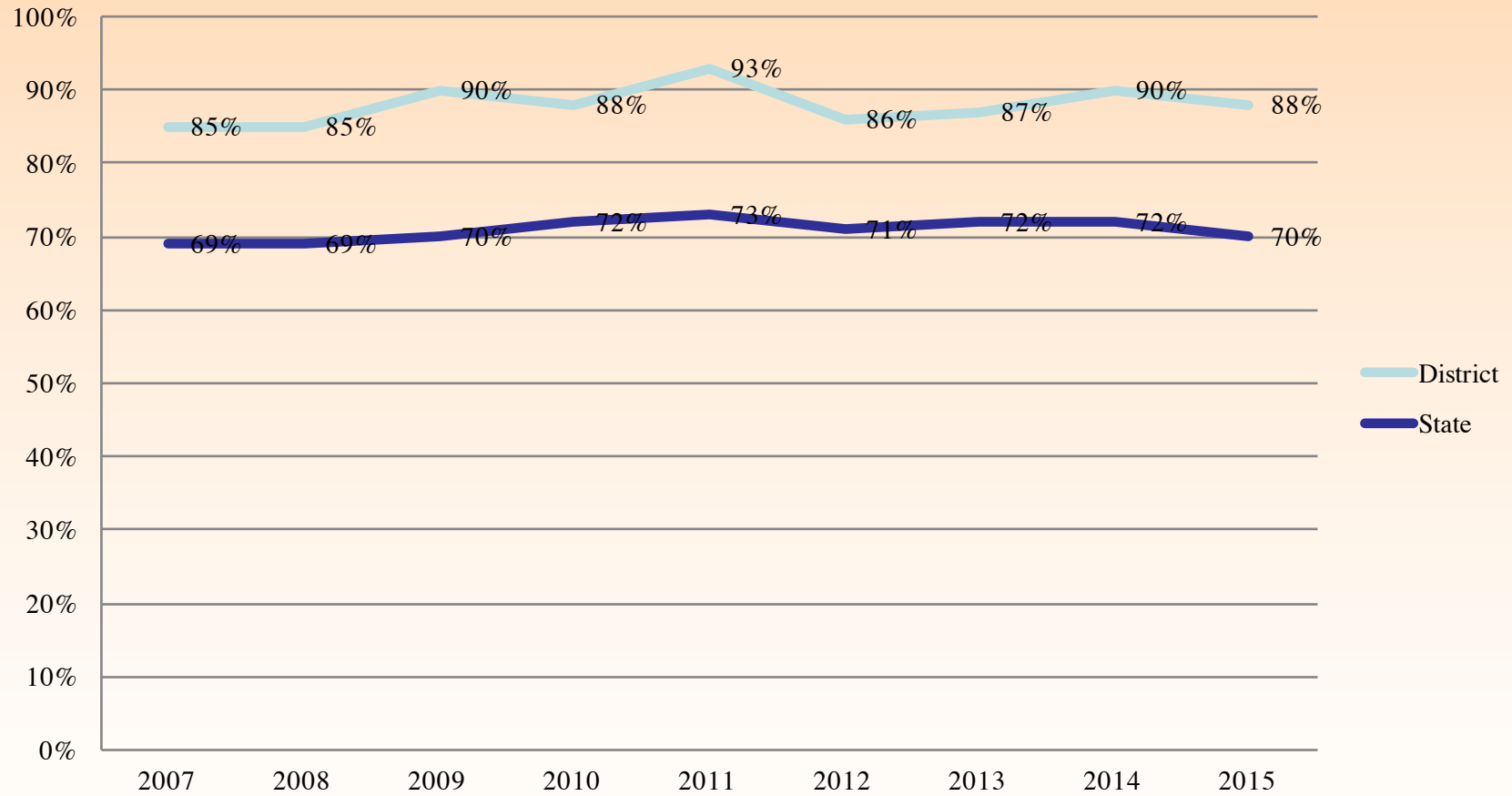
## District vs. State ELA Grade 5 Percent Proficient & Advanced



