



Class Size

SPECIAL BOARD MEETING STUDY SESSION

SEPTEMBER 27, 2017

UPDATES IN RED FOR DECEMBER 4, 2019

Class Sizes 2016-2020

	2016-17	2017-18	2018-19	2019-20
TK	26;9/16	21;18/6	24;6+17	22;22
K	26;26;26;27	26;25;26;27	21;22;23;23	25;25;25;25;24
1	25;25;25;26	24;23;24;23;22	25;25;25;26	24;24;25;26;14/11
2	21;21;21;21;23	18;21;17;18;17	22;22;22;23;23	22;22;22;23
3	22;21;19;21;22	27;26;27;26	24;24;24;24	25;25;26;27
4	31;30;29;31	26;27;28;29	26;26;27;27	23;24;25;23

Indian Creek Site Capacities

2017-18

All rooms used as classrooms, except:

Room 10: Currently used for 4th grade music enrichment and Walk to Learn small group reading instruction

Room L4: Room off of Library - Chromebook Lab

Room 26: Computer Lab

Room 5: Title 1 Teacher

2019-20

All rooms used as classrooms, except:

Room 10: Visual & Performing Arts grades 1-4

Room 14: Walk to Learn & Intervention

Room L4: Room off of Library - Chromebook Lab

Room 26: Computer Lab

Room 5: Title 1 Teacher

Indian Creek LCAP Instructional Aide Support Schedule - Beginning of Year

2017-18

- August 9 Through September 5
- All 5 LCAP IAs & Title I Teacher supported all TK and K classes *exclusively*
- Monday-Friday 9-11:40 a.m. except Mrs. Deubel's class 9:30-11:40 a.m., 12:50-1:20p.m.
- Required breaks were during kindergarten recess to maximize time in classrooms
- Conducted required initial CELDT assessments between 11:40 a.m.-1p.m.

2019-20

August 21 Through September 13

Support provided to all TK and K classrooms from 8:55AM -11:40AM daily

ELPAC testing for initials 11:40 a.m.-1p.m.

LCAP Instructional Aide Classroom Support

	2018-19	2019-20
TK	90 min./day	90 min./day
K	60 min./day	60 min./day
1	30 min./day	30 min./day
2	30 min. 4xs/ <u>wk</u>	30 min. 4xs/ <u>wk</u>
3	30 min. 3xs/ <u>wk</u>	30 min. 3xs/ <u>wk</u>
4	30 min. 2xs/ <u>wk</u>	30 min. 2xs/ <u>wk</u>

LCAP Instructional Aide Walk to Learn Support

- 40 min./4xs wk (Monday through Thursday)
- Reading
- Students of grades 1-3 (mostly grade 1)

Indian Current Title I Teacher Support Schedule 2017-18

Time	Assignment	Monday	Tuesday	Wednesday	Thursday	Friday
9:15-9:45	4 th Grade ELA/Math	Rogerson Room 6	McCarthy Room 7	Whittle Room 8	Owens Room 4	Interventions/ Assessment
9:50-10:20	2nd Grade Math	Holm Room 20	Hensley Room 18	Homme/Buehler Room 16	Carney Room 19	Presgrave Room 17
10:25-10:55	3 rd Grade Writing/Reading	Wasky Room 13	Johnston Room 11	Fogg Room 12	Ward Room 9	Interventions/ Assessment
11:00-11:35	TK Support	Cleve Room 3	Cleve Room 3	Cleve Room 3	Cleve Room 3	Interventions/ Assessment
11:40-12:10	1 st Grade Math/Writing	Stohlman Room 25	Spiva Room 22	Murphy/Short Room 24	Green Room 23	Robertson Room 14
12:15-12:50	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
12:50-1:30	WTL	WTL Room 05	WTL Room 05	WTL Room 05	WTL Room 05	Study Hall Library
1:35-1:55	BREAK	BREAK	BREAK	BREAK	BREAK	BREAK
1:55-2:30	1 st Grade Support	Stohlman Room 25	Stohlman Room 25	Stohlman Room 25	Stohlman Room 25	Interventions/ Assessment
2:35-3:10	3 RD /4 TH WTL	WTL	WTL	////////////////	WTL	WTL

Title I Weekly Schedule 2019-20

TIME	Monday	Tuesday	Wednesday	Thursday	Friday
9:00-10:00	K Push In Elder Room 3	K Push In Elder Room 3	K Push In Elder Room 3	K Push In Elder Room 3	K Push In Elder Room 3
10:00-10:35	ELA 1 st -Carney	ELA 1 st -Carney	ELA 1 st -Carney	ELA 1 st -Carney	ELA 1 st -Carney
10:35-10:50	BREAK	BREAK	BREAK	BREAK	BREAK
10:55-11:25	Math-1 st Carney	Math-1 st Carney	Math-1 st Carney	Math-1 st Carney	10:25-10:55 3rd Grade Math Intervention
11:30-12:10	Walk To Learn 1 st /2 nd Grade Room 5	Walk To Learn 1 st /2 nd Grade Room 5	Walk To Learn 1 st /2 nd Grade Room 5	Walk To Learn 1 st /2 nd Grade Room 5	Prep with Aides for Interventions
12:15-12:50	LUNCH	LUNCH	LUNCH	LUNCH	LUNCH
12:50-1:30	Study Hall In Library	Fourth Grade Math Facts	Study Hall In Library	Fourth Grade Math Facts	Study Hall In Library
1:25-1:55	3 rd & 4 th Grade Interventions Room 5	3 rd & 4 th Grade Interventions Room 5	3 rd & 4 th Grade Interventions Room 5	3 rd & 4 th Grade Interventions Room 5	3 rd & 4 th Grade Interventions Room 5
1:55-2:10	BREAK	BREAK	BREAK	BREAK	BREAK
2:10-2:40	3 rd & 4 th Grade Interventions	3 rd & 4 th Grade Interventions	Prep	3 rd & 4 th Grade Interventions	3 rd & 4 th Grade Interventions
2:45-3:15	3 rd & 4 th Grade Interventions	3 rd & 4 th Grade Interventions	Early Release //////////	3 rd & 4 th Grade Interventions	3 rd & 4 th Grade Interventions

