



## **Rule 6A-1.09422: Establishing Achievement Level Cut Scores for Florida Standards Assessments**

**Rule Development Workshops  
September 15 – 17, 2015**

Vince Verges  
Assistant Deputy Commissioner  
Accountability, Research, and Measurement



FLORIDA DEPARTMENT OF  
**EDUCATION**  
fldoe.org

## Purpose of This Workshop

- Express the Department's intent to develop a rule amendment for consideration by the State Board of Education that establishes Achievement Level cut scores for Florida Standards Assessments (FSA)
- Obtain input from interested audiences to be considered by the Commissioner of Education in determining recommended cut scores that will be presented to the Florida Legislature for review and State Board of Education for action

## Topics

- Information about FSA
- Review the achievement level cut score process
- Review the recommendations from educator and reactor panels
- Review the impact data
- Request feedback from you

## Information about FSA

- Assessments measure student achievement of Florida Standards
  - Florida Standards may be accessed at <http://www.cpalms.org>
- Implemented in spring 2015 (baseline administration)
- Transition from FCAT 2.0 Reading/Mathematics to FSA ELA/Mathematics

## Information about FSA

- Assessments administered:
  - Grades 3-10 English Language Arts (ELA)
  - Grades 3-8 Mathematics
  - Algebra 1 EOC
  - Geometry EOC
  - Algebra 2 EOC

# Information about FSA

## Administration Information

Grade/Subject Assessment	Session Length	Number of Sessions
Grades 4–10 ELA Writing	120 Minutes	1
Grades 3–5 ELA Reading	80 Minutes	2
Grades 6–8 ELA Reading	85 Minutes	2
Grades 9–10 ELA Reading	90 Minutes	2
Grades 3–5 Mathematics	80 Minutes	2
Grades 6–8 Mathematics	60 Minutes	3
Algebra 1, Geometry, Algebra 2 EOCs	90 minutes	2

# Information about FSA

## Administration Information

- Except for ELA Writing (one session only), all assessments are administered over two days
- Grades 4–7 ELA Writing and Grades 3–4 ELA Reading and Mathematics are administered as paper-based tests; all other assessments are computer-based.
- Paper-based accommodations are offered for eligible students.
- Students taking paper-based and computer-based tests have opportunities to access practice tests to become familiar with item types, functionality, and test mode or platform.

## Why Are Standards Necessary?

- To define what students should know and be able to do
- To identify clear expectations for students, parents, and teachers
- To improve teaching and learning
- To develop a society able to compete in a global economy



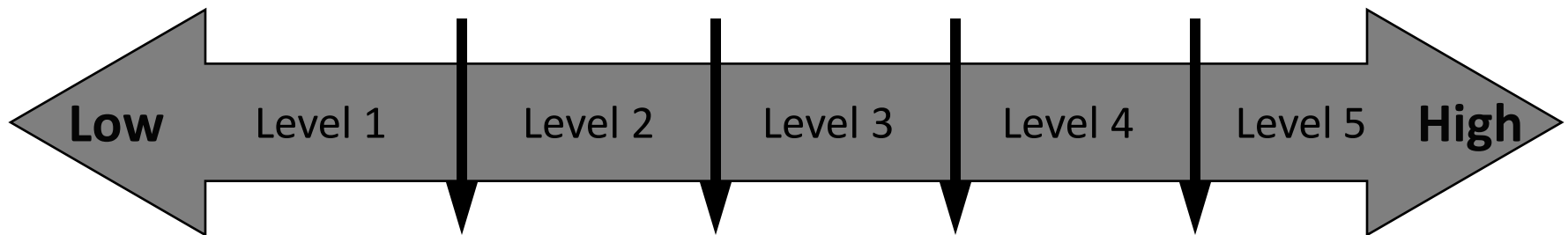
## What Is Standard Setting?

- A process of deriving levels of performance on educational or professional assessments, by which decisions or classifications of persons will be made (Cizek, 2006)
- Test scores can be used to group students into meaningful Achievement Levels.
- Standard setting is the process whereby we “draw the lines” that separate the test scores into various Achievement Levels.
- Required when implementing new standards and new assessments

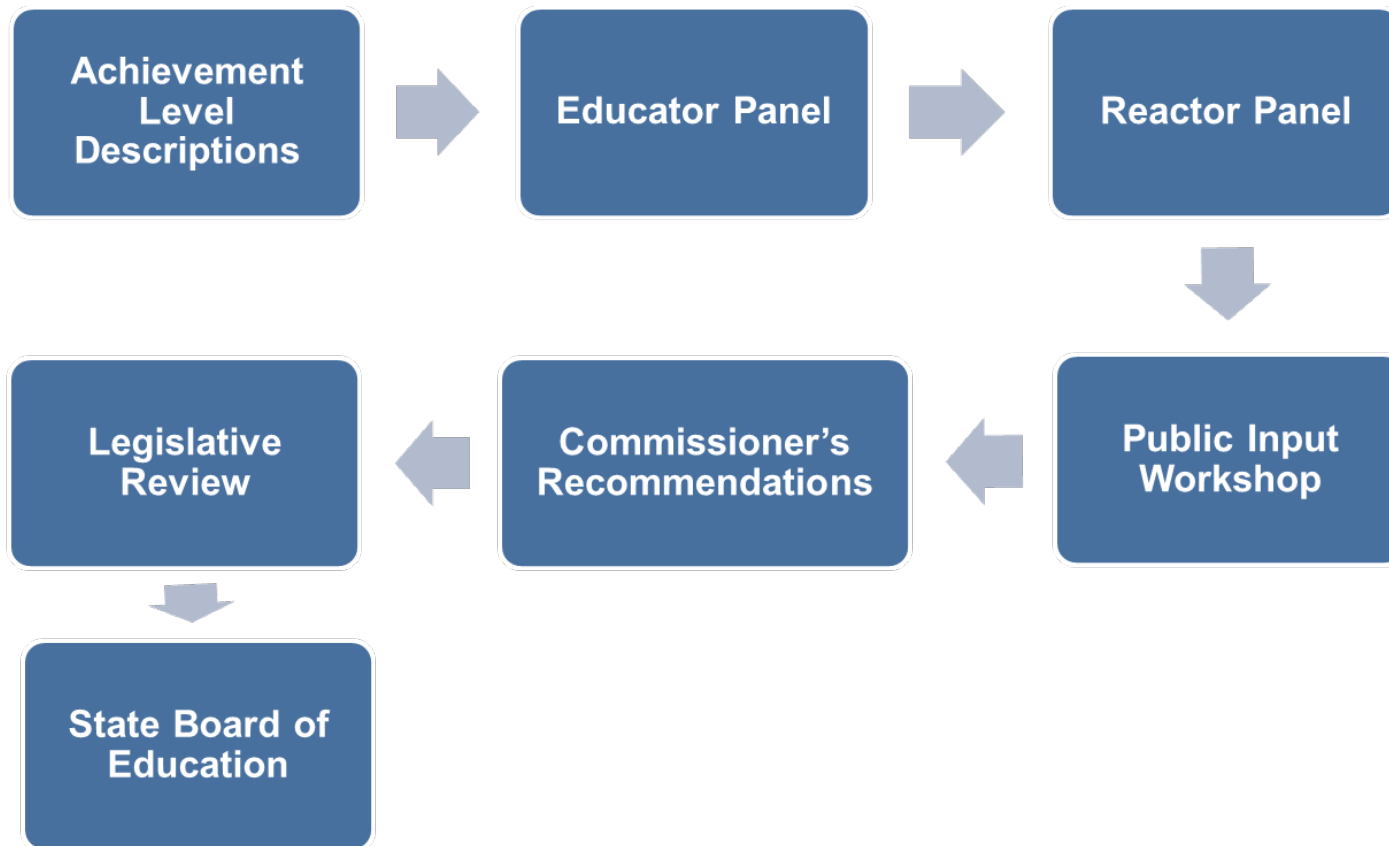
# Achievement Levels

- There are five Achievement Levels
- Requires the setting of four Achievement Level cuts

Five Achievement Levels, Four Cut Points



## Standard Setting: A Multi-Stage Process



# Standard-Setting Vocabulary

- **Content Standards:** The content that students are expected to know
- **Achievement Levels:** Levels of student achievement based on observed scale scores
- **Achievement Level Descriptions (ALDs):** Descriptions of the competencies associated with each level of achievement
- **Cut Scores (Standards):** Scores on an assessment that separate one Achievement Level from another
- **Panelists (Judges/Raters):** Those who participate in the standard-setting process (stakeholders, educators, professionals)

## Standard-Setting Vocabulary

- **Feedback Data:** Data provided to panelists to help them assess the validity and reasonableness of the standards they are recommending (e.g., median/mean cut score ratings, degree of panelist agreement)
- **Impact Data (Normative Feedback):** Data that summarize the consequences of a proposed set of cut scores (e.g., How many students' scores will be classified at Level 3?)
- **Benchmark Data:** Data that summarize Florida students' performance on national and international standardized assessments; helps determine whether FSA achievement standards are nationally and internationally competitive.

# We've Done This Before...

## 1998:

- Reading and Mathematics Achievement Levels approved for grades 4, 5, 8 and 10

## 2001:

- Reading and Mathematics Achievement Levels approved for grades 3-10
- Grade 10 FCAT Reading and Mathematics passing scores established

## 2011:

- FCAT 2.0 Reading (grades 3-10) and Mathematics (3-8) Achievement Levels approved
- Algebra 1 EOC Assessment Achievement Levels approved
- Grade 10 FCAT 2.0 Reading and EOC assessment passing scores established in rule as the minimum score in Achievement Level 3

## 2012:

- FCAT 2.0 Science (grades 5 and 8) Achievement Levels approved
- Biology 1 and Geometry EOC Assessment Achievement Levels approved

## 2013:

- U.S. History EOC Assessment Achievement Levels approved

## 2014:

- Civics EOC Assessment Achievement Levels approved

## Important Dates

- Achievement Level Description (ALD) Panel:  
April 28–May 1
  - Tallahassee, Florida
- Educator Panel: August 31–September 4, 2015
  - Orlando, Florida
- Reactor Panel: September 10–11, 2015
  - Orlando, Florida

## Achievement Level Description Panel

- April 28–May 1, 2015
- Four-day workshop
- Forty-two panelists
- Described achievement levels for content standards by grade and subject
  - Specify what students in each achievement level are expected to know and be able to do
  - ALDs are the link between content and achievement standards



## Standard Setting Educator Panel

- August 31–September 4, 2015
- Five-day standard-setting workshop
- Four rounds of standard setting
- Over 300 panelists
- Seventeen rooms of 16-21 panelists per room setting standards concurrently
  - Recommending cut scores based primarily on content, though impact and benchmark data is reviewed after the first two rounds of judgments

## Standard Setting Reactor Panel

- September 10–11, 2015
- Two-day meeting composed of
  - community/education organization leaders
  - state university leaders
  - business leaders
  - school board members
  - superintendents
- Review educator panel recommended cut scores, impact data, and benchmark data
- Two rounds of judgment
- 16 panelists

## Educator Panel Overview

- Main activities
  - Table leader training
  - General session—overview of process
  - Grade/subject-specific training
  - Panelists did the following:
    - took the test in the appropriate mode (paper or online) by grade and subject
    - reviewed the content standards
    - reviewed achievement level descriptions
    - created “just barely” summary ALDs
    - reviewed the ordered item booklet
  - Recommend four achievement standards in four rounds

## Standard-Setting Method

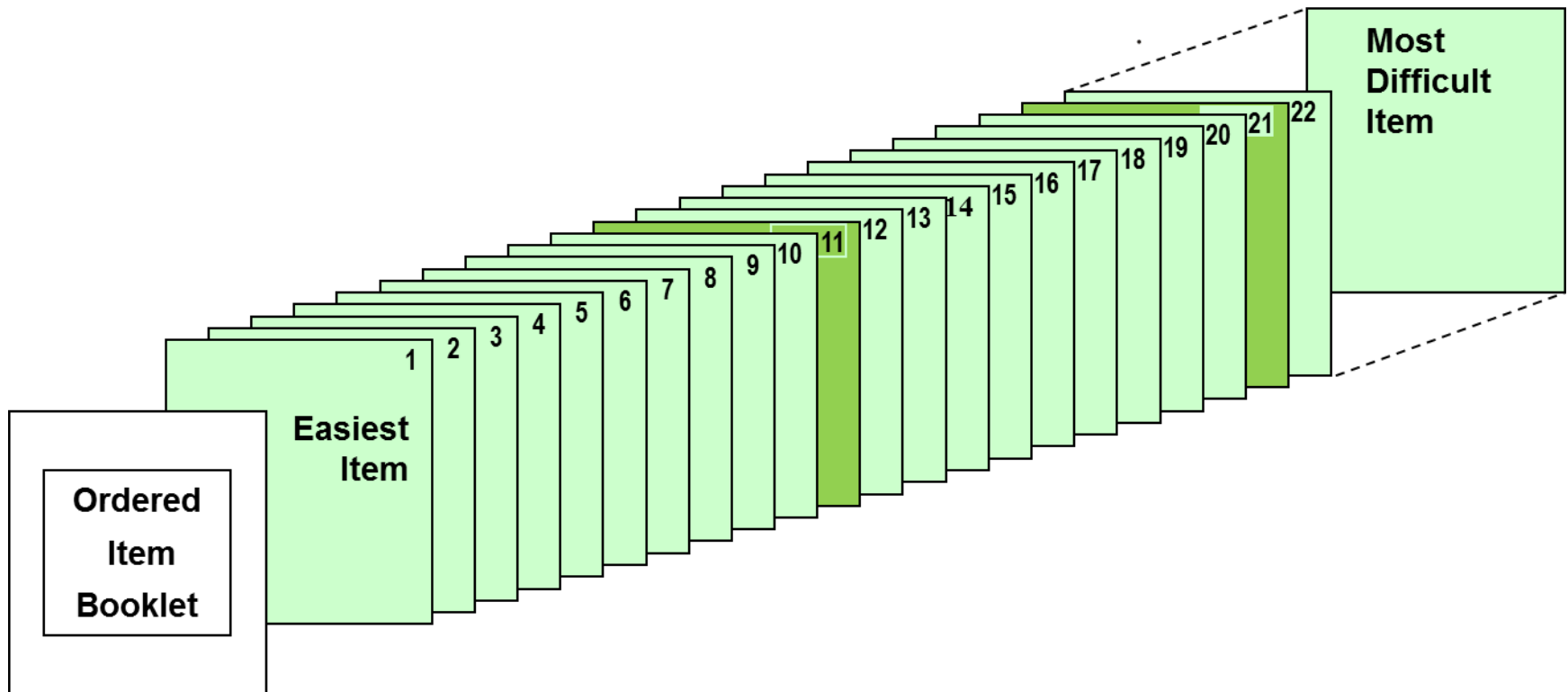
- **Bookmark Method**—One of a number of approaches available for standard setting
  - One of the most widely used and most defensible methods
  - Research-based procedure
  - Used in many state assessment programs, including FCAT
  - Proven to be technically sound

Mitzel, H. C., Lewis, D. M., Patz, R. J. & Green, D. R. (2001). The Bookmark procedure: Psychological perspectives. In: G. Cizek (Ed.), Setting performance standards: Concepts, methods and perspectives. Mahwah, NJ: Erlbaum.

## **Standard-Setting Method – “Ordered item Booklets (OIBs)”**

- Primary tool panelists used to set their cut scores
- A collection of FSA test items that Florida students took this spring.
- OIBs are ordered from the easiest items to the hardest items, based solely on Florida student performance on each item. This is not the order in which students saw the items.
- Most items were “operational”, which meant that they contributed to students’ scores.
- Some items were field test items, meaning they may appear in future FSA administrations.

# Bookmarking Pages in the Ordered Item Booklet



## **Mechanics of the Bookmark Method**

- Initial judgment based solely on test content of the Ordered Item Booklet (round 1)
- Articulation – how cut scores appear across grades in Grades 3-10 ELA and Grades 3-8 mathematics (round 2)
- Impact data – how many students would be in each achievement level, and how subgroups would perform based on recommended cut scores (round 3)
- Benchmarking – how students would compare on FSA vs. international assessments (round 4)

# Standard Setting Process

## Achievement Level Policy Definitions

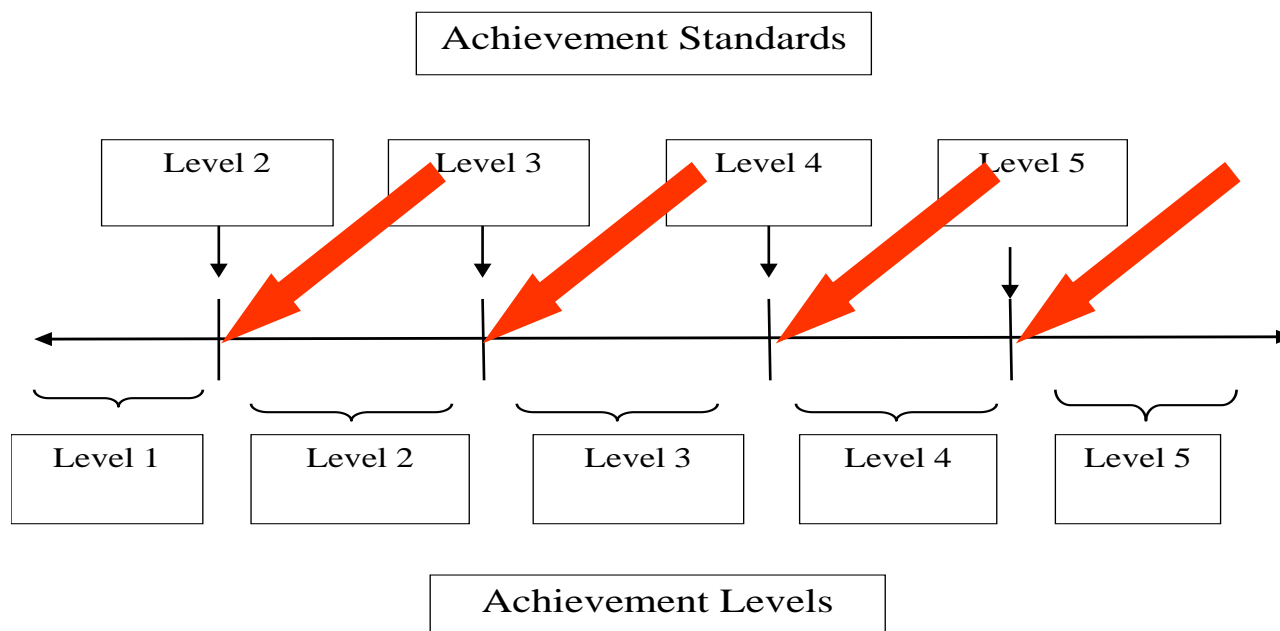
- Achievement Level Policy Definitions – describe student achievement of Florida Standards at each achievement level

Level 1	Level 2	Level 3	Level 4	Level 5
Students at this level demonstrate an <b>inadequate</b> level of success with the challenging content of the <i>Florida Standards</i> .	Students at this level demonstrate a <b>below satisfactory</b> level of success with the challenging content of the <i>Florida Standards</i> .	Students at this level demonstrate a <b>satisfactory</b> level of success with the challenging content of the <i>Florida Standards</i> .	Students at this level demonstrate an <b>above satisfactory</b> level of success with the challenging content of the <i>Florida Standards</i> .	Students at this level demonstrate <b>mastery</b> of the most challenging content of the <i>Florida Standards</i> .



## Just Barely Achievement Level Description

- When considering each achievement level, we are interested in those students who just barely reach the standard
- Not typical of students in achievement level. Although just barely, they do reach the standard.
- When considering recommended cut scores, remember that the achievement level cuts describe the students that “just barely” reach the achievement standard.



## Setting Standards Is Aspirational

- Standard setting is all about what students **should** know and be able to do, not about what they currently know and are able to do.
- The goal is to set standards for **all students** across the state.

## Educator Panel Characteristics

- The following slides describe relevant demographic characteristics of Educator Panel participants
  - Overall
  - Gender
  - Ethnicity
  - District Size
  - Region

## Educator Panelists

ELA Grade	3	4	5	6	7	8	9	10	Total
N	17	19	18	21	16	16	16	18	141

Mathematics Grade	3	4	5	6	7	8	Total
N	18	19	21	17	19	16	110

EOC	Algebra1	Algebra2	Geometry	Total
N	19	16	16	51

## Educator Panelists – Gender (ELA)

Grade	Male		Female		Not Provided		Total
	N	Percent	N	Percent	N	Percent	
3			17	100%			17
4	1	5%	18	95%			19
5	2	11%	15	83%	1	6%	18
6	3	14%	17	81%	1	5%	21
7	1	6%	15	94%			16
8	1	6%	14	88%	1	6%	16
9	1	6%	14	88%	1	6%	16
10	2	11%	15	83%	1	6%	18
Total	11	8%	125	89%	5	4%	141

## Educator Panelists – Gender (Mathematics and EOC)

Grade/Subject	Male		Female		Total
	N	Percent	N	Percent	
3			18	100%	18
4	3	16%	16	84%	19
5	2	10%	19	90%	21
6	4	24%	13	76%	17
7	4	21%	15	79%	19
8	4	25%	12	75%	16
Mathematics Total	17	15%	93	85%	110
Algebra 1	6	32%	13	68%	19
Algebra 2	3	19%	13	81%	16
Geometry	3	19%	13	81%	16
EOC Total	12	24%	39	76%	51

## Educator Panelists – Ethnicity (ELA)

Grade	White		African American		Hispanic		Native American		Asian		Other		Not Provided		Total
	N	%	N	%	N	%	N	%	N	%	N	%			N
3	13	76%	2	12%	2	12%									17
4	14	74%	2	11%	2	11%							1	5%	19
5	12	67%	2	11%	1	6%	2	11%			1	6%			18
6	16	76%	2	10%	2	10%							1	5%	21
7	12	75%	2	13%	2	13%									16
8	13	81%	2	13%	1	6%									16
9	14	88%	2	13%											16
10	10	56%	4	22%			1	6%	1	6%	1	6%	1	6%	18
Total	104	74%	18	13%	10	7%	3	2%	1	1%	2	1%	3	2%	141

# Educator Panelists – Ethnicity (Mathematics and EOC)

Grade/ Subject	White		African American		Hispanic		Native American		Asian		Other		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N
3	12	67%	2	11%	3	17%					1	6%	18
4	16	84%	1	5%	1	5%			1	5%			19
5	14	67%	4	19%	1	5%			1	5%	1	5%	21
6	12	71%	2	12%	2	12%					1	6%	17
7	13	68%	4	21%	2	11%							19
8	11	69%	3	19%		0%			2	13%			16
<b>Mathematics Total</b>	<b>78</b>	<b>71%</b>	<b>16</b>	<b>15%</b>	<b>9</b>	<b>8%</b>			<b>4</b>	<b>4%</b>	<b>3</b>	<b>3%</b>	<b>110</b>
Algebra 1	10	53%	5	26%	3	16%	1	5%					19
Algebra 2	12	75%	1	6%	1	6%			2	13%			16
Geometry	12	75%			2	13%					2	13%	16
<b>EOC Total</b>	<b>34</b>	<b>67%</b>	<b>6</b>	<b>12%</b>	<b>6</b>	<b>12%</b>	<b>1</b>		<b>2</b>	<b>4%</b>	<b>2</b>	<b>4%</b>	<b>51</b>



## Educator Panelists – District Size (ELA)

Grade	Large		Medium		Small		Not provided		Total
	N	Percent	N	Percent	N	Percent	N	Percent	N
3	8	47%	3	18%	5	29%	1	6%	17
4	8	42%	3	16%	8	42%			19
5	7	39%	5	28%	5	28%	1	6%	18
6	7	33%	9	43%	5	24%			21
7	8	50%	1	6%	5	31%	2	13%	16
8	7	44%	5	31%	4	25%			16
9	5	31%	6	38%	5	31%			16
10	9	50%	8	44%	1	6%			18
Total	59	42%	40	28%	38	27%	4	3%	141

## Educator Panelists – District Size (Mathematics and EOC)

Grade/ Subject	Large		Medium		Small		Not provided		Total
	N	Percent	N	Percent	N	Percent	N	Percent	N
3	8	44%	5	28%	5	28%			18
4	7	37%	7	37%	4	21%	1	5%	19
5	9	43%	7	33%	5	24%			21
6	6	35%	3	18%	8	47%			17
7	9	47%	6	32%	4	21%			19
8	9	56%	2	13%	5	31%			16
Mathematics Total	48	44%	30	27%	31	28%	1	1%	110
Algebra 1	10	53%	5	26%	3	16%	1	5%	19
Algebra 2	9	56%	2	13%	5	31%			16
Geometry	6	38%	3	19%	7	44%			16
EOC Total	25	49%	10	20%	15	29%	1	2%	51

## Educator Panelists – District Region (ELA)

Grade	Panhandle		Northeast		East Central		West Central		South		Not Provided		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N
3	3	18%	2	12%	4	24%	4	24%	4	24%			17
4	3	16%	2	11%	5	26%	4	21%	5	26%			19
5	4	22%	3	17%	3	17%	4	22%	3	17%	1	6%	18
6	3	14%	2	10%	7	33%	5	24%	4	19%			21
7	1	6%	4	25%	3	19%	3	19%	5	31%			16
8	3	19%	2	13%	5	31%	3	19%	3	19%			16
9	2	13%	4	25%	3	19%	3	19%	4	25%			16
10	5	28%	3	17%	2	11%	3	17%	5	28%			18
Total	24	17%	22	16%	32	23%	29	21%	33	23%	1	1%	141

# Educator Panelists – District Region (Mathematics and EOC)

Grade/ Subject	Panhandle		Northeast		East Central		West Central		South		Not Provided		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N
3	4	22%	3	17%	3	17%	3	17%	5	28%			18
4	4	21%	4	21%	4	21%	4	21%	3	16%			19
5	2	10%	3	14%	5	24%	6	29%	5	24%			21
6	3	18%	3	18%	3	18%	2	12%	5	29%	1	6%	17
7	4	21%	4	21%	3	16%	3	16%	5	26%			19
8	1	6%	1	6%	4	25%	3	19%	7	44%			16
<b>Mathematics Total</b>	<b>18</b>	<b>16%</b>	<b>18</b>	<b>16%</b>	<b>22</b>	<b>20%</b>	<b>21</b>	<b>19%</b>	<b>30</b>	<b>27%</b>	<b>1</b>	<b>1%</b>	<b>110</b>
Algebra 1	3	16%	2	11%	3	16%	3	16%	8	42%			19
Algebra 2	2	13%	1	6%	5	31%	3	19%	5	31%			16
Geometry	3	19%	2	13%	3	19%	3	19%	3	19%	1	6%	16
<b>EOC Total</b>	<b>8</b>	<b>16%</b>	<b>5</b>	<b>10%</b>	<b>11</b>	<b>22%</b>	<b>9</b>	<b>18%</b>	<b>16</b>	<b>31%</b>	<b>1</b>	<b>2%</b>	<b>51</b>

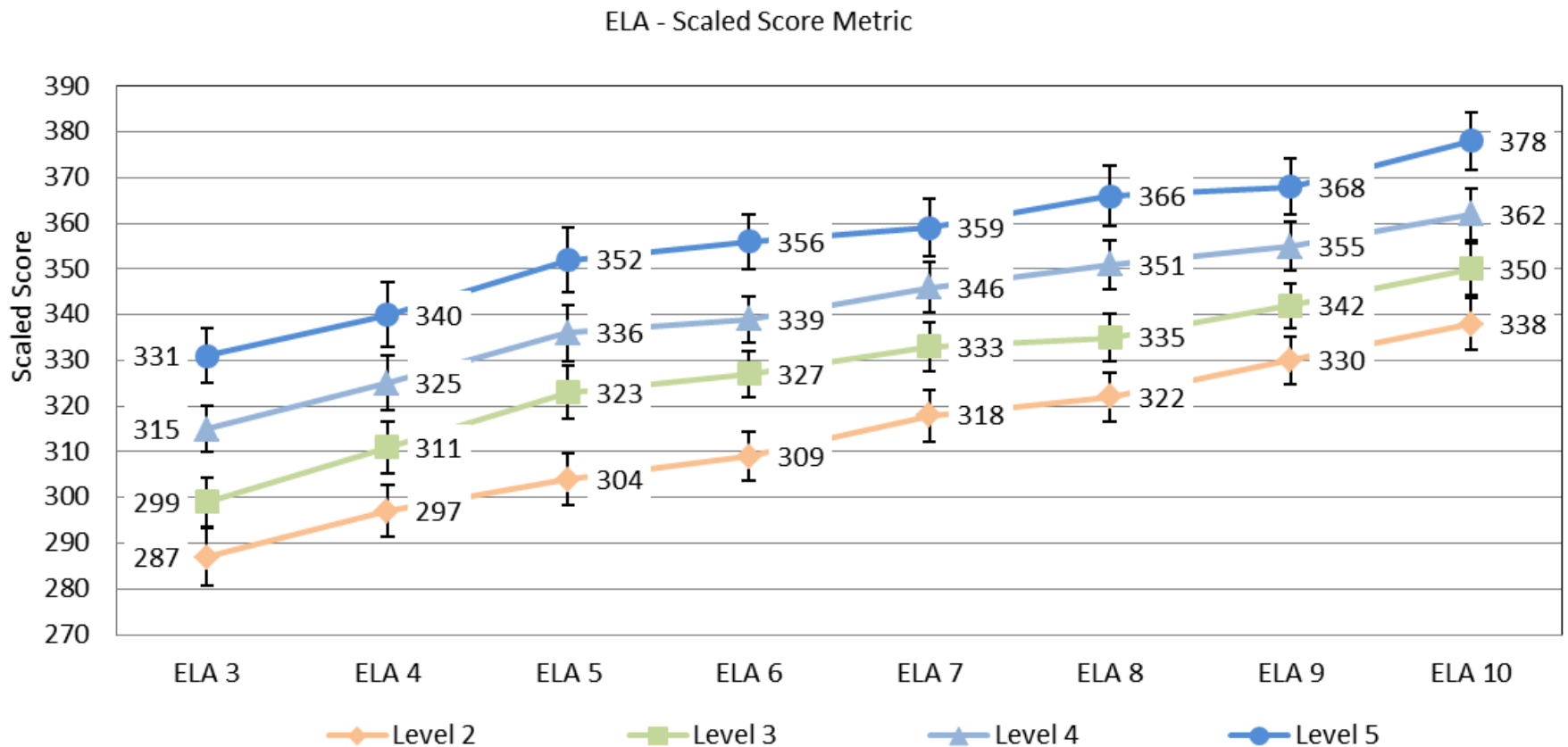
## Educator Panel – Results

- The slides that follow show the cut score final recommendations made by the Educator Panel.
- Impact data and benchmark data are also shown, to help inform your own judgments.
- Remember that educator panelist feedback is primarily based on **content**.
- Consider educator panel's content-based recommendations and compare recommendations to reactor panel's recommendations, which take into consideration impact and benchmark data.

## Educator Panel – Impact Data

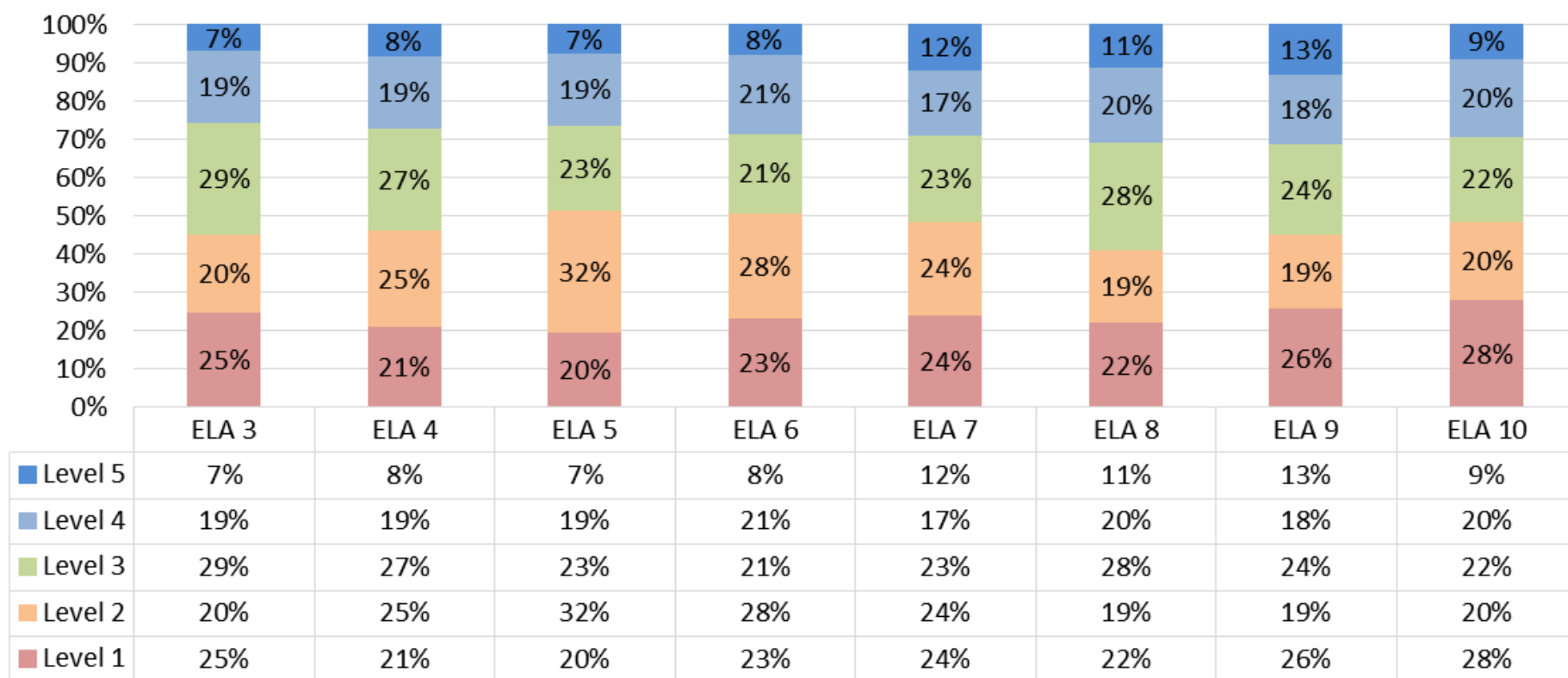
- Showed the percent of students that would reach each achievement level in each grade and subject.
- Introduced in round 3 after the panelists made judgments across two rounds based solely on content considerations.
- Impact data used as context to inform the panelists' recommendations but did not determine their recommendations.
- In the end, the panelists' recommendations were **content driven**.