## District vs. State ELA Grade 6 Percent Proficient & Advanced

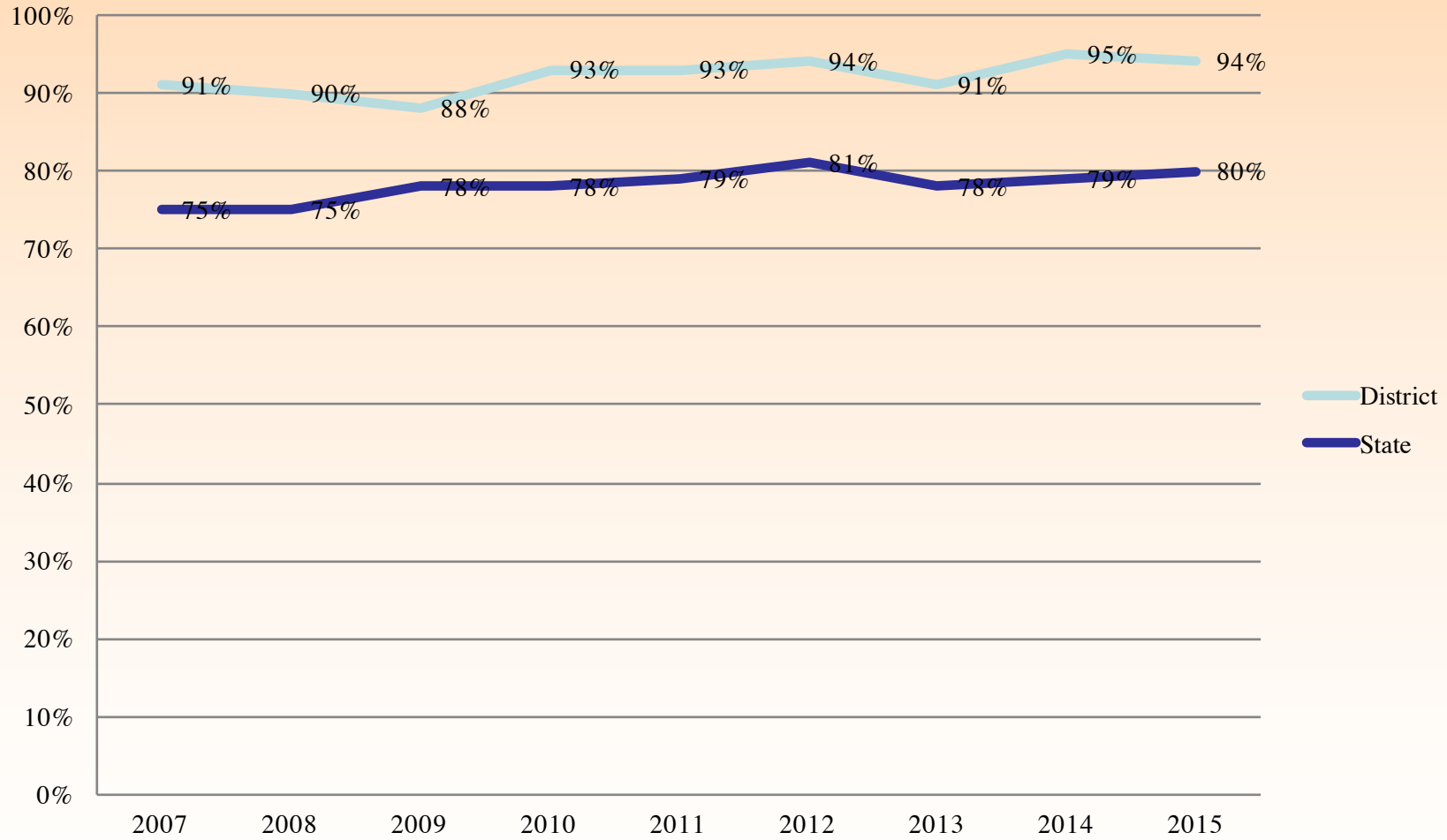


## District vs. State ELA Grade 7 Percent Proficient & Advanced

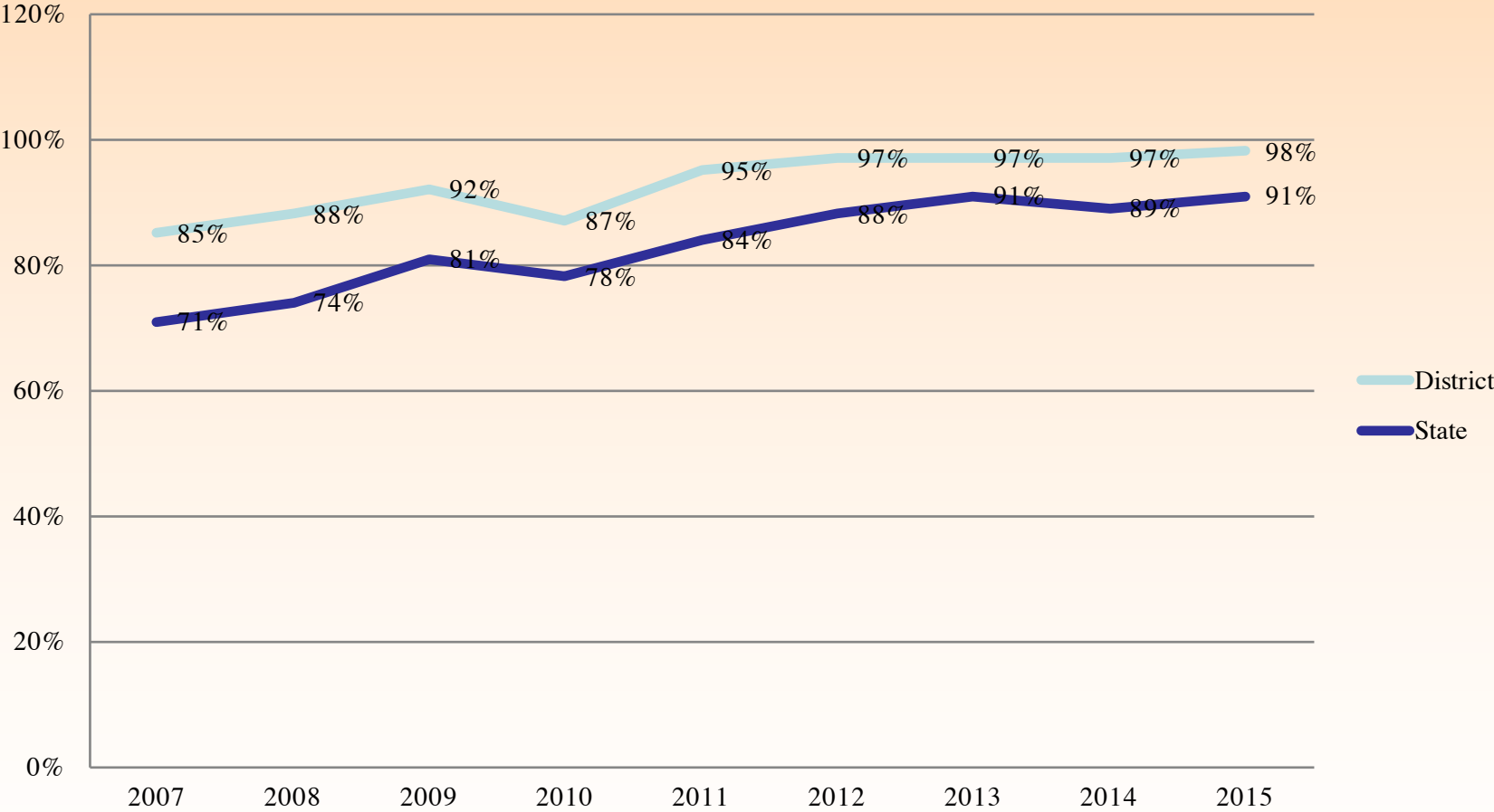




## District vs. State ELA Grade 8 Percent Proficient & Advanced



# District vs. State ELA Grade 10 Percent Proficient & Advanced



# ELA Growth By Grade Level

# APS Reading/ELA

## Percentage of Student Scoring Advanced

|      | Gr. 3    |       | Gr. 4*   |       | Gr. 5    |       | Gr. 6        |       | Gr. 7*   |       | Gr. 8    |       | Gr. 10*      |       |
|------|----------|-------|----------|-------|----------|-------|--------------|-------|----------|-------|----------|-------|--------------|-------|
|      | District | State | District | State | District | State | Distri<br>ct | State | District | State | District | State | Distri<br>ct | State |
| 2006 | 35%      | 18%   | 19%      | 8%    | 30%      | 15%   | 20%          | 10%   | 10%      | 10%   | 23%      | 12%   | 39%          | 16%   |
| 2007 | 26%      | 14%   | 24%      | 10%   | 31%      | 15%   | 21%          | 9%    | 16%      | 9%    | 29%      | 12%   | 41%          | 22%   |
| 2008 | 37%      | 15%   | 18%      | 8%    | 30%      | 13%   | 32%          | 15%   | 24%      | 12%   | 23%      | 12%   | 48%          | 23%   |
| 2009 | 27%      | 12%   | 31%      | 11%   | 37%      | 15%   | 31%          | 16%   | 25%      | 14%   | 35%      | 15%   | 54%          | 29%   |
| 2010 | 29%      | 14%   | 33%      | 11%   | 43%      | 16%   | 30%          | 15%   | 23%      | 11%   | 42%      | 17%   | 53%          | 26%   |
| 2011 | 22%      | 11%   | 20%      | 10%   | 40%      | 17%   | 39%          | 17%   | 36%      | 14%   | 45%      | 20%   | 62%          | 33%   |
| 2012 | 31%      | 15%   | 26%      | 13%   | 34%      | 17%   | 40%          | 18%   | 37%      | 15%   | 38%      | 18%   | 65%          | 37%   |
| 2013 | 26%      | 12%   | 23%      | 10%   | 41%      | 18%   | 28%          | 16%   | 22%      | 12%   | 46%      | 20%   | 68%          | 45%   |
| 2014 | 27%      | 12%   | 32%      | 13%   | 33%      | 18%   | 29%          | 16%   | 30%      | 11%   | 37%      | 14%   | 72%          | 41%   |
| 2015 | 23%      | 11%   | 37%      | 19%   | 42%      | 23%   | 38%          | 19%   | 22%      | 9%    | 55%      | 26%   | 75%          | 49%   |

# ELA Analysis

- At elementary level more clearly articulating reading units for specific grade levels.
- Lab program/writing lead teacher PD beginning to have effect.
- Middle school Lucy Calkins training beginning to have impact.