Herbert Green Class Sizes 2017-18 & 2019-20

	2017-18	2019-20
5	29;28;25;29	26;26;27;27
6 ELA/SS	28;29;28;29	23;23;26;26
6 Math/Sci.	27;29;30;28	24;24;26;26
7 Sci.	28.75	24
7 ELA	22	25
7 SS	28.75	24
7 Math	27.25	23
8 Sci.	27.75	25
8 ELA	21	27
8 SS	27	25
8 Math	26	24

2017-18

P.E. 31.45
Band 37.5

Band, P.E., 7th/8th
Class Sizes are
Averages
CARE not included

2019-20

P.E. 29
Band 31
ELD 15
7/8 Enrichment 25

Band, P.E., 7th/8th Class
Sizes are Averages
7/8 Enrichment
includes Spanish,
Career Tech,
Leadership

Herbert C. Green Class Sizes

Calculated in Accordance with MLTA Article V Section 5.8

2017-18	2019-20
459 students (does not include 17 SDC students) 6 period day 22.375 F.T.E. (does not include 2 SDC Teachers and 1 period VAPA) 5 periods taught $459 \times 6 = 2,754 / 22.375 \times 5 = 111.875$ Average class size of 24.65 <i>*Does not reflect class sizes in P.E. & Band; 6th grade self-contained skews the average</i>	457 students (does not include 15 SDC students) 6 period day 20.50 F.T.E. (does not include 2 SDC Teachers) 5 periods taught $457 \times 6 = 2,742 / 20.50 \times 5 = 102.50$ Average class size of 26.75 <i>*Does not reflect class sizes in P.E. & Band</i>

Herbert C. Green Site Capacities

2017-18

- Room 4- Computer lab used for Read Live
- Room 8 – 1st period Math, open periods 2-6
- Room 14- Ceramics Room- no usage in 17/18
- Room 15- Chromebook lab

2019-20

- Room 4- Computer lab used for Read Live
- Room 15- Chromebook lab
- Room 16 – Tier 2 Connections/Counseling & Psychologist/IEP's/Conference Room
- Room 30 -Open

Herbert Green LCAP Instructional Aide Support Schedule 2017-18

LCAP Aides- 2 aides, 3 days/week, 5 hours/day

	T/Th/F
Period	Class
2	Read Live T/TH; Richards Fri
3	Brown
LUNCH	
4	Englund Read Live/ Jew Math
5	Smith/Richards
6	Sheefel

	M/T/TH
Period	Class
2	M/T Lashley (6) TH-Kraft (19)
3	Read Live
LUNCH	
4	Englund Read Live/ Jew Math
5	Skjelbred
6	5th Grade Rotate

Herbert Green LCAP Instructional Aide Support Schedule 2019-20

LCAP Schedule

LCAP Aide: Mike

	Monday	Tuesday	Wednesday	Thursday	Friday
Period 1	OFF	6th Grade Enrichment**	6th Grade Enrichment	6th Grade Enrichment**	OFF
Period 2	OFF	5th Grade Enrichment	5th Grade Enrichment	5th Grade Enrichment	OFF
Break	OFF	5th Grade Playground	5th Grade Playground	5th Grade Playground	OFF
Period 3	OFF	Jew - 5th Grade	Owens - 5th Grade	Jew - 5th Grade	OFF
Period 4	OFF	Keane - 8th Grade	Keane - 8th Grade	Keane - 8th Grade	OFF
Period 5	OFF	Lashley - 8th Grade	Lashley - 8th Grade	Lashley - 8th Grade	OFF
Lunch	OFF	Lunch - 7th/8th	Lunch - 7th/8th	Lunch - 7th/8th	OFF
Period 6	OFF	King - ELD	King - ELD	King - ELD	OFF