# Educator Panel – Recommended ELA Cut Scores



# Educator Panel – Recommended ELA Cut Scores

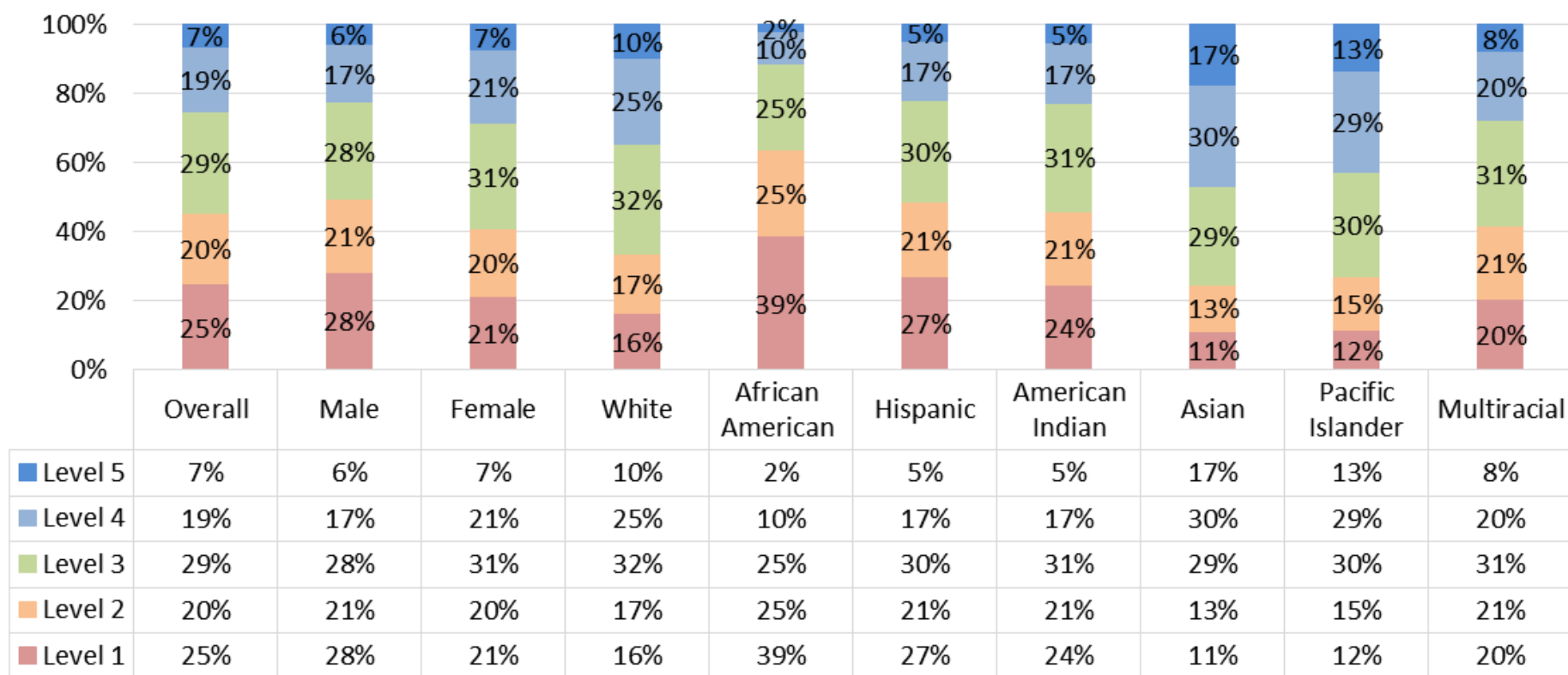
## Percent Students in each Achievement Level





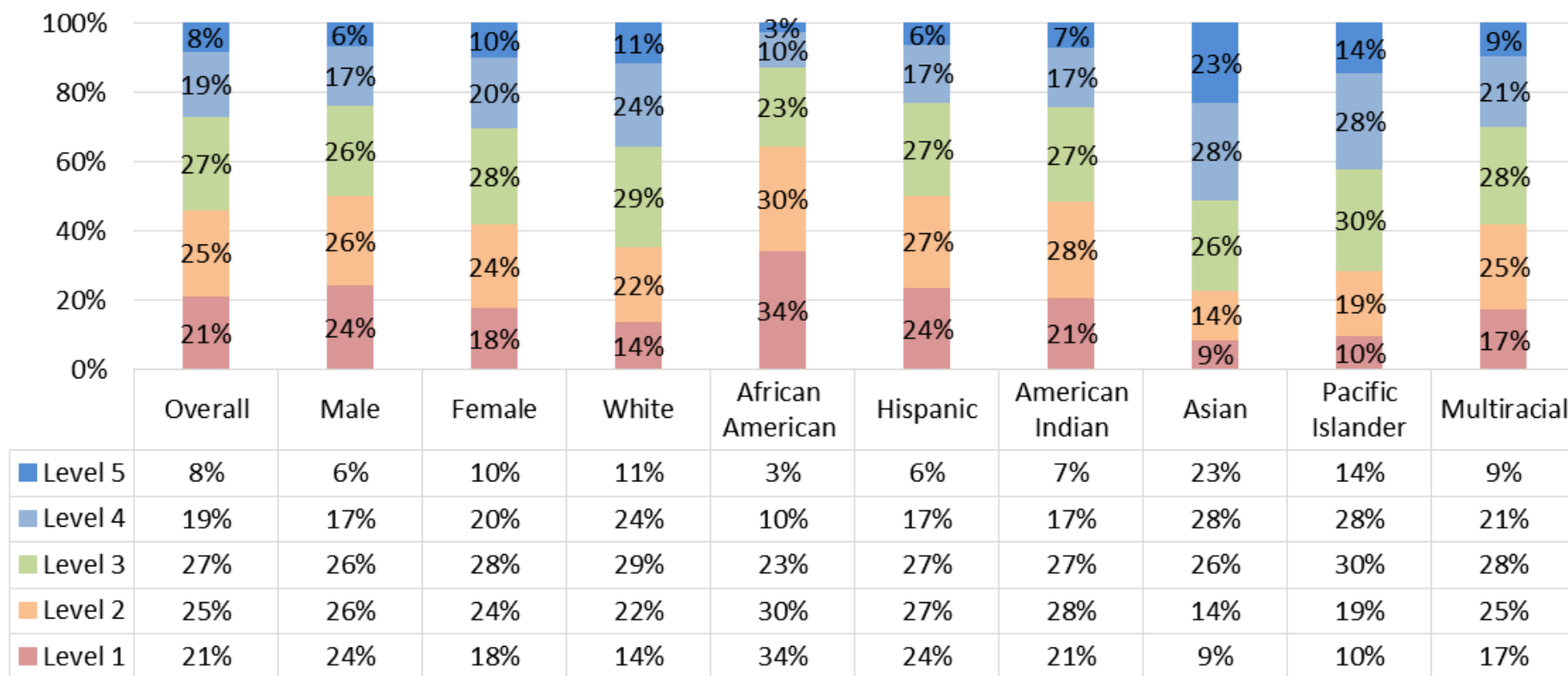
## Educator Panel – ELA Grade 3 Impact Data

**Percent Students in each Achievement Level**



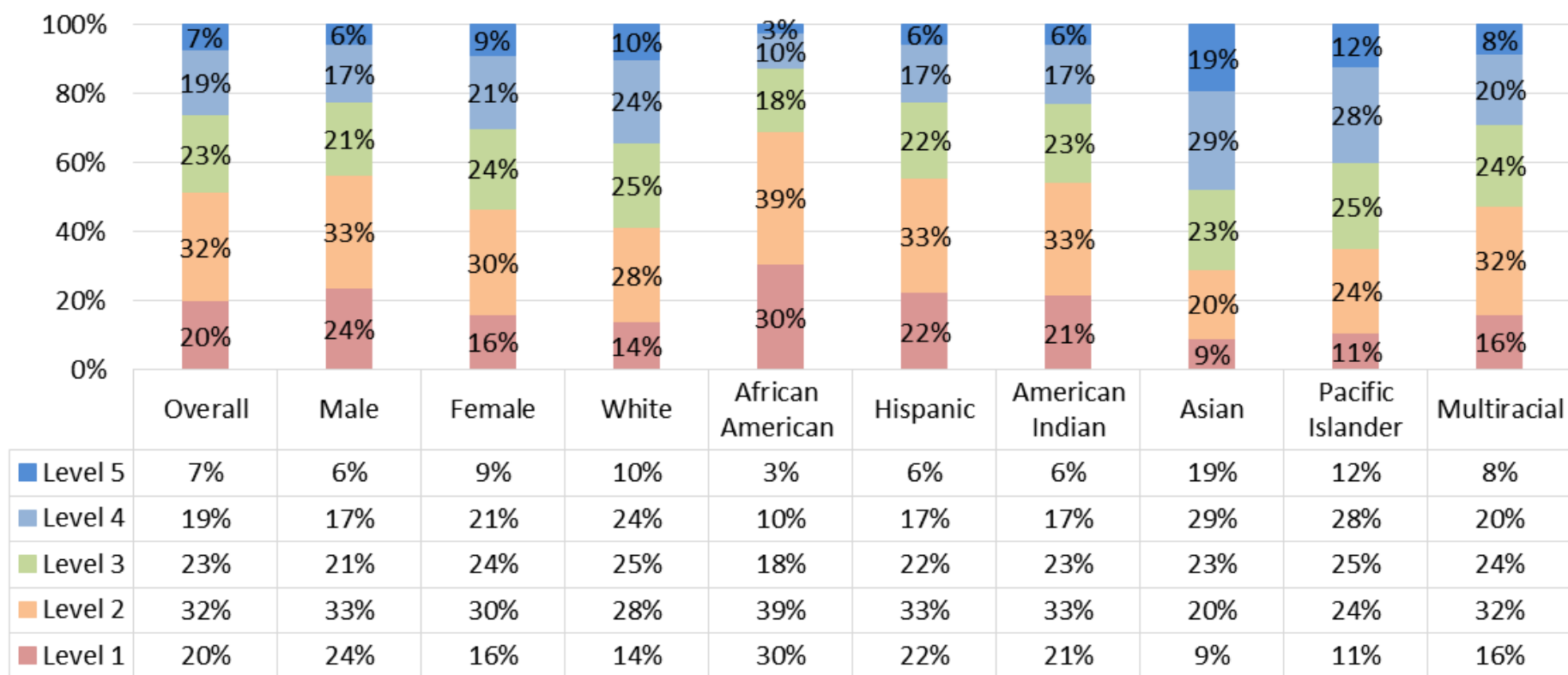
# Educator Panel – ELA Grade 4 Impact Data

## Percent Students in each Achievement Level



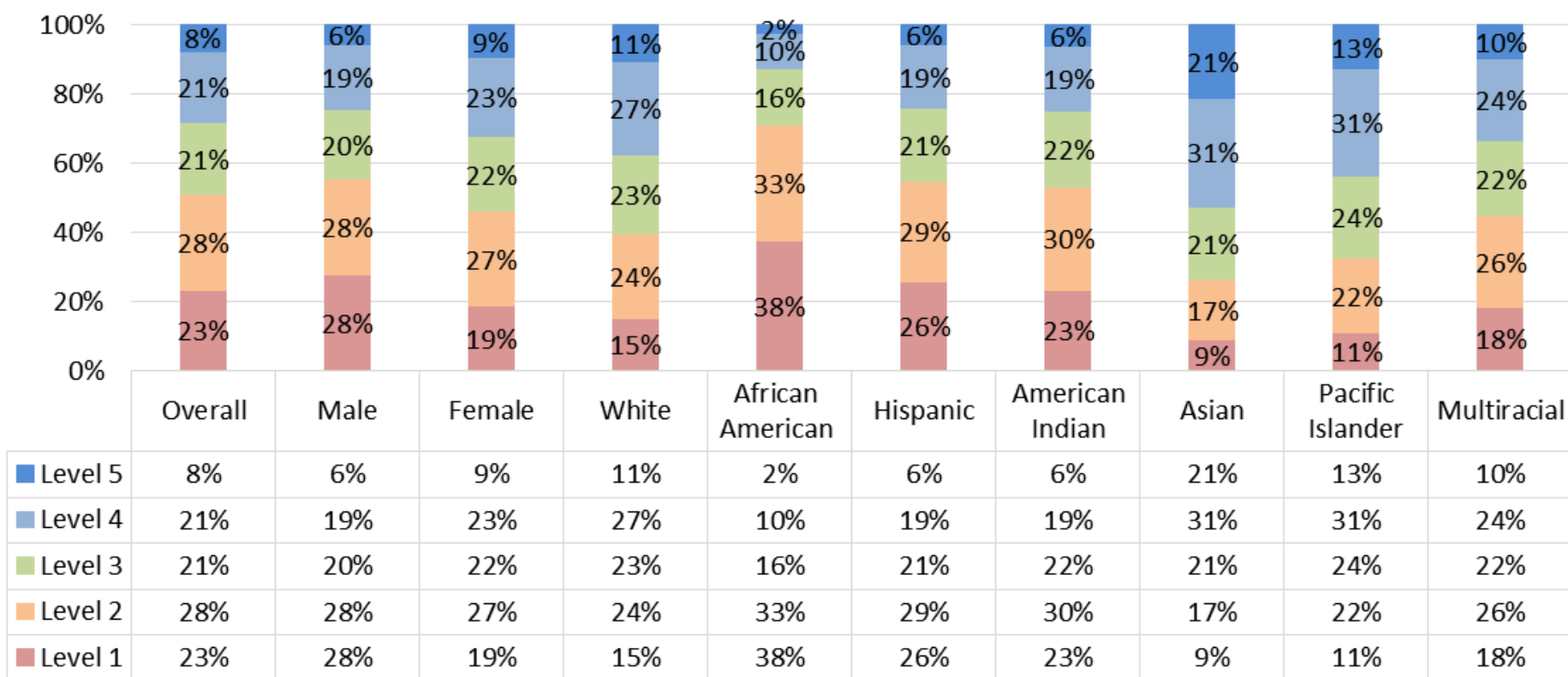
## Educator Panel – ELA Grade 5 Impact Data

**Percent Students in each Achievement Level**



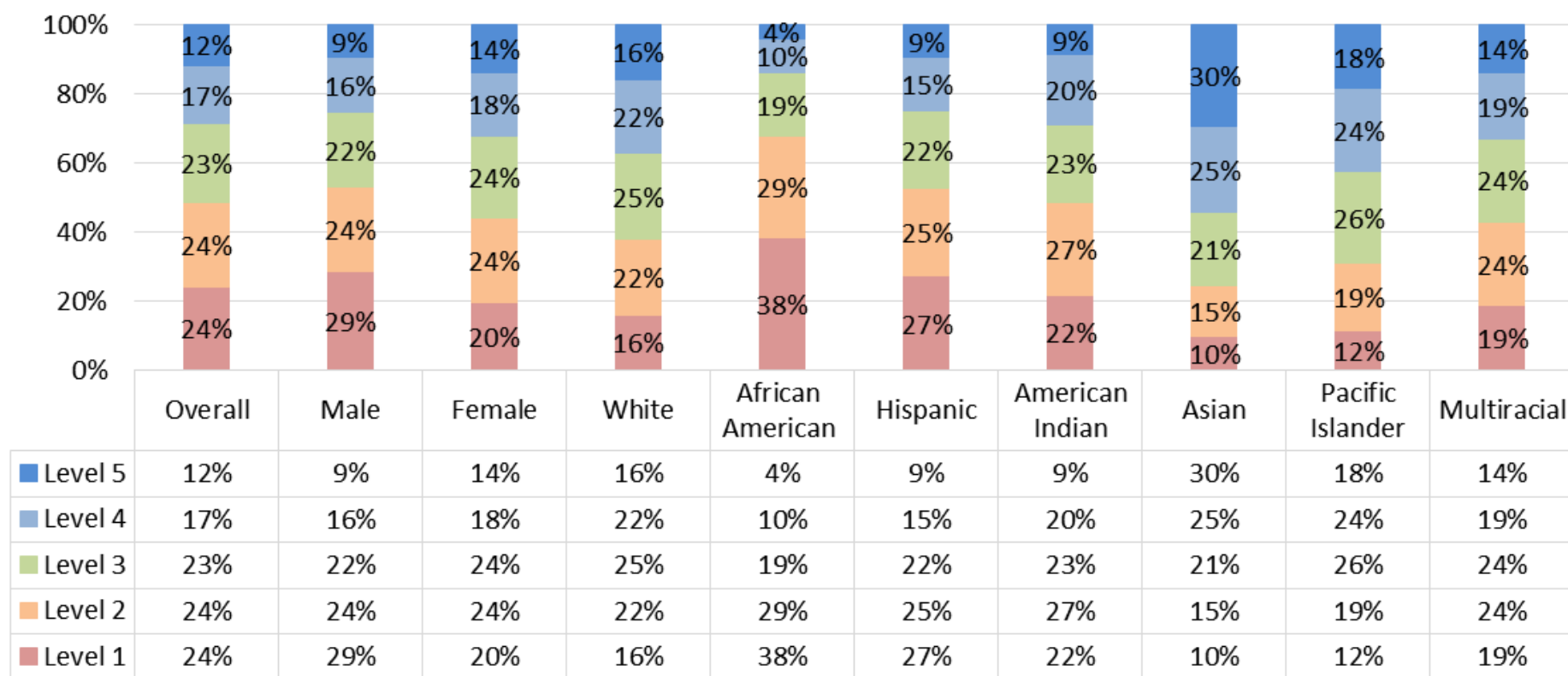
# Educator Panel – ELA Grade 6 Impact Data

## Percent Students in each Achievement Level



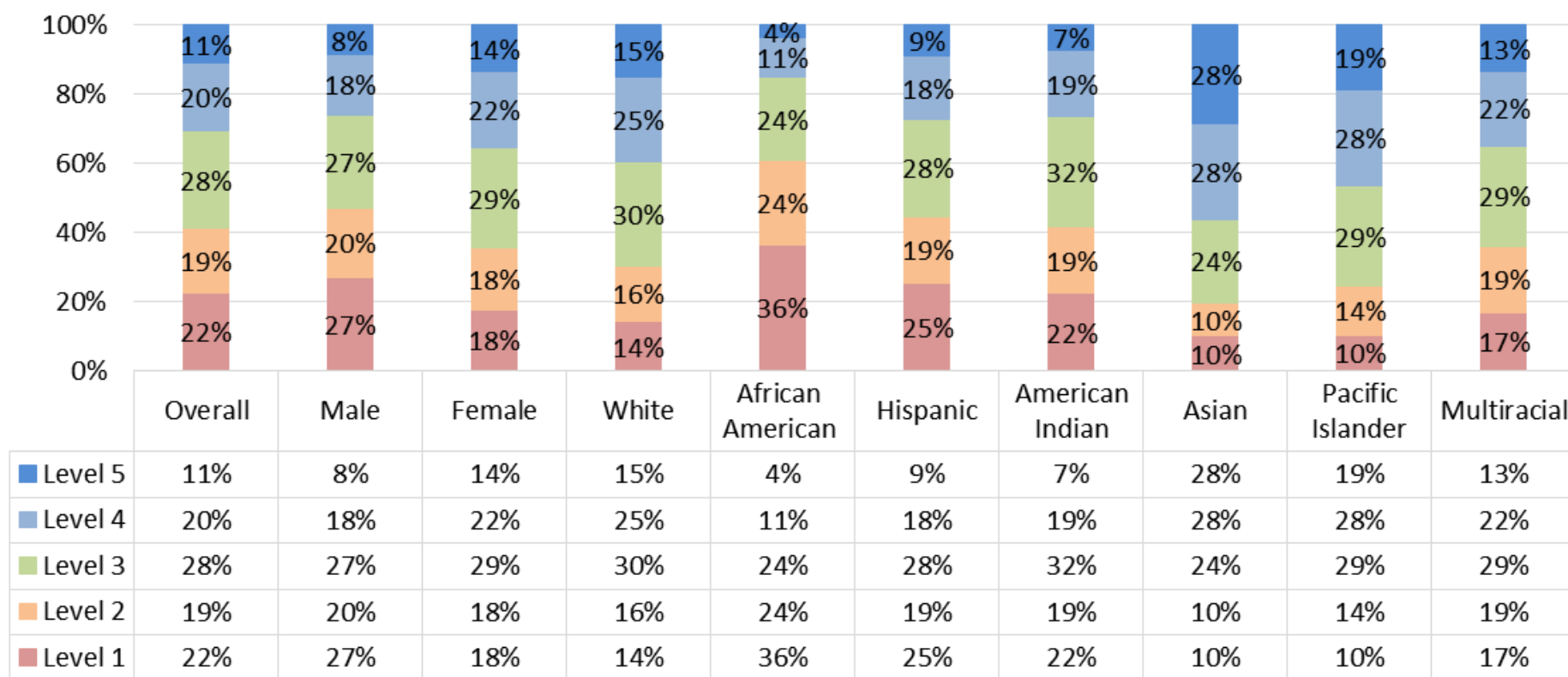
# Educator Panel – ELA Grade 7 Impact Data

## Percent Students in each Achievement Level



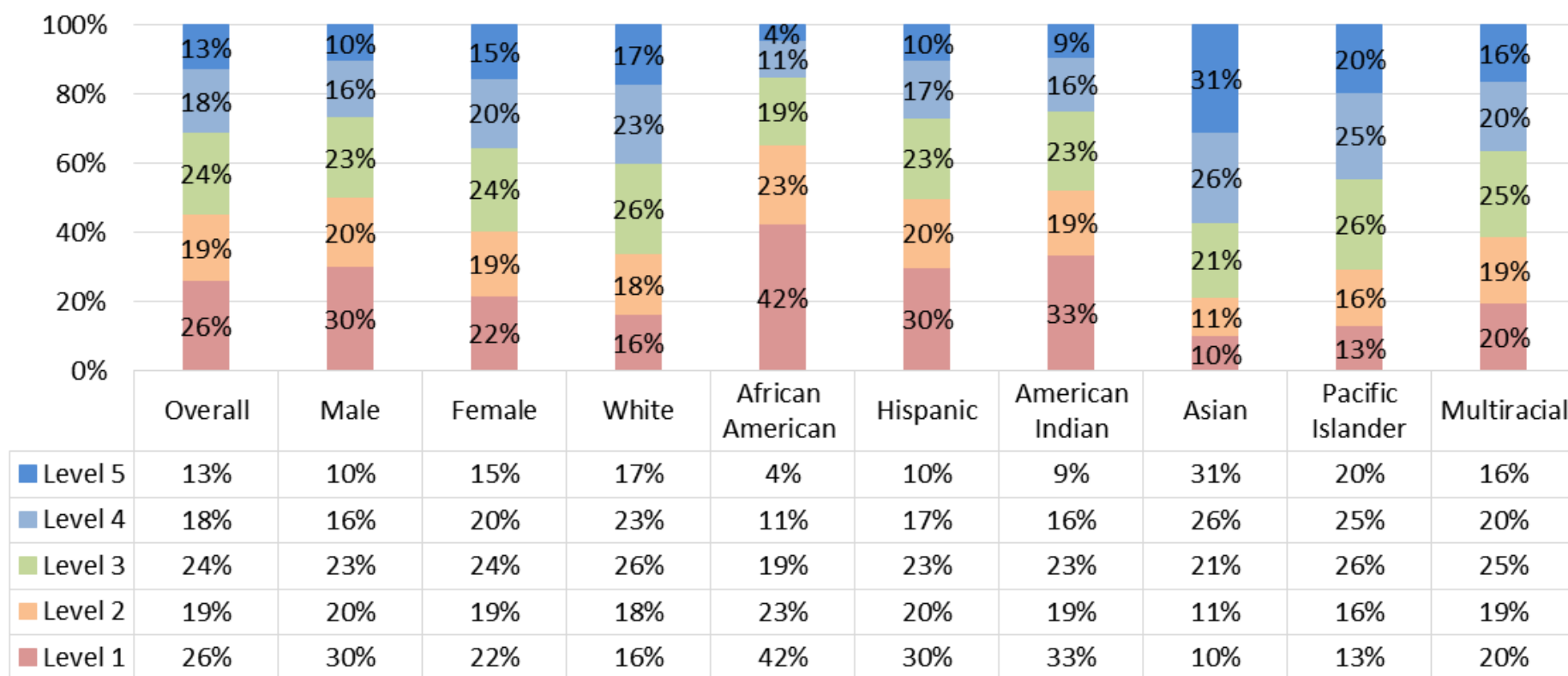
# Educator Panel – ELA Grade 8 Impact Data

## Percent Students in each Achievement Level



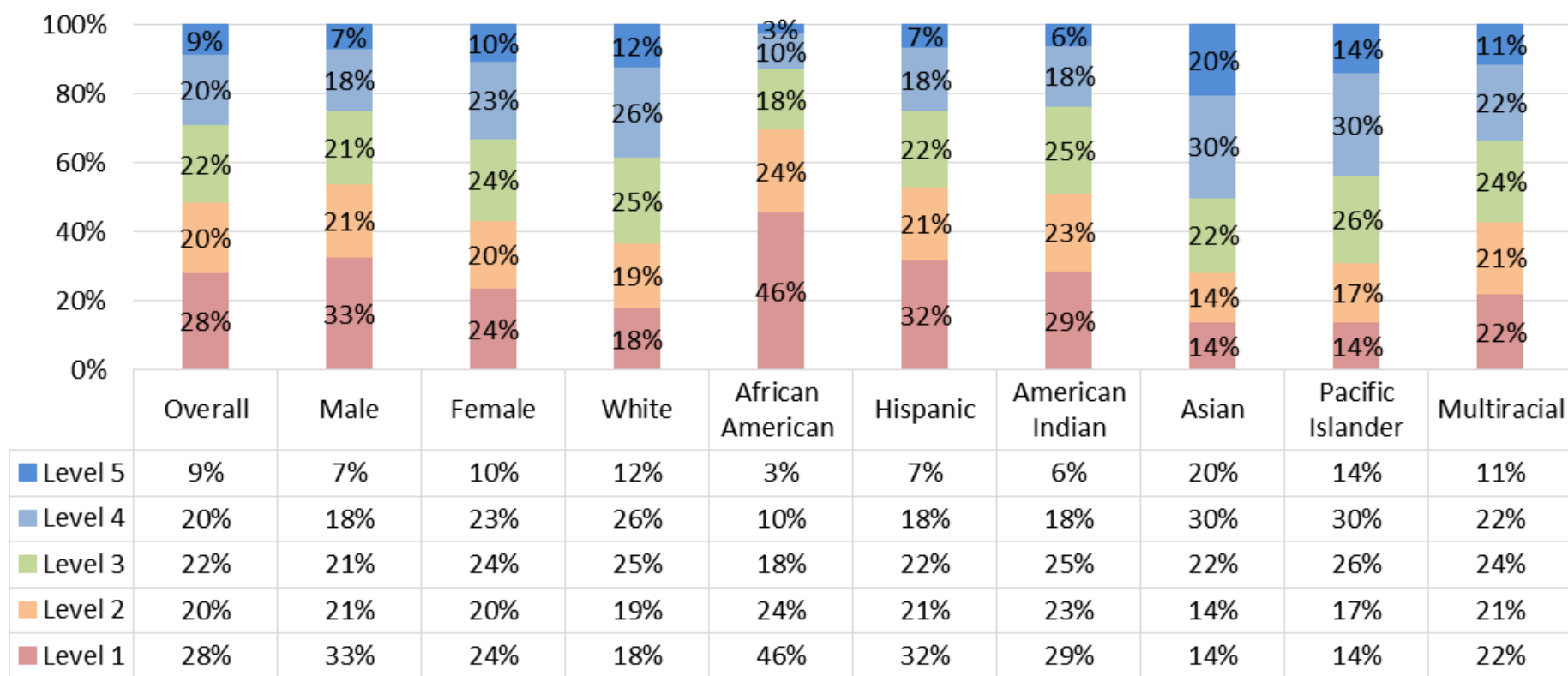
# Educator Panel – ELA Grade 9 Impact Data

## Percent Students in each Achievement Level



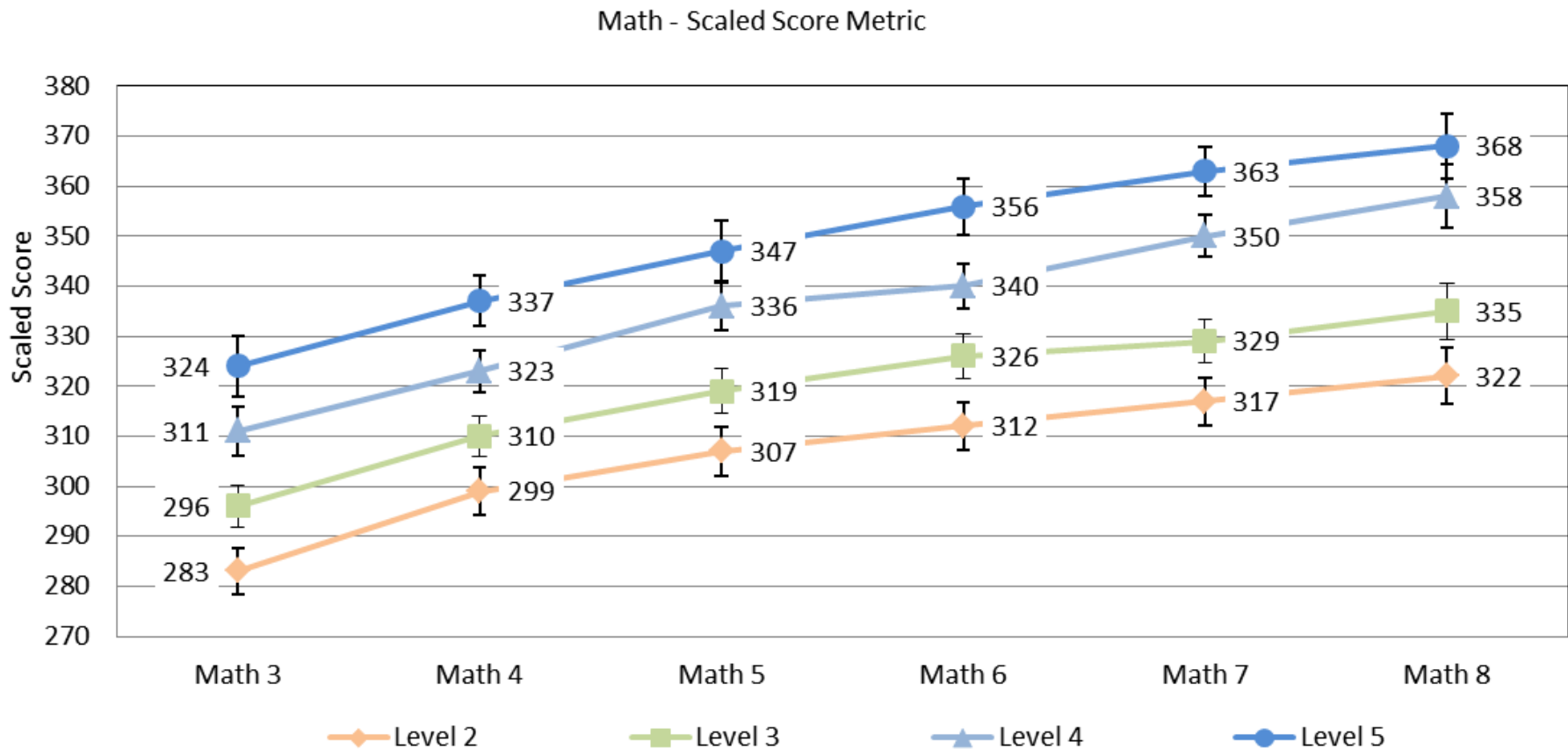
# Educator Panel – ELA Grade 10 Impact Data

## Percent Students in each Achievement Level



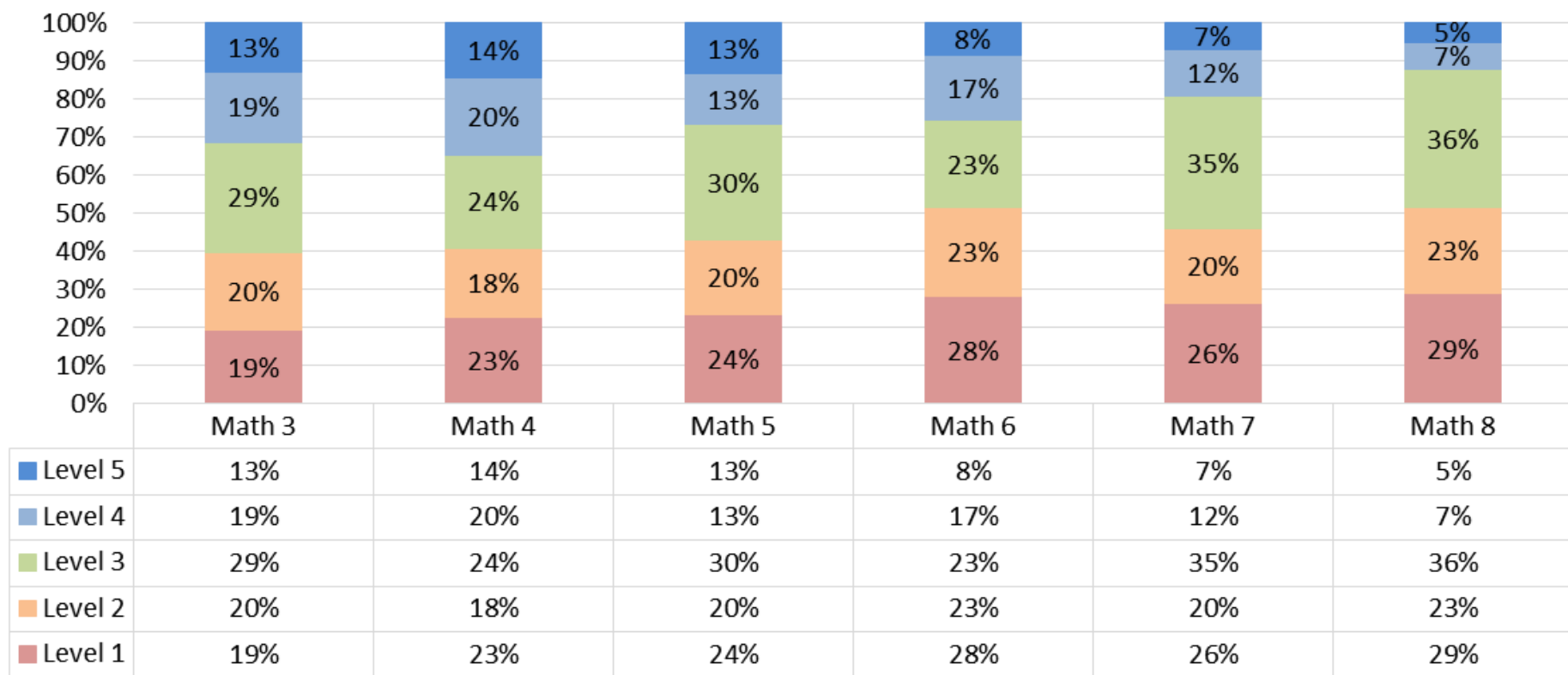


# Educator Panel – Recommended Mathematics Cut Scores



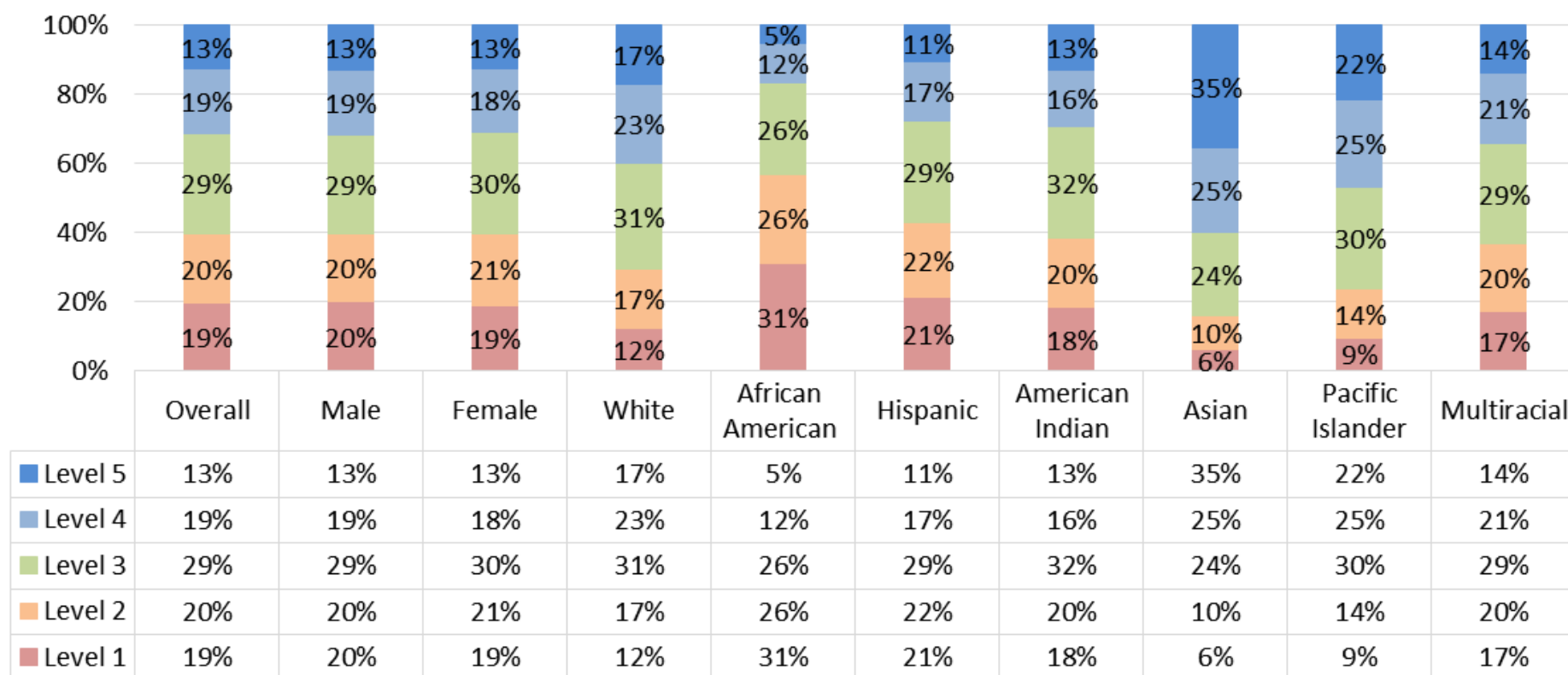
# Educator Panel – Recommended Mathematics Cut Scores