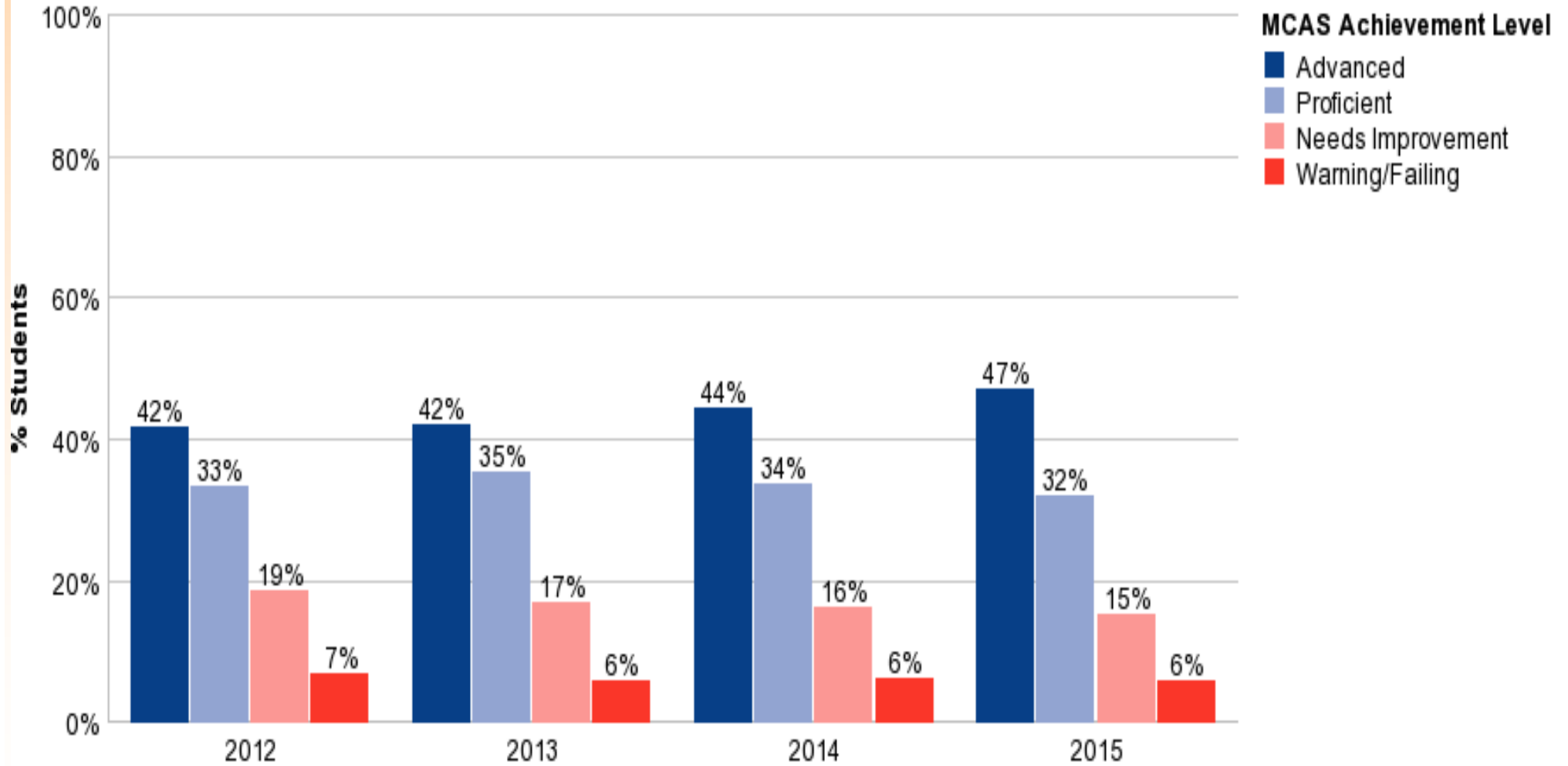
***District Mathematics***  
***2015***

# Overall District Performance - MATH

|               | <b>2011</b> |       | <b>2012</b> |       | <b>2013</b> |       | <b>2014</b> |       | <b>2015</b> |       |
|---------------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|-------------|-------|
|               | District    | State | District    | State | District    | State | District    | State | District    | State |
| A & P         | 74%         | 58%   | 75%         | 59%   | 77%         | 61%   | 78%         | 60%   | 79%         |       |
| CPI           | 89.2        | 79.9  | 89.4        | 79.9  | 90.4        | 80.8  | 90.5        | 80.3  | 90.7        |       |
| Median<br>SGP | 49.0        | 50.0  | 57.0        | 50.0  | 54.0        | 51.0  | 58.0        | 50.0  | 56.0        |       |