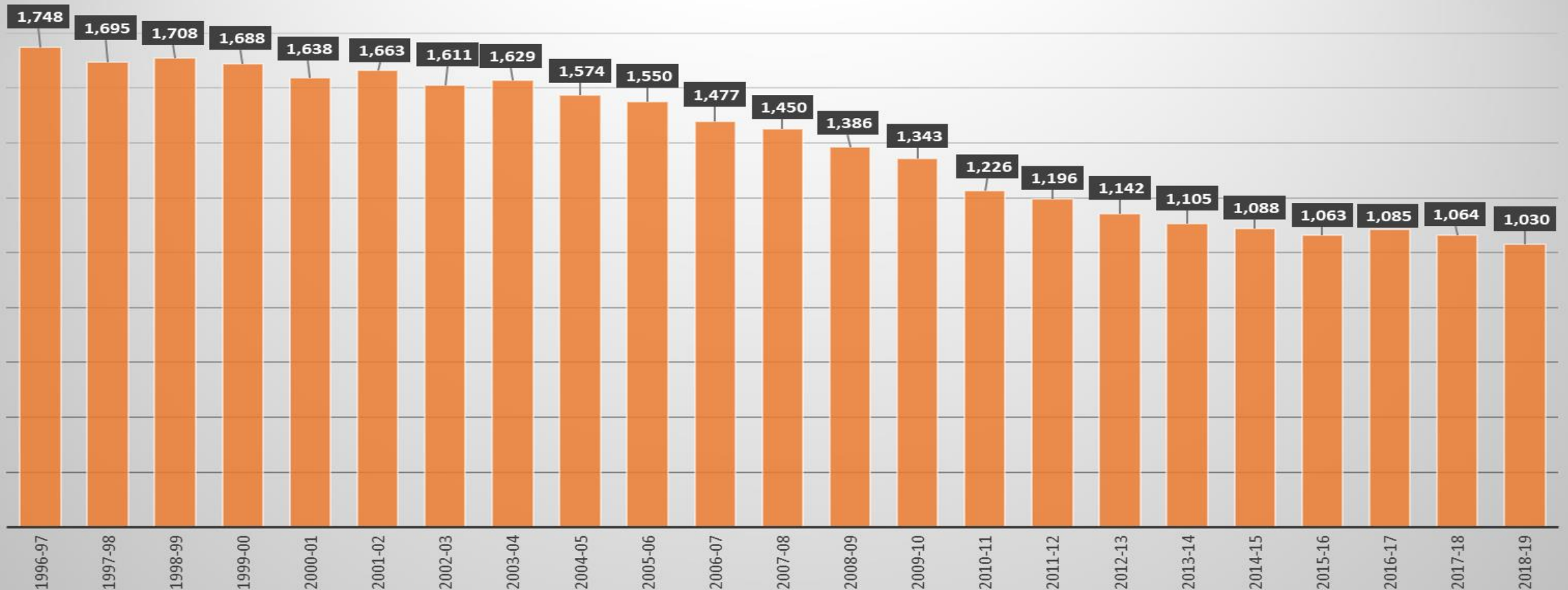
LCAP Schedule

LCAP Aide Sue Noble

	Monday	Tuesday	Wednesday	Thursday	Friday
Period 1	6th Grade Enrichment	OFF	6th Grade Enrichment	OFF	6th Grade Enrichment
Period 2	5th Grade Enrichment	OFF	5th Grade Enrichment	OFF	5th Grade Enrichment
Break	5th Grade Playground	OFF	5th Grade Playground	OFF	5th Grade Playground
Period 3	Kamilos - 6th Grade	OFF	Kamilos - 6th Grade	OFF	Kamilos - 6th Grade
Period 4	Oates - 7th Grade	OFF	Oates - 7th Grade	OFF	Oates - 7th Grade
Period 5	Weese - 7th Grade	OFF	Weese - 7th Grade	OFF	Weese - 7th Grade
LUNCH	Lunch 7/8	OFF	Lunch 7/8	OFF	Lunch 7/8
Period 6	OFF	OFF	King - ELD	OFF	OFF

Enrollment Numbers: 1996-2019

Enrollment Numbers 1996-2019



What would it take to make all TK-3 classes 20:1?

Staff Needs*	Classroom Needs	Curriculum Needs	Technology Needs	Materials /Supply Needs
4 Teachers With a TK/K combo Add ½ day to VAPA Teacher Add 2 LCAP IAs	4	4 Teacher Editions for ELA, Math, H/SS 4 sets of the curriculum supplemental materials	3 Chromebook carts 4 Teacher technology sets (e.g., laptop, projector, doc-camera, speakers, CD ROM)	Student & Teacher Desks Carpets

*To meet our contract obligations and current level of in classroom support.

Mother Lode Teachers' Association CBA

Article V Class Size

Negotiated

5.1 The District will staff each school at the average pupil/teacher ratio of 30:1 in grades TK-8 for classes not subject to grade span adjustment.

5.1.1 Librarians, categorically funded staff not assigned a class or teaching periods, counselors, speech and language therapists, nurses, psychologists, district music personnel, and administrators shall not be included in the staffing ratios of this section, except those positions created by Section 5.3

5.1.2 Students who are mainstreamed for less than 50% of their instructional day shall not be included in the average pupil/teacher ratio of the school.

5.1.3 Classes that come under the provisions of Grade Span Adjustment shall be excluded from the application of this section (5.1).

5.1.4 Traditional large group instruction classes such as Music, P.E., Chorus shall be excluded from the application of 5.1 but with a cap of 35:1.

Mother Lode Teachers' Association CBA

Article V Class Size (continued)

5.2.1 When overall school enrollment has increased by at least 16 students beyond the average pupil/teacher ratio as per Section 5.1, the addition of a .50 F.T.E. teacher, with the consent of a majority of the certificated staff, will occur.

5.2.2 When overall school enrollment has increased by at least 30 students beyond the average pupil/teacher ratio as per Section 5.1, the addition of a 1.00 F.T.E. teacher, with the consent of a majority of the certificated staff, will occur.

5.2.3 Effective with the 2018/2019 school year, TK and TK/K combination classes (when 40% of the TK/K combination class are TK) will receive 1.5 hours aide support per day. Kindergarten will receive one (1) hour aide time per day.

5.3 In order to create flexibility in position usage, TK-5 staff may elect to exceed the average pupil/teacher ratio as per Section 5.1 in individual classes and 6-8 staff may elect to exceed the average pupil/teacher ratio as per Section 5.1 in any given course.

5.3.1 The site administrator, in consultation with teachers, shall decide the utilization of any position resulting from section 5.2.1 or 5.2.2. This position shall be used to compute a new class size average.

5.4 Assignments to all positions created by decisions reached in Section 5.3 shall be in accordance with Article VI of this agreement.

5.5 The creation of classes that combine grade levels (TK-6) shall be decided by the site administrator in consultation with the certificated staff at the affected site.

Mother Lode Teachers' Association CBA

Article V Class Size (continued)

Negotiated

5.6 Site administrators shall make all attempts to equalize class sizes (TK-5) and course sizes (6-8), from one class (TK-5) or course (6-8) to another and one grade level to another, unless certificated staff at the affected site makes decisions that preclude those attempts. The impact of mainstreaming special program students will be taken into consideration when equalizing class or course sizes.

5.7 The District agrees that class loads for SDC shall be addressed based on the individual educational needs of the students and transiency of the student population served. An informal guideline will be 12 students per class, with consideration for additional staff at 18+ students.