## Percent Students in each Achievement Level



# Educator Panel – Mathematics Grade 3 Impact Data

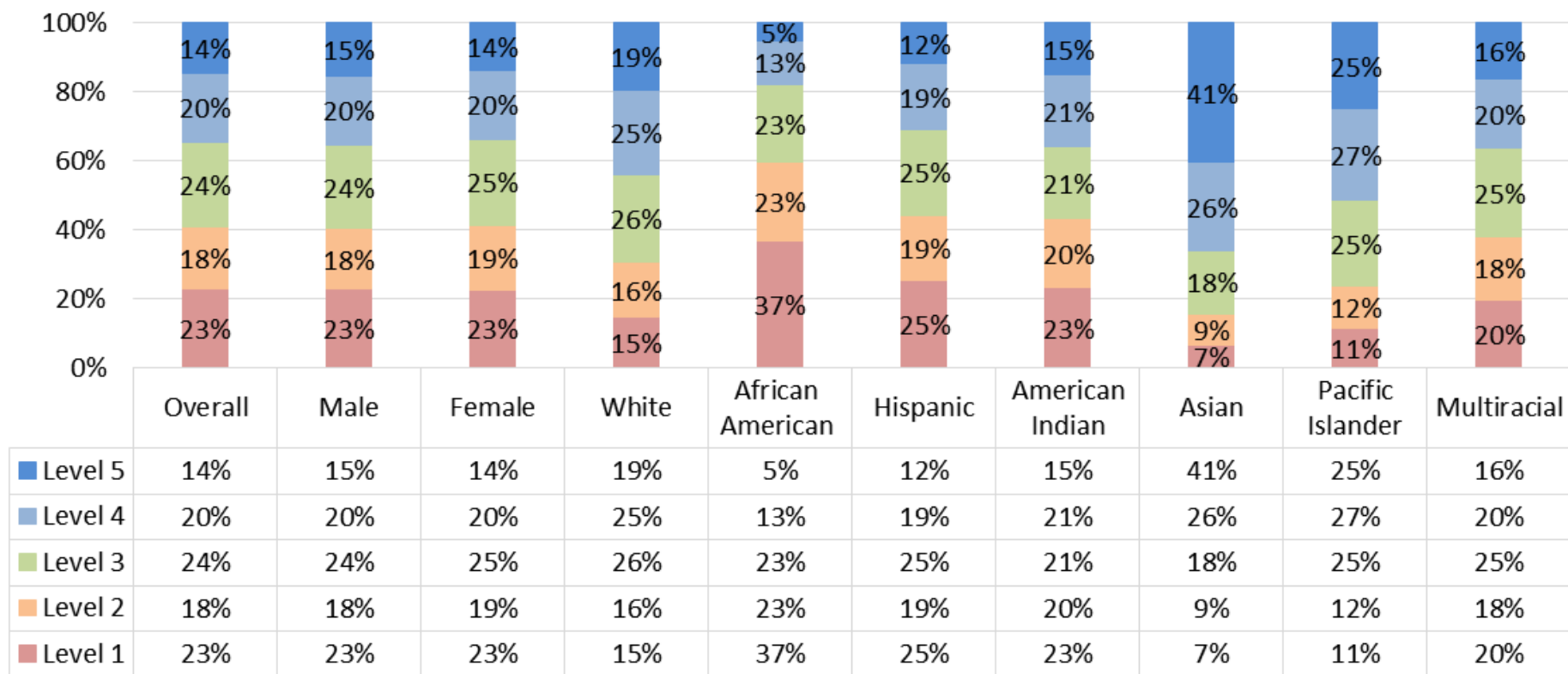
## Percent Students in each Achievement Level



# Educator Panel – Mathematics Grade 4

## Impact Data

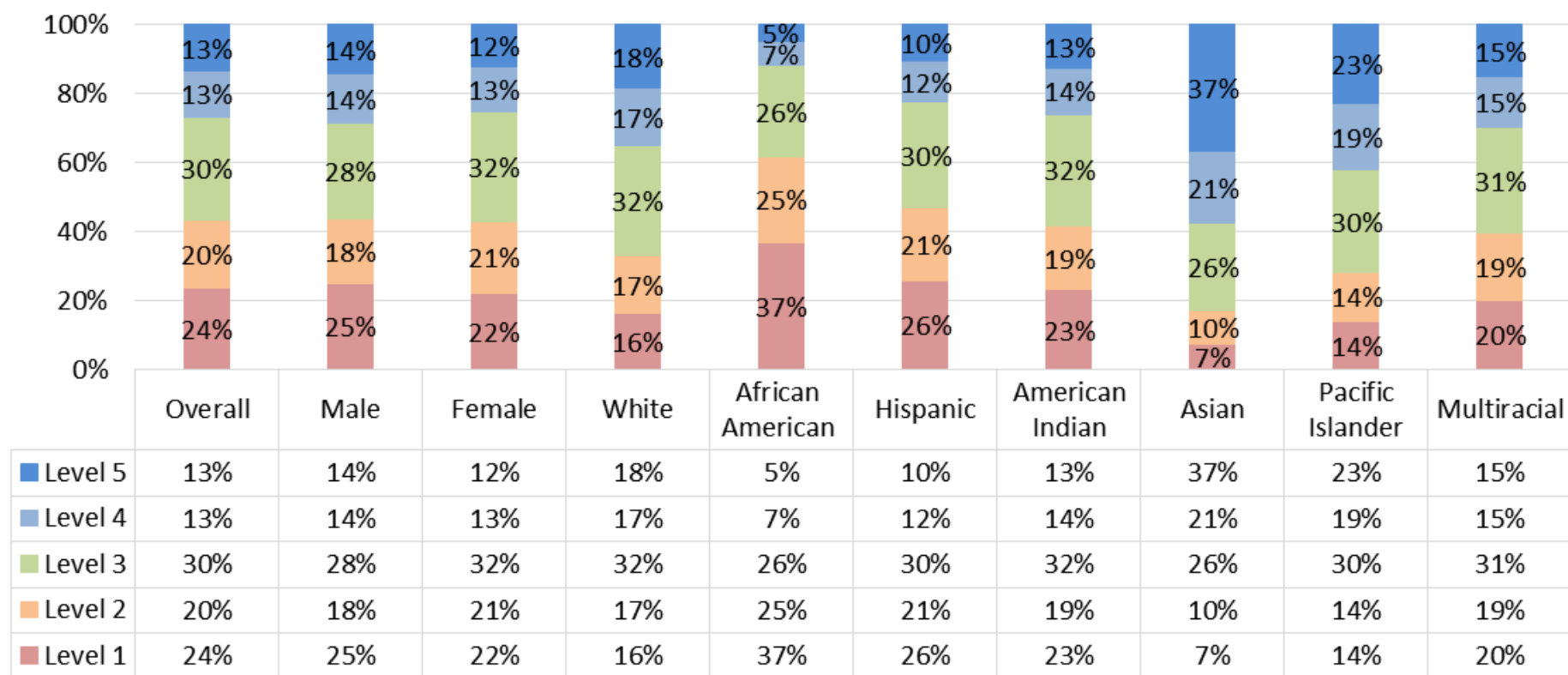
**Percent Students in each Achievement Level**



# Educator Panel – Mathematics Grade 5

## Impact Data

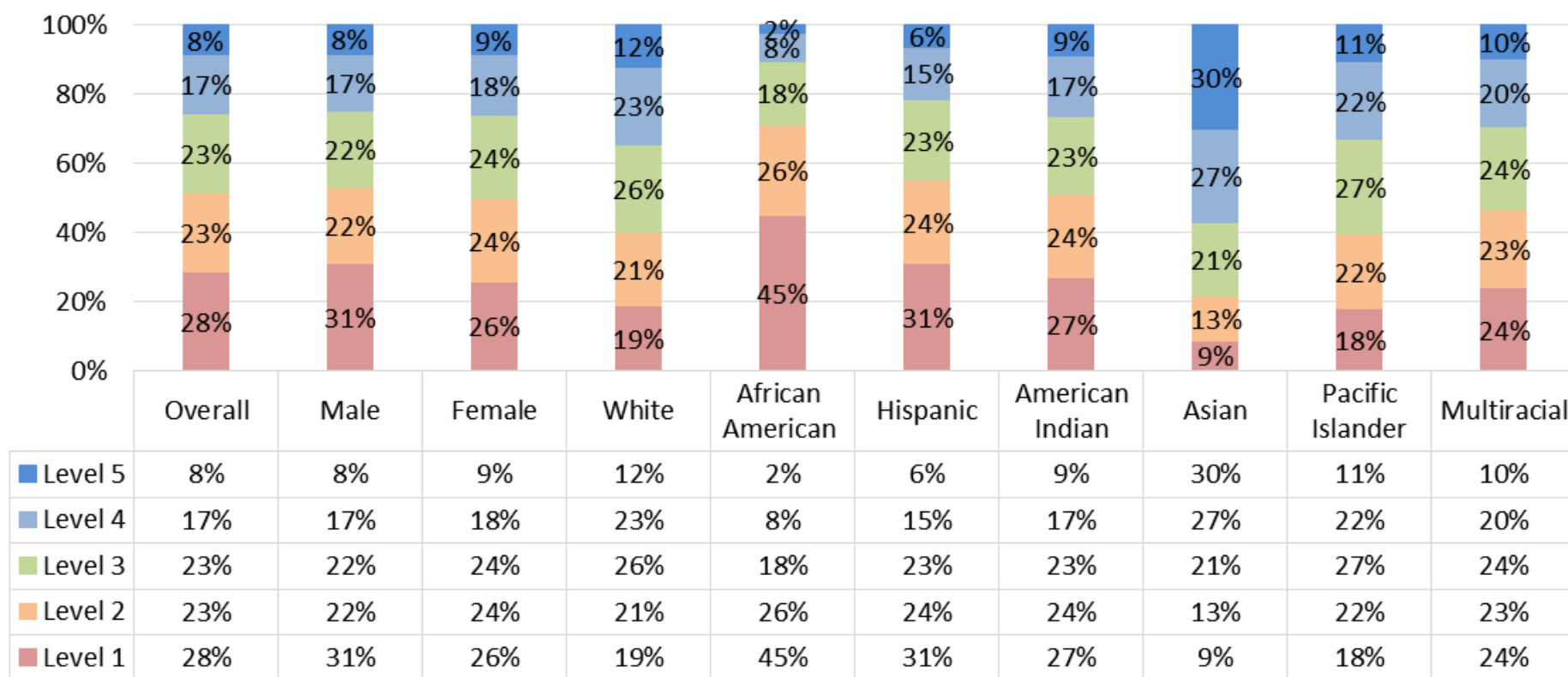
**Percent Students in each Achievement Level**



# Educator Panel – Mathematics Grade 6

## Impact Data

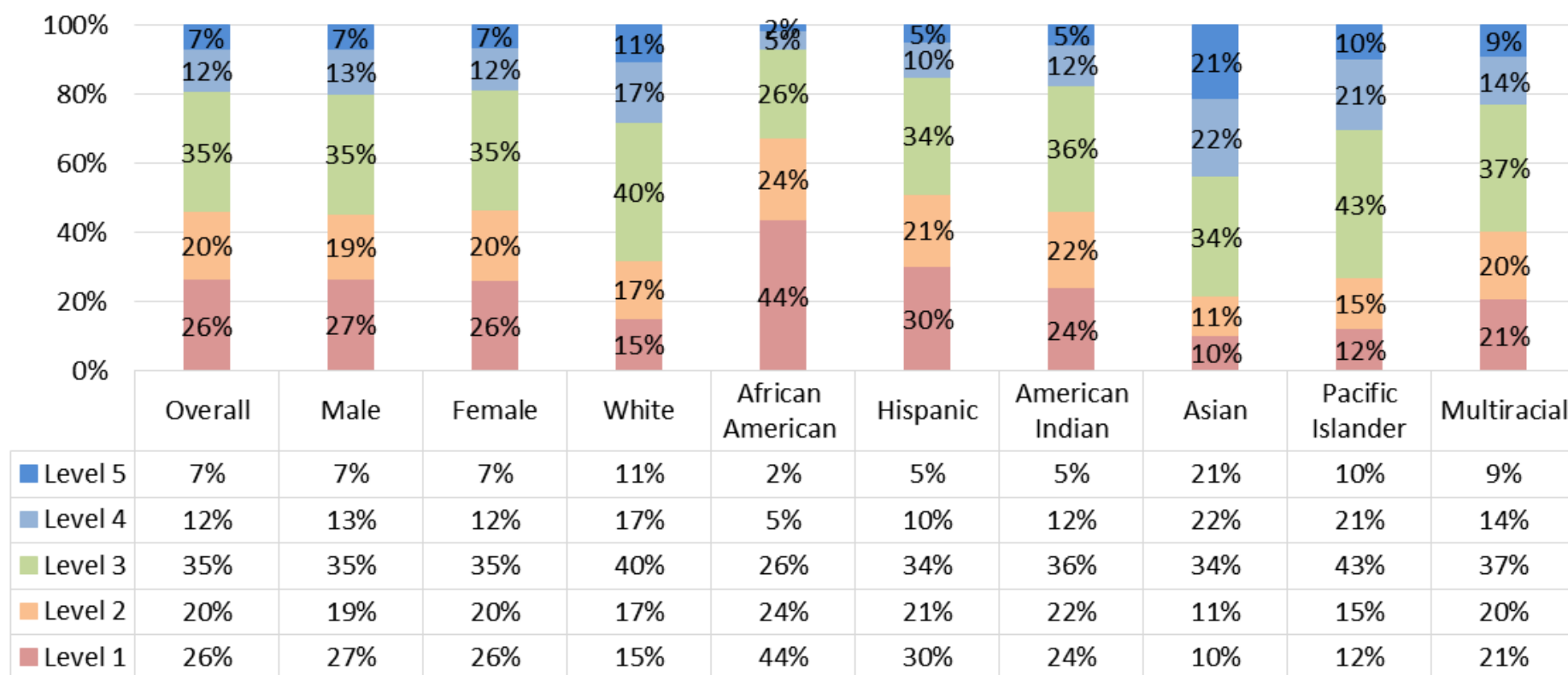
**Percent Students in each Achievement Level**



# Educator Panel – Mathematics Grade 7

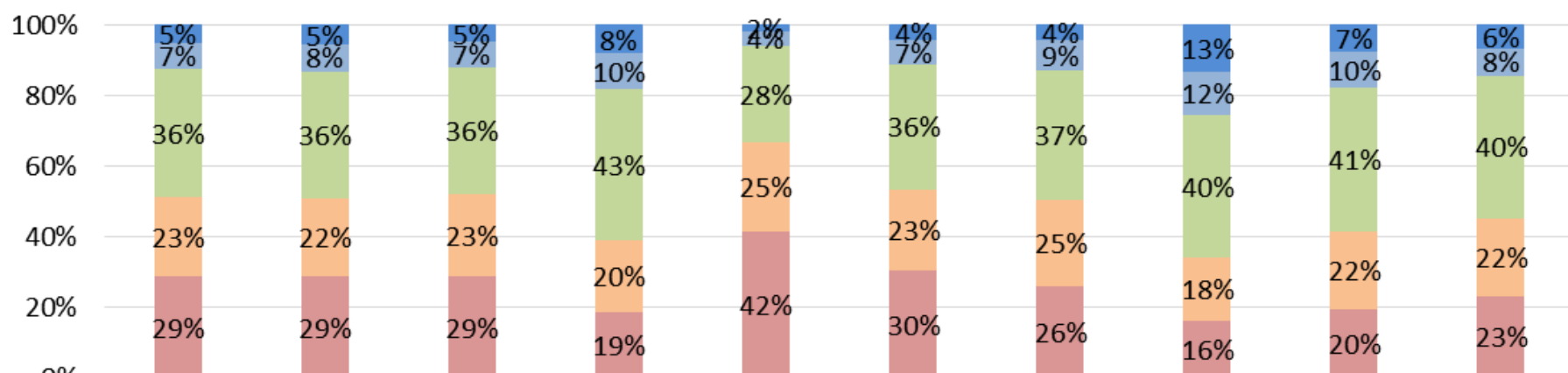
## Impact Data

### Percent Students in each Achievement Level



# Educator Panel – Mathematics Grade 8 Impact Data

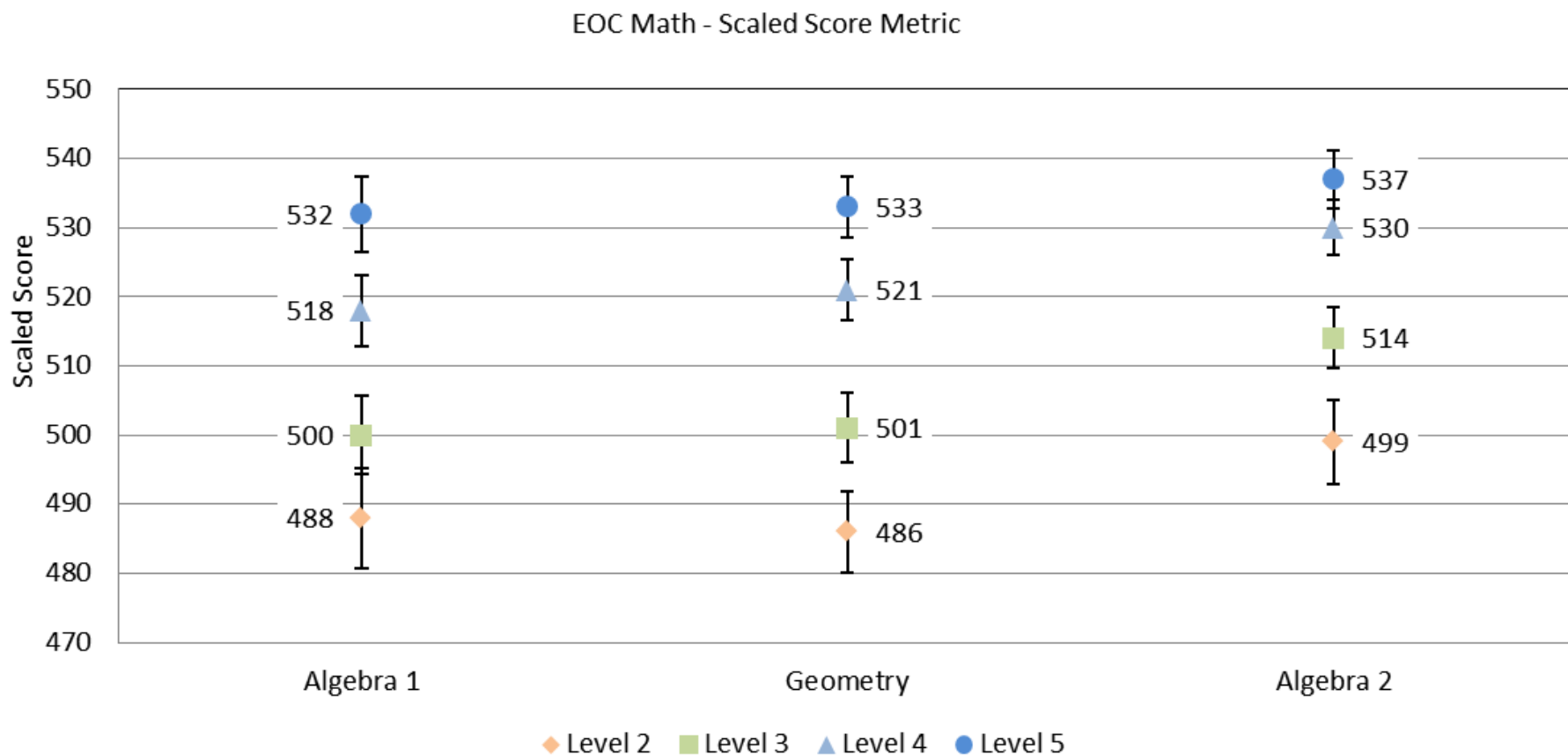
## Percent Students in each Achievement Level



	Overall	Male	Female	White	African American	Hispanic	American Indian	Asian	Pacific Islander	Multiracial
Level 5	5%	5%	5%	8%	2%	4%	4%	13%	7%	6%
Level 4	7%	8%	7%	10%	4%	7%	9%	12%	10%	8%
Level 3	36%	36%	36%	43%	28%	36%	37%	40%	41%	40%
Level 2	23%	22%	23%	20%	25%	23%	25%	18%	22%	22%
Level 1	29%	29%	29%	19%	42%	30%	26%	16%	20%	23%

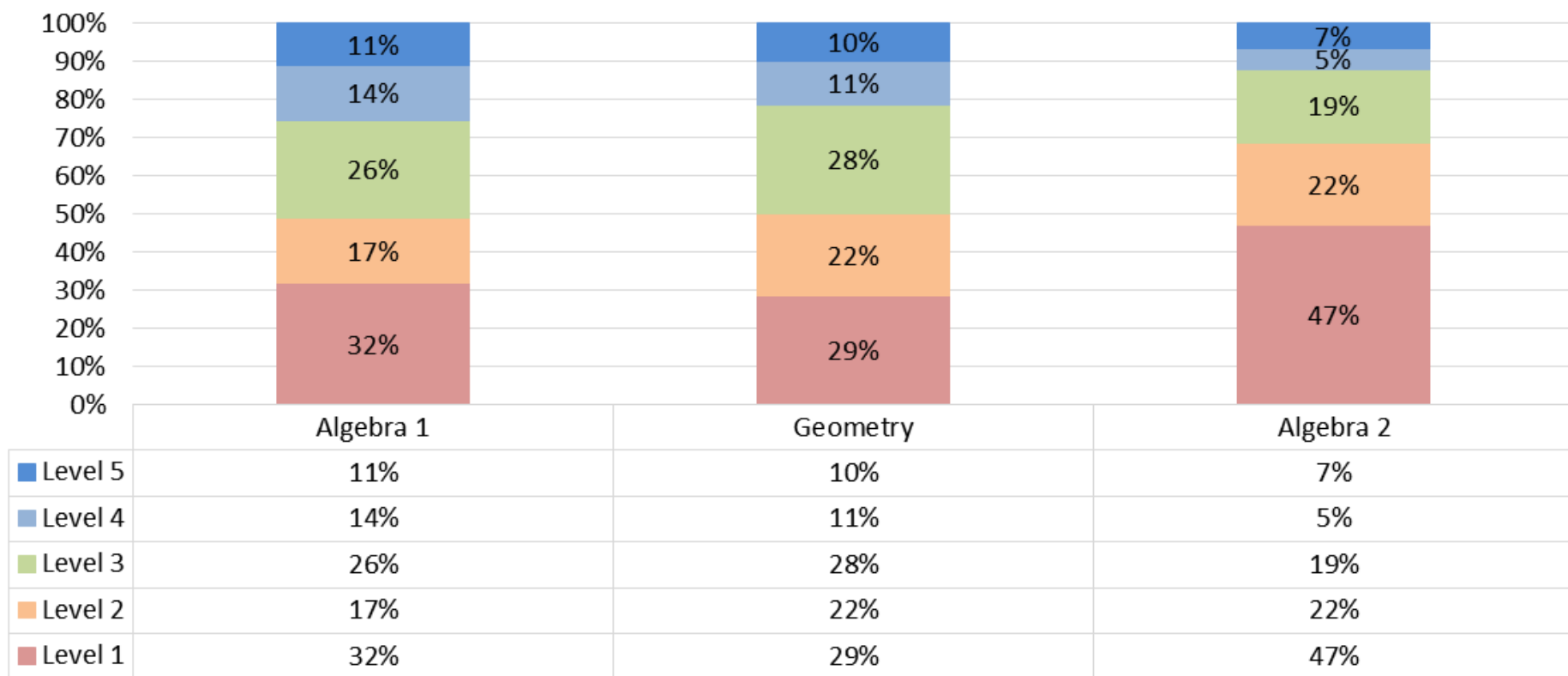


# Educator Panel – Recommended End-of-Course Cut Scores



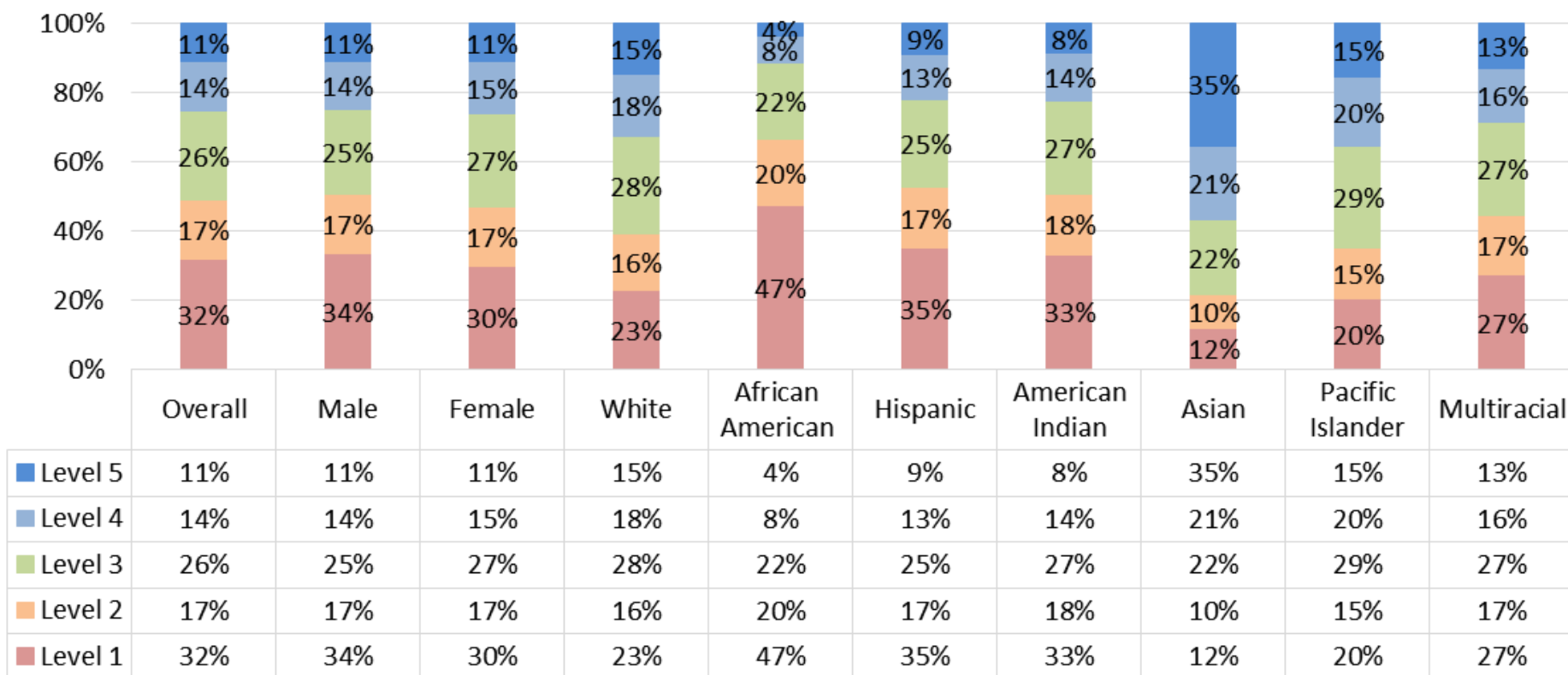
# Educator Panel – Recommended End-of-Course Cut Scores

## Percent Students in each Achievement Level



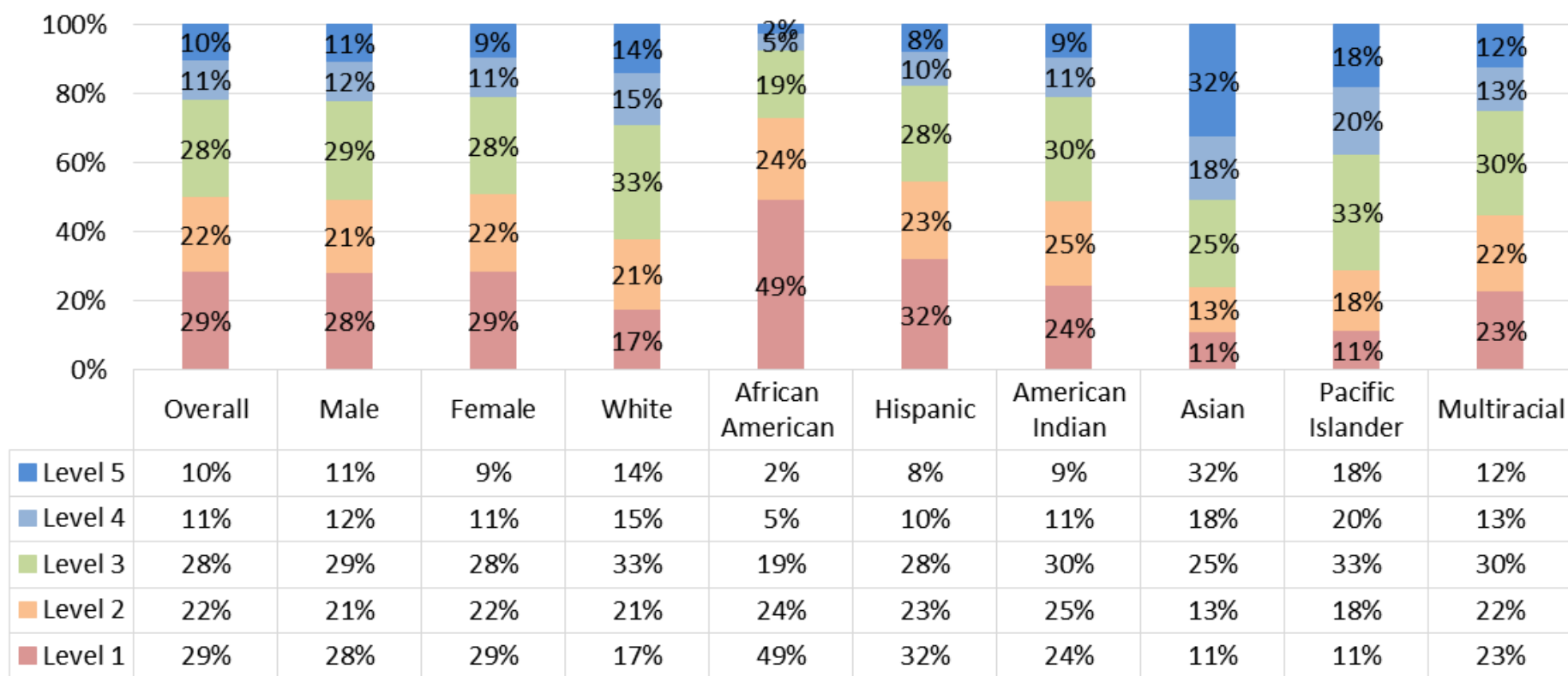
# Educator Panel – Algebra 1 EOC Impact Data

## Percent Students in each Achievement Level



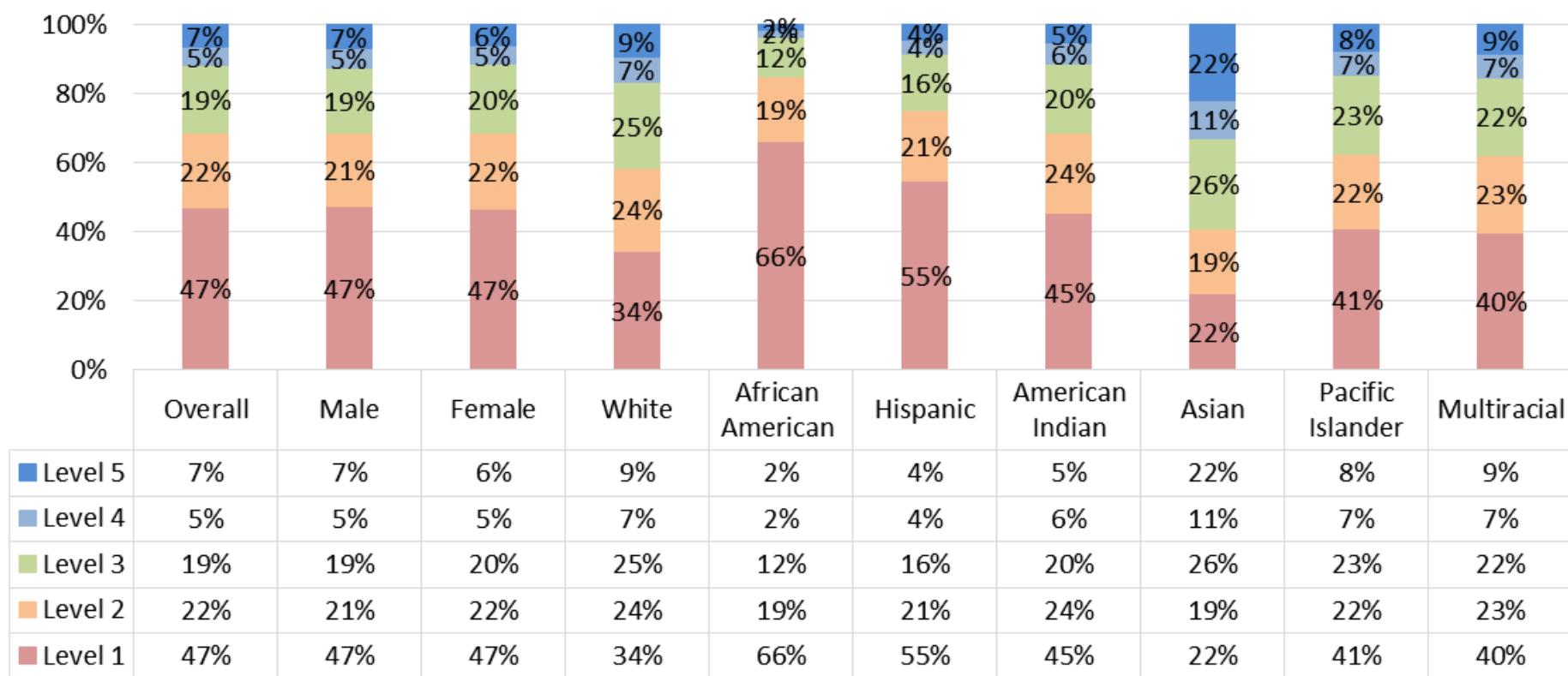
# Educator Panel – Geometry EOC Impact Data

## Percent Students in each Achievement Level



# Educator Panel – Algebra 2 EOC Impact Data

## Percent Students in each Achievement Level



# Educator Panel Recommendations – Percent of Students at or Above Each Achievement Level

Subject	Grade	Level 2	Level 3	Level 4	Level 5
ELA	3	75%	55%	25%	7%
	4	79%	54%	27%	8%
	5	80%	49%	26%	7%
	6	77%	49%	28%	8%
	7	76%	51%	29%	12%
	8	78%	59%	31%	11%
	9	74%	55%	31%	13%
	10	72%	51%	29%	9%
Math/EOC	3	81%	60%	31%	13%
	4	77%	59%	35%	14%
	5	76%	57%	27%	13%
	6	72%	49%	26%	8%
	7	74%	54%	19%	7%
	8	71%	49%	12%	5%
	Algebra 1	68%	51%	25%	11%
	Geometry	71%	50%	22%	10%
	Algebra 2	53%	31%	12%	7%

## Educator Panel – Benchmark Data

- Benchmarking provided the panelists with external referents so they could see how their recommendations compared with national and international standards.
- Benchmarking helps determine whether FSA achievement standards are nationally and internationally competitive.
  - National Assessment of Educational Progress (NAEP)
  - Trends in International Mathematics and Science Study (TIMSS)
  - Program for International Student Assessment (PISA)

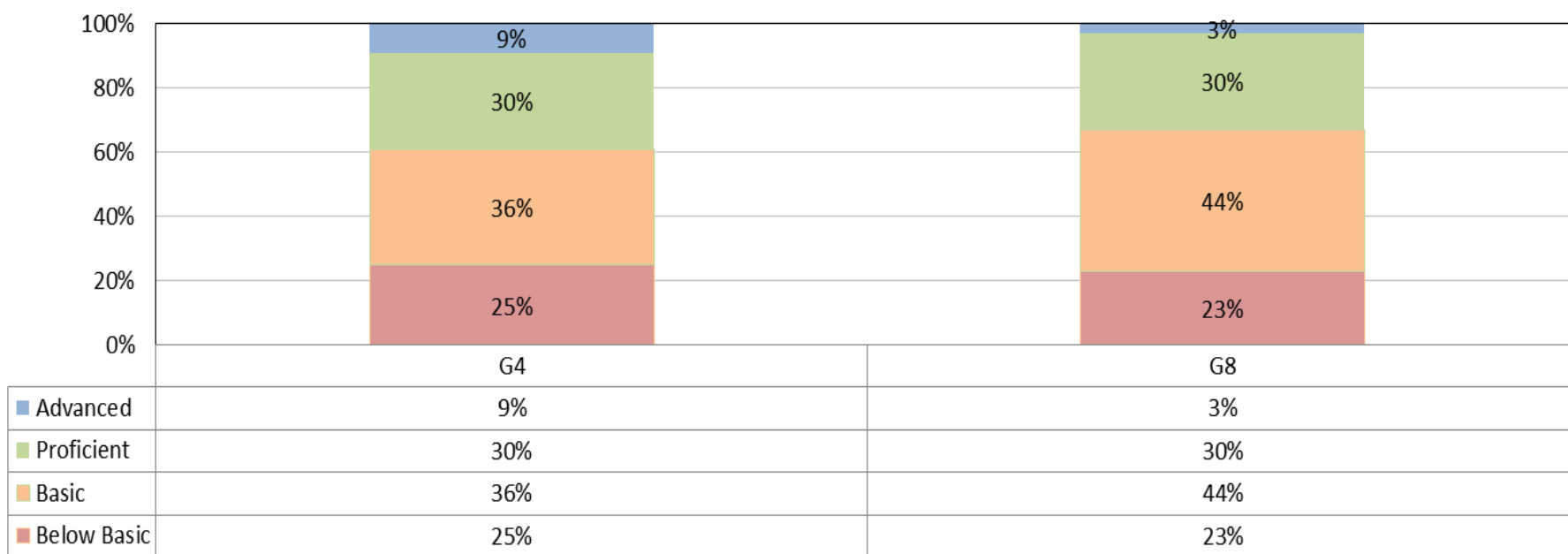
## NAEP Benchmarks

- Panelists were shown Florida NAEP results from the 2013 assessment (most recent)
- Administered by the National Center for Education Statistics (NCES)
- Two-year assessment cycle
- Grades 4, 8, and 12
  - Grade 12 NAEP benchmark does not apply to the FSA because there is no comprehensive grade 12 FSA assessment