# Math MCAS Over Time

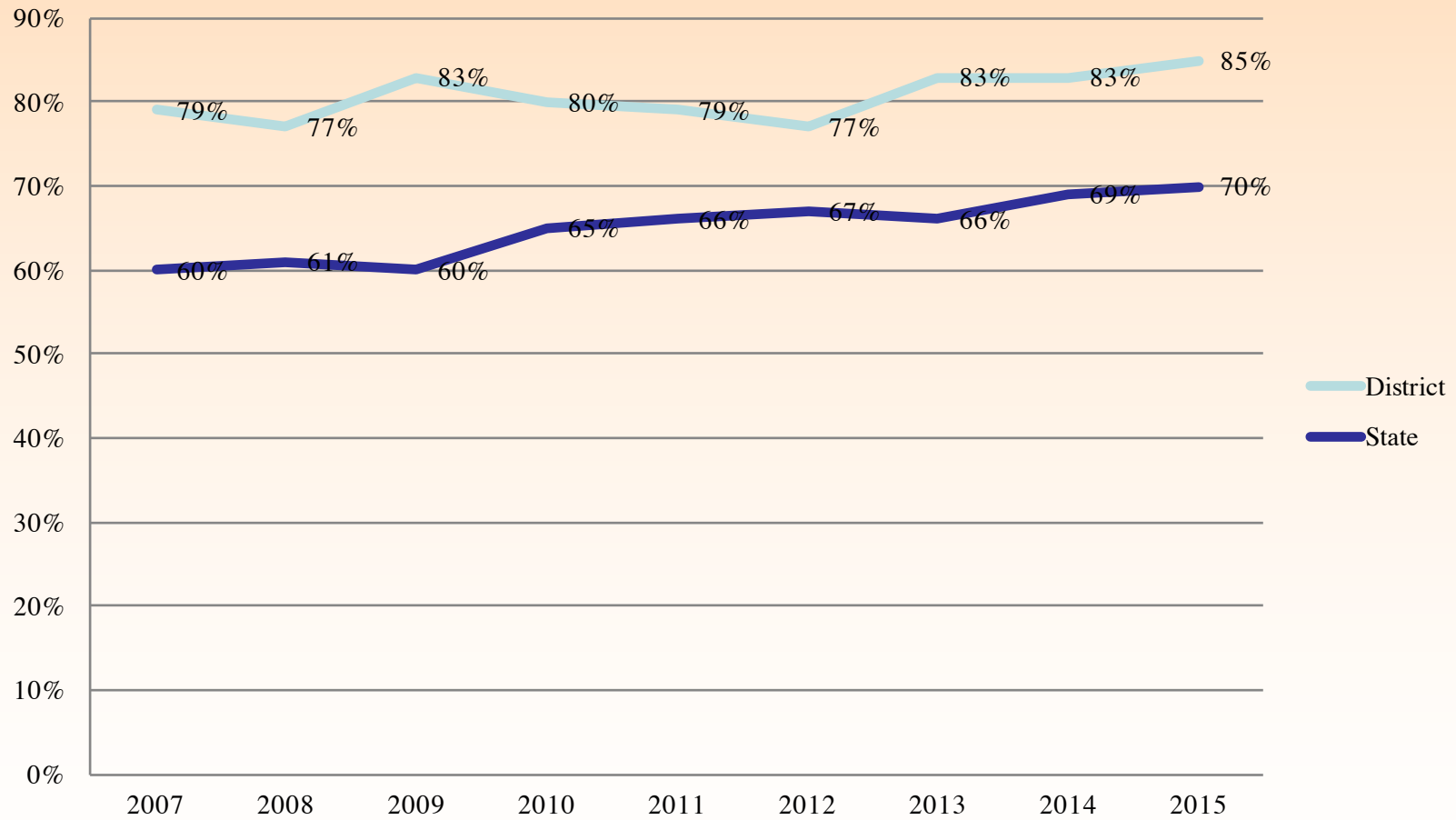
Student Group: All Students



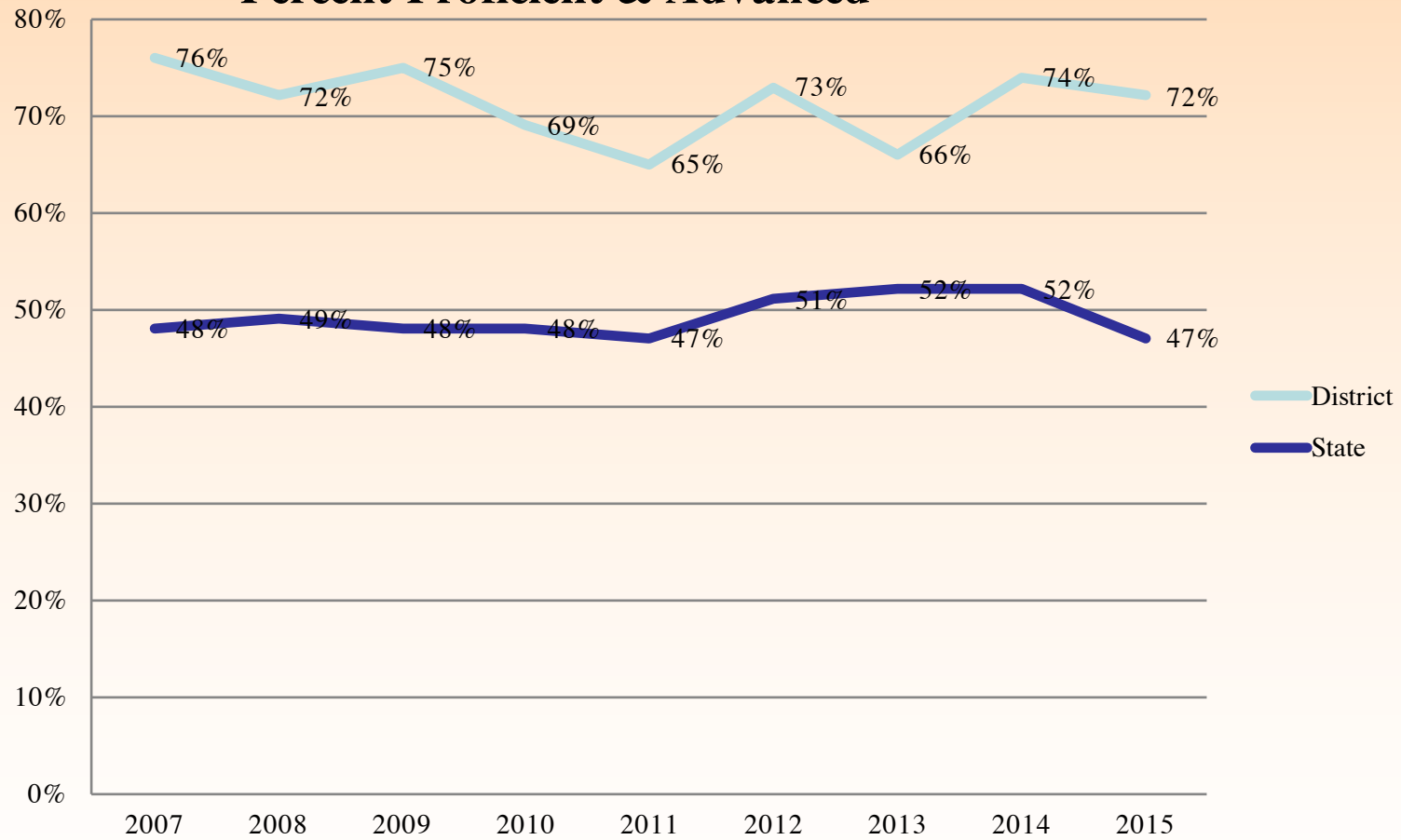


# Math MCAS Results By Grade Level

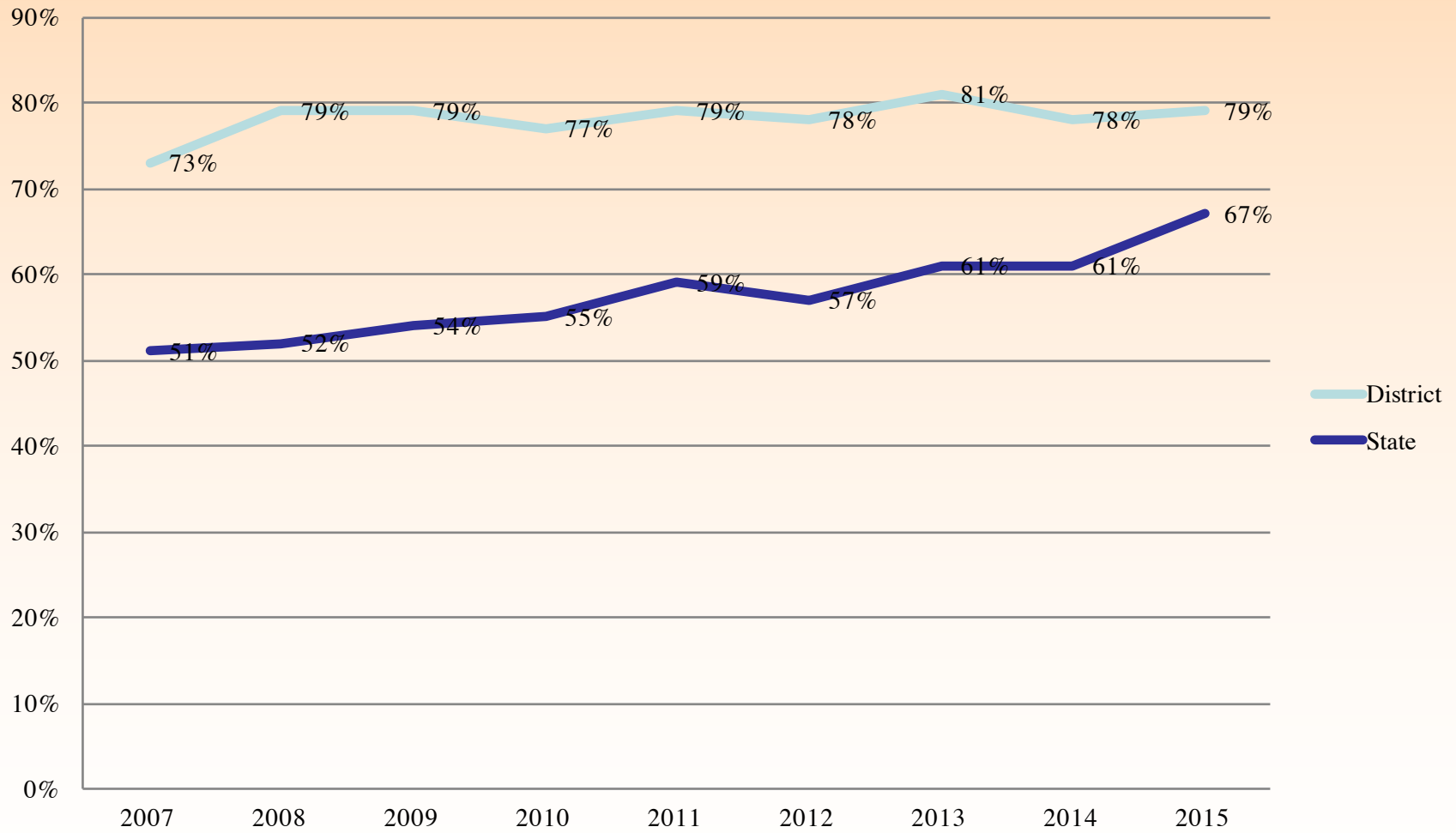
## District vs. State Math Grade 3 Percent Proficient & Advanced



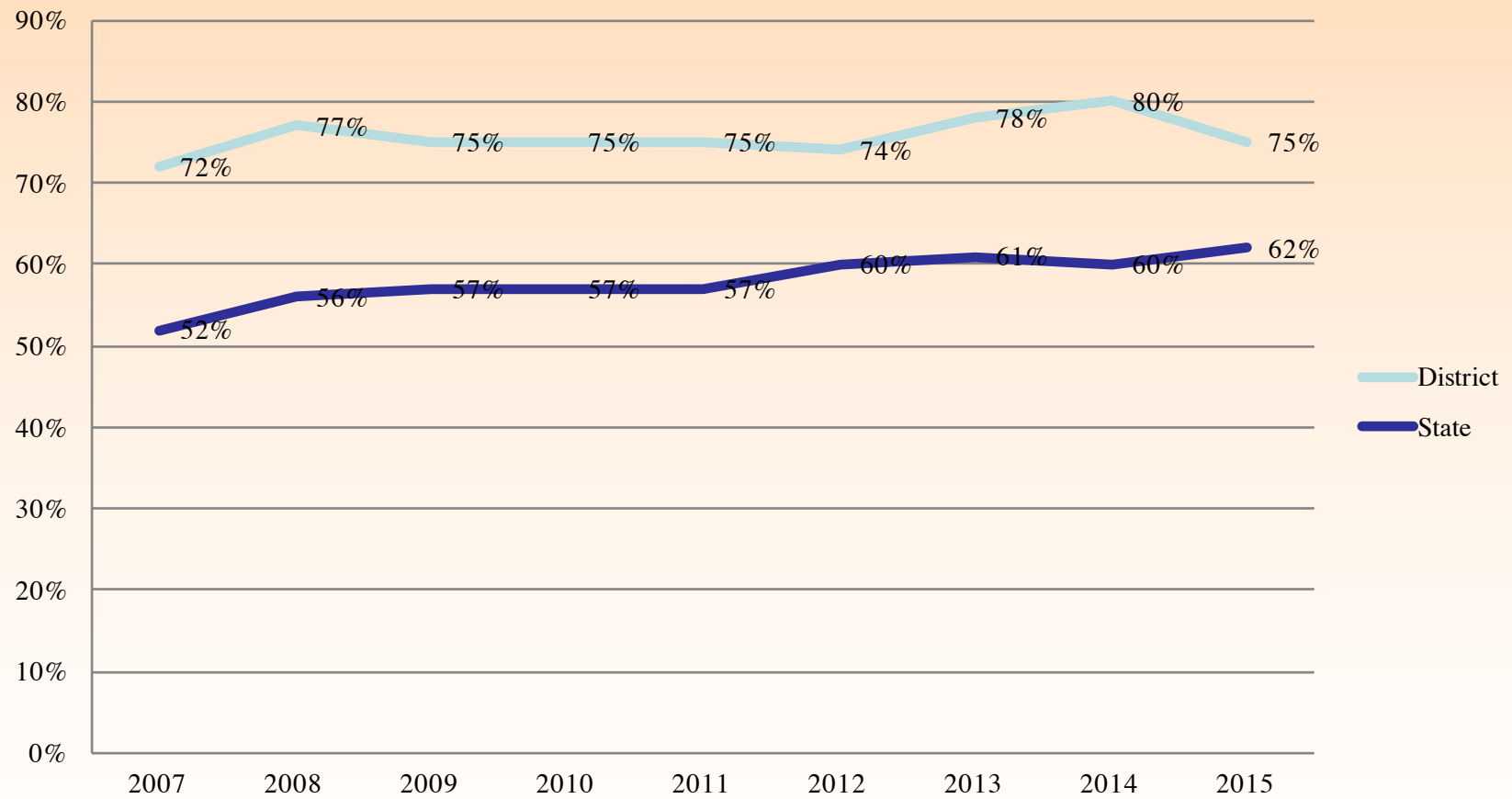
## District vs. State Math Grade 4 Percent Proficient & Advanced