Concerns regarding class size of SDC classes should be brought before the Site Administrator and the Director of Special Education.

5.8 The formula for class size at the Middle School shall be as follows:

Number of students times the number of periods in the instructional day
Divided by
Number of teachers times the number of periods taught in a normal day.

Example:

600 pupils in the school

Seven period day

24 teachers

Six periods taught

$600 \times 7 = 4,200 / 24 \times 6 = 144$ would result in the average class size of 29.17 students

Memorandum of Understanding for 2018-19

For the 2018-19 school year, if the average annual enrolled class size in a class within grades TK, K, or 1 exceeds the Grade Span Adjustment of 24:1, the affected teacher will receive \$500.00 per year for each student over the limit. This will be paid at the end of the year based on the annual class size average on a prorated basis.

For example (TK class = 24.52 average annual enrolled students = .52 average enrolled x \$500.00 = \$ 260.00

Agreed this 4th day of October, 2018

In 2018-19, the results of this MOU are as follows:

- *4 classes qualified for the additional pay*
- *\$3,605 paid to 5 teachers (1 class has 2 half-time teachers)*
- *Average class sizes were: 25.44, 25.63, 26.59, 25.55*

In 2019-20, permanent contract language will need to be negotiated

Stipend for Combination Classes

MLTA Agreement 2016-2019	
APPENDIX C	
Extra Duty / Supplemental Compensation	2018/2019
Athletic Director	\$1,684.
Athletic Coach	\$ 898.
Band Director	\$ 617.
Drama Director	\$ 617.
Chorus Director	\$ 617.
Video Technology Support	\$ 617.
Student Council (Clerical)	\$ 617.
Yearbook	\$1,684.
Noon Intramurals	\$ 33. per hour
Saturday School	\$ 33. per hour
Student Council Advisor	\$1,684.
After School Work Program	\$ 33. per hour
Student Study Team Coordinator	\$ 617.
Sports Officiating	\$ 33. per hour
Lunch Club	\$ 33. per hour
CJSF Advisor	\$ 617.
Conflict Management	\$1,347.
Department Curriculum Leaders (Middle School)	\$ 617.
Sixth (6th) Grade Science Camp	\$ 841. per teacher/week
Oral Interpretation	\$ 280
Elementary Grade Level Coordinators	\$ 617.
Talent Show Coordinator	\$ 280.
MAA Site Coordinator	\$ 617.
MAA District Coordinator	\$1,684.
Spelling Bee	\$ 280.
Combination Class (If existed for 120 days in a school year)	\$1,000.



Negotiated

State Funding for Average Daily Attendance: What is it?

- ❑ Enrollment is the amount of students that are enrolled and expected to show up each day.
 - Each K-12 student in a California public school must be assigned an individual, yet non-personally identifiable, SSID.
 - School Districts submit an annual report of enrollment each fall for an official enrollment count
- ❑ School districts are funded on Average Daily Attendance, which demonstrates how often our students are at school.

State Funding for Average Daily Attendance: How is it calculated?

- ❑ Average Daily Attendance is the calculation of students that actually attend school each day.
 - Example:
 - 10 students enrolled
 - In the course of 180 day school calendar the following attendance occurred
 - 5 students came every day = $5 \times 180 \text{ days} = 900$
 - 1 was absent on 14 days = $180 - 14 / 180 \text{ days} = 166$
 - 2 were absent on 9 days = $2 \times (180 - 9) \text{ days} = 342$
 - 2 were absent on 3 days = $2 \times (180 - 3) \text{ days} = 354$
 - Total = $900 + 166 + 342 + 354 = 1,762 / 180 = \underline{\underline{9.8 \text{ ADA}}}$

State Funding for Average Daily Attendance: Funded vs. Actual

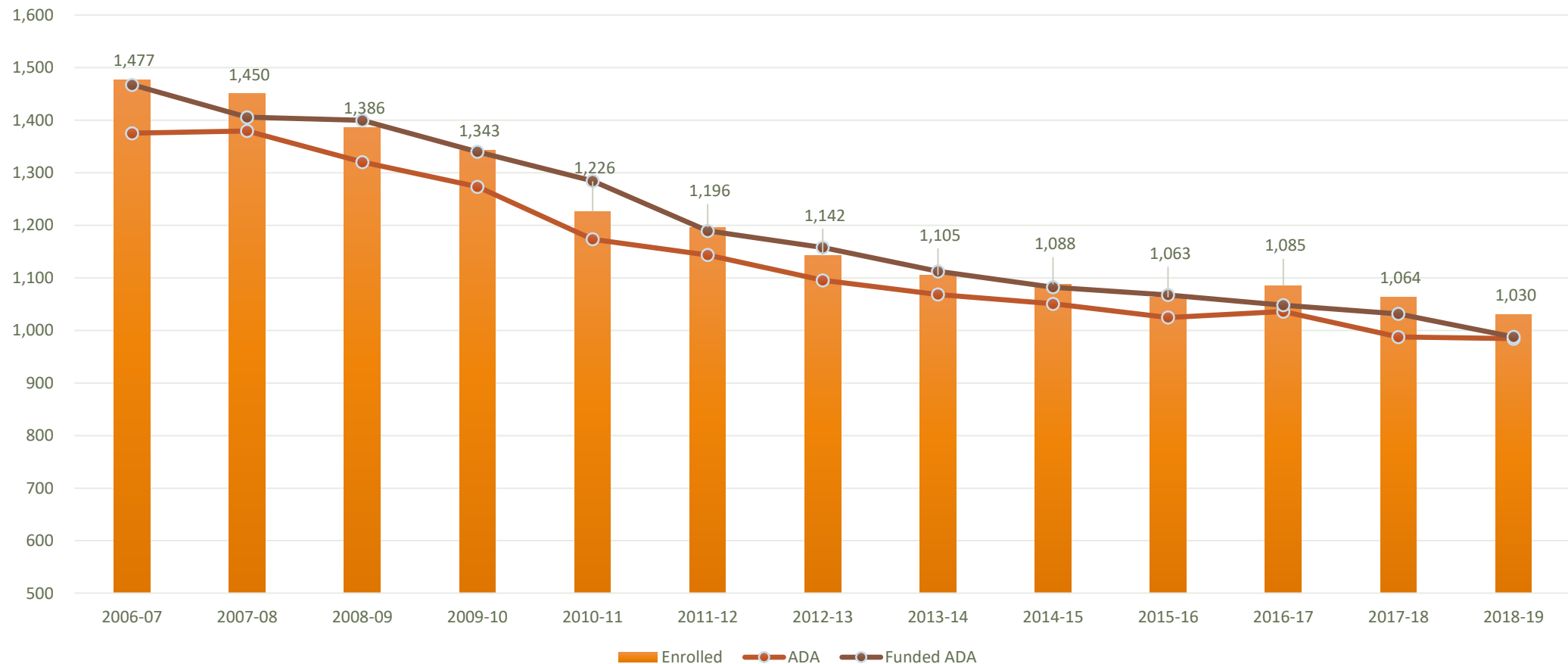
- ❑ Average Daily Attendance is funded based on the greater of Prior Year or Current Year
- ❑ This allows declining districts a year to adjust staffing as needed
- ❑ There are small amounts of ADA that are always current year (i.e. NPS, NPS extended year)
- ❑ Transitional Kindergarten students are funded the same as Kindergarten for those that turn 5 by December 2
 - For those students who turn 5 after December 2, we start counting ADA on their 5th birthday