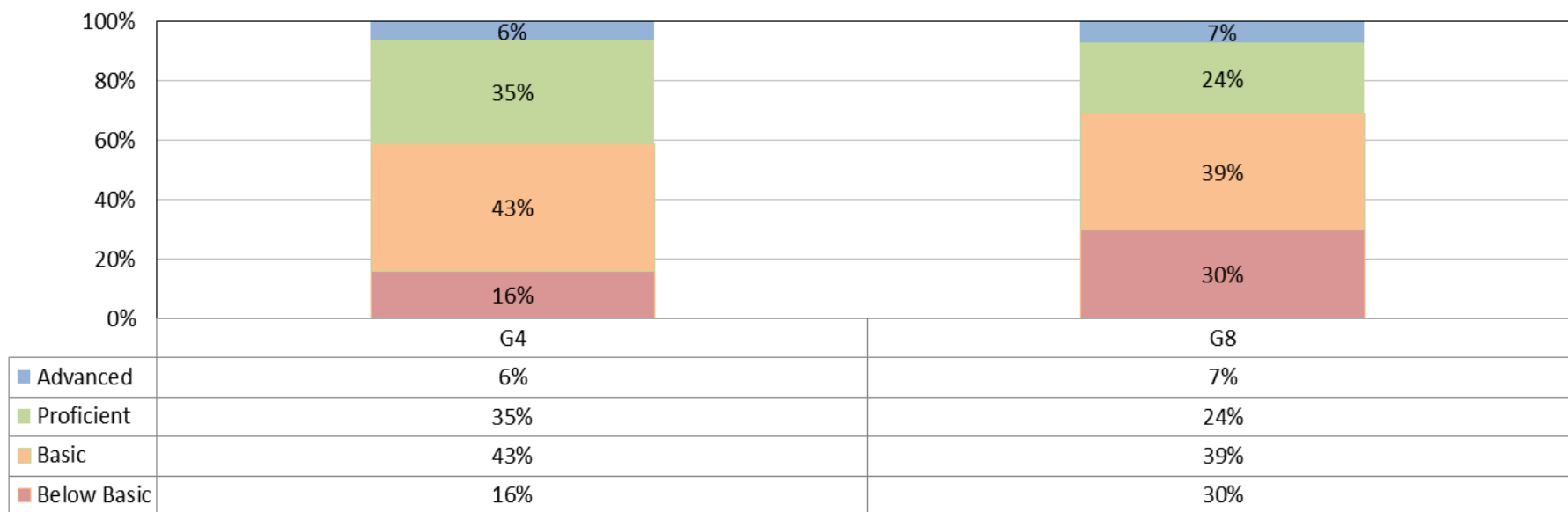
# NAEP Benchmarks

Reading NAEP Florida 2013



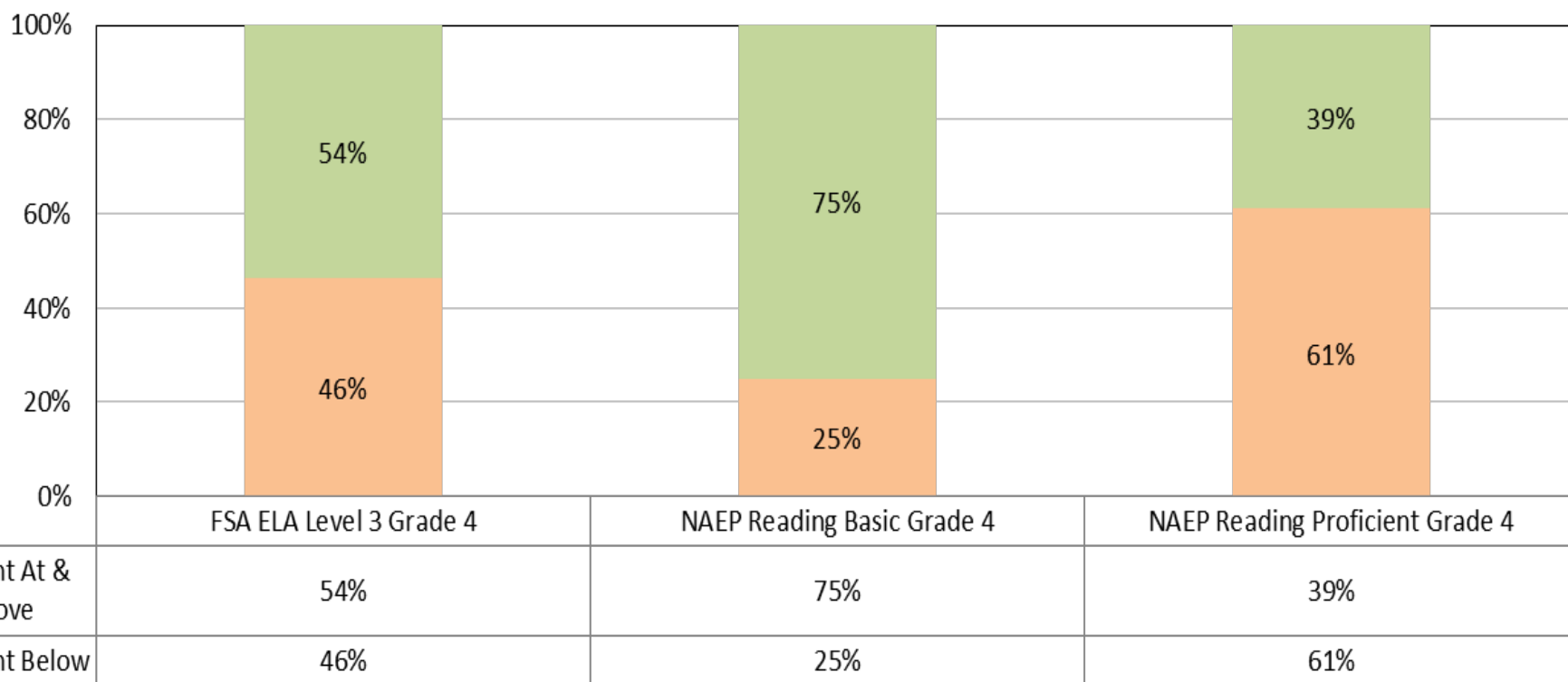
# NAEP Benchmarks

Mathematics NAEP Florida 2013



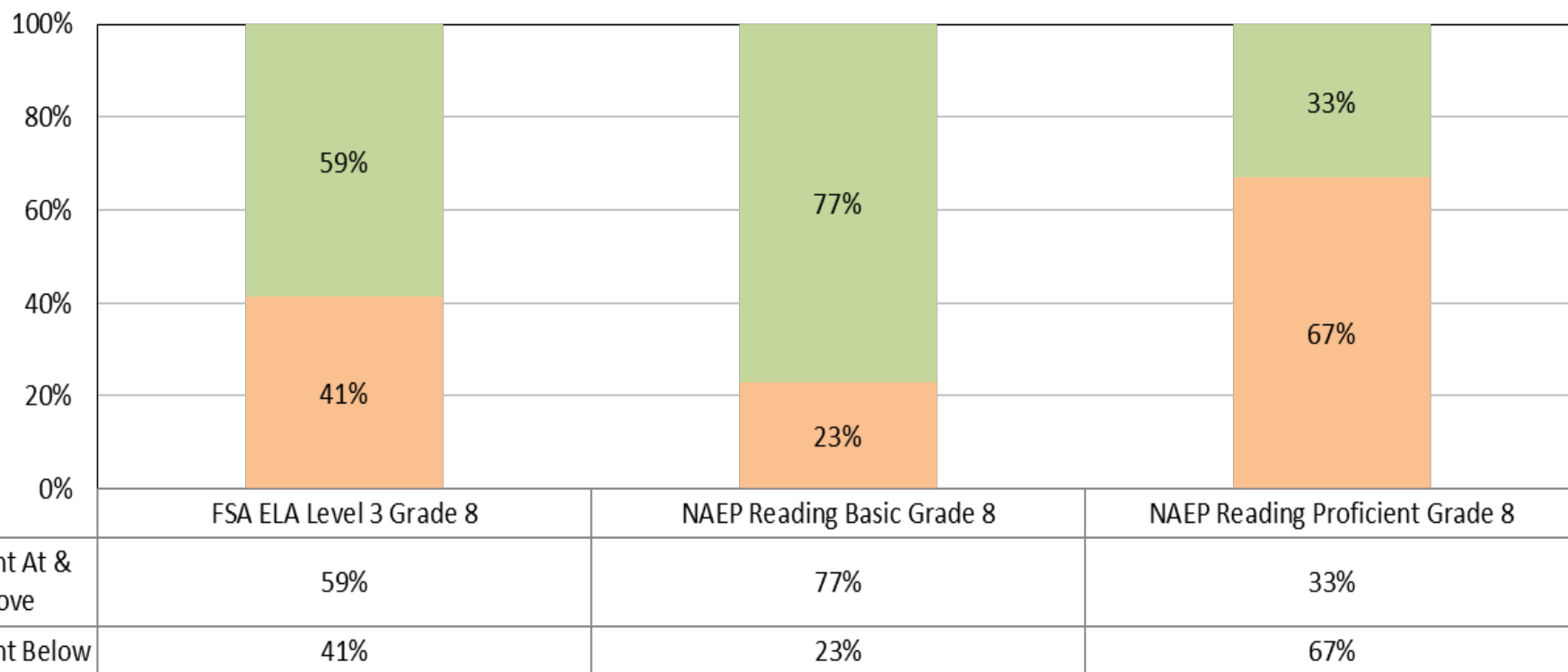
# NAEP Compared to FSA

Reading - Comparing Grade 4 FSA 2015 with Grade 4 NAEP 2013



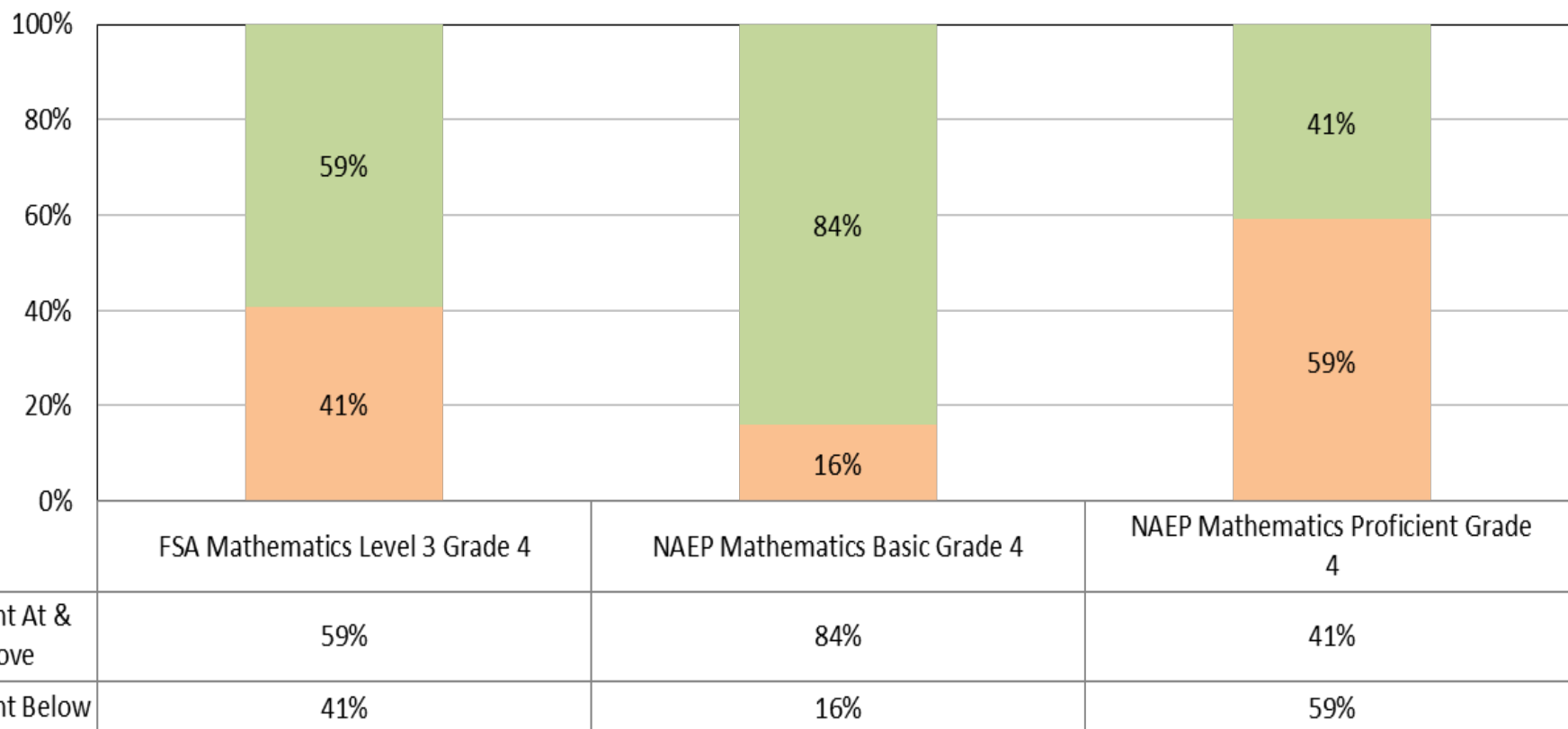
# NAEP Compared to FSA

Reading - Comparing Grade 8 FSA 2015 with Grade 8 NAEP 2013



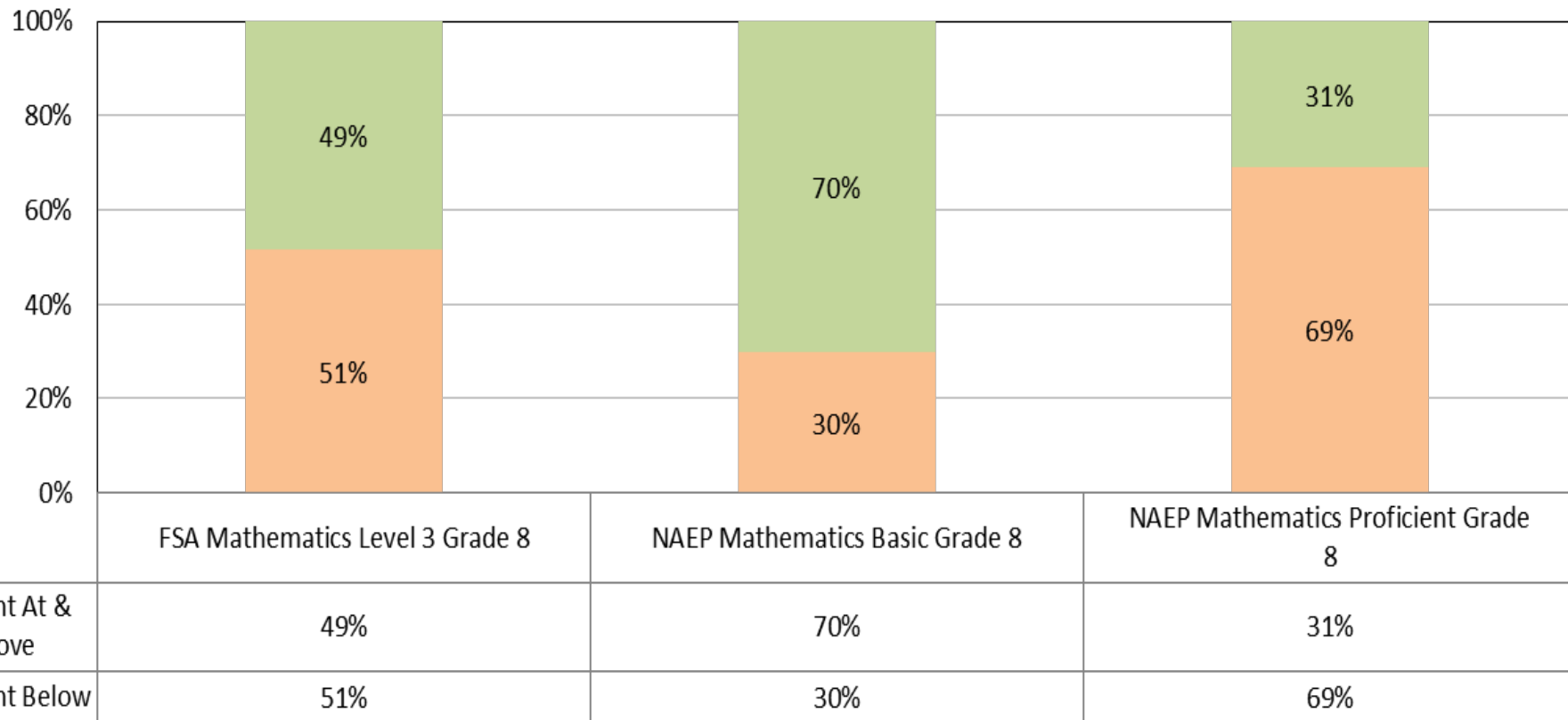
# NAEP Compared to FSA

Mathematics - Comparing Grade 4 FSA 2015 with Grade 4 NAEP 2013



# NAEP Compared to FSA

Mathematics - Comparing Grade 8 FSA 2015 with Grade 8 NAEP 2013

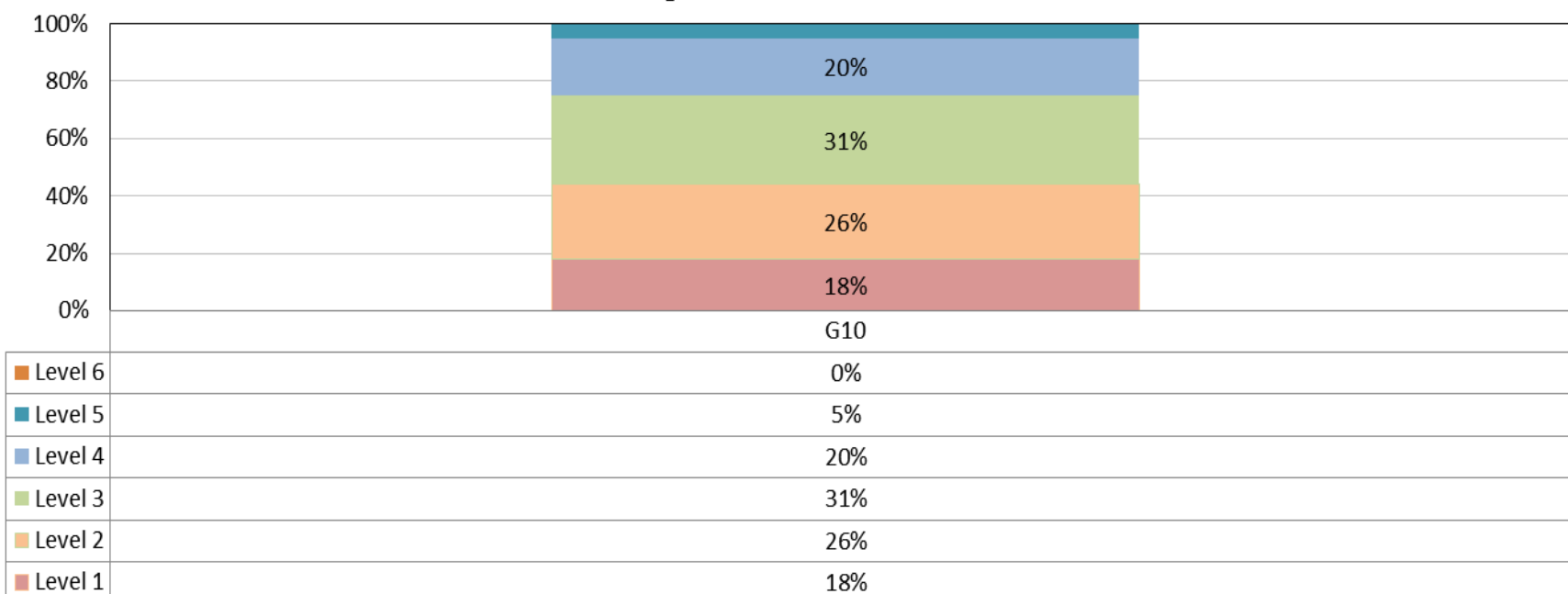


## PISA Benchmarks

- Florida PISA results from the 2012 assessment (most recent)
- Administered by the Organization for Economic Cooperation and Development (OECD)
- Three-year cycle
- Age 15 students (modal grade in the U.S. is grade 10)

# PISA Reading Benchmarks

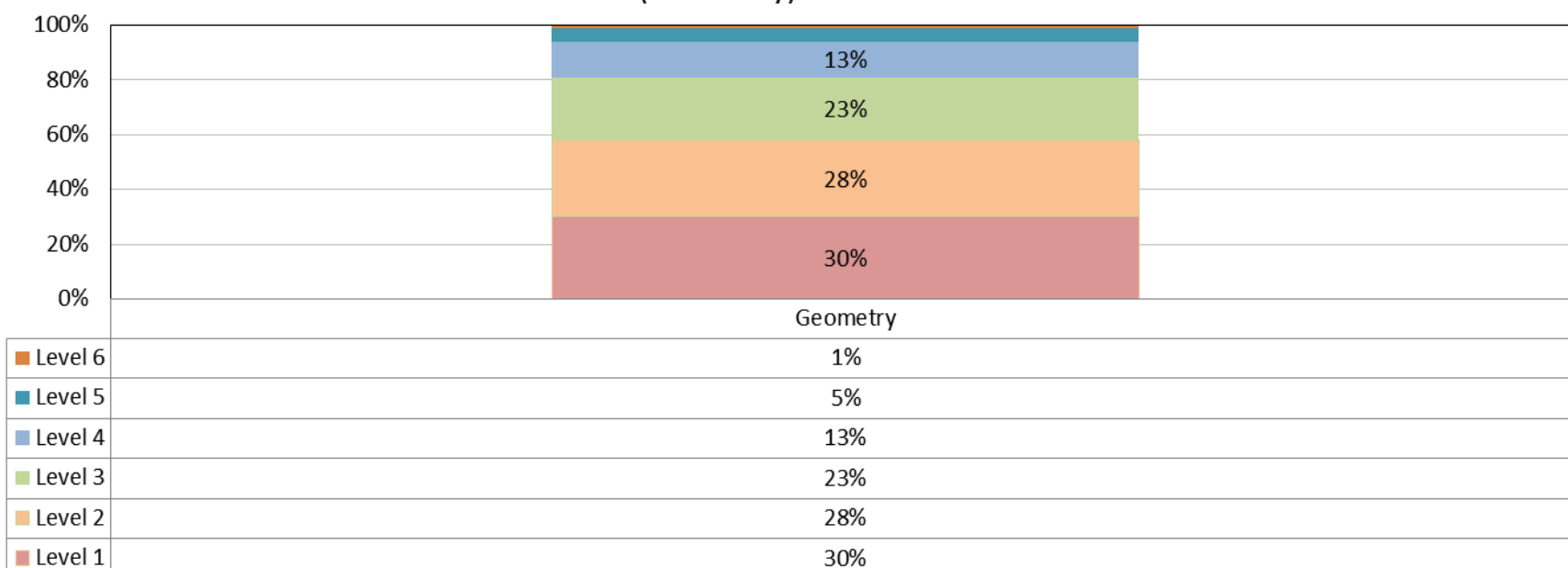
Reading PISA Florida 2012





# PISA Mathematics Benchmarks

Mathematics (Geometry) PISA Florida 2012

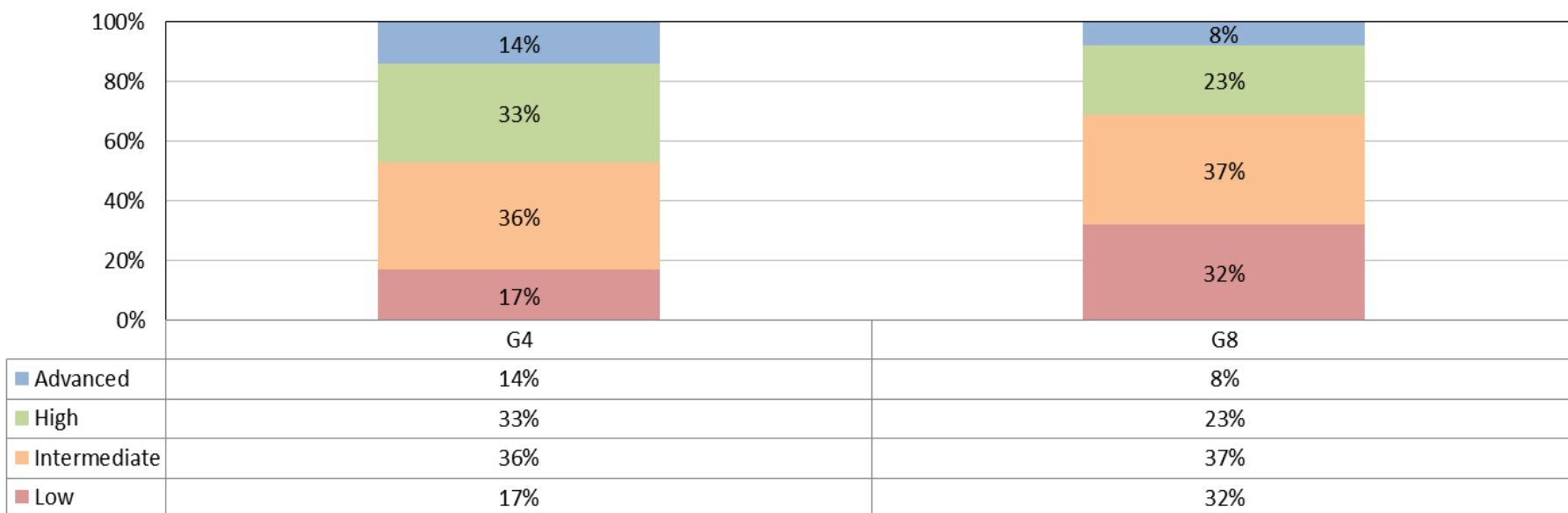


## TIMSS Benchmarks

- Florida TIMSS results from the 2011 assessment (most recent)
- Administered by the International Association for the Evaluation of Educational Achievement (IEA)
- Four-year assessment cycle
- Grades 4 and 8

# TIMSS Mathematics Benchmarks

Mathematics TIMSS Florida 2011





## **FSA Standard Setting Reactor Panel Recommended Cut Scores**

## Reactor Panel

- Differences between Educator Panel and Reactor Panel
  - Educator Panel
    - Comprised of individuals with content expertise
    - Understand expectations for Florida students
    - Focus on content when making recommendations
  - Reactor Panel
    - Represent various business, community, and educational groups; diverse perspectives
    - Consider policy when making recommendations
    - Consider consequences (impacts) when making recommendations

## Reactor Panel – Impact Data Review

- When reviewing impact data, the reactor panel considered the following questions:
  - Given the description of what students should know and be able to do at each Achievement Level, are the recommendations from the Educator Panel consistent with your expectations of student achievement?
  - Given the results that you see from other Florida assessments, are the impact data based on the Educator Panel's recommendations reasonable?

# Reactor Panel – Review of Educator Panel Recommendations

- The Reactor Panel reviewed Educator Panel Recommendations with the following guidelines in mind:
  - Like the Educator Panel, the Reactor Panel did not have to reach consensus
  - If the Reactor Panel suggested modifications, the facilitator immediately provided new impact data using the proposed modifications
  - If the Reactor Panel suggested any modifications, panelists provided written rationales for suggested changes
  - Reactor Panelists were informed their recommendations would be published and considered by the general public, the Commissioner, and the State Board of Education in determining FSA achievement level cut scores

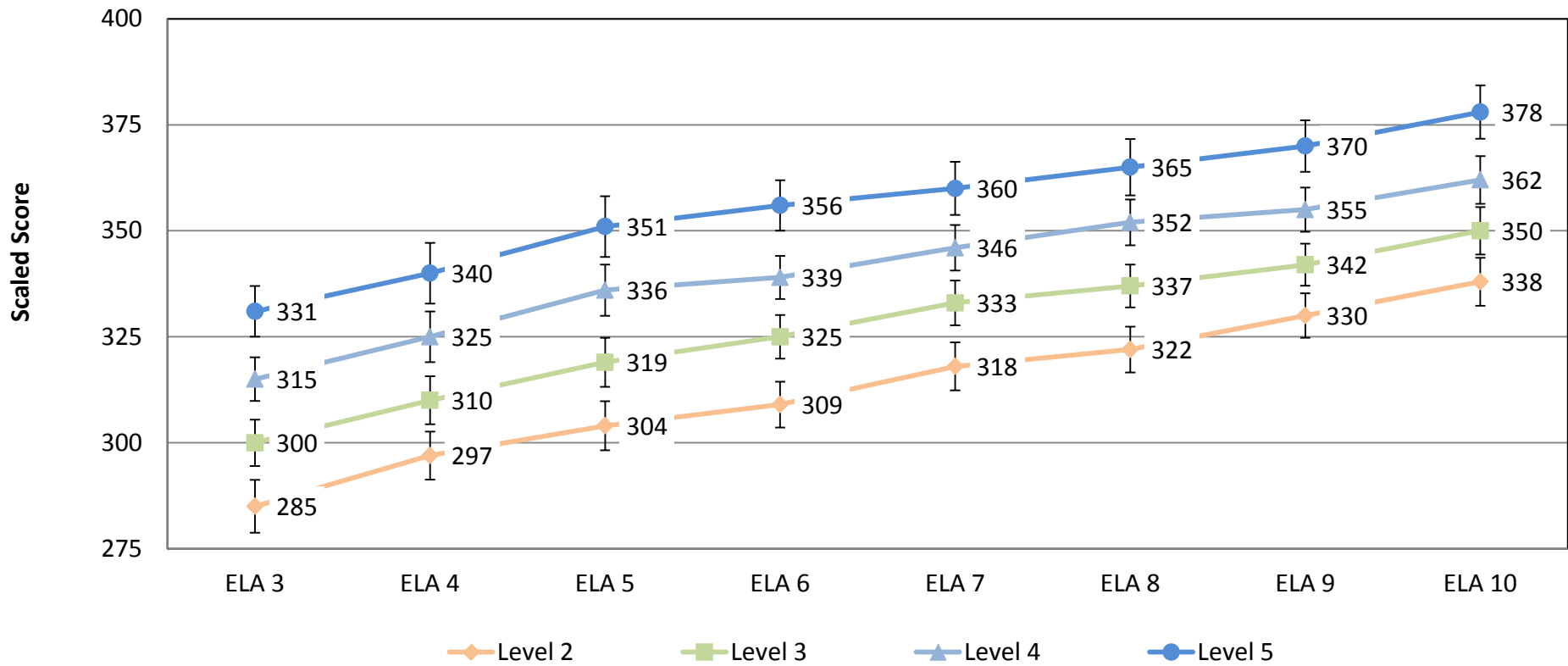
## Reactor Panel Participants

Reactor Panelist	Position
Dr. Barbara Jenkins	Superintendent, Orange
Dr. Diana Greene	Superintendent, Manatee
Robert Edwards	Superintendent, Lafayette
Marcia Andrews	School Board Member, Palm Beach
Mr. Terry Nichols	School Board Member, Jackson
Mr. Danny Gaekwad	EFI Board of Directors
Rev. Ron Rawls	Pastor, St. Paul AME Church
Dr. Manoj Chopra	UCF Engineer Professor, former BOG member
Dr. Ed Bonahue	Provost and VP of Academic Affairs, Santa Fe College
Dr. Susan Neimand	Director of School of Education, Miami Dade College
Mr. John Barnhill	Assistant Vice President for Enrollment Management at FSU
Debra Morton	Volunteer Coordinator at Fruit Cove Middle School, St. Johns
Dr. Maria Torres	Executive Director of Federal and State Grants & English Language Learner Programs, Collier
Ronda Bourn	Assistant Director of Instruction for School Programs, Northeast Florida Education Consortium
Dr. Nathan Balasubramanian	Executive Director, Strategy & Continuous Improvement, Broward
Karen Denbroeder	Retired Research Assistant, FL Center for Reading Research at FSU



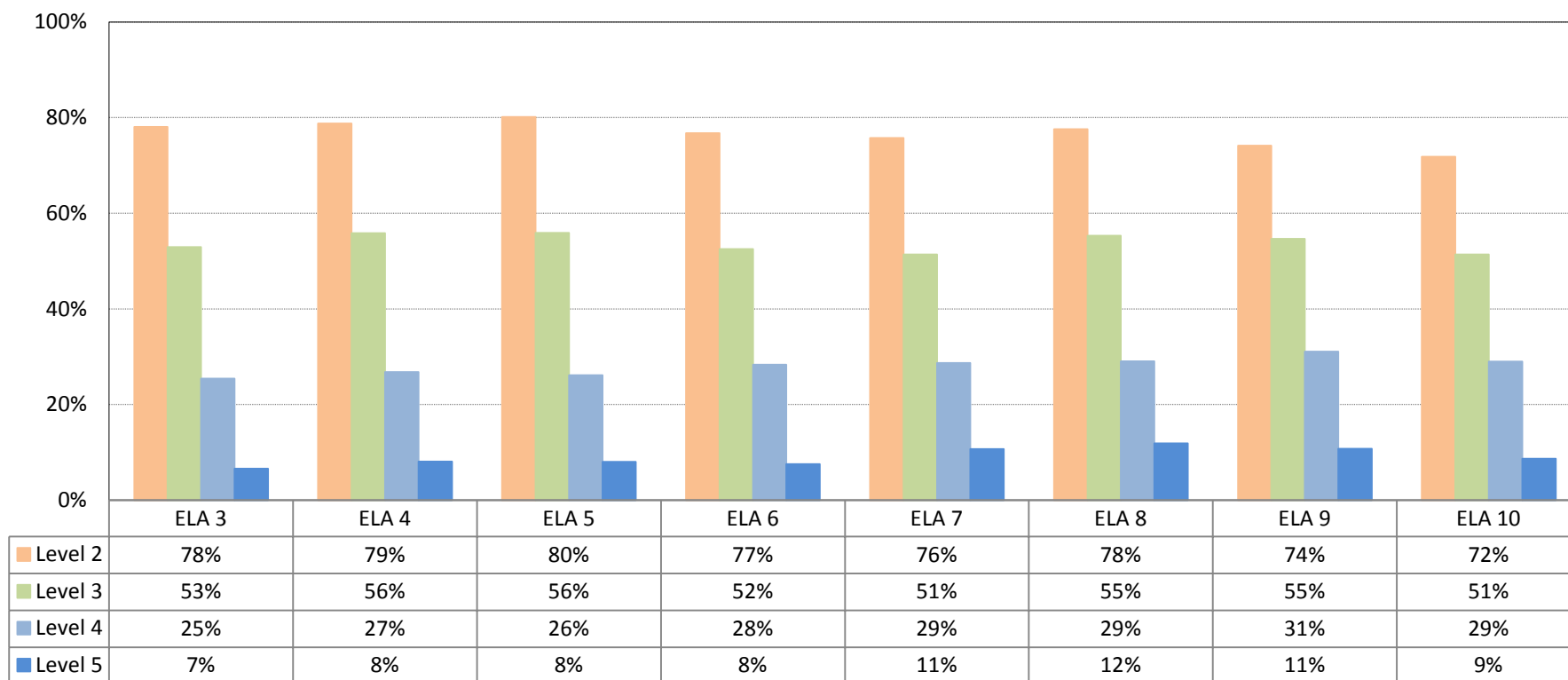
# Reactor Panel – Recommended ELA Cut Scores

**Scaled Score Metric**



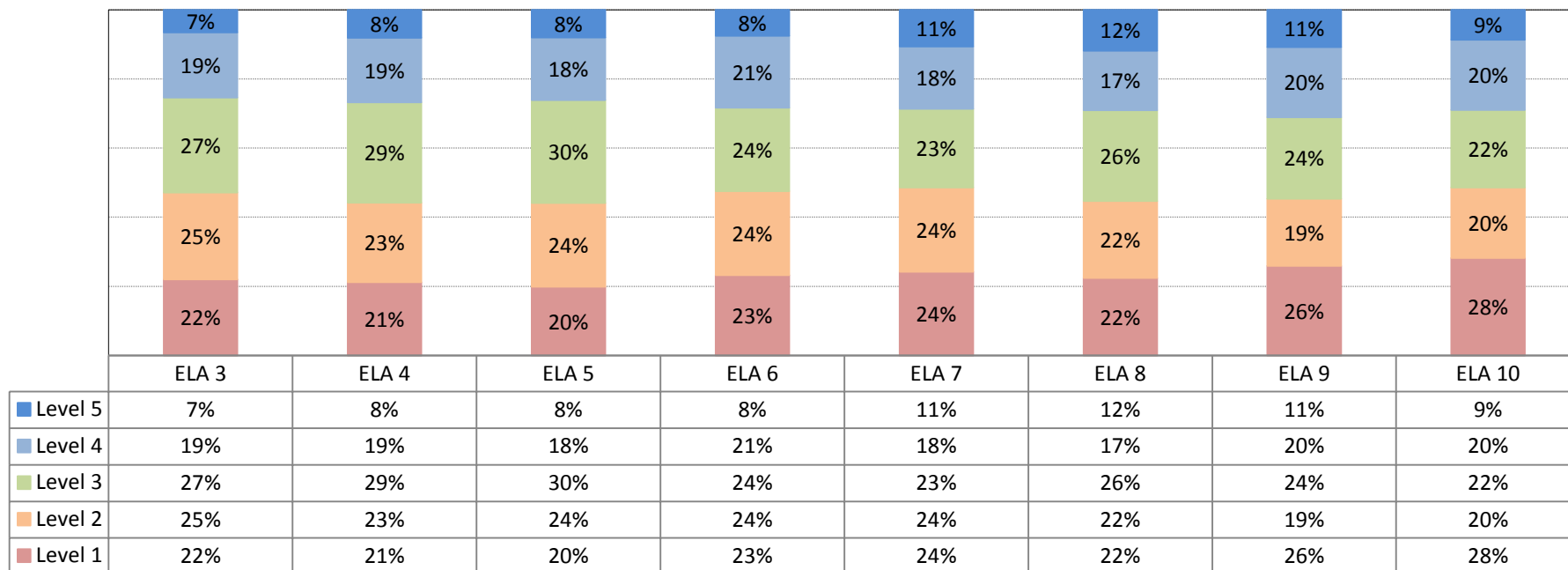
# Reactor Panel – Recommended ELA Cut Scores