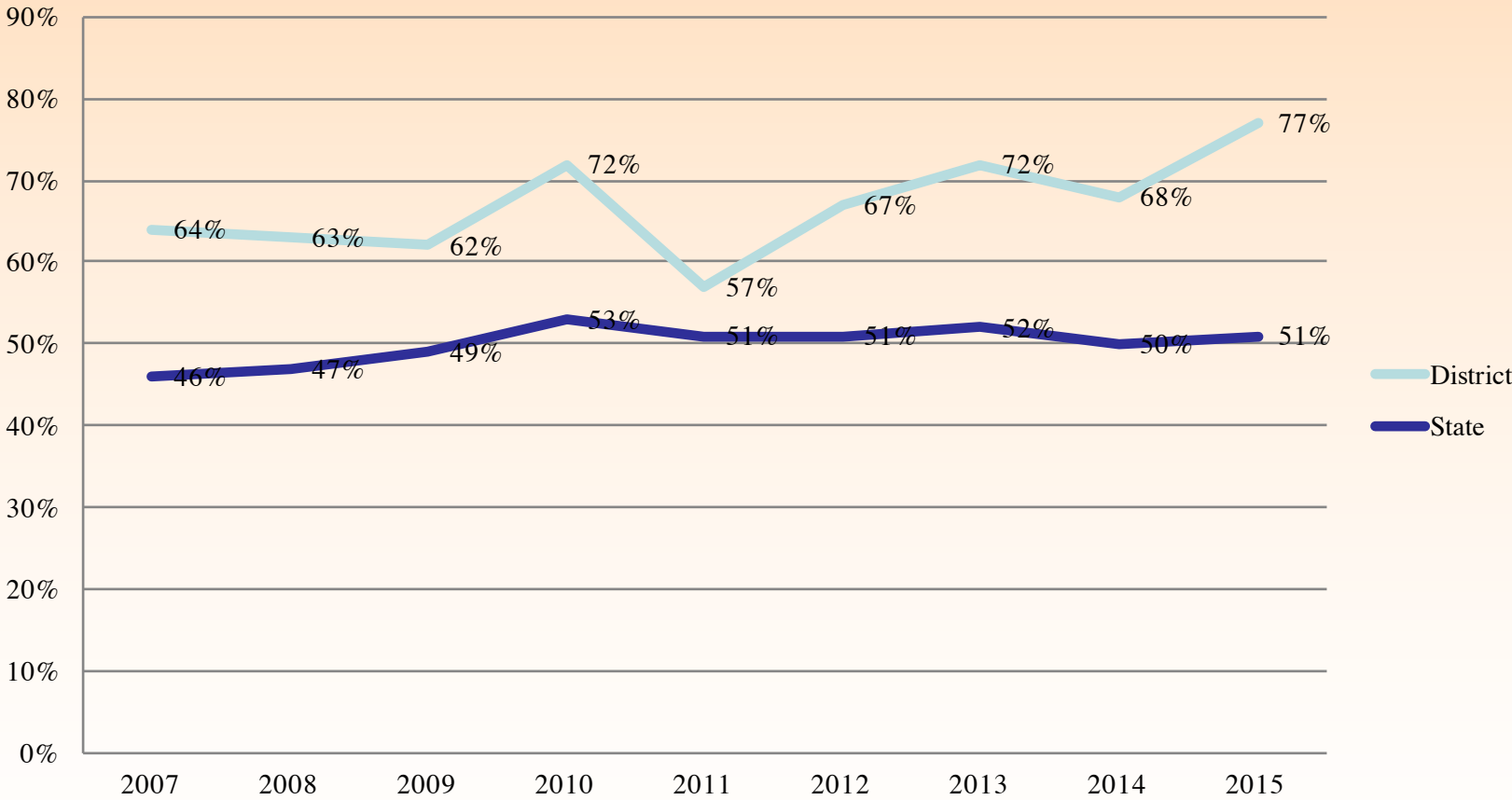
## District vs. State Math Grade 5 Percent Proficient & Advanced



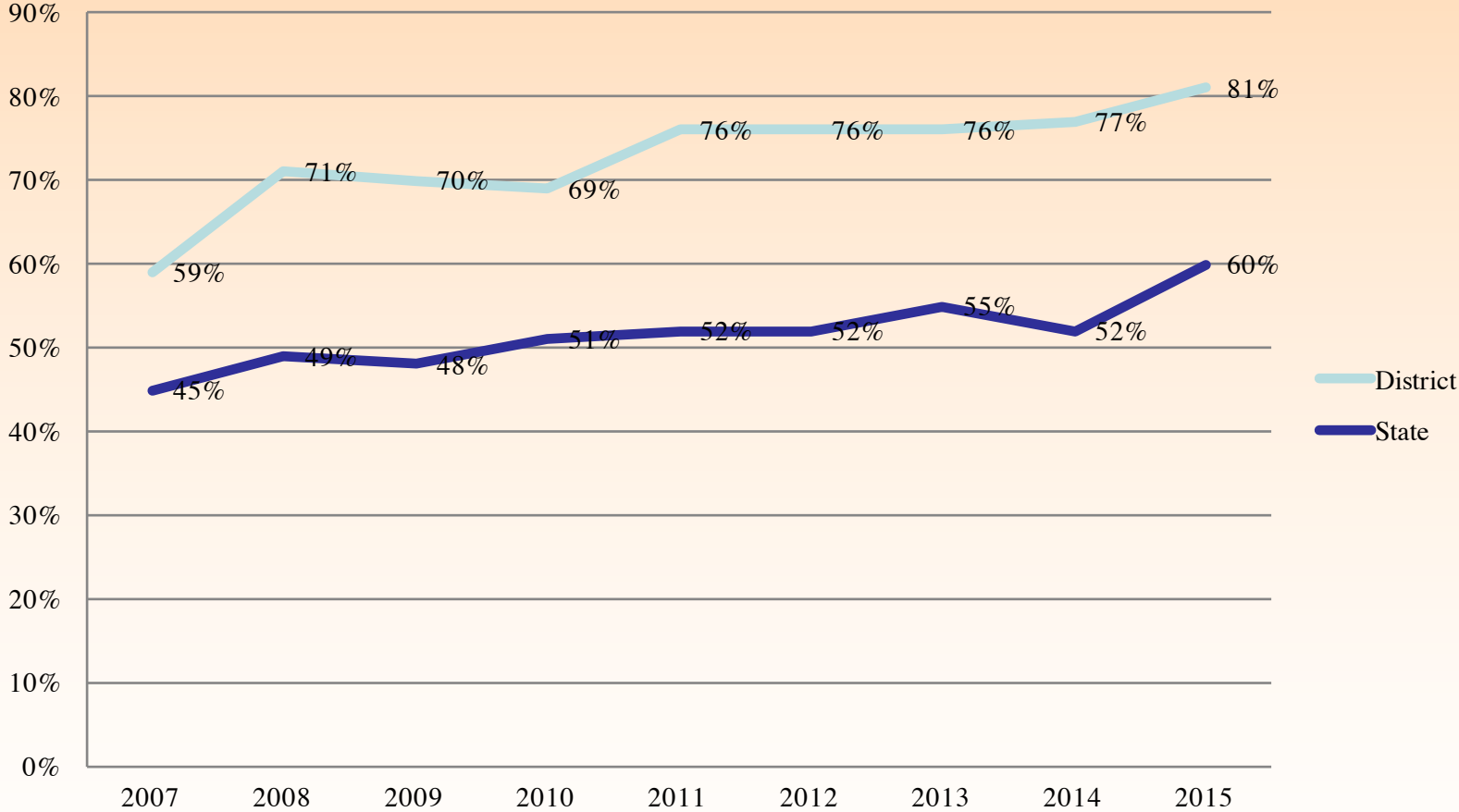
## District vs. State Math Grade 6 Percent Proficient & Advanced