Grade Span Adjustment: What is it?

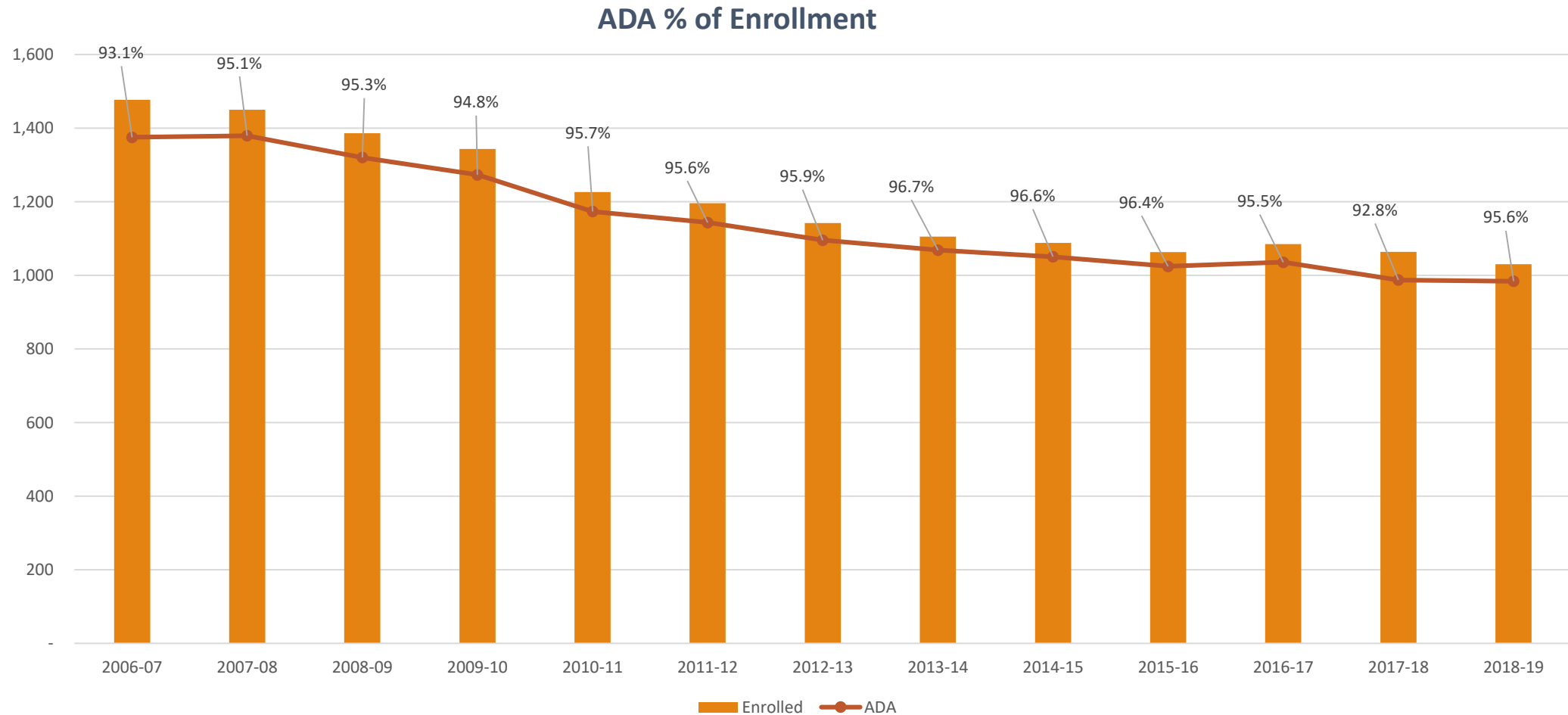
- ❑ The Grad Span Adjustment replaced the K-3 class-size adjustment in 2013-14 when the LCFF formula began
- ❑ It calculates an additional funding to allow grades K through 3 to average 24:1
- ❑ Districts with more than 1 elementary school must have each school meet the average of 24 per class or the entire district will lose the additional funds
- ❑ Current K-3 class average **2019-20 = 24**