Percent Students at and above each Achievement Standard



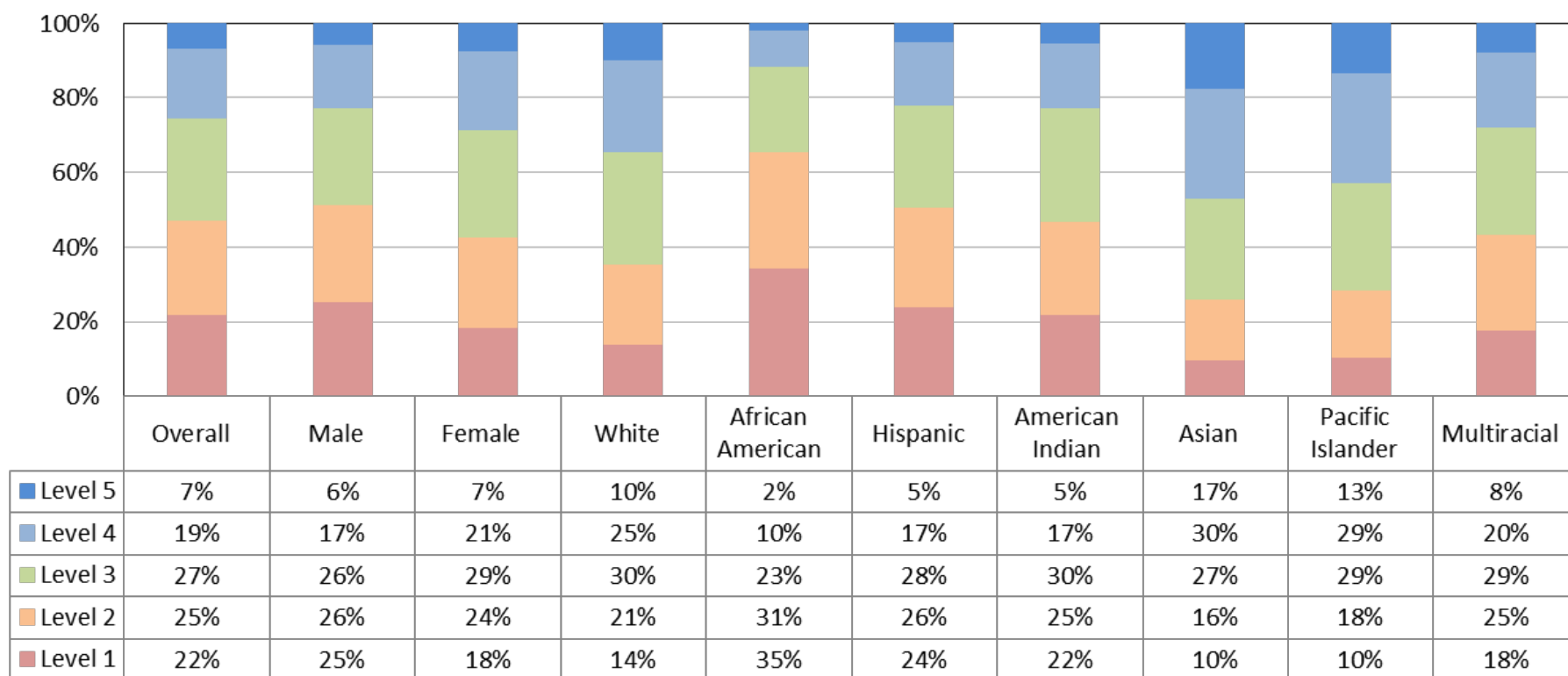
# Reactor Panel – Recommended ELA Cut Scores

Percent Students in each Achievement Level



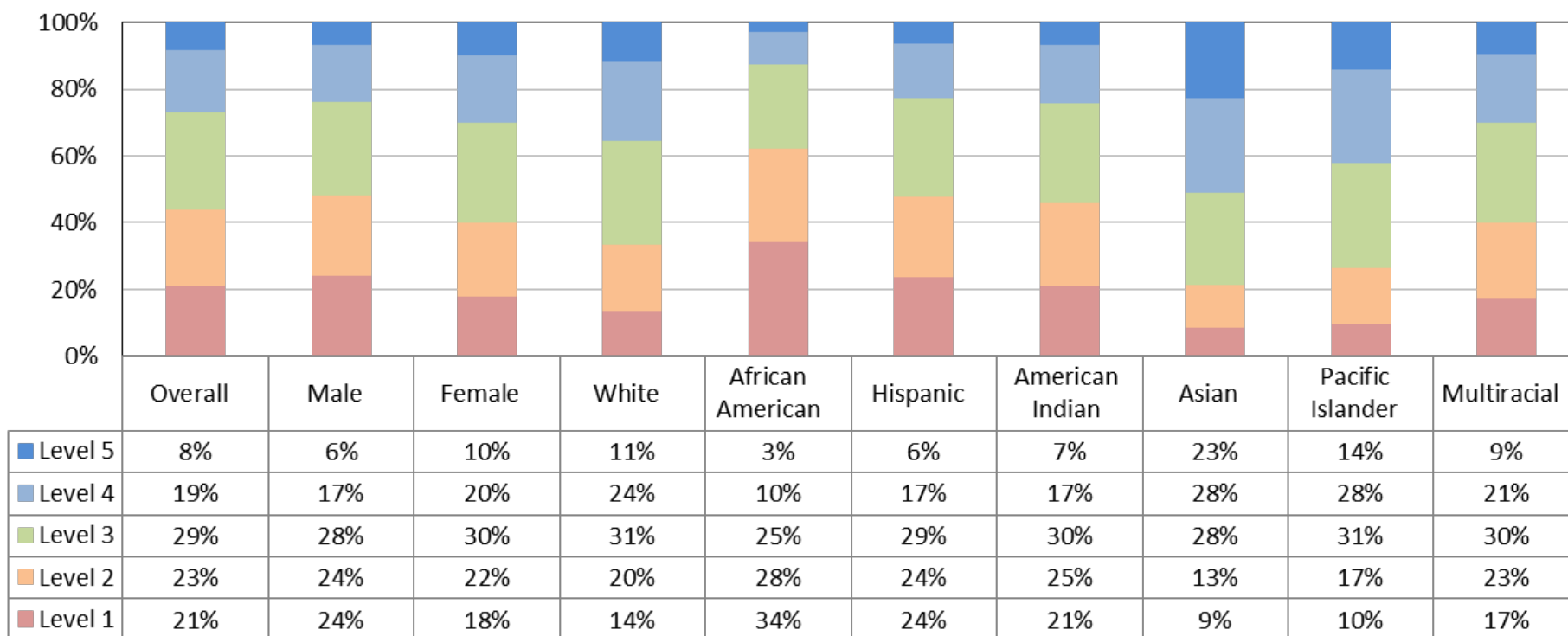
# Reactor Panel – ELA Grade 3 Impact Data

Percent Students in each Achievement Level



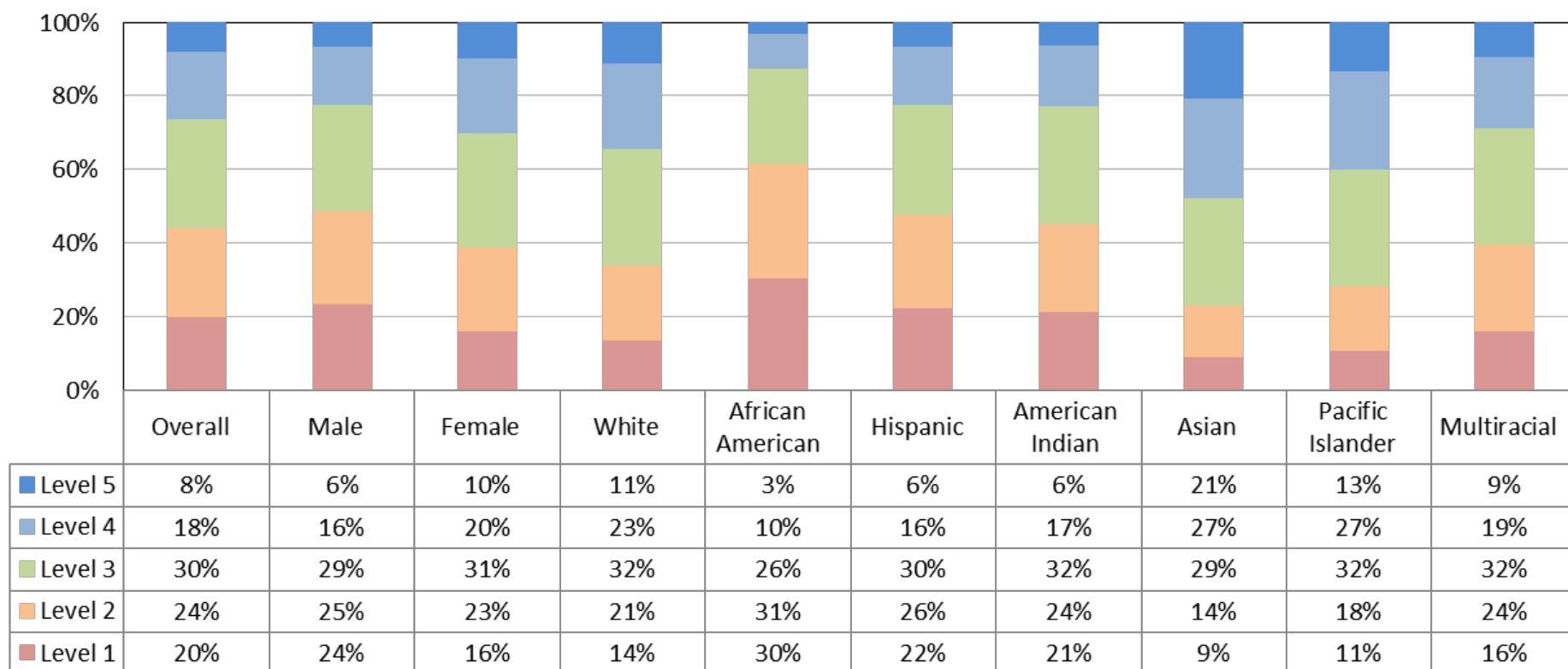
# Reactor Panel – ELA Grade 4 Impact Data

Percent Students in each Achievement Level



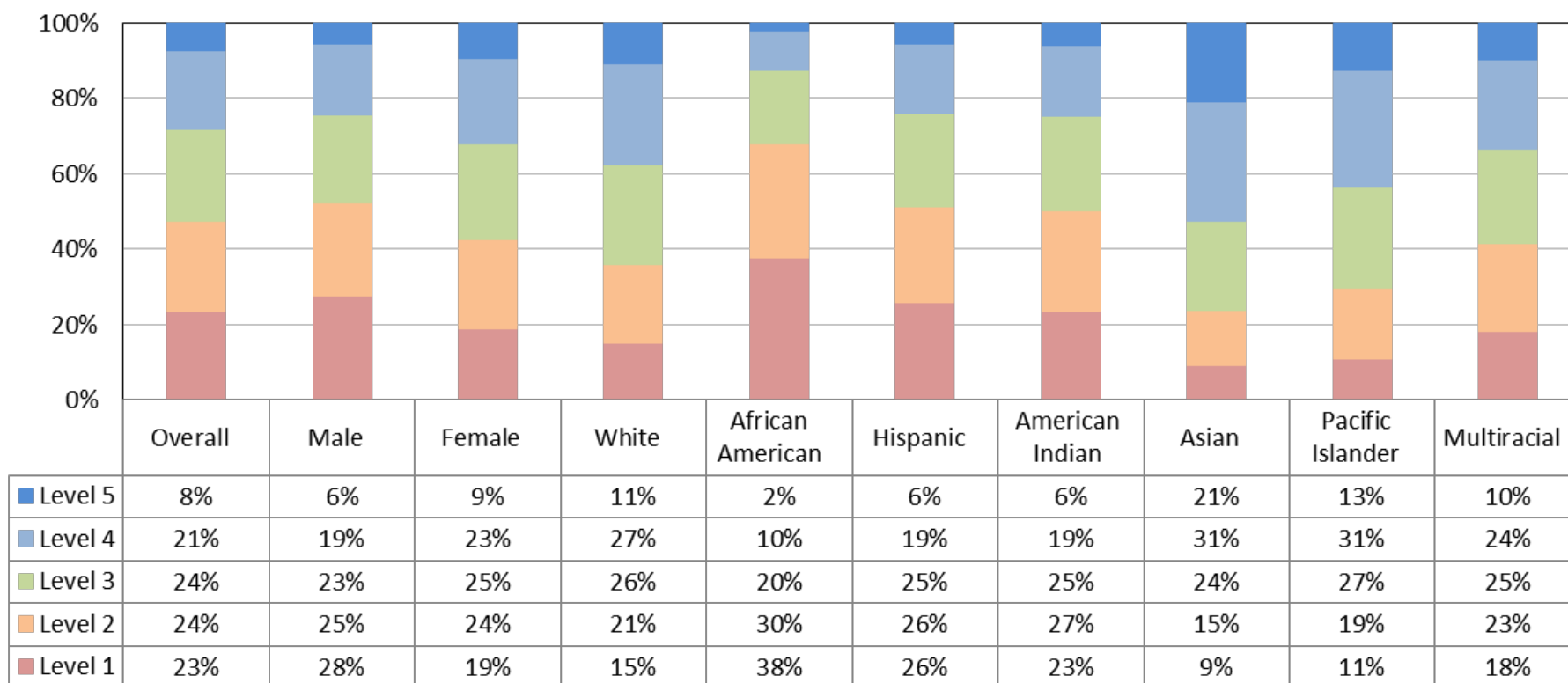
# Reactor Panel – ELA Grade 5 Impact Data

Percent Students in each Achievement Level



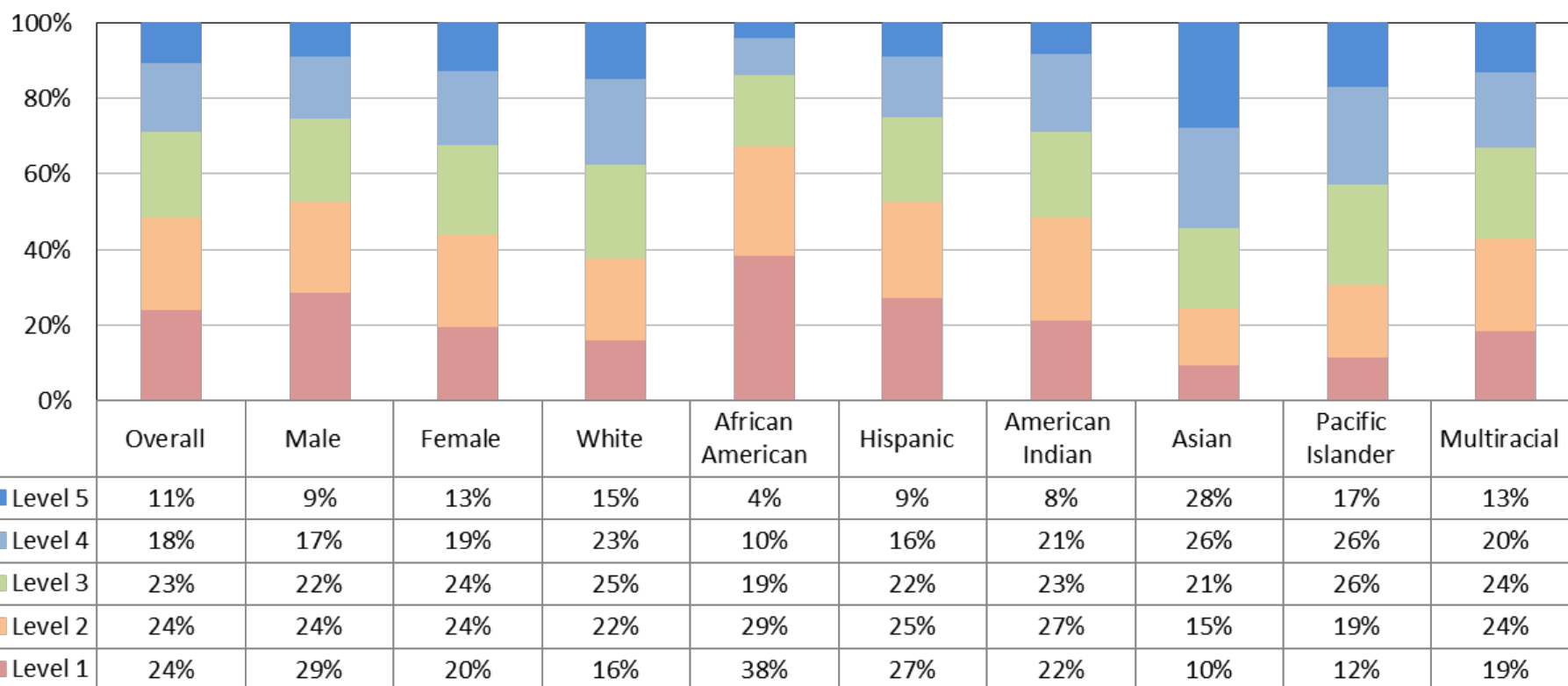
# Reactor Panel – Grade 6 ELA Impact Data

Percent Students in each Achievement Level



# Reactor Panel – ELA Grade 7 Impact Data

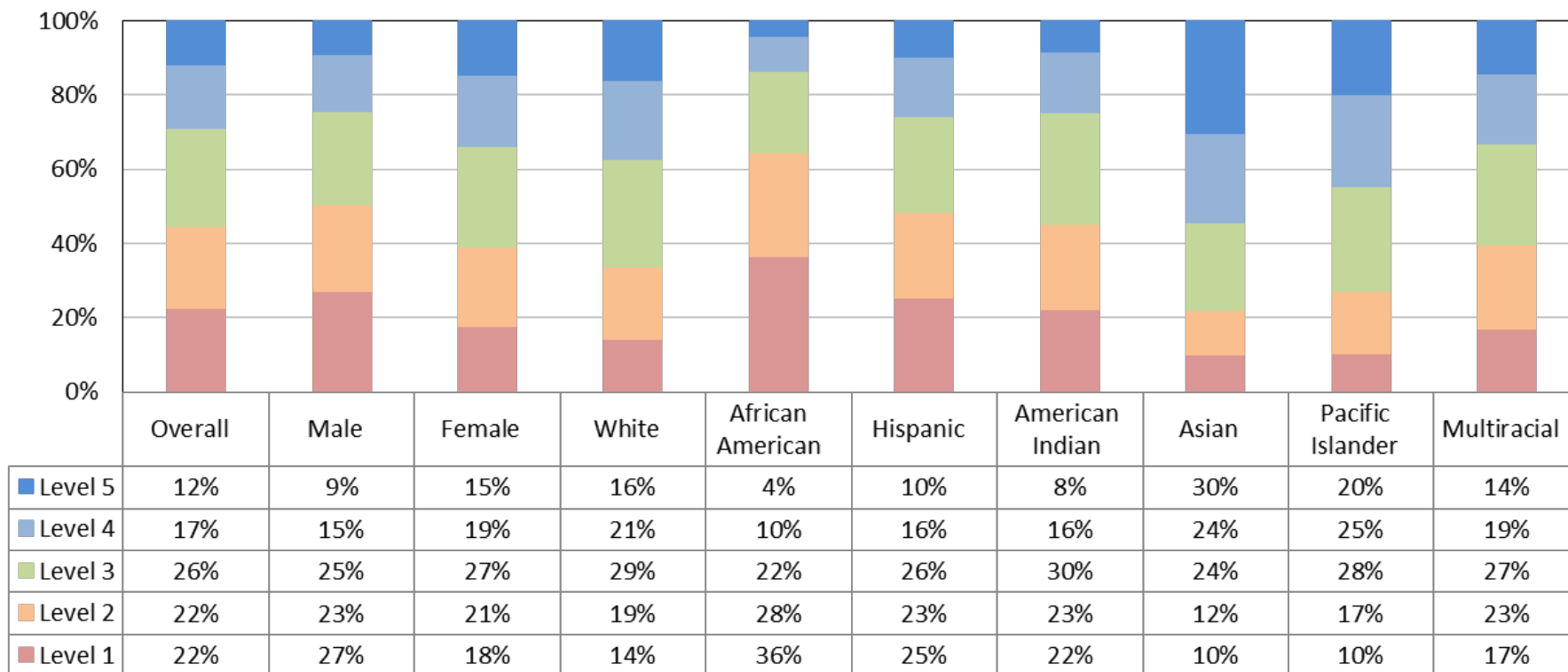
Percent Students in each Achievement Level





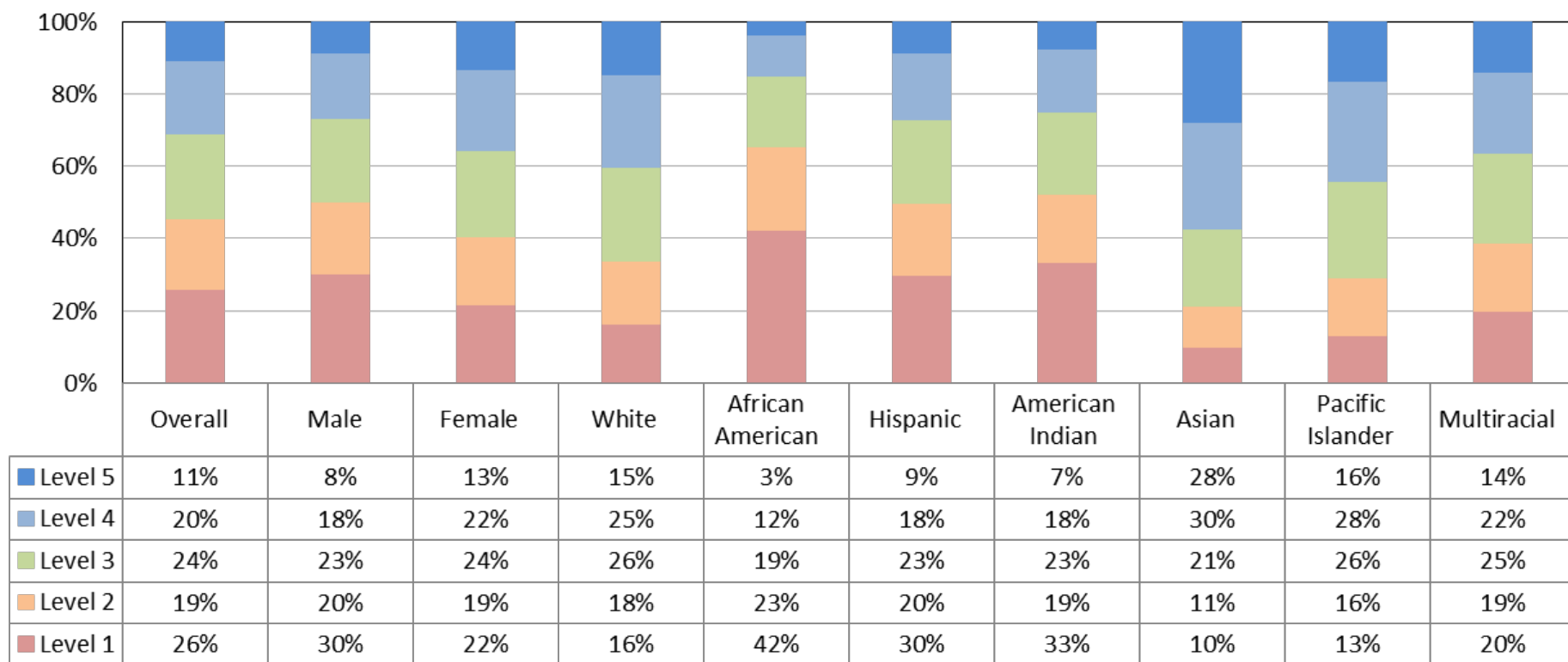
# Reactor Panel – ELA Grade 8 Impact Data

Percent Students in each Achievement Level



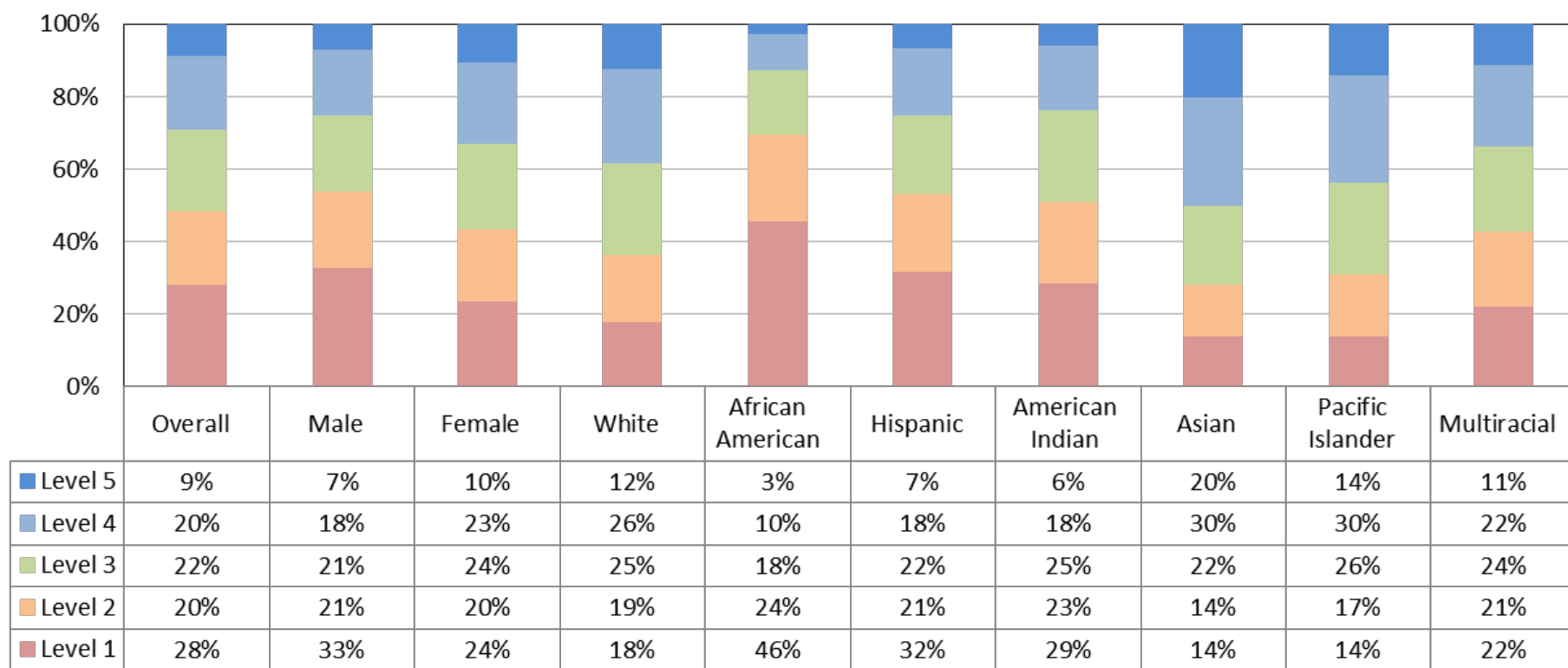
# Reactor Panel – ELA Grade 9 Impact Data

Percent Students in each Achievement Level



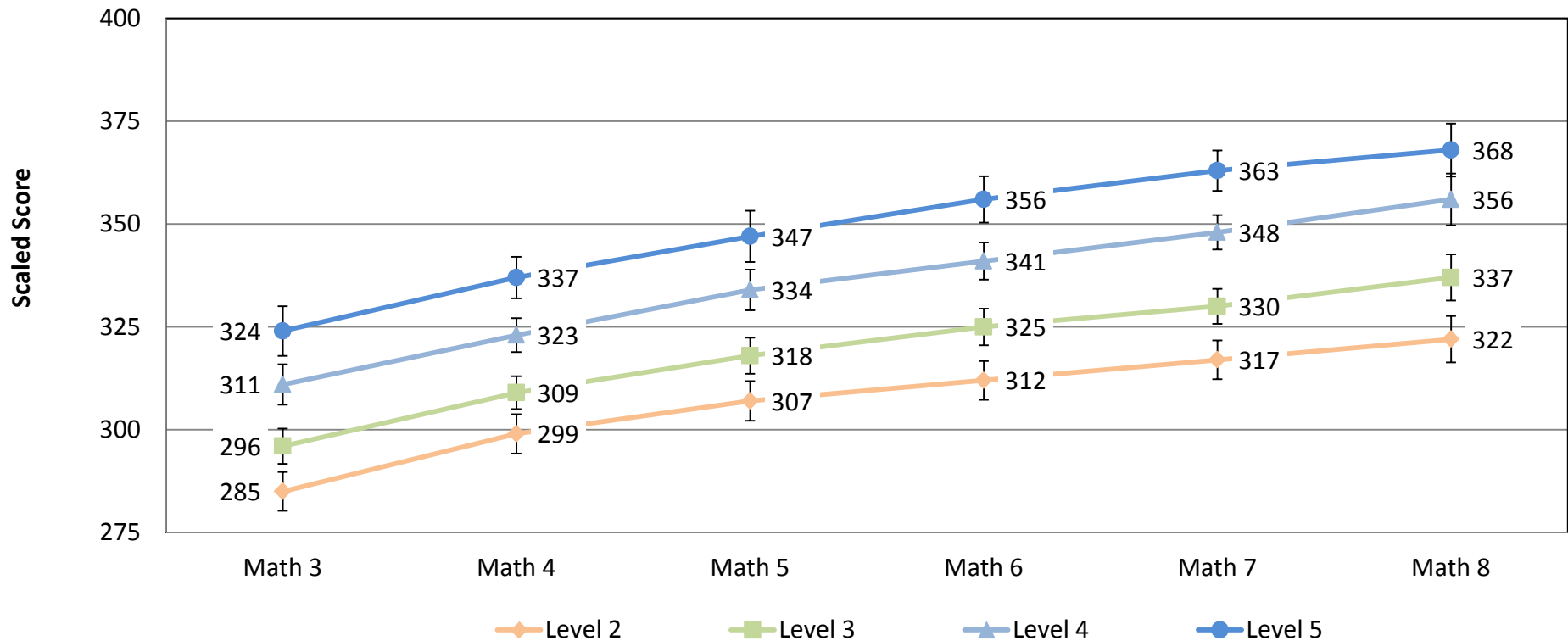
# Reactor Panel – ELA Grade 10 Impact Data

Percent Students in each Achievement Level



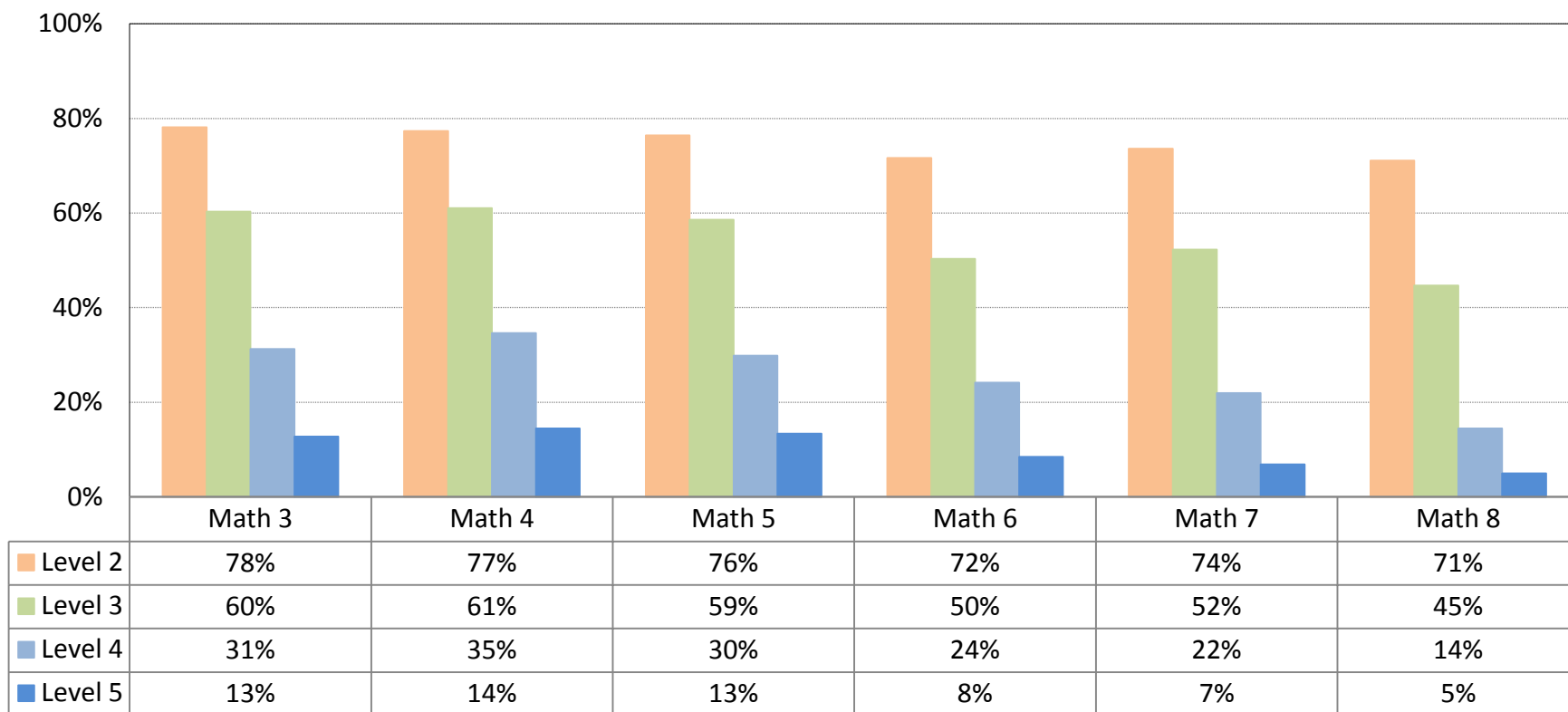
# Reactor Panel – Recommended Mathematics Cut Scores

Math - Scaled Score Metric



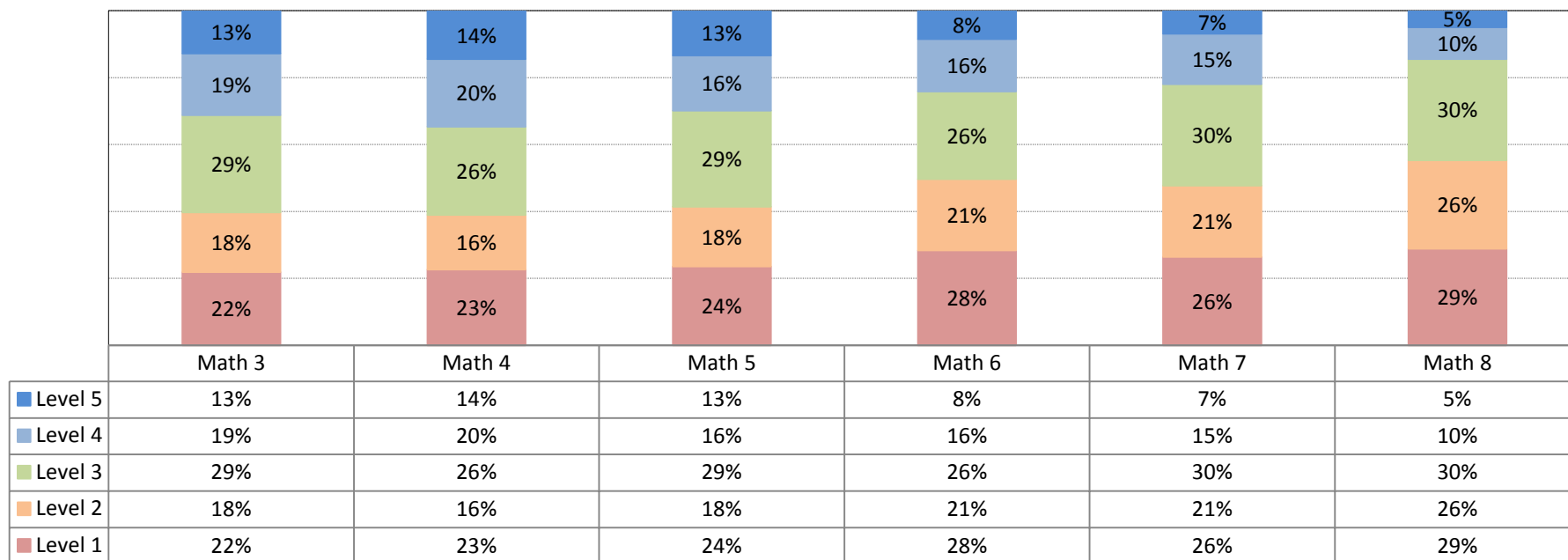
# Reactor Panel – Recommended Mathematics Cut Scores