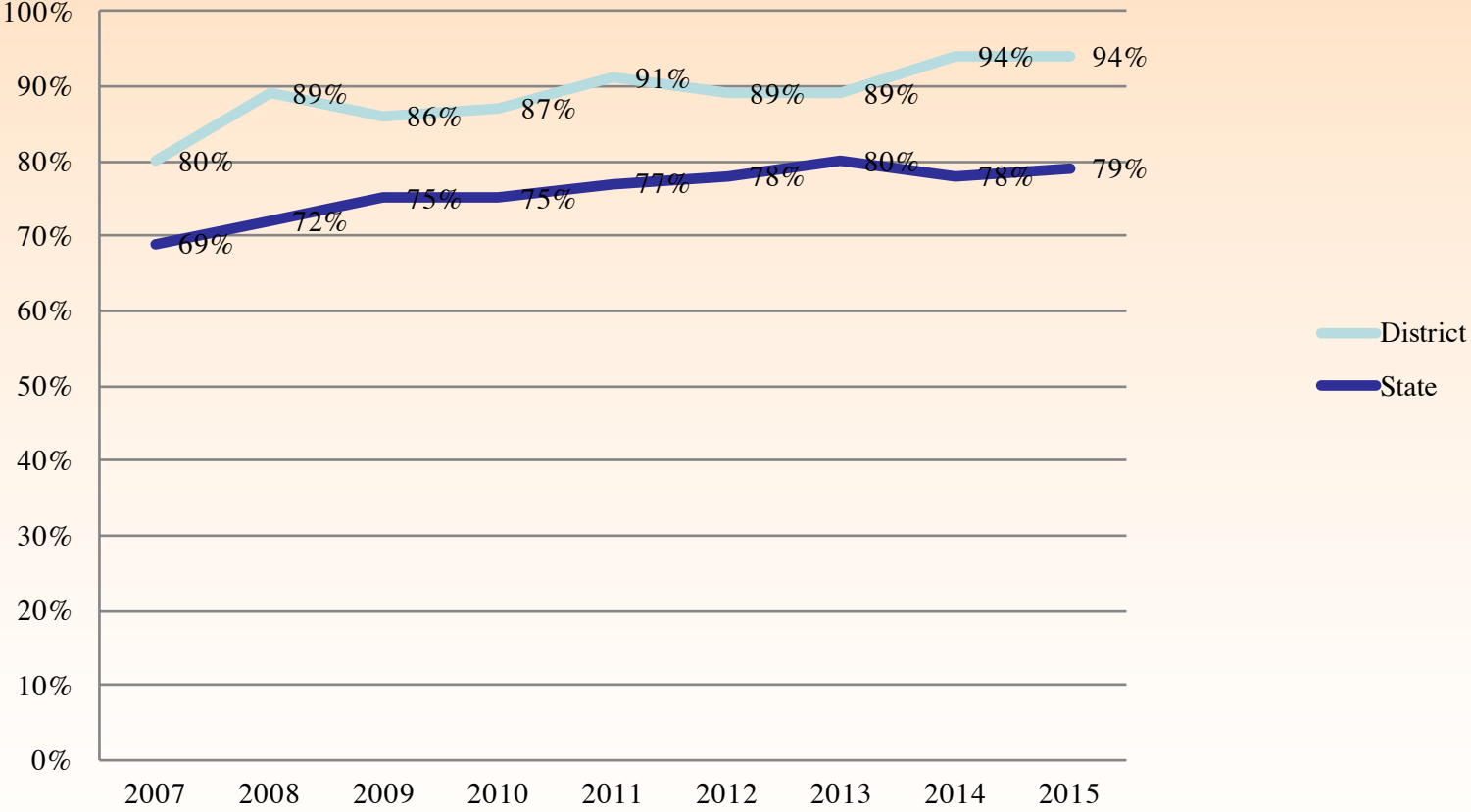
# District vs. State Math Grade 7 Percent Proficient & Advanced