State Funding for Average Daily Attendance: Historical Data

MLUSD 13 Year History



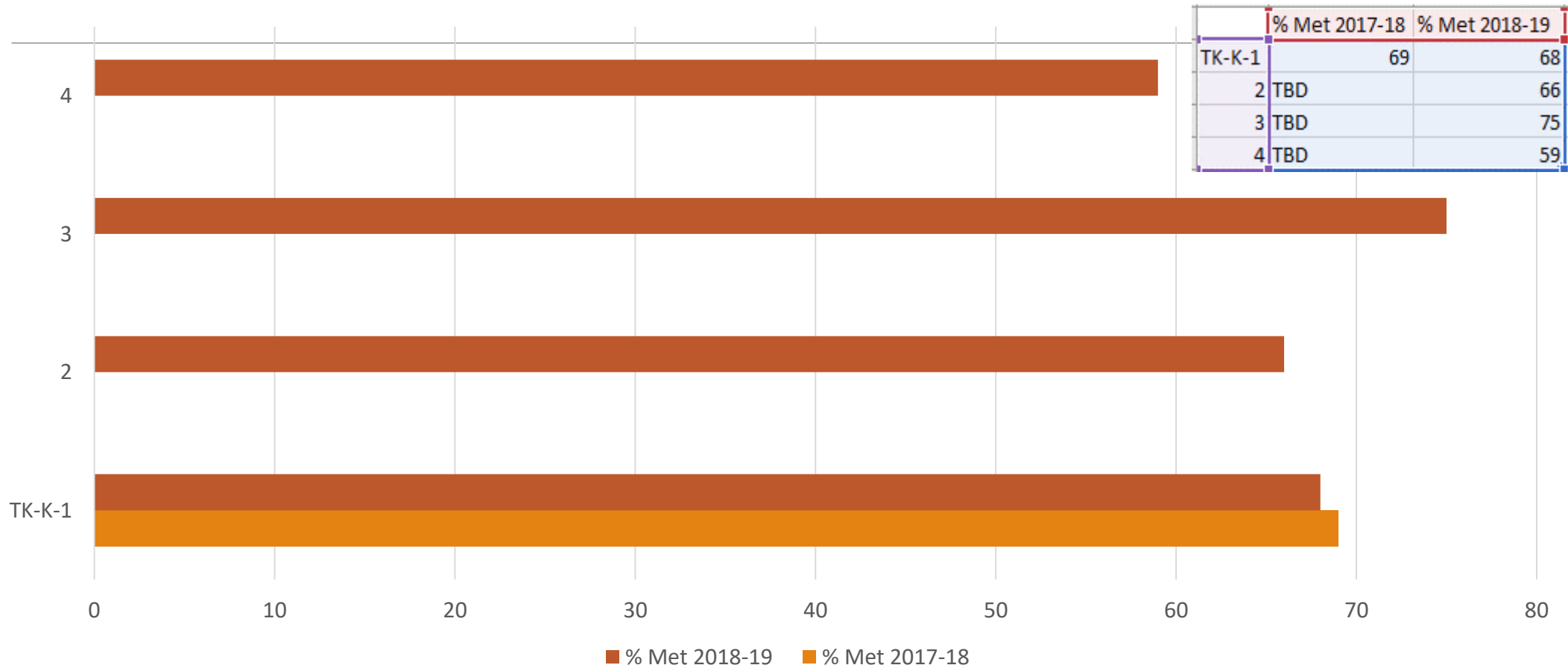
State Funding for Average Daily Attendance: Historical Data



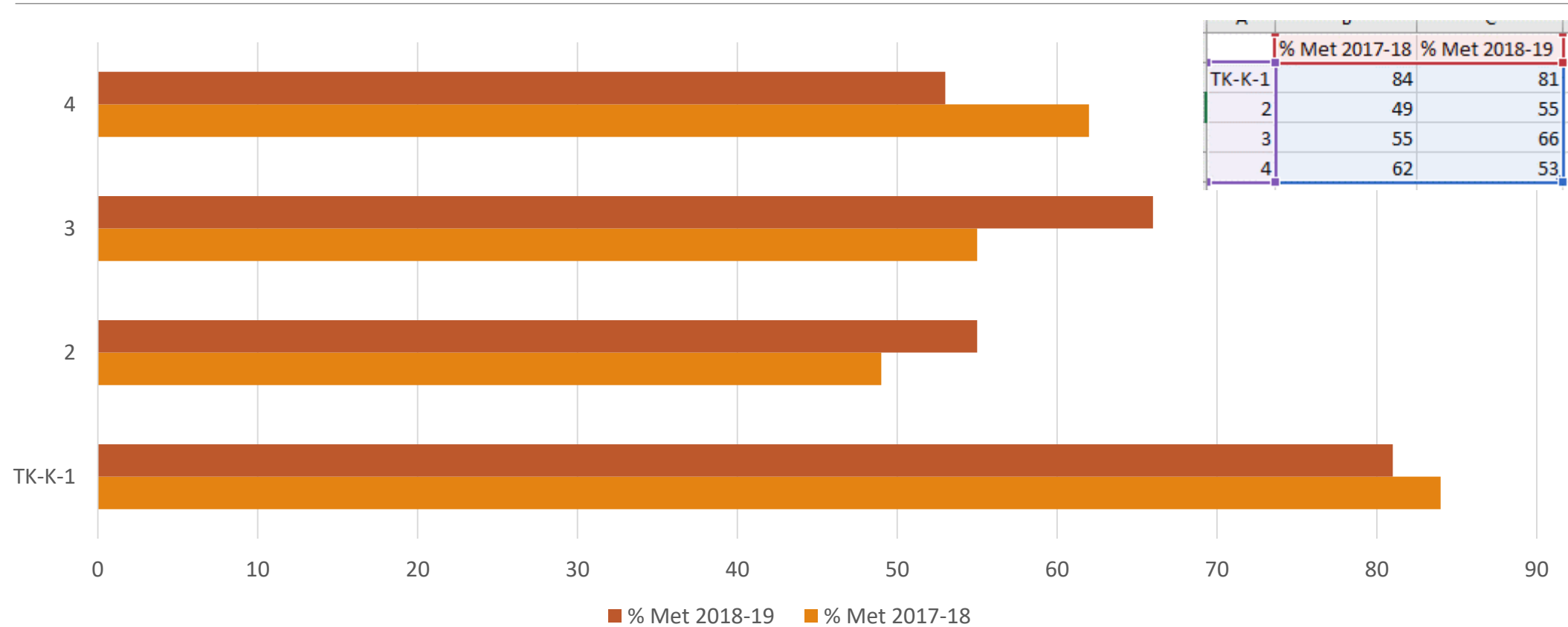
Grade Span Adjustment: How is it calculated?