Percent Students at and above each Achievement Standard



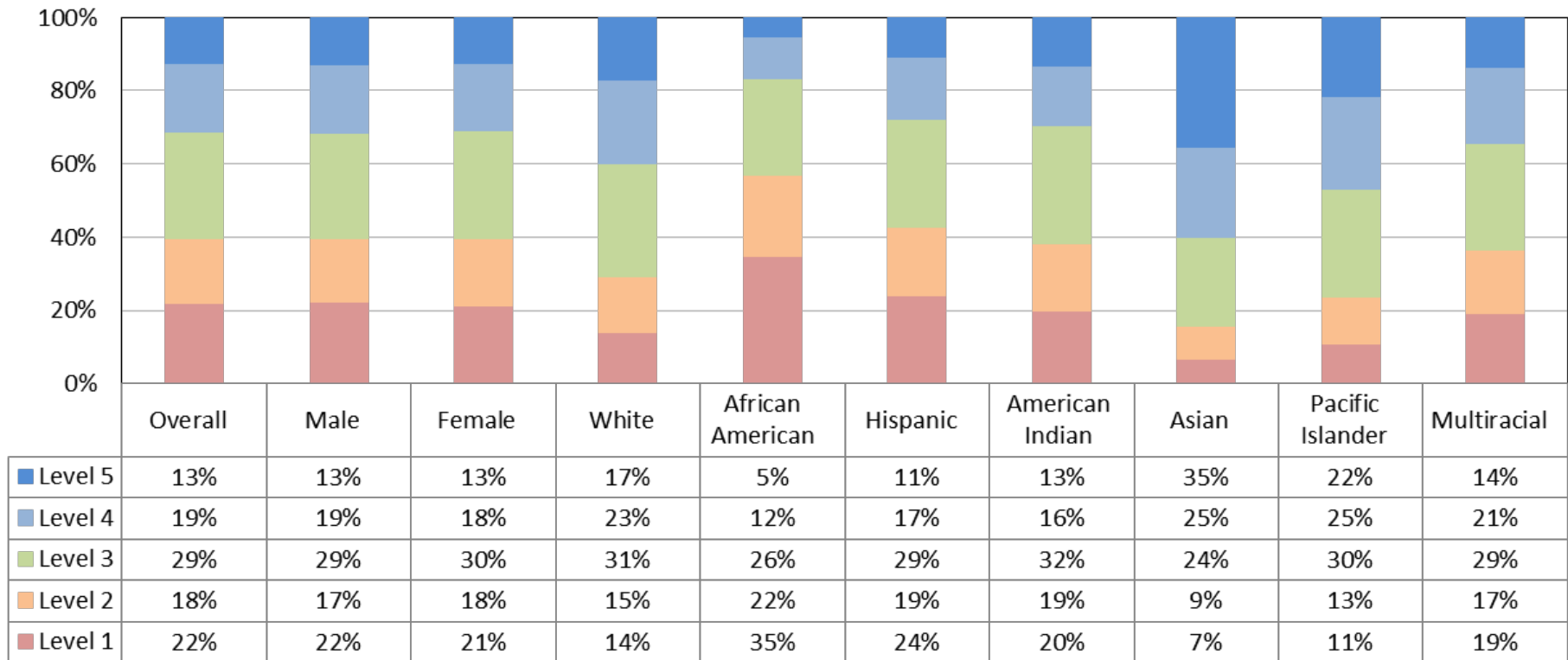
# Reactor Panel – Recommended FSA Mathematics Cut Scores

Percent Students in each Achievement Level



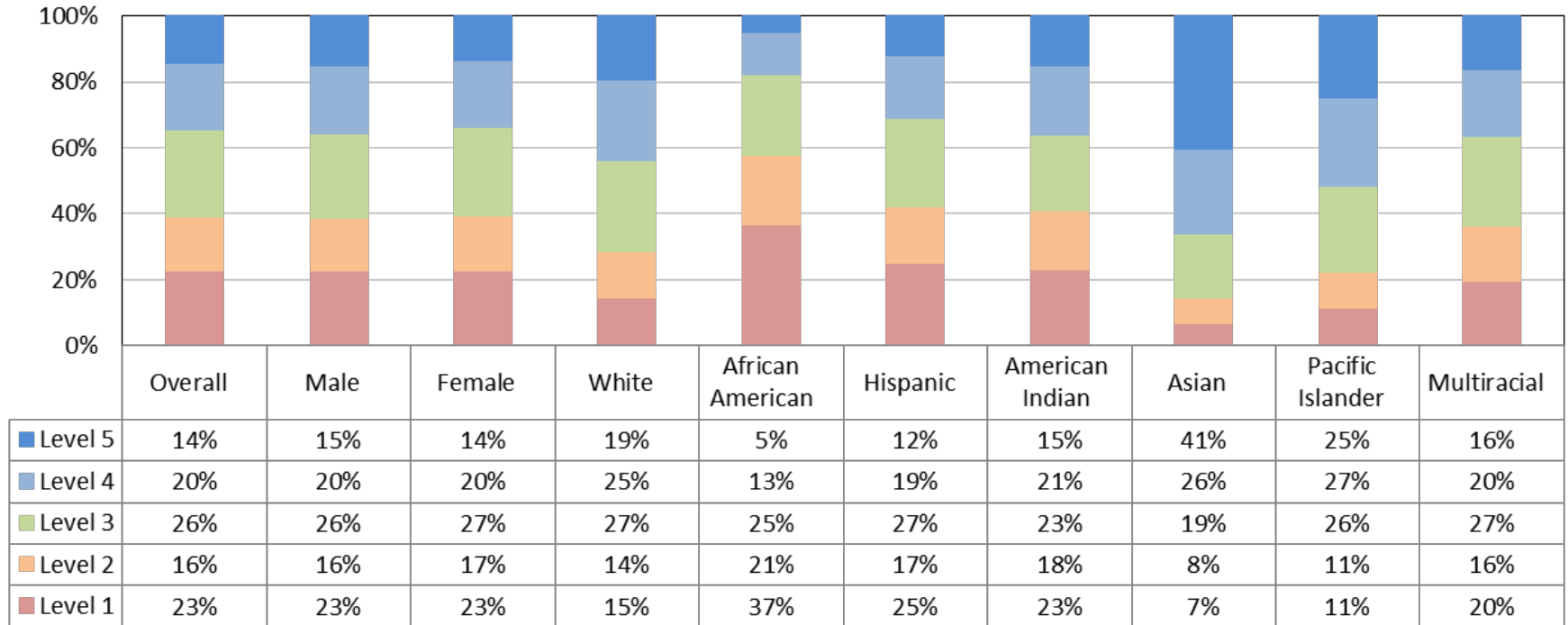
# Reactor Panel – Mathematics Grade 3 Impact Data

Percent Students in each Achievement Level



# Reactor Panel – Mathematics Grade 4 Impact Data

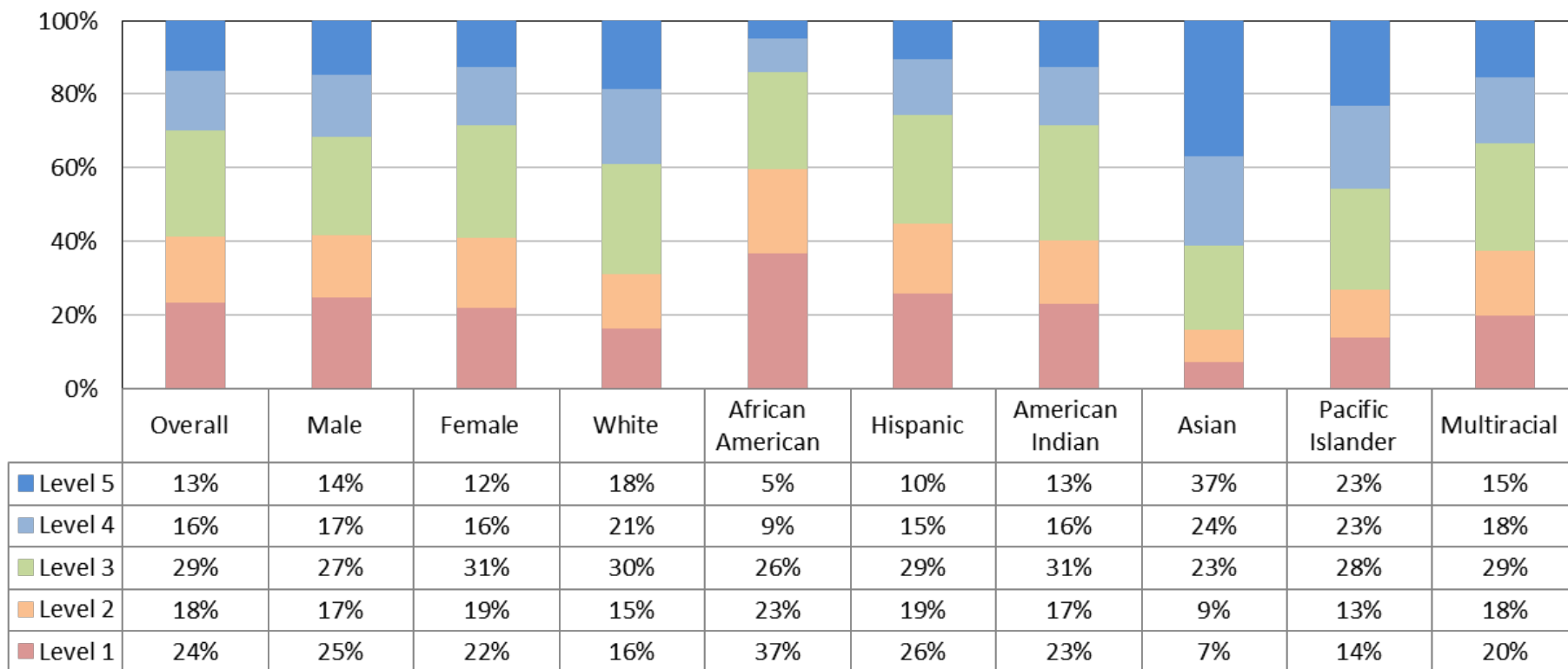
Percent Students in each Achievement Level





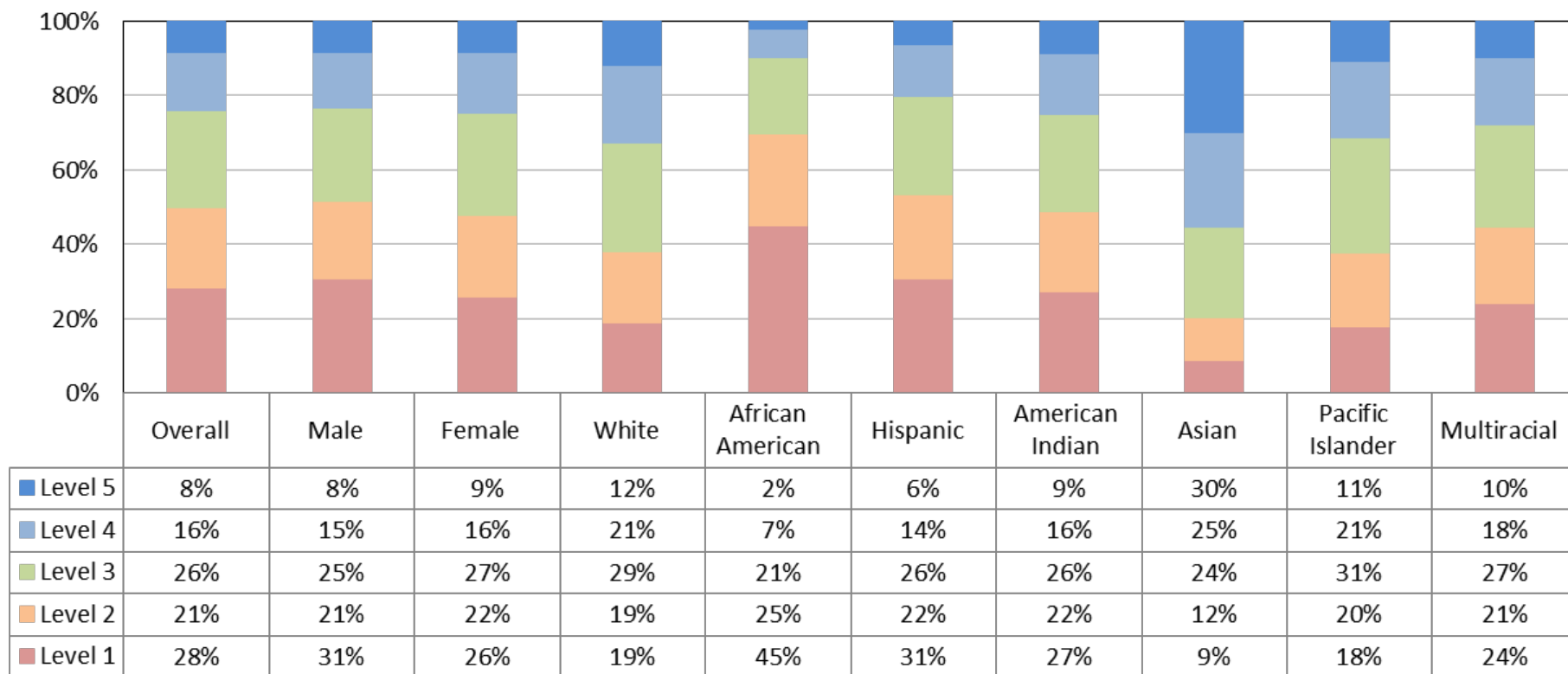
# Reactor Panel – Mathematics Grade 5 Impact Data

Percent Students in each Achievement Level



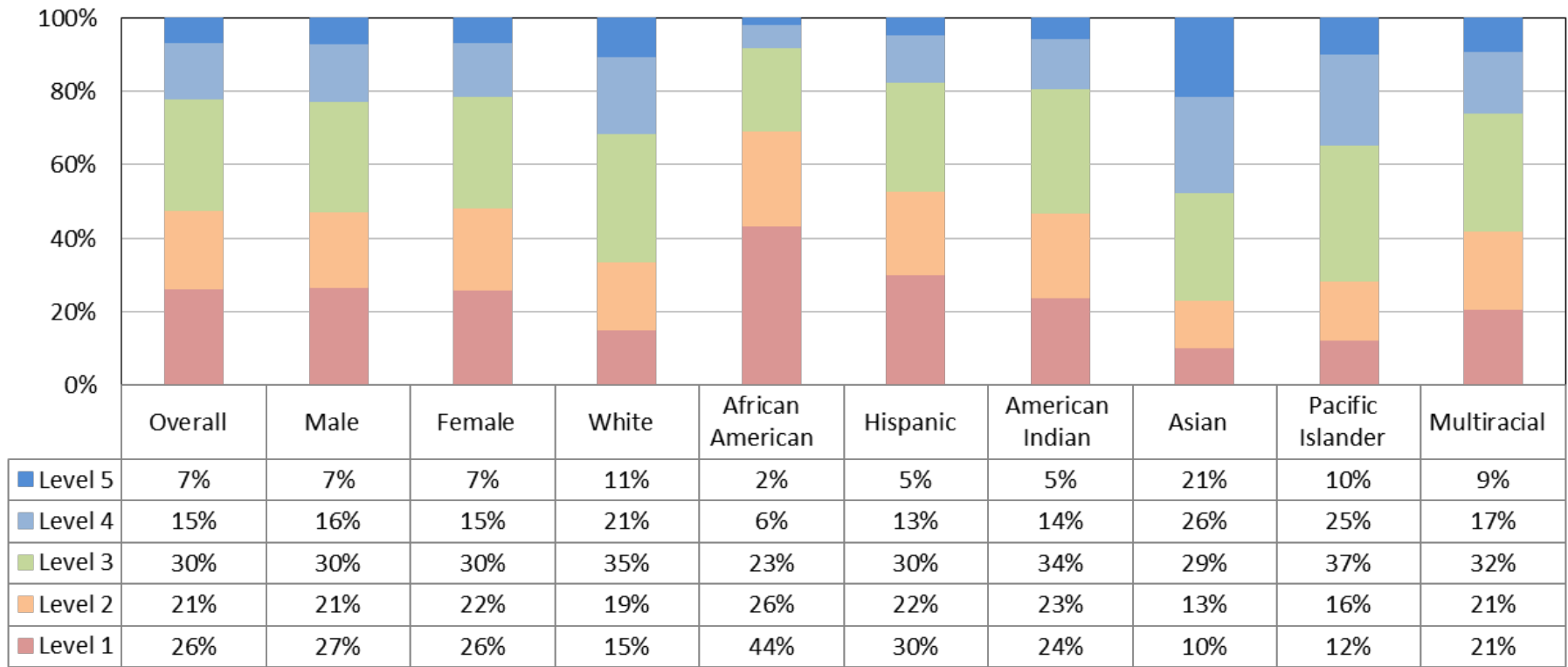
# Reactor Panel – Mathematics Grade 5 Impact Data

Percent Students in each Achievement Level



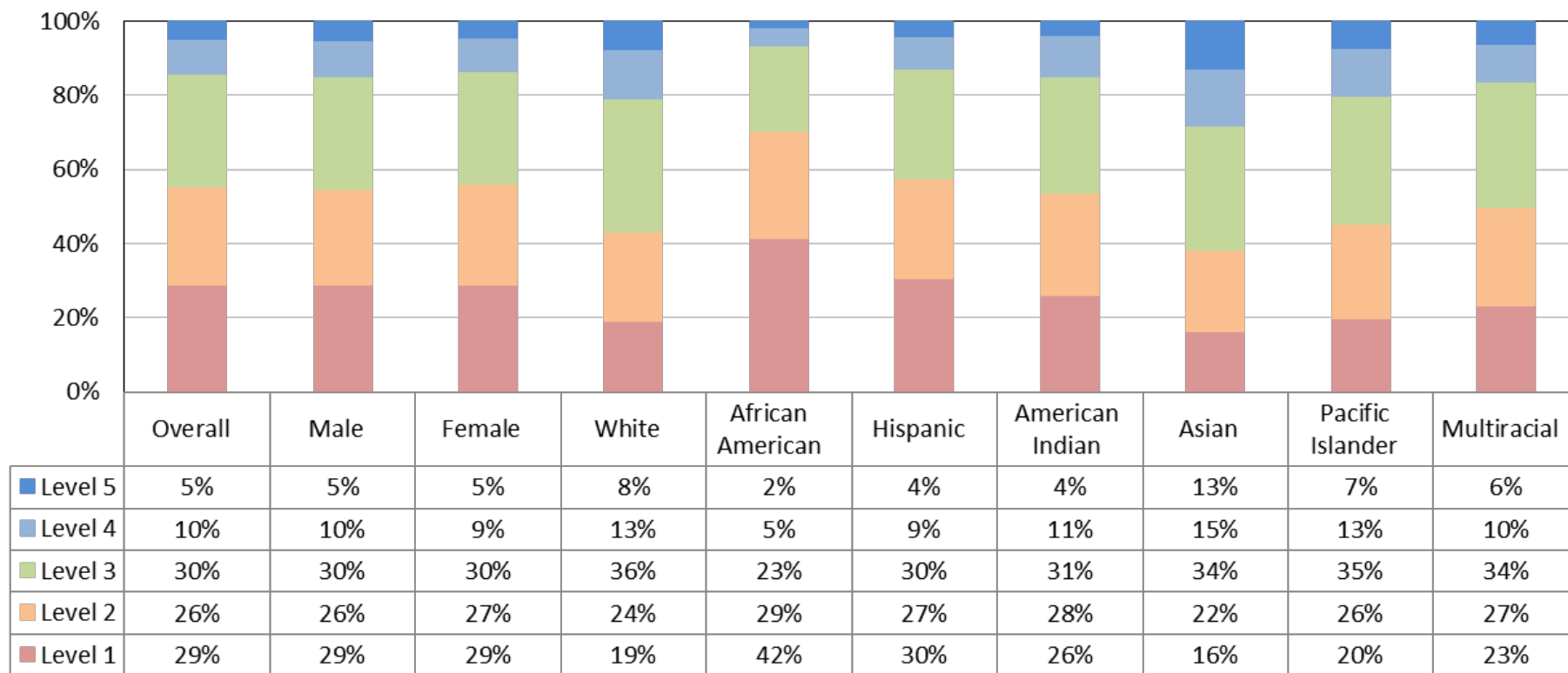
# Reactor Panel – Mathematics Grade 7 Impact Data

Percent Students in each Achievement Level



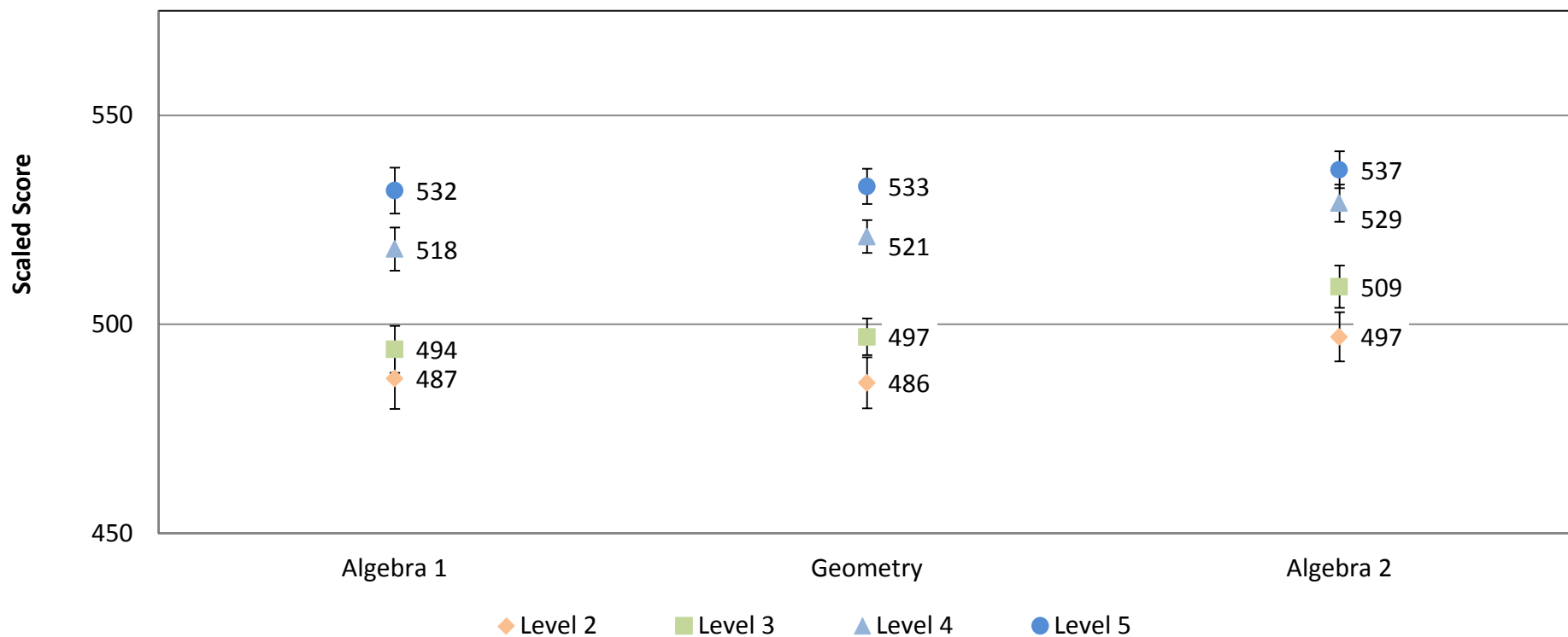
# Reactor Panel – Mathematics Grade 8 Impact Data

Percent Students in each Achievement Level



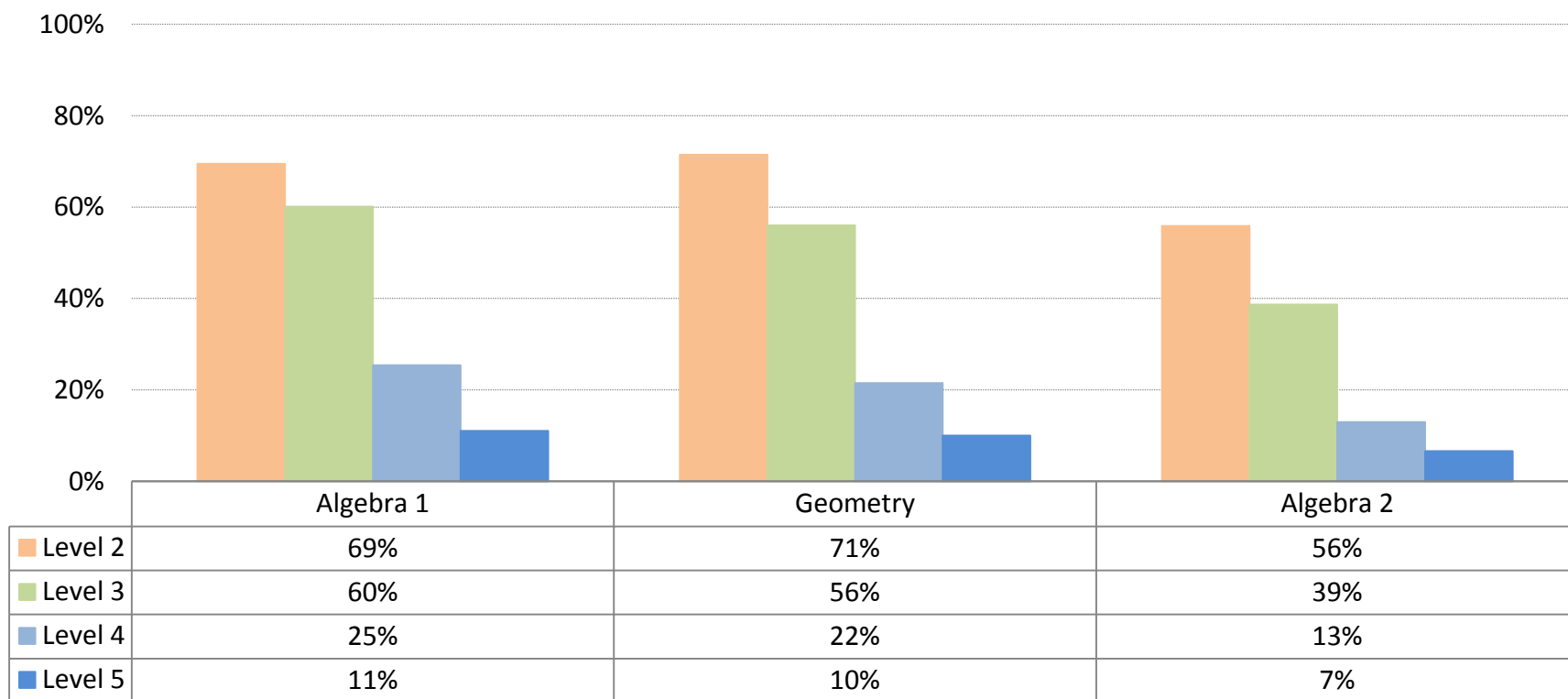
# Reactor Panel – Recommended End-of-Course Cut Scores

EOC - Scaled Score Metric



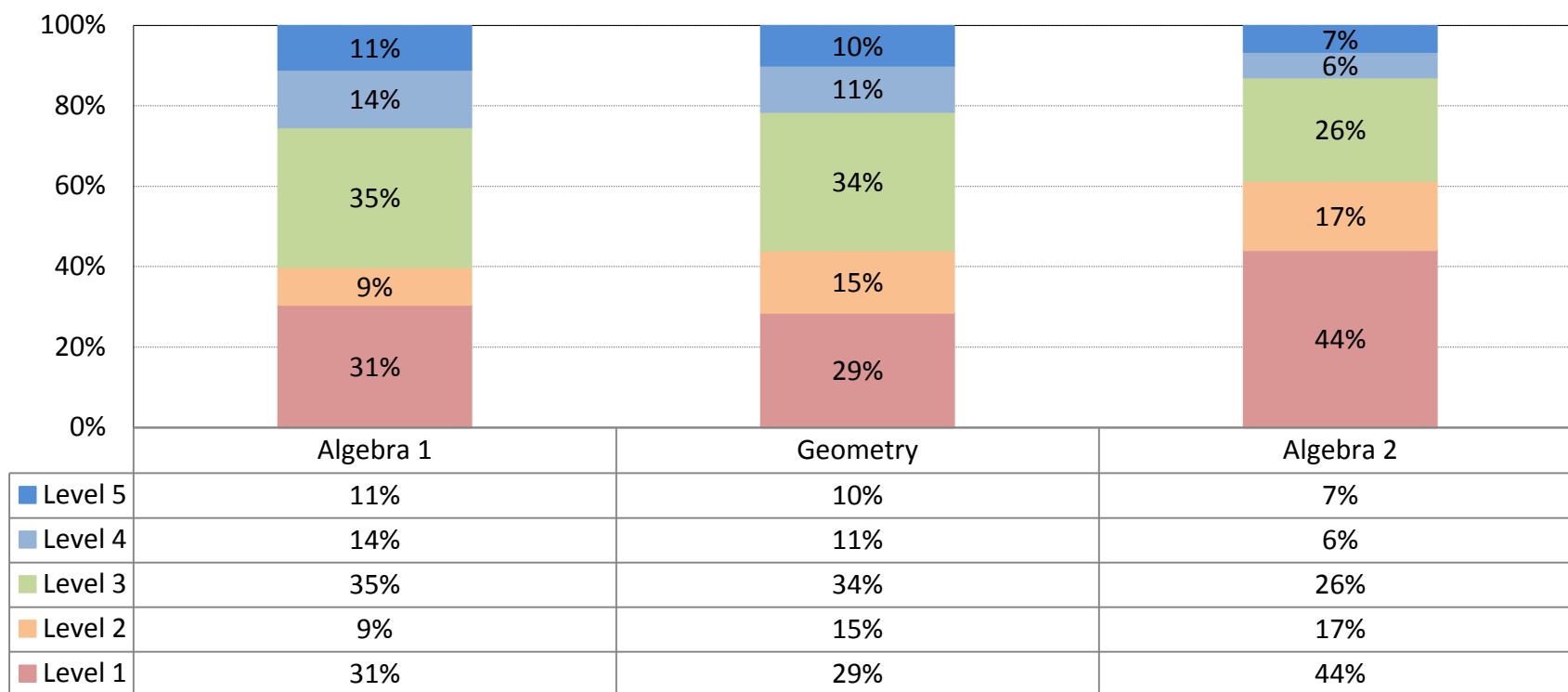
# Reactor Panel – Recommended End-of-Course Cut Scores

EOC - Percent Students at and above each Achievement Standard



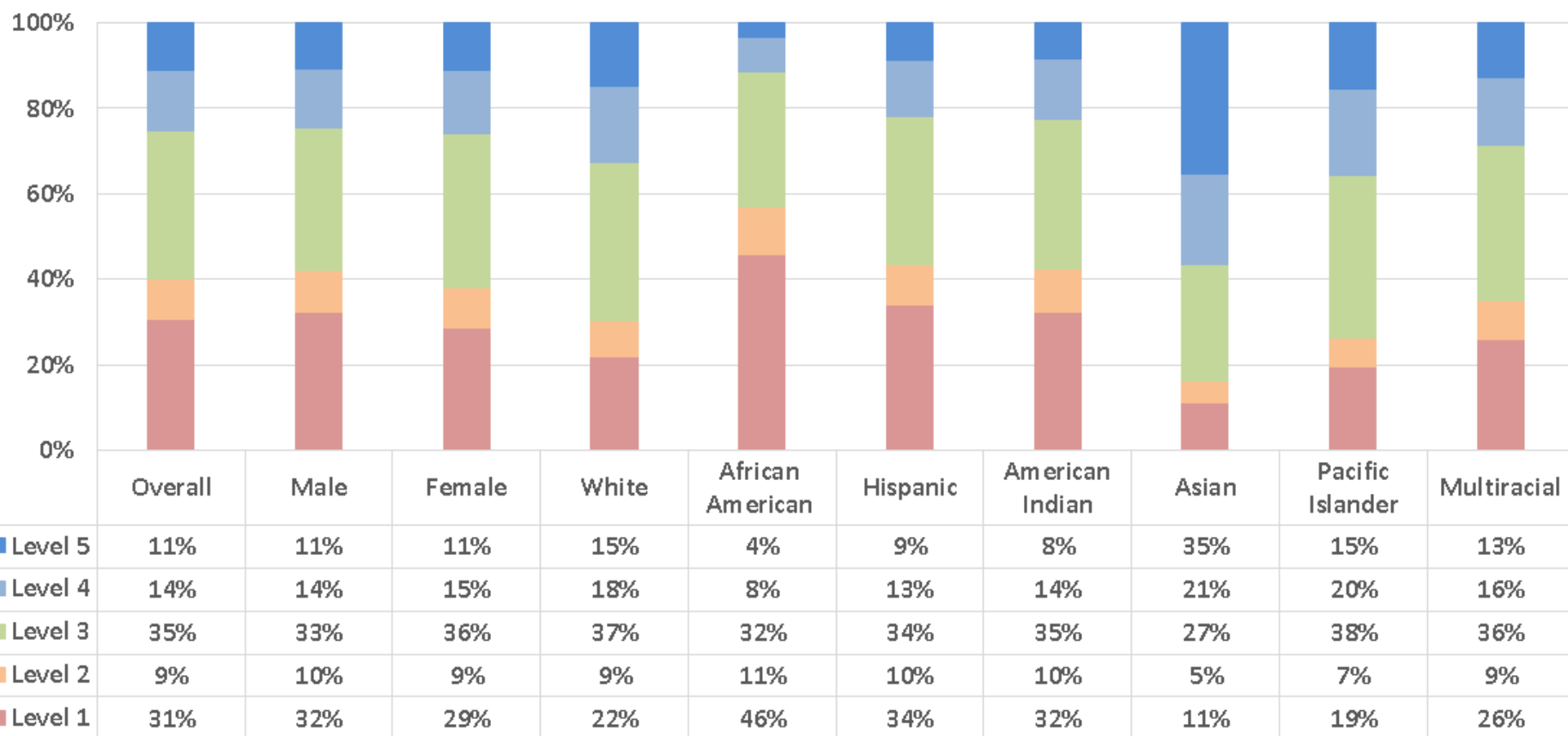
# Reactor Panel – Recommended End-of-Course Cut Scores

Percent Students in each Achievement Level



# Reactor Panel – Algebra 1 Impact Data

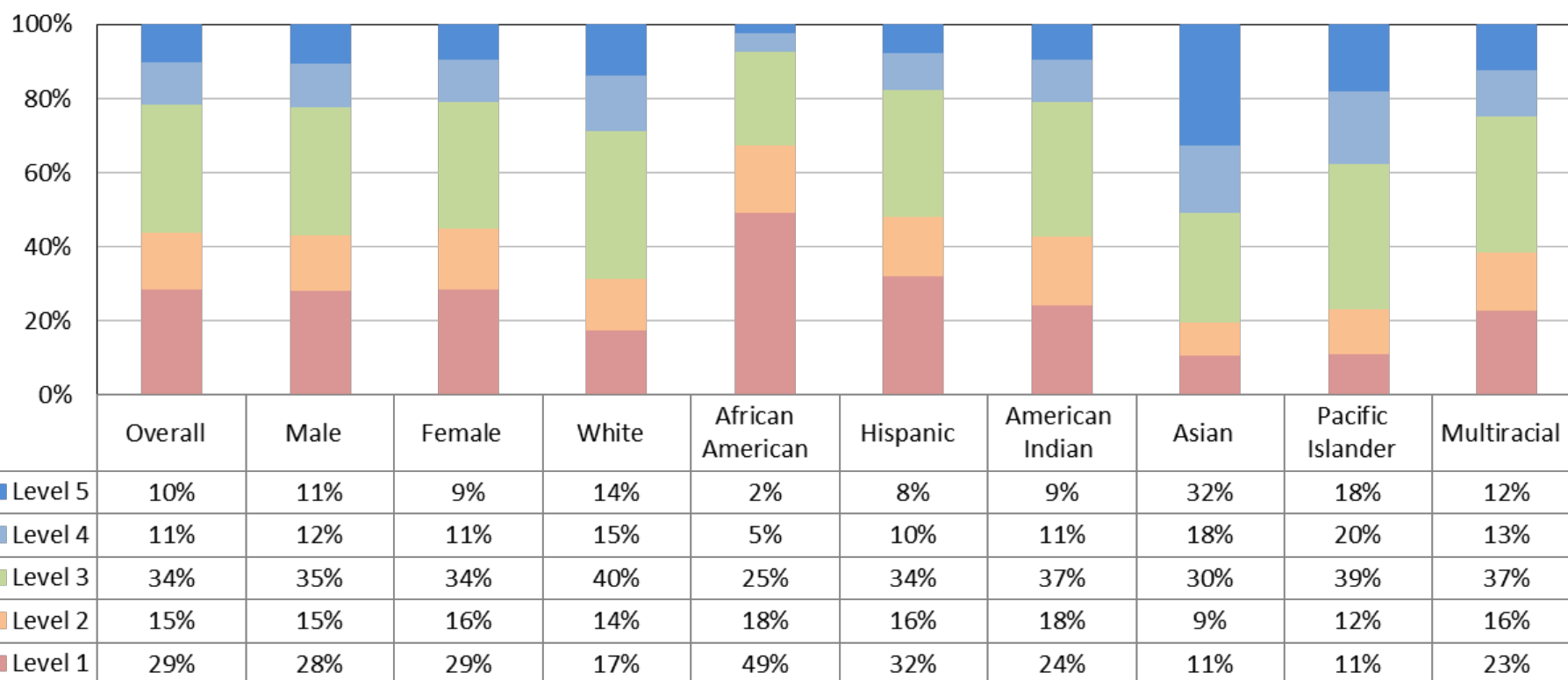
Percent Students at each Achievement Level