# District vs. State Math Grade 8 Percent Proficient & Advanced



# District vs. State Math Grade 10



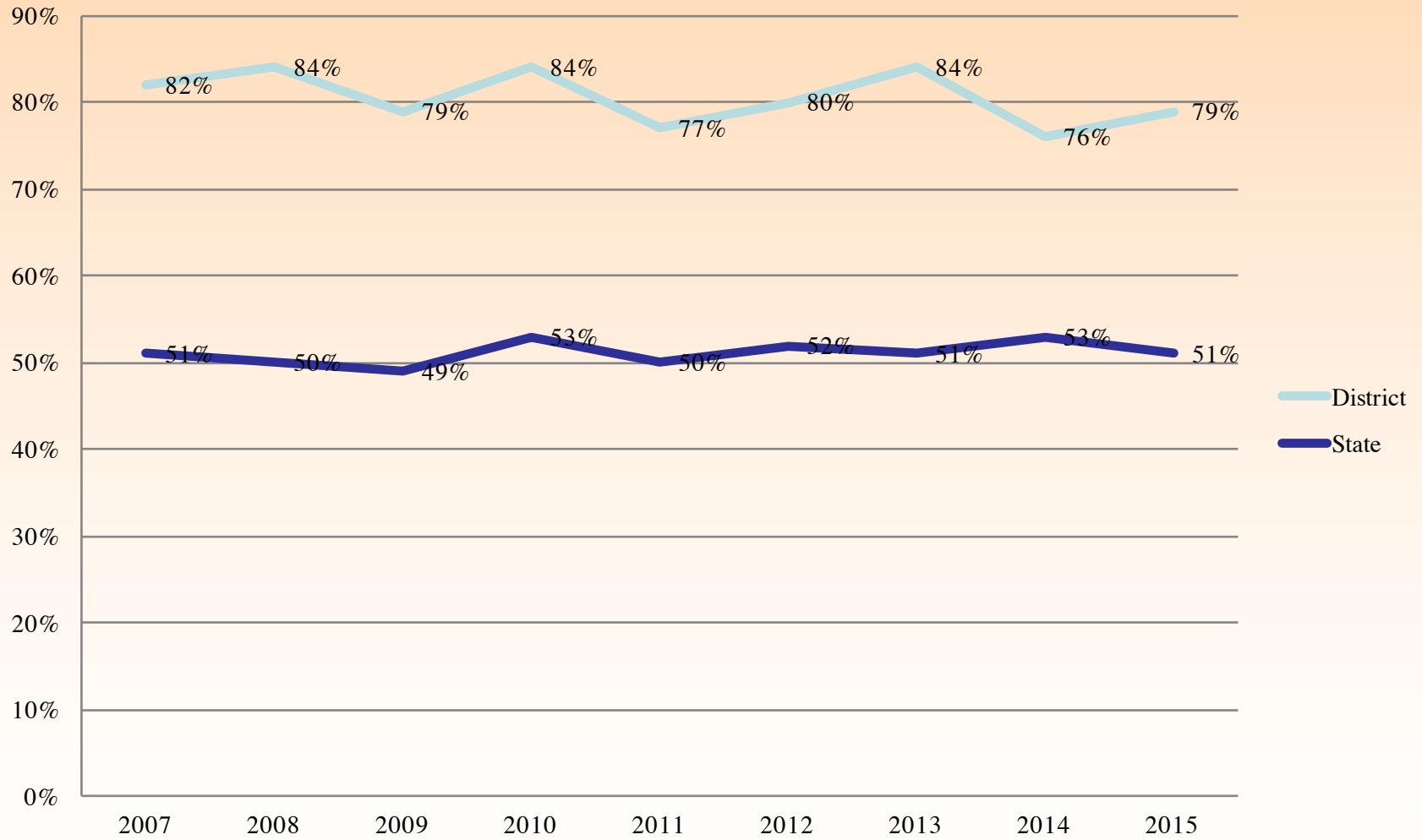


# Math Results Analysis

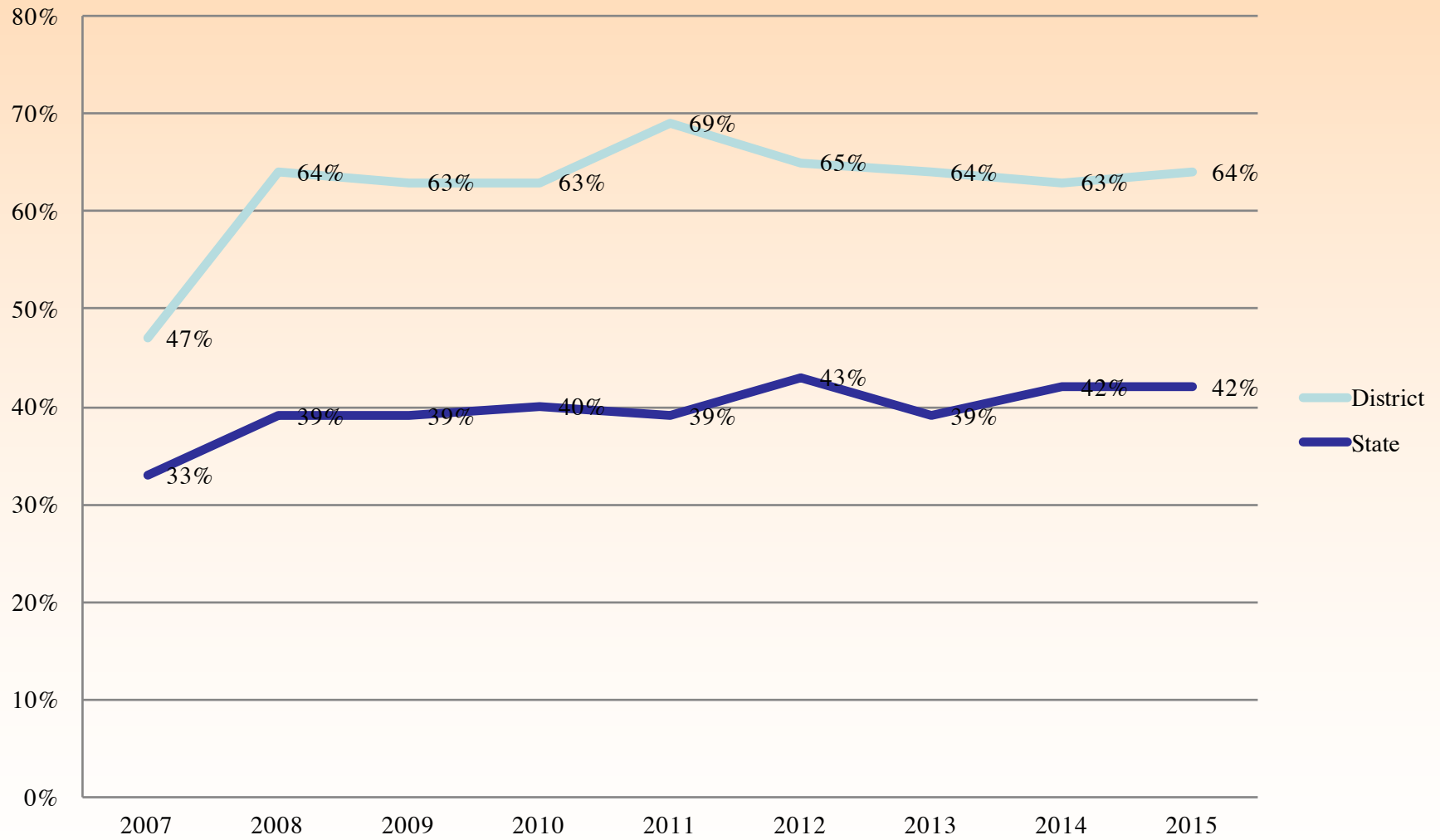
- 36 total grade 3-5 elementary students in warning across all schools
- 81% of these students scored 216-218
- There were no students in low warning
- All elementary students in warning were within 3 questions of scoring Needs Improvement
- Area of focus for PD for grades 3 – 5 is connection to high needs students
- Growth of content knowledge for high needs students at middle school is growing significantly so students who were “low warning” are able to access content who is grade level appropriate by continual focus on special ed connection at grades 3 – 5.
- Number of students recommended for math support at 6<sup>th</sup> grade is decreasing even though the number of students is increasing.