- ❑ Each grade K-3 monthly tracks enrollment to determine annual eligibility
- ❑ The average student to teacher ratio must be no greater than 24:1, unless otherwise negotiated
- ❑ The adjustment is \$801 per K-3 ADA in 2019-20
- ❑ In 2019-20 the adjustment is estimated at \$344,000
- ❑ Average teacher cost = \$96,000

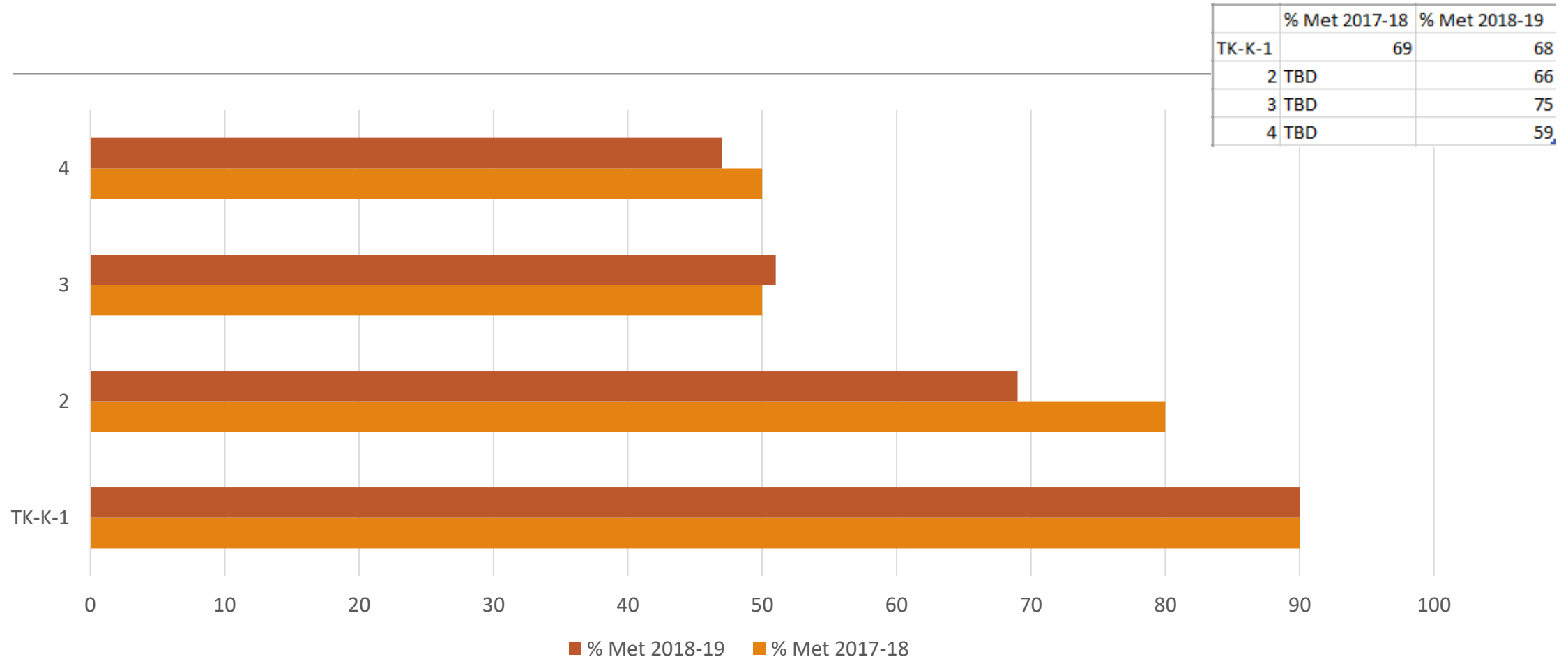
DTA Tri 3 Reading 2017-18 & 2018-19



DTA Tri 3 Writing 2017-18 & 2018-19



DTA Tri 3 Math 2017-18 & 2018-19



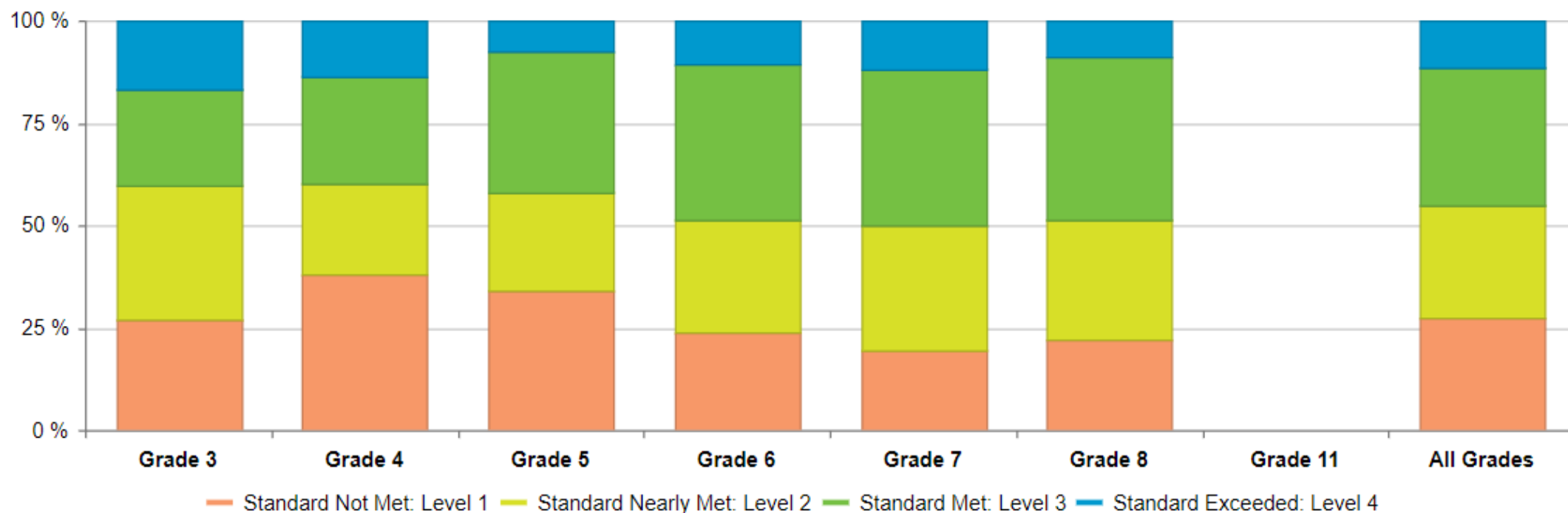
CAASPP All – ELA 2017-18

2017–18 Detailed Test Results

ENGLISH LANGUAGE ARTS/LITERACY

Achievement Level Distribution

Standard Exceeded: Level 4	16.82 %	13.51 %	7.34 %	10.45 %	12.04 %	8.74 %	N/A	11.46 %