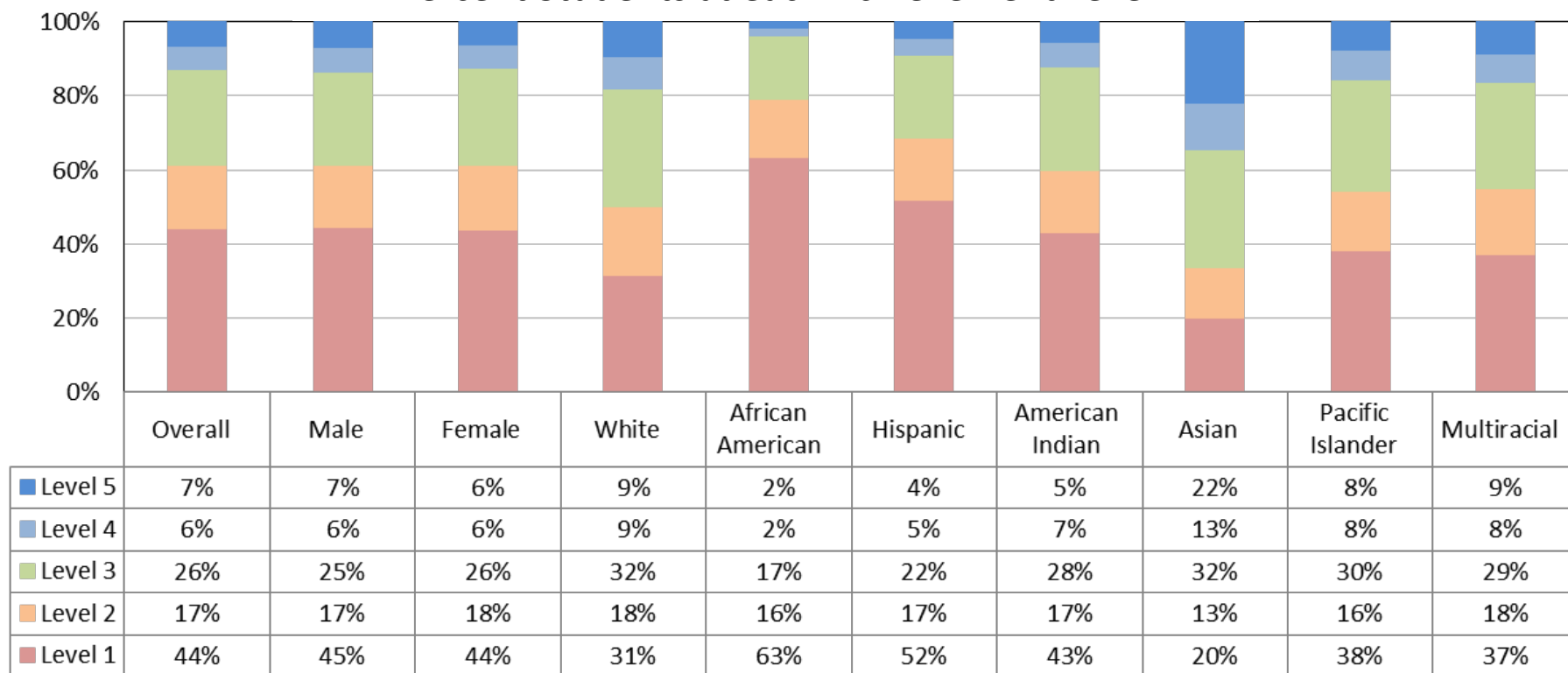
# Reactor Panel – Geometry Impact Data

Percent Students in each Achievement Level



# Reactor Panel – Algebra 2 Impact Data

Percent Students at each Achievement Level

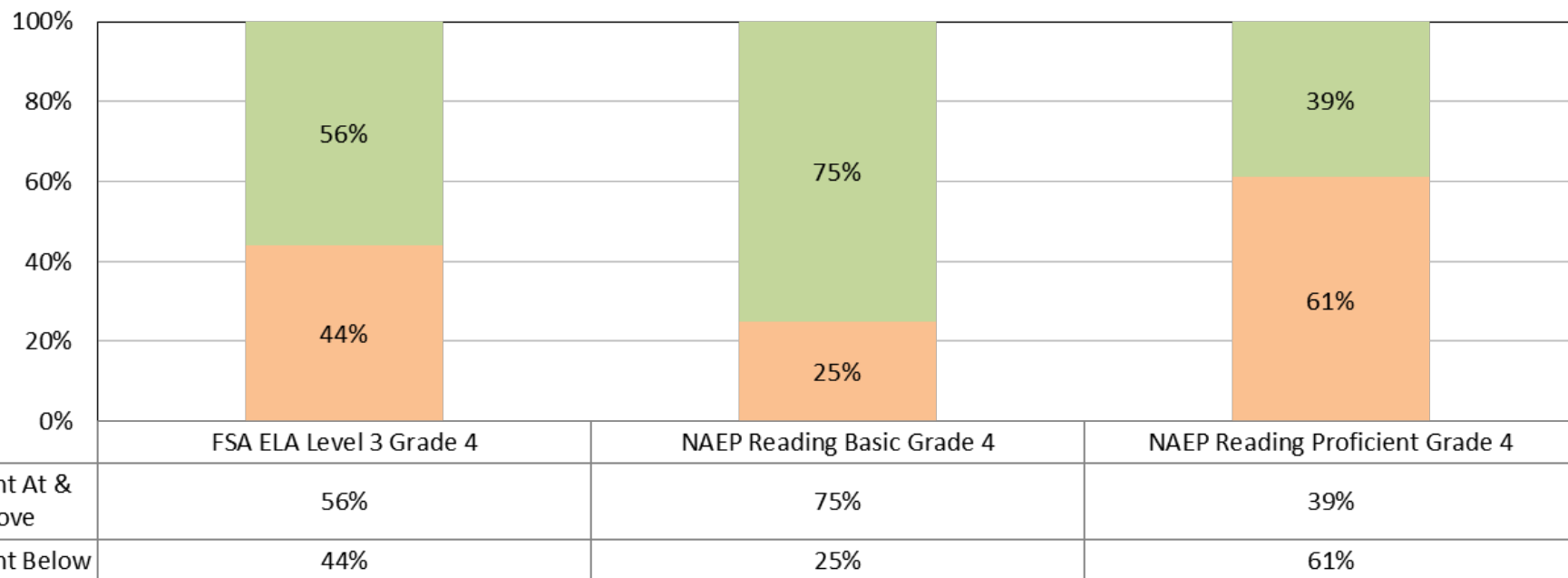


# Reactor Panel Recommendations – Percent of Students at or Above Each Achievement Level

Subject	Grade	Level 2	Level 3	Level 4	Level 5
ELA	3	75%	55%	25%	7%
	4	79%	54%	27%	8%
	5	80%	49%	26%	7%
	6	77%	49%	28%	8%
	7	76%	51%	29%	12%
	8	78%	59%	31%	11%
	9	74%	55%	31%	13%
	10	72%	51%	29%	9%
Math/EOC	3	81%	60%	31%	13%
	4	77%	59%	35%	14%
	5	76%	57%	27%	13%
	6	72%	49%	26%	8%
	7	74%	54%	19%	7%
	8	71%	49%	12%	5%
	Algebra 1	68%	51%	25%	11%
	Geometry	71%	50%	22%	10%
	Algebra 2	53%	31%	12%	7%

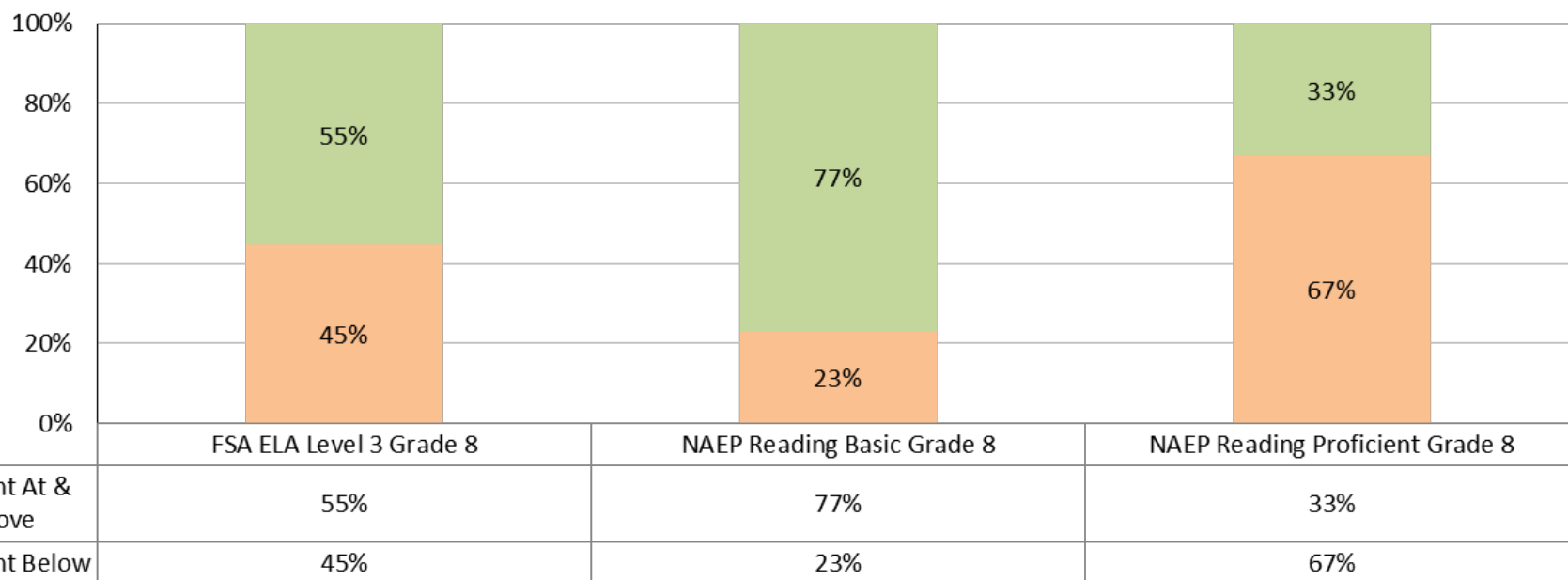
# Benchmarking - Comparing FSA ELA Grade 4 to NAEP Reading Grade 4

Reading - Comparing Grade 4 FSA 2015 with Grade 4 NAEP 2013



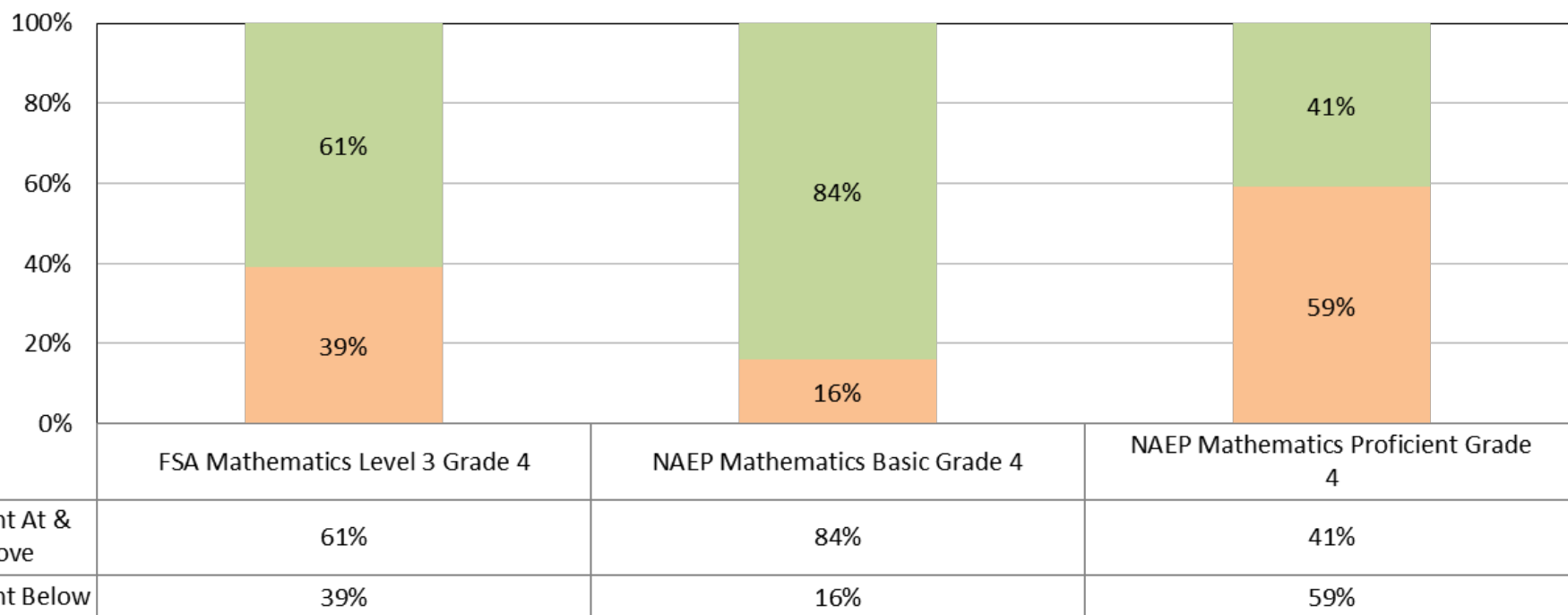
# Benchmarking - Comparing FSA ELA Grade 8 to NAEP Reading Grade 8

Reading - Comparing Grade 8 FSA 2015 with Grade 8 NAEP 2013



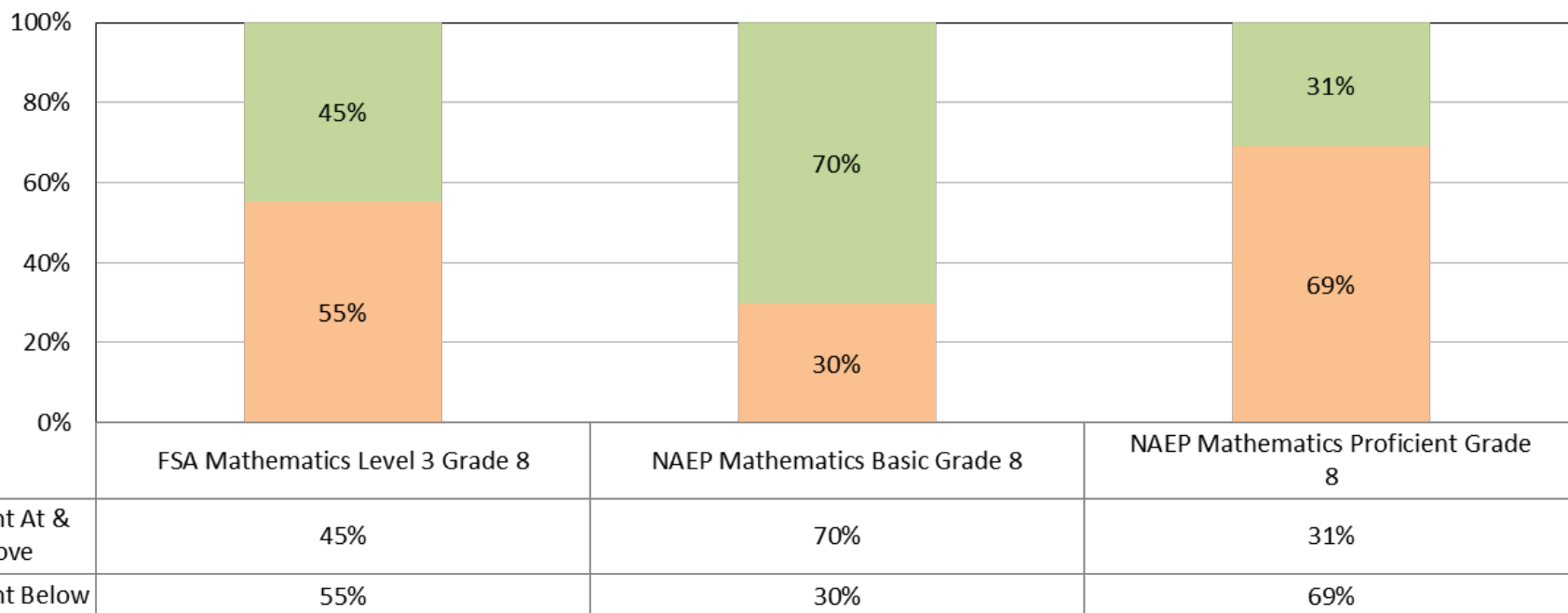
# Benchmarking - Comparing FSA Mathematics Grade 4 to NAEP Mathematics Grade 4

Mathematics - Comparing Grade 4 FSA 2015 with Grade 4 NAEP 2013



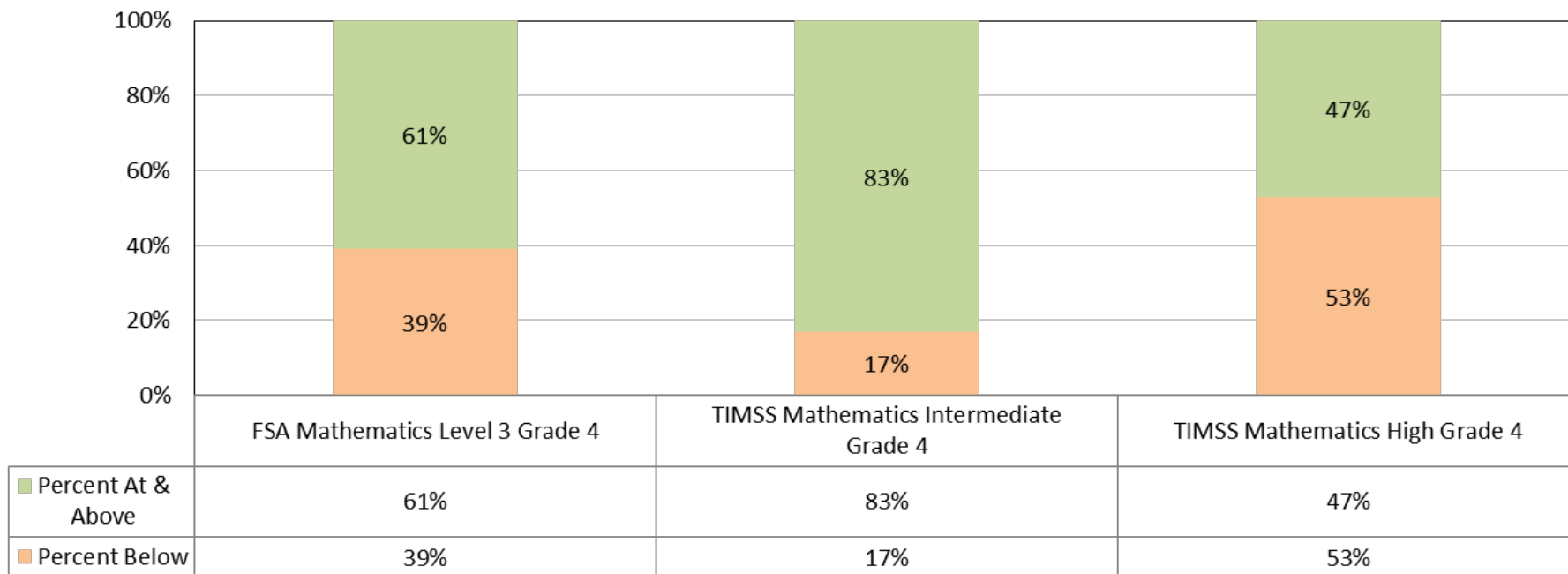
# Benchmarking - Comparing FSA Mathematics Grade 8 to NAEP Mathematics Grade 8

Mathematics - Comparing Grade 8 FSA 2015 with Grade 8 NAEP 2013



# Benchmarking - Comparing FSA Mathematics Grade 4 to TIMSS Mathematics Grade 4

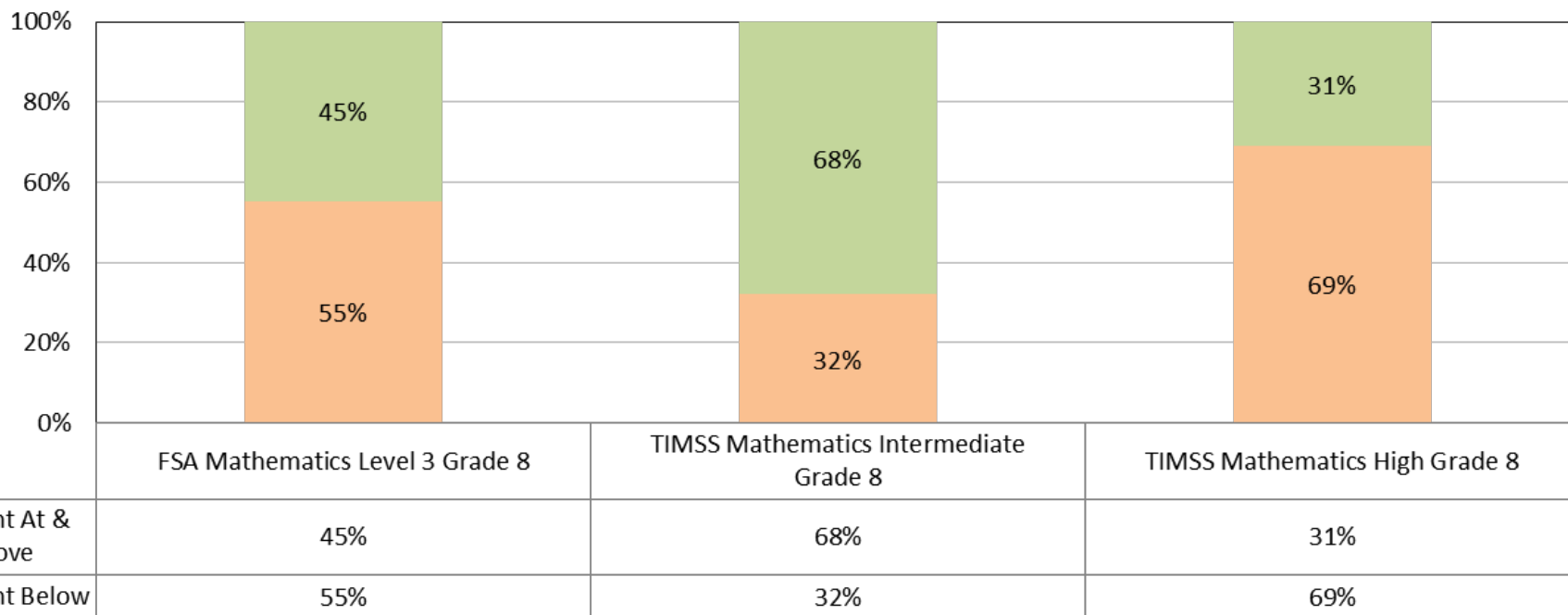
Mathematics - Comparing Grade 4 FSA 2015 with Grade 4 TIMSS 2011





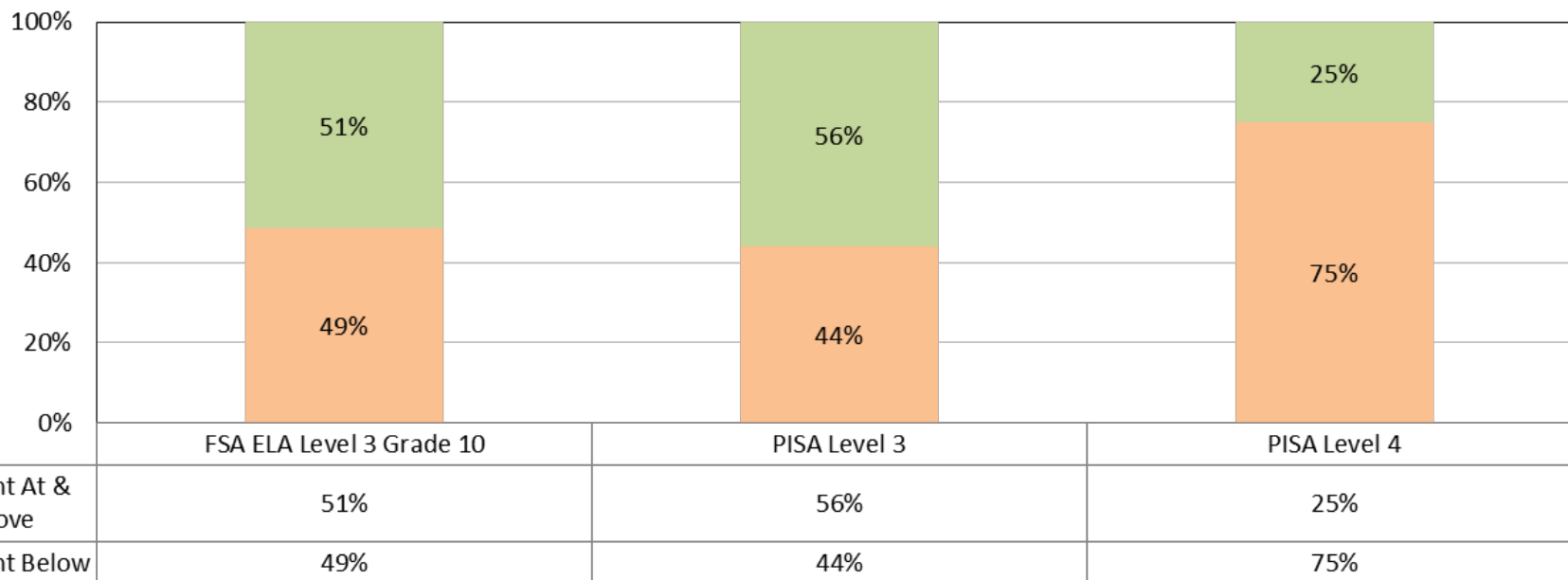
# Benchmarking - Comparing FSA Mathematics Grade 8 to TIMSS Mathematics Grade 8

Mathematics - Comparing Grade 8 FSA 2015 with Grade 8 TIMSS 2011



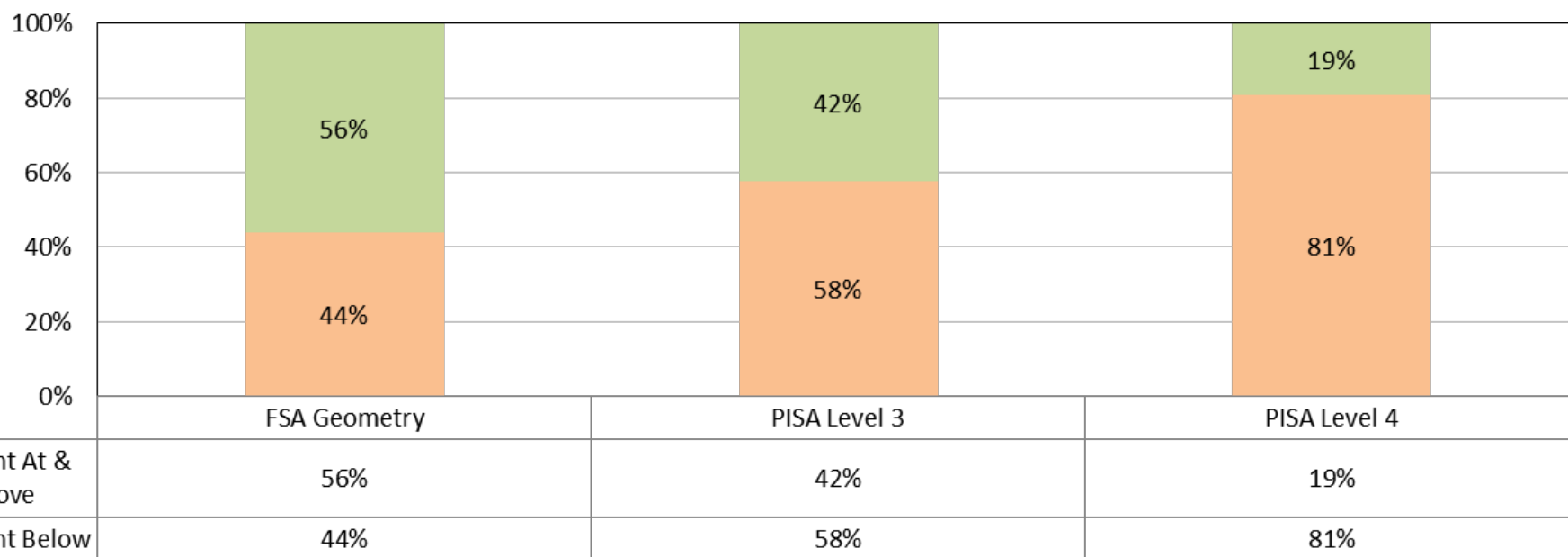
# Benchmarking - Comparing FSA ELA Grade 10 to PISA Reading Age 15

Reading - Comparing Grade 10 FSA 2015 with PISA 2012



# Benchmarking - Comparing FSA Geometry to PISA Mathematics Age 15

Comparing FSA Geometry 2015 with PISA Mathematics 2012



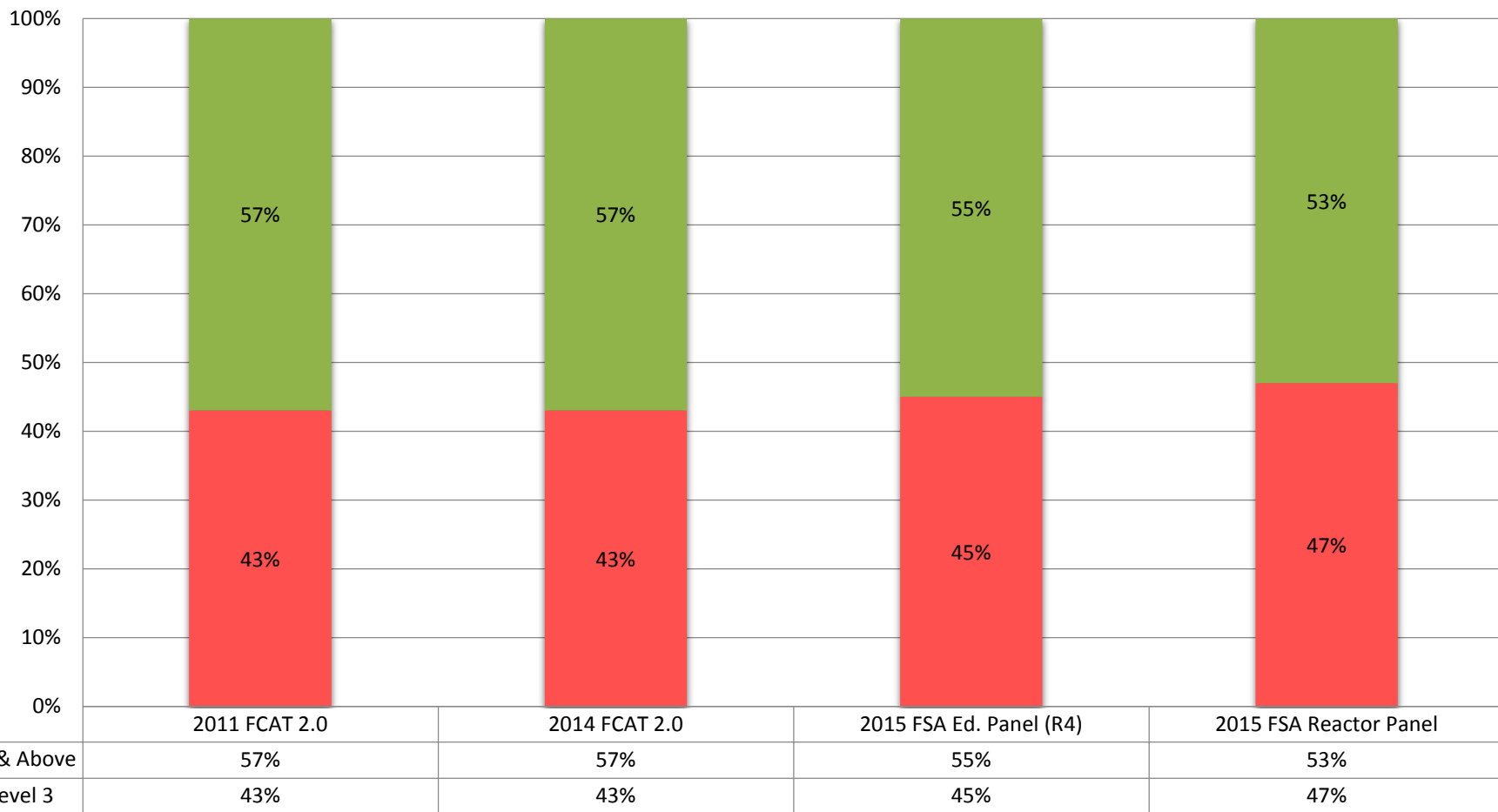


## **Pass Rate Comparisons - Educator and Reactor Panel FSA Recommendations to FCAT 2.0**

## Percent 3 and Above: FCAT 2.0 Reading and FSA ELA

Grade	2011 FCAT 2.0	2014 FCAT 2.0	2015 FSA Ed. Panel	2015 FSA Reactor Panel
3	57%	57%	55%	53%
4	59%	61%	54%	56%
5	58%	61%	49%	56%
6	58%	60%	49%	52%
7	58%	57%	51%	51%
8	53%	57%	59%	55%
9	51%	53%	55%	55%
10	52%	55%	51%	51%