***District Science and Technology  
2015***

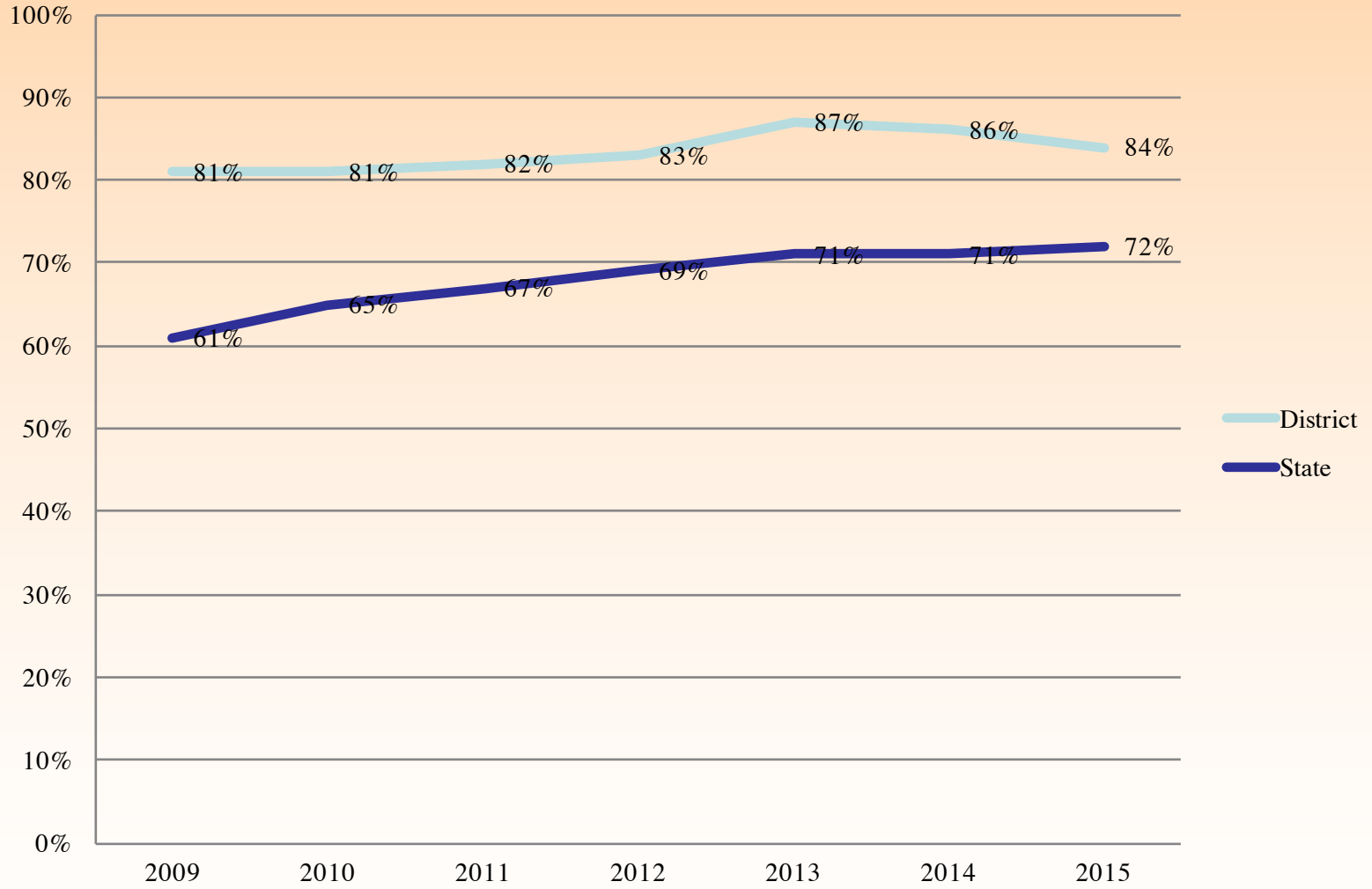
## District vs. State Science Grade 5



## District vs. State Science Grade 8



# District vs. State Science Grade 10

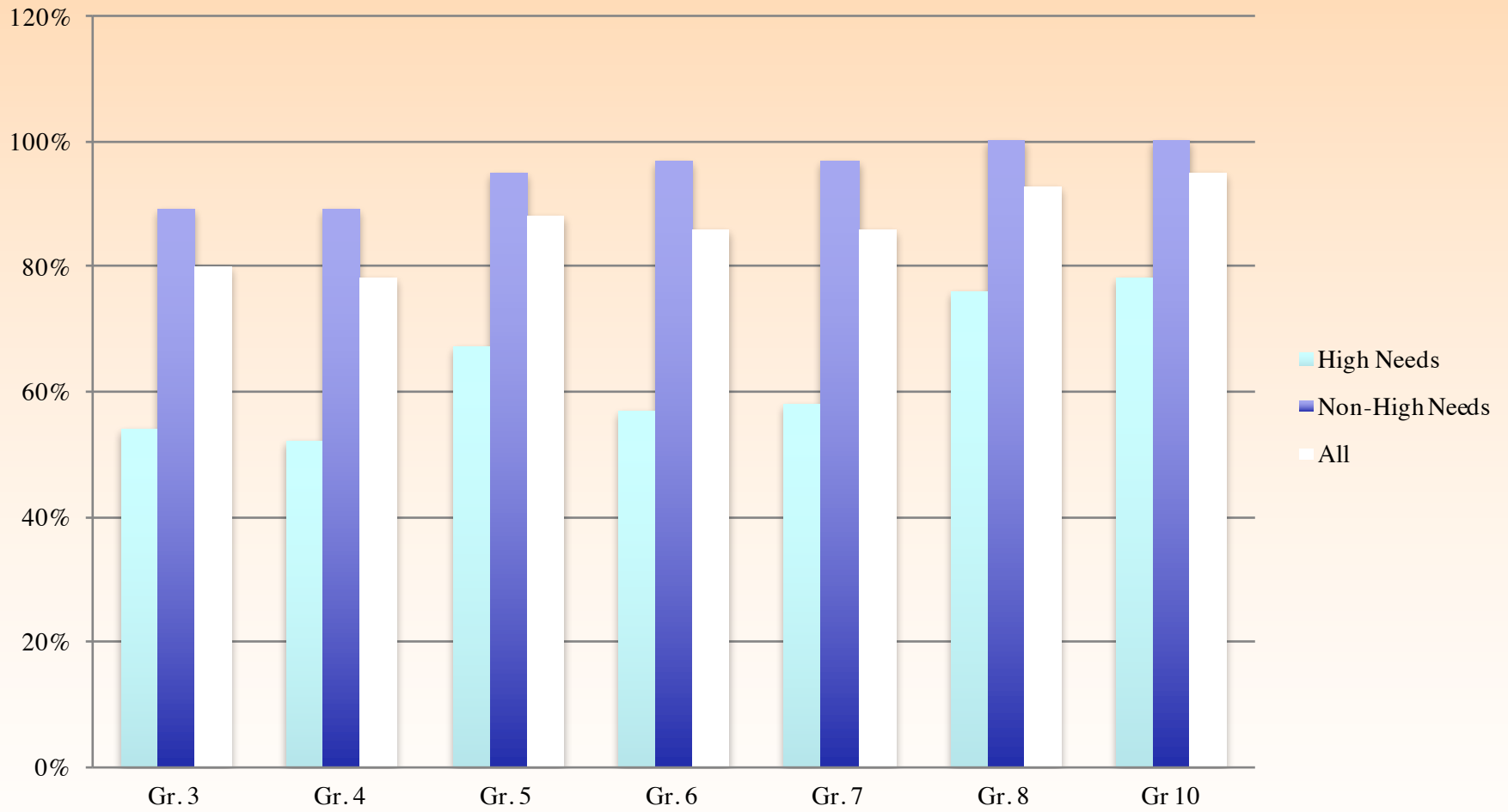


# Science Analysis

- Overall science scores show more difference from state than other MCAS subject areas.
- Percent of students scoring advanced at AHS increased significantly.
- Focus on math and ELA at elementary may have resulted in fairly static performance.

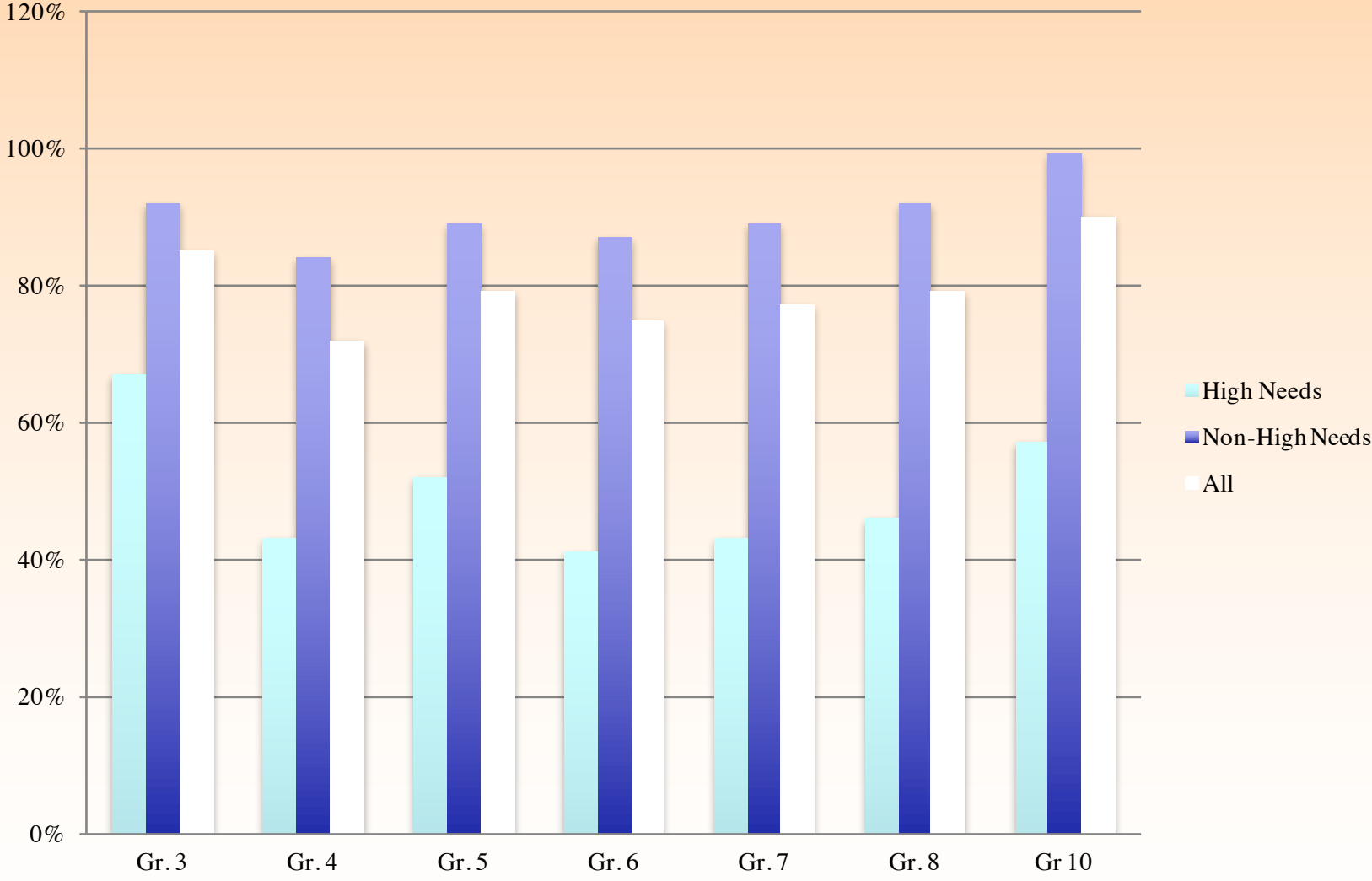
*2015 District Subgroups/  
High Need Students*

## 2015 ELA MCAS: APS Students Reaching Proficiency





# 2015 Math MCAS: APS Students Reaching Proficiency



# What Lies Ahead

- Deeper implementation of use of data teams at all schools.
- Inclusion of math, science, attendance, and discipline data review in data teams.
- Wider review at all levels of common assessment data by curriculum leadership team.
- Significant increase in time for teachers to work together.
- Implementation of new teacher evaluation system with specific school and teacher goals targeted to student achievement.
- Development of district-wide curriculum team to provide for teacher voice in the direction of curriculum and instruction.
- Expansion of lab program in writing.
- Expansion of PD in math at grades K – 3.
- Beginning of FOSS implementation.

# *Presentation References*

Massachusetts Department of Elementary and Secondary Education School District Profiles:

<http://profiles.doe.mass.edu/profiles/general.aspx?topNavId=1&orgcode=00100000&orgtypecode=5&>

Massachusetts Department of Elementary and Secondary Education Statewide Reports:

[http://profiles.doe.mass.edu/state\\_report/mcas.aspx](http://profiles.doe.mass.edu/state_report/mcas.aspx)

Massachusetts Department of Elementary and Secondary Education Data Warehouse (EDW):

<https://www4.doemass.org/auth/Login>