## ELA Grade 3 FCAT 2.0 & FSA



## ELA Grade 4 FCAT 2.0 & FSA



## ELA Grade 5 FCAT 2.0 & FSA

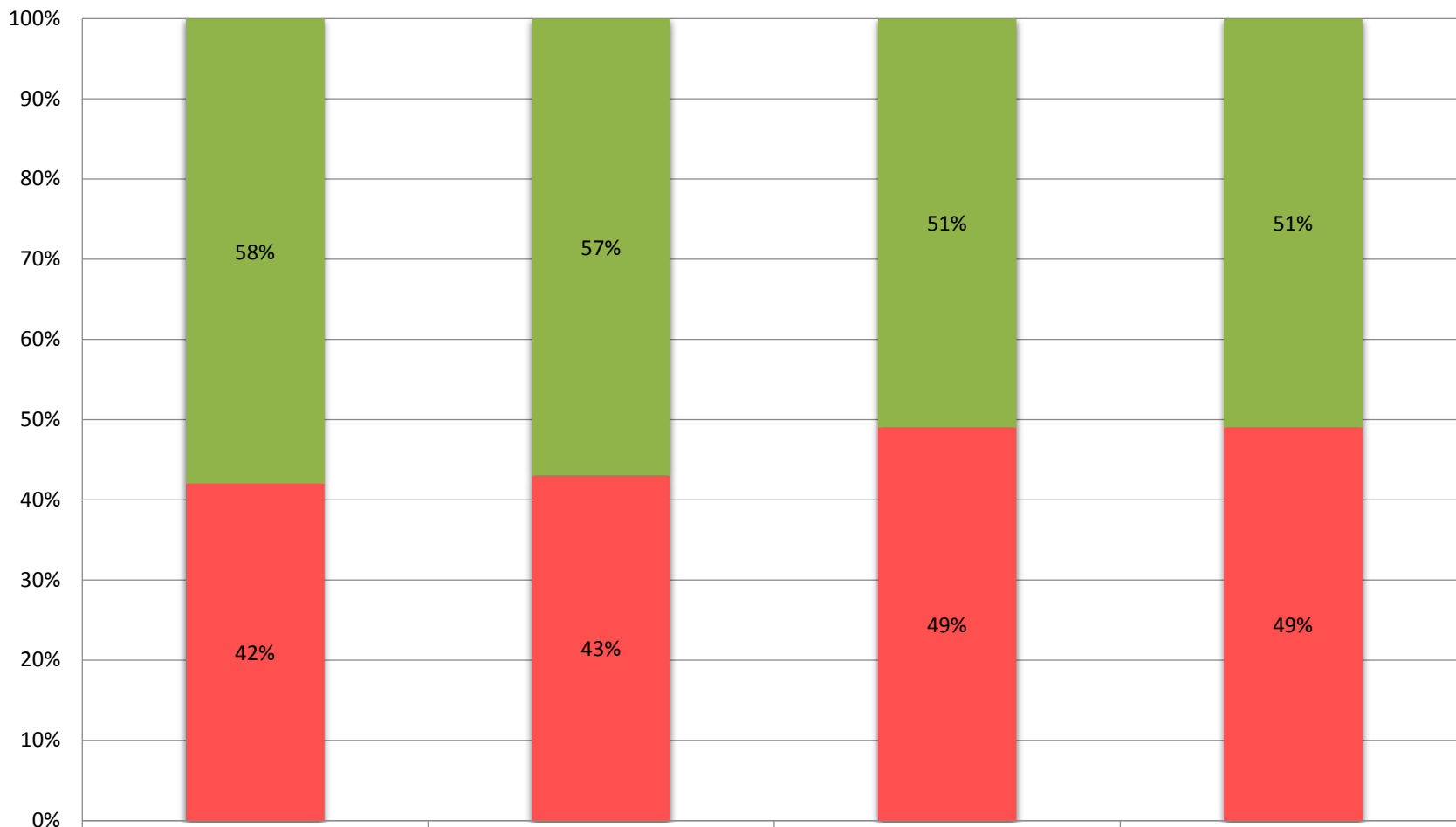




## ELA Grade 6 FCAT 2.0 & FSA



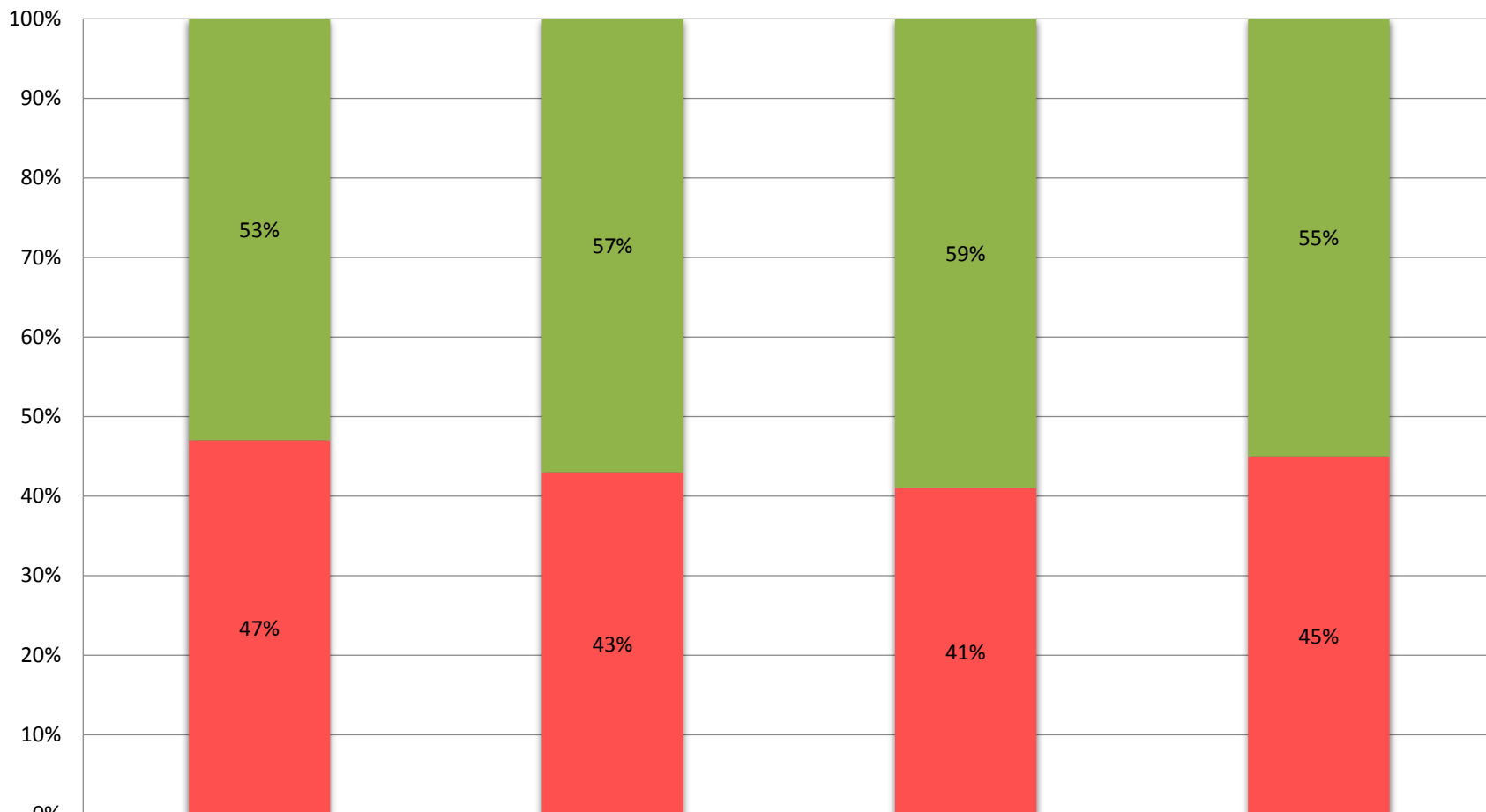
## ELA Grade 7 FCAT 2.0 & FSA



■ Level 3 & Above

■ Below Level 3

## ELA Grade 8 FCAT 2.0 & FSA



■ Level 3 & Above

53%

57%

59%

55%

■ Below Level 3

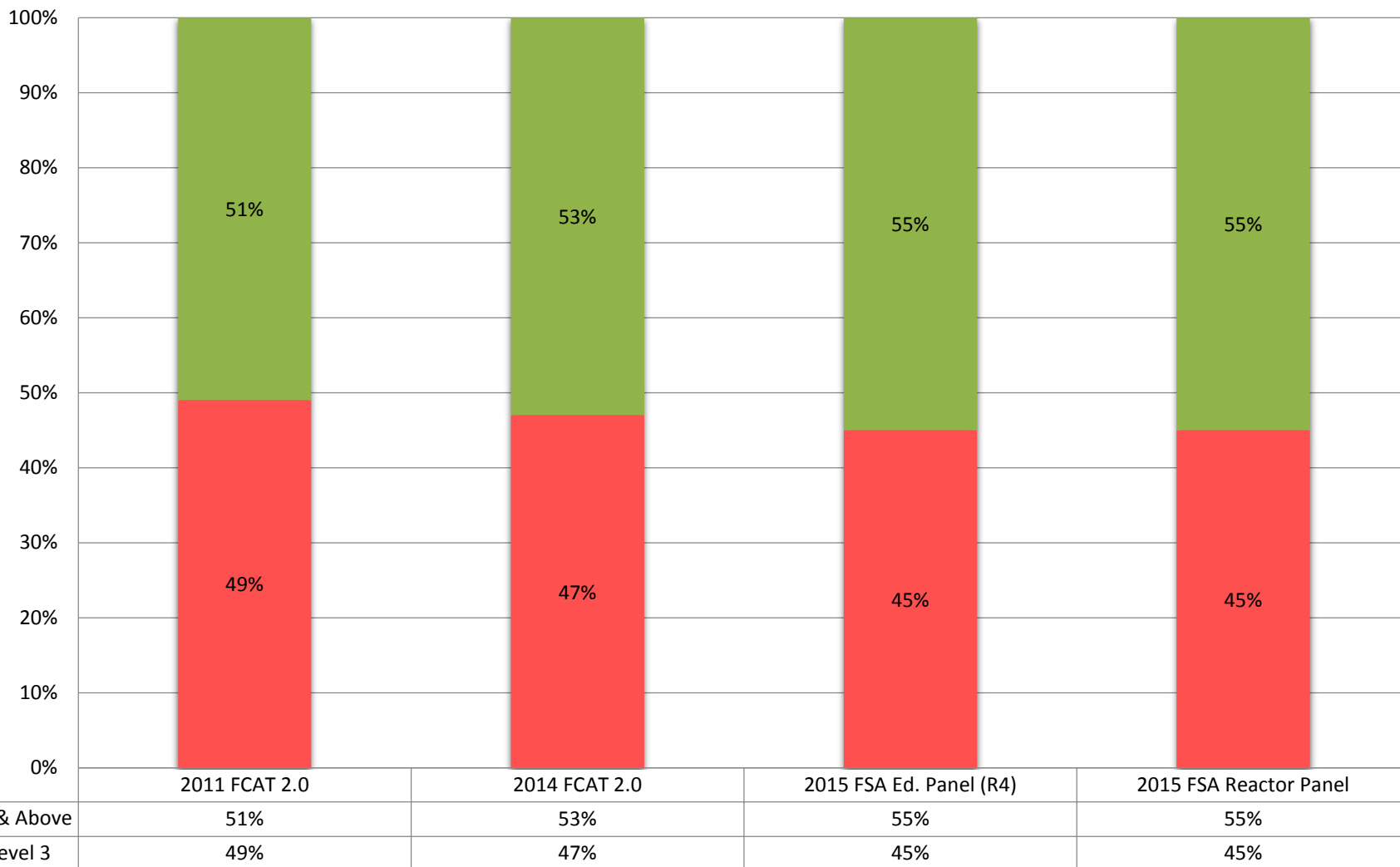
47%

43%

41%

45%

## ELA Grade 9 FCAT 2.0 & FSA



## ELA Grade 10 FCAT 2.0 & FSA



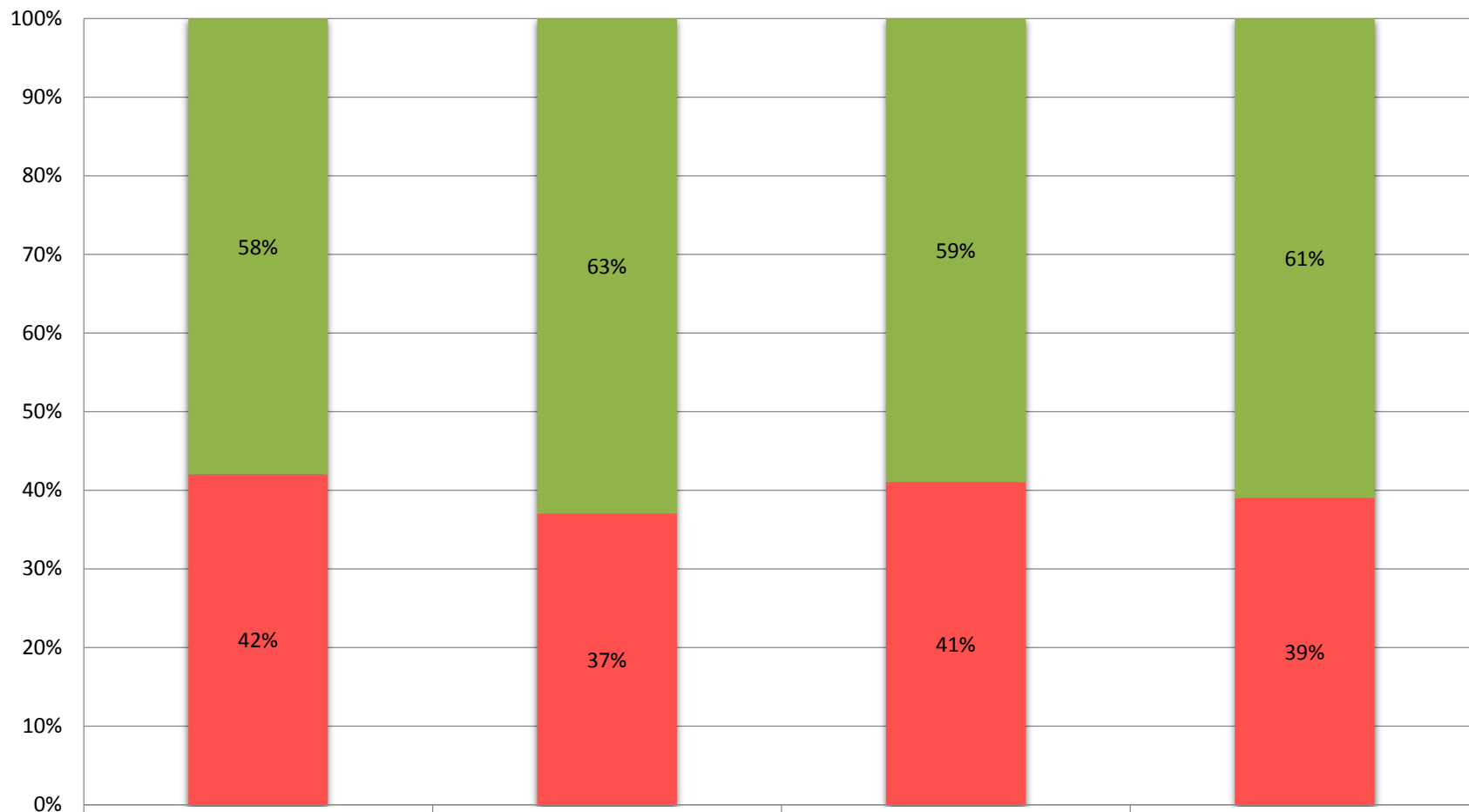
## Percent 3 and Above: FCAT 2.0 and FSA Mathematics

Grade/ Subject	2011 FCAT 2.0	2014 FCAT 2.0	2015 FSA Ed. Panel	2015 FSA Reactor Panel
3	56%	58%	60%	60%
4	58%	63%	59%	61%
5	56%	56%	57%	59%
6	53%	53%	49%	50%
7	56%	56%	54%	52%
8	56%	47%	49%	45%
ALG I	55%	65%	51%	60%
GEO	56%	64%	50%	56%
ALG II	NA	NA	31%	39%

## Math Grade 3 FCAT 2.0 & FSA



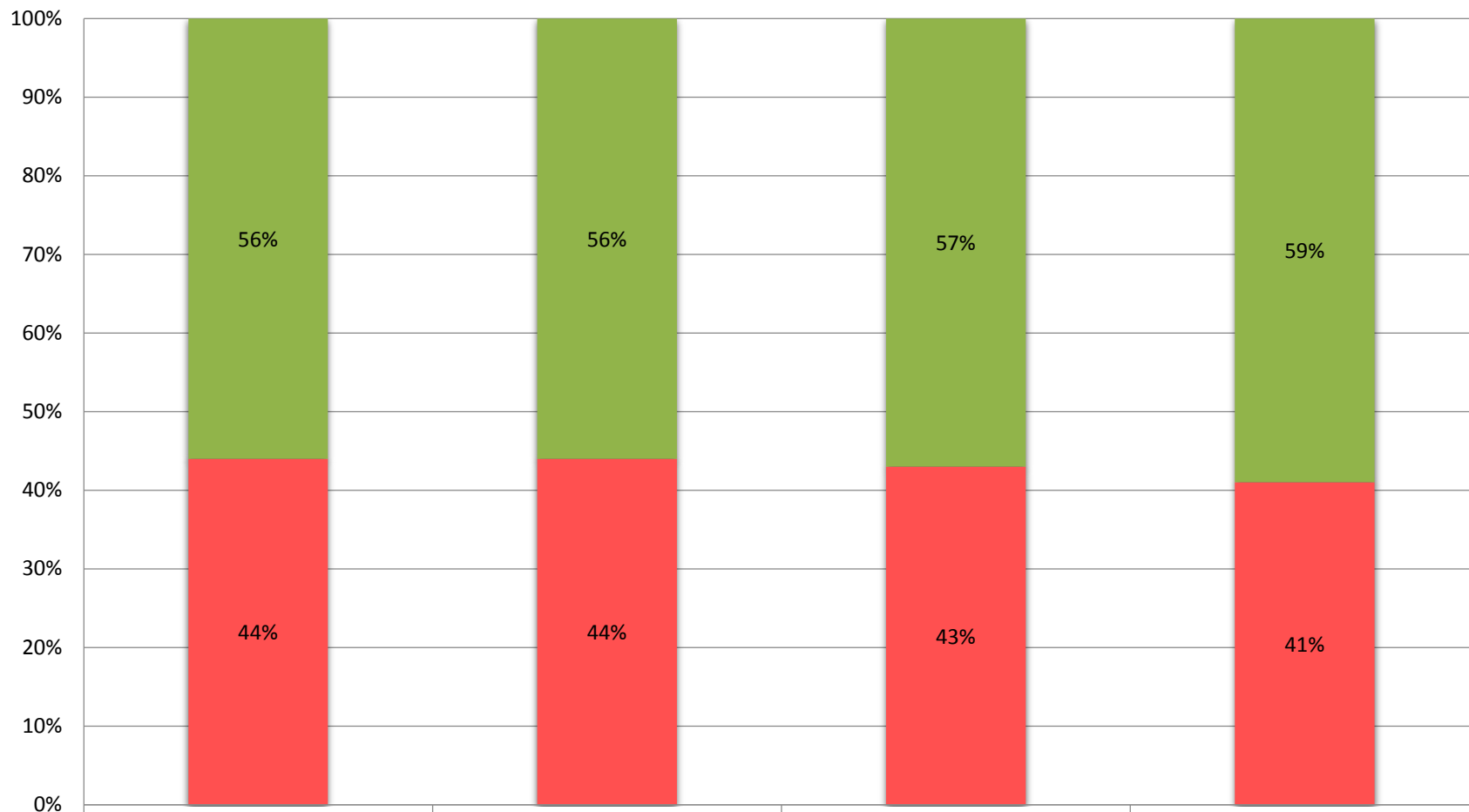
## Math Grade 4 FCAT 2.0 & FSA



■ Level 3 & Above	58%	63%	59%	61%
■ Below Level 3	42%	37%	41%	39%

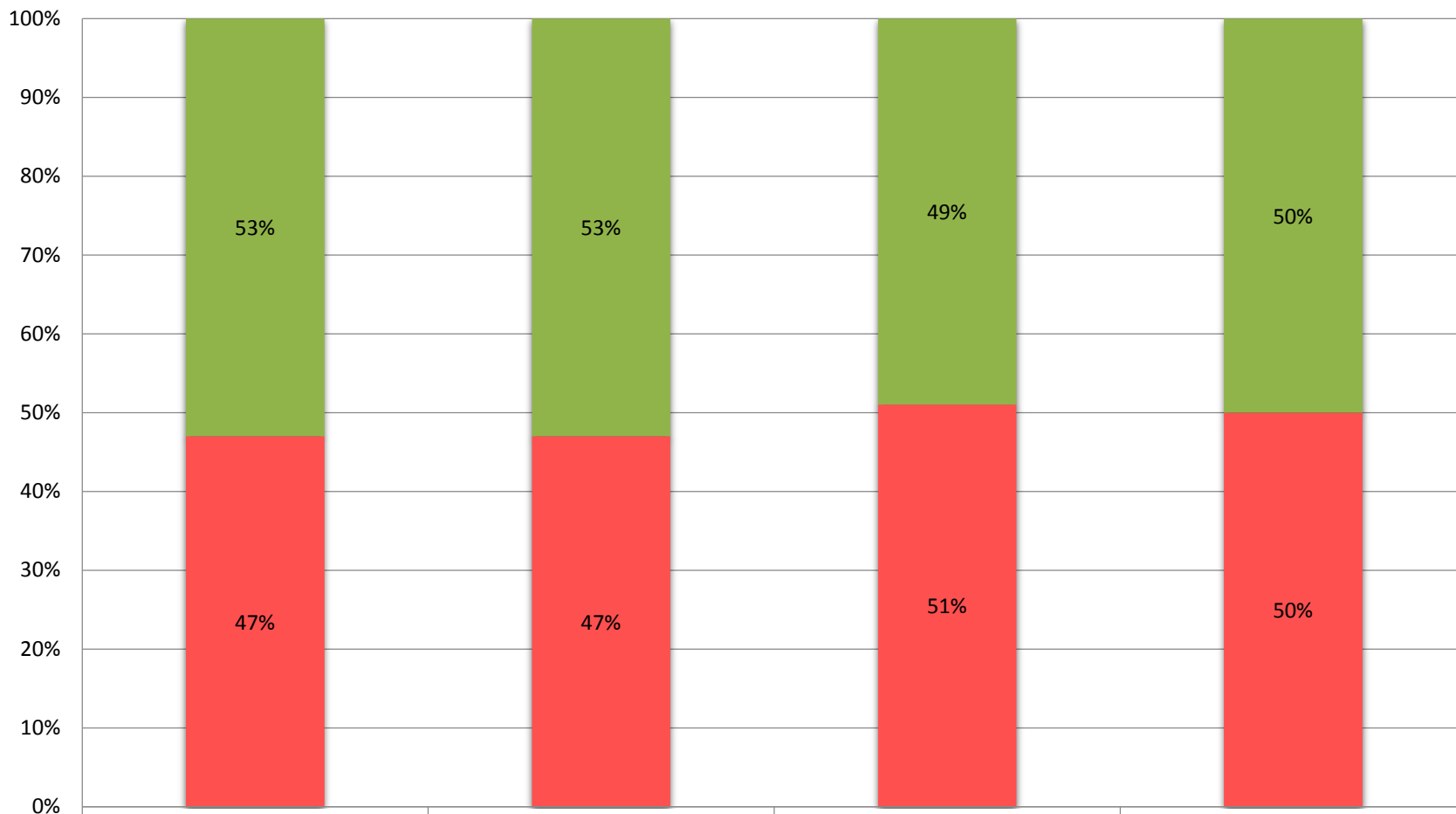


## Math Grade 5 FCAT 2.0 & FSA



■ Level 3 & Above	56%	56%	57%	59%
■ Below Level 3	44%	44%	43%	41%

## Math Grade 6 FCAT 2.0 & FSA



■ Level 3 & Above

■ Below Level 3

2011 FCAT 2.0

2014 FCAT 2.0

2015 FSA Ed. Panel (R4)

2015 FSA Reactor Panel

53%

53%

49%

50%

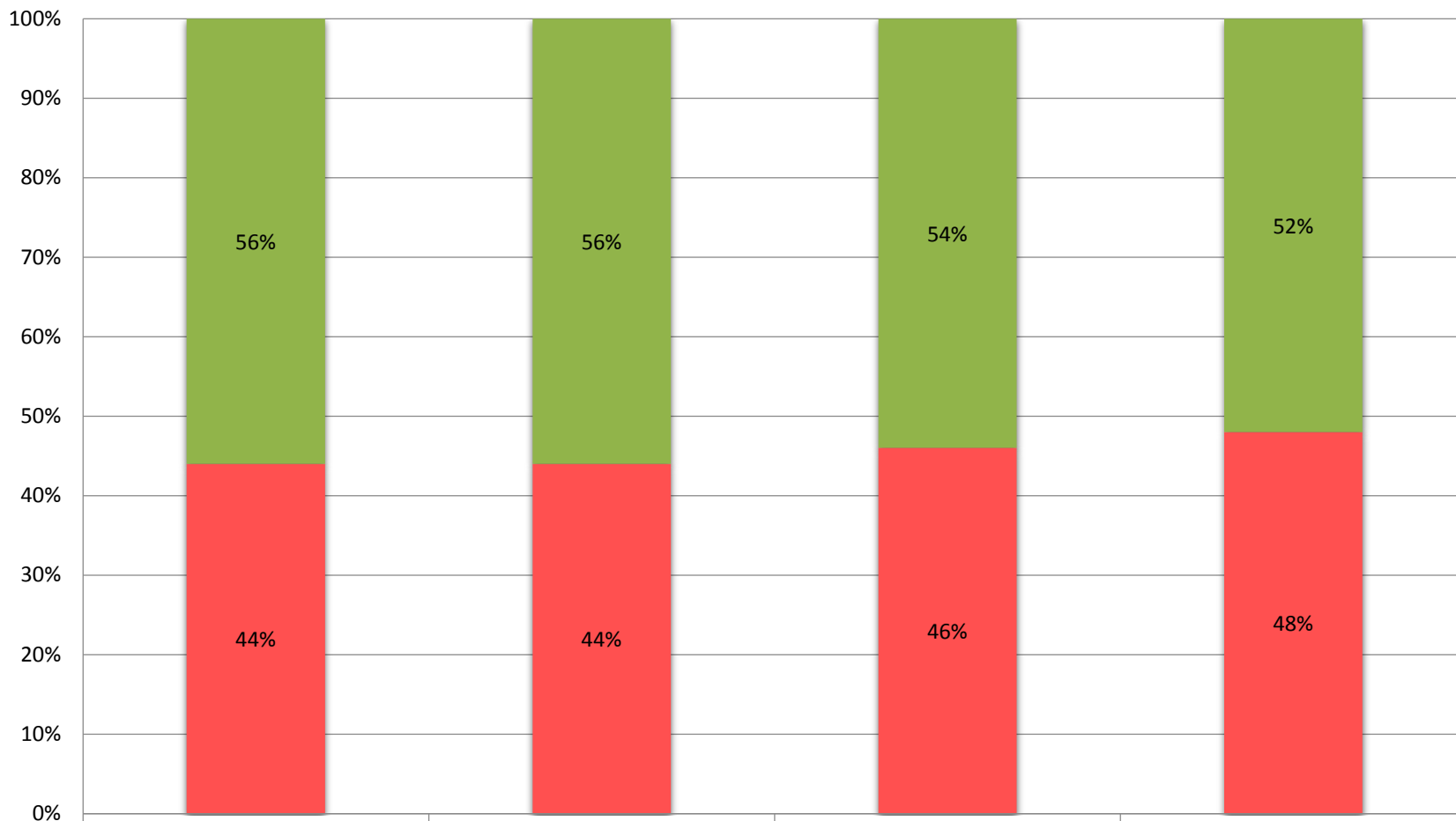
47%

47%

51%

50%

## Math Grade 7 FCAT 2.0 & FSA



■ Level 3 & Above

■ Below Level 3

2011 FCAT 2.0

2014 FCAT 2.0

2015 FSA Ed. Panel (R4)

2015 FSA Reactor Panel

56%

56%

54%

52%

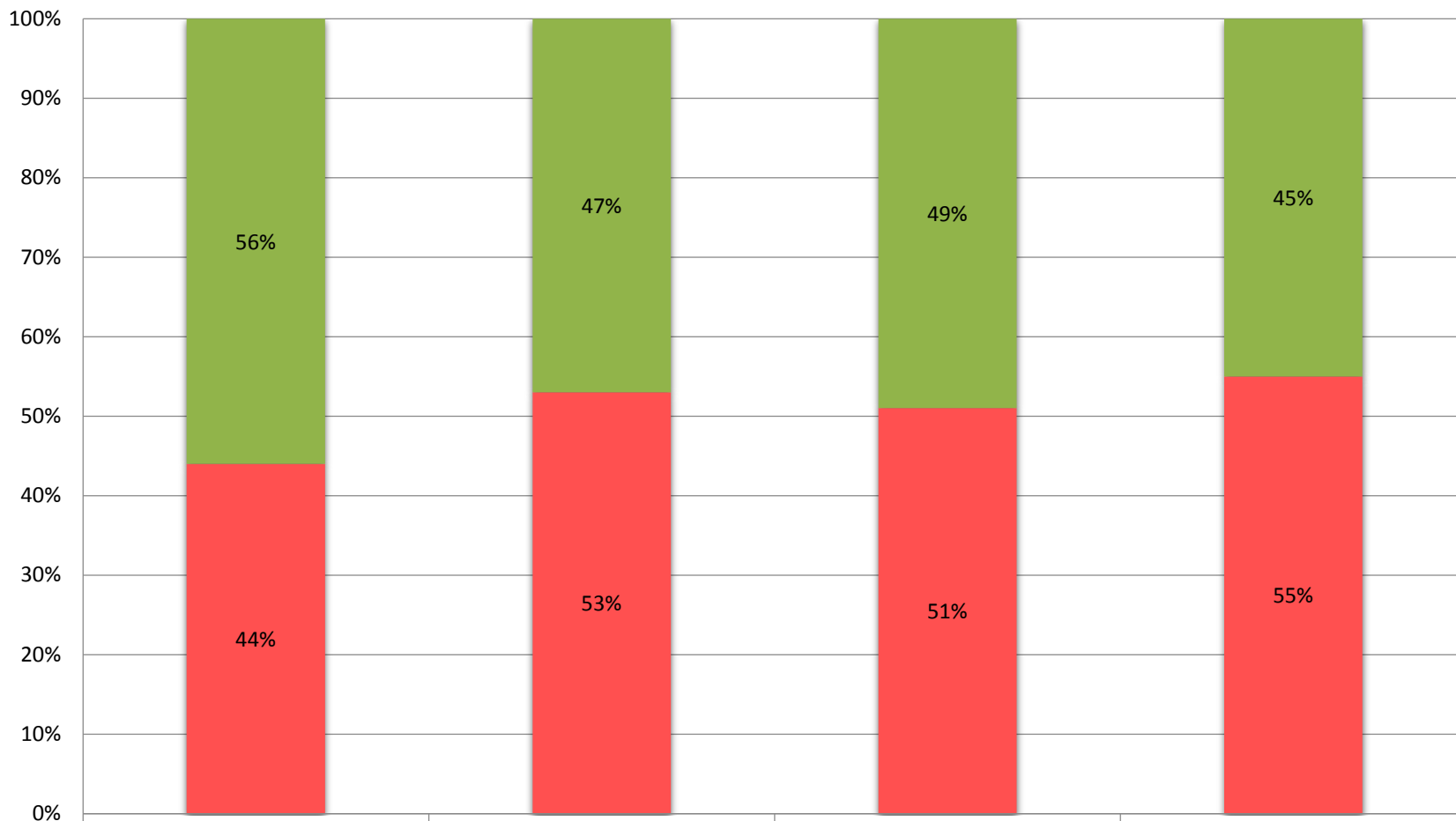
44%

44%

46%

48%

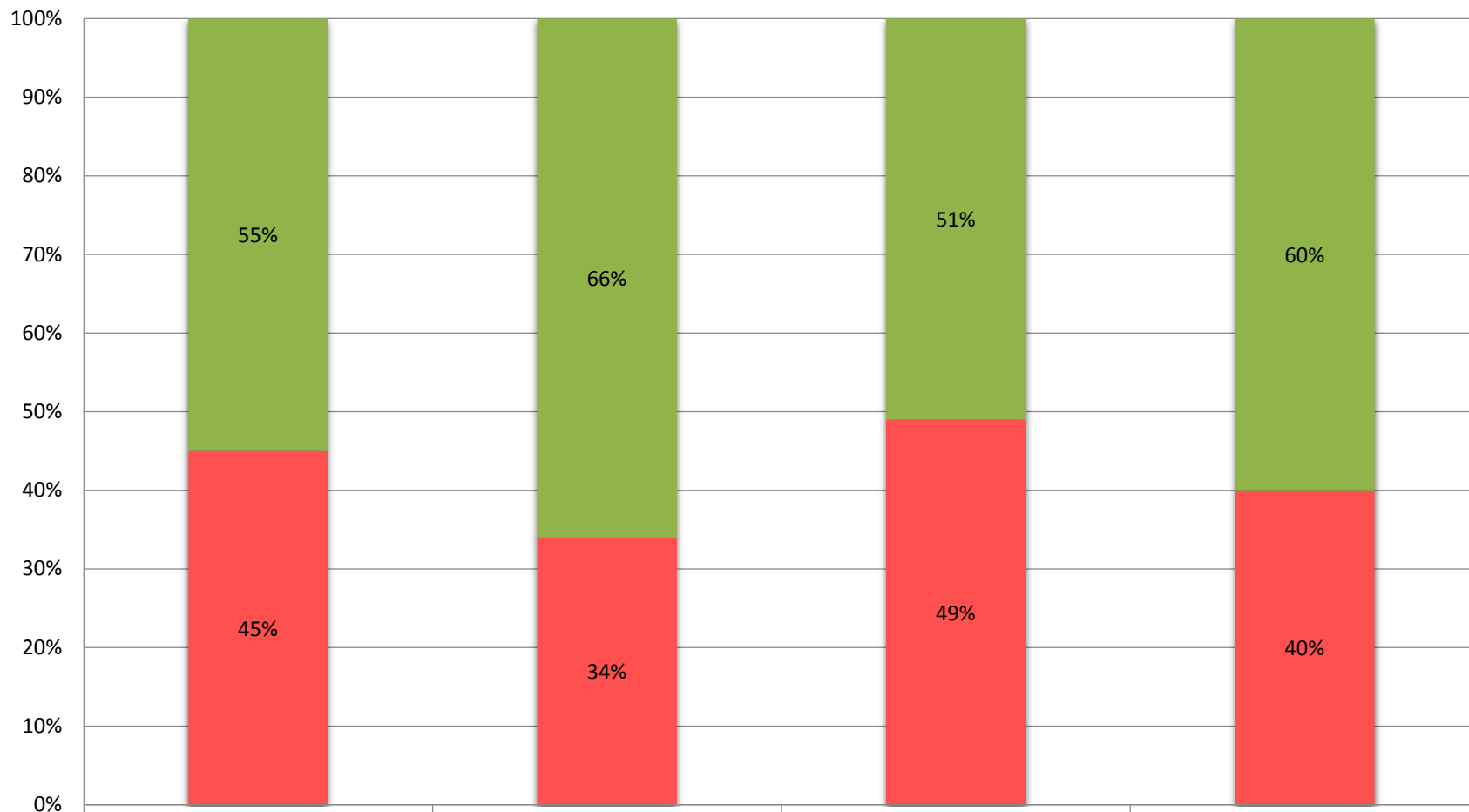
## Math Grade 8 FCAT 2.0 & FSA



■ Level 3 & Above

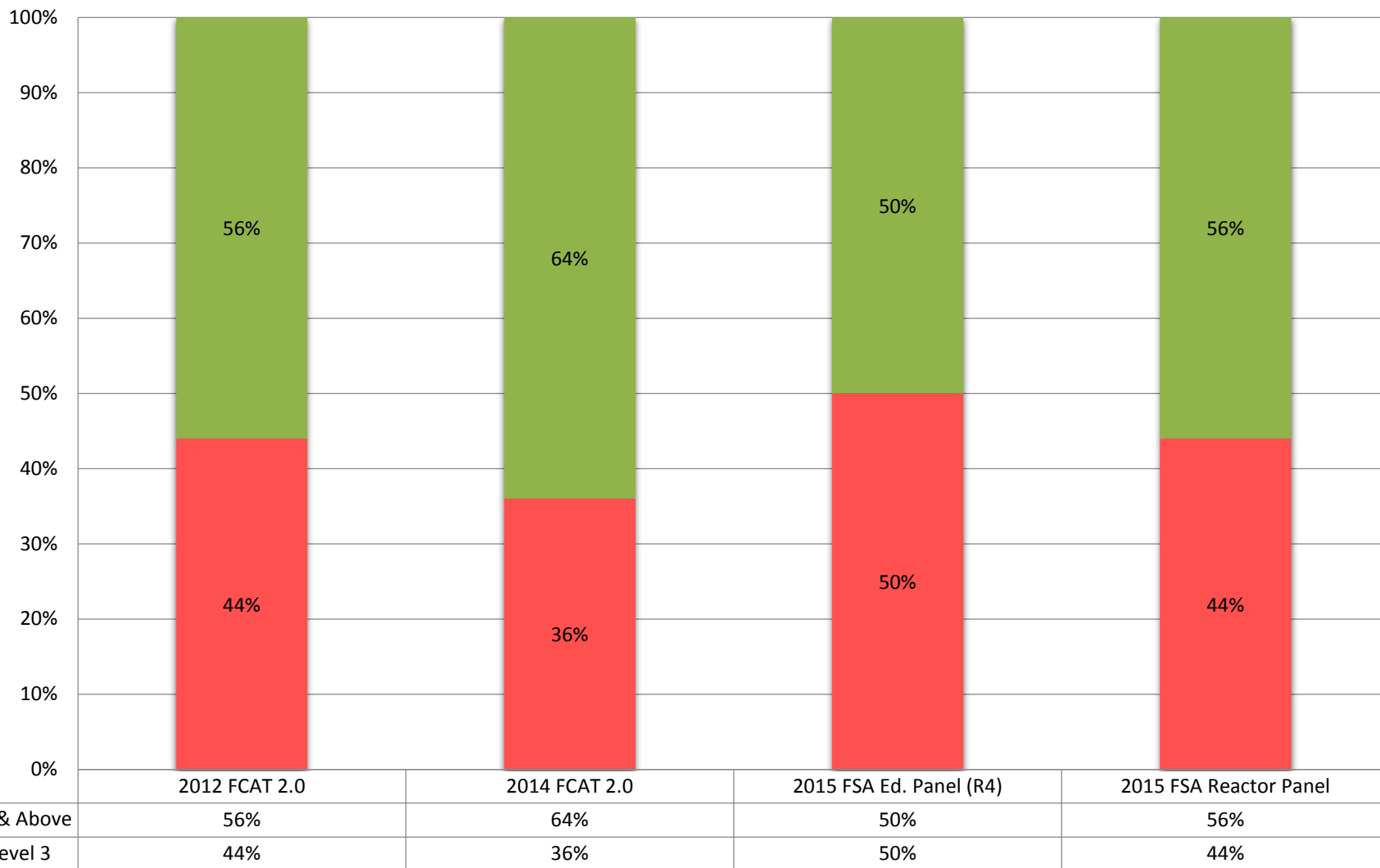
■ Below Level 3

## Algebra I EOC FCAT 2.0 & FSA



■ Level 3 & Above	55%	66%	51%	60%
■ Below Level 3	45%	34%	49%	40%

## Geometry EOC FCAT 2.0 & FSA



## Commissioner's Recommendation

- The Commissioner will consider the recommendations of the Educator Panel, the Reactor Panel, and the public workshops before making her recommendations.
- The Commissioner's recommendations will be provided to the legislature for the statutorily-required 90 day review period.

## State Board of Education

- Draft rule including the new FSA Achievement Level cut scores will be presented to the State Board of Education for adoption in December.
- The State Board will review
  - Educator Panel recommendations
  - Reactor Panel recommendations
  - Public Input
  - Commissioner's Recommendations
- The State Board will adopt new Achievement Level cut scores for the FSA.





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