Standard Met: Level 3	23.36 %	26.13 %	34.86 %	38.06 %	37.96 %	39.81 %	N/A	33.48 %
Standard Nearly Met: Level 2	32.71 %	22.52 %	23.85 %	27.61 %	30.56 %	29.13 %	N/A	27.68 %
Standard Not Met: Level 1	27.10 %	37.84 %	33.94 %	23.88 %	19.44 %	22.33 %	N/A	27.38 %



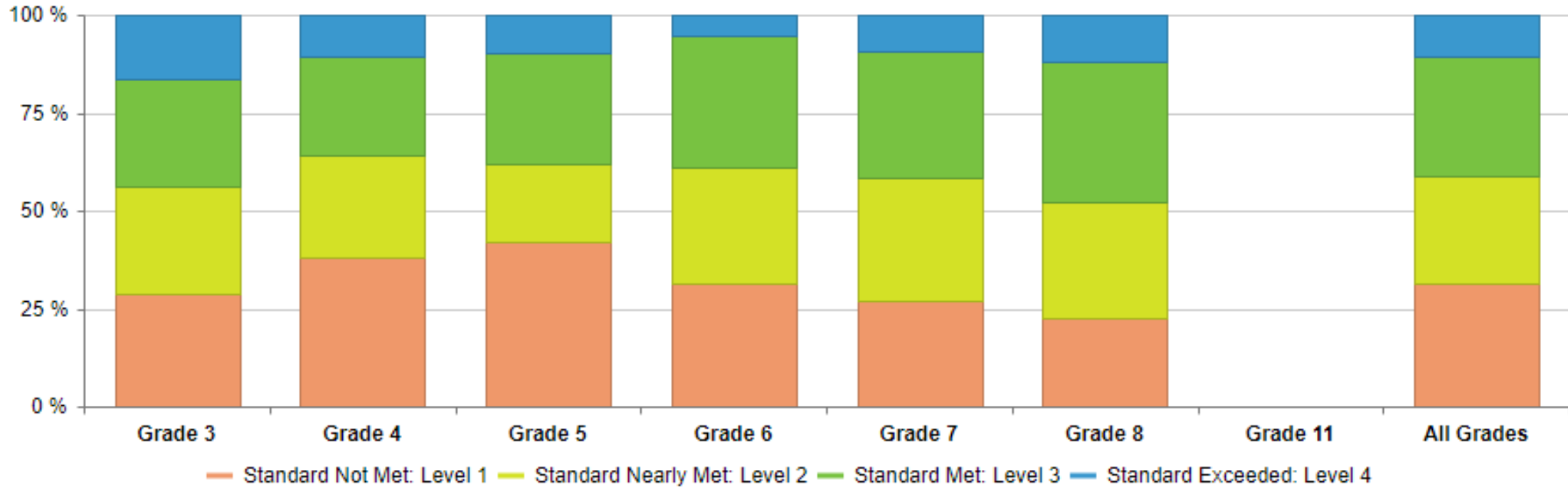
CAASPP All – ELA 2018-19

2018–19 Detailed Test Results

ENGLISH LANGUAGE ARTS/LITERACY

Achievement Level Distribution

Standard Exceeded: Level 4 ⁽ⁱ⁾	16.33 %	10.81 %	9.80 %	5.22 %	9.45 %	11.76 %	N/A	10.42 %
Standard Met: Level 3 ⁽ⁱ⁾	27.55 %	25.23 %	28.43 %	33.91 %	32.28 %	36.13 %	N/A	30.80 %
Standard Nearly Met: Level 2 ⁽ⁱ⁾	27.55 %	26.13 %	19.61 %	29.57 %	31.50 %	29.41 %	N/A	27.53 %
Standard Not Met: Level 1 ⁽ⁱ⁾	28.57 %	37.84 %	42.16 %	31.30 %	26.77 %	22.69 %	N/A	31.25 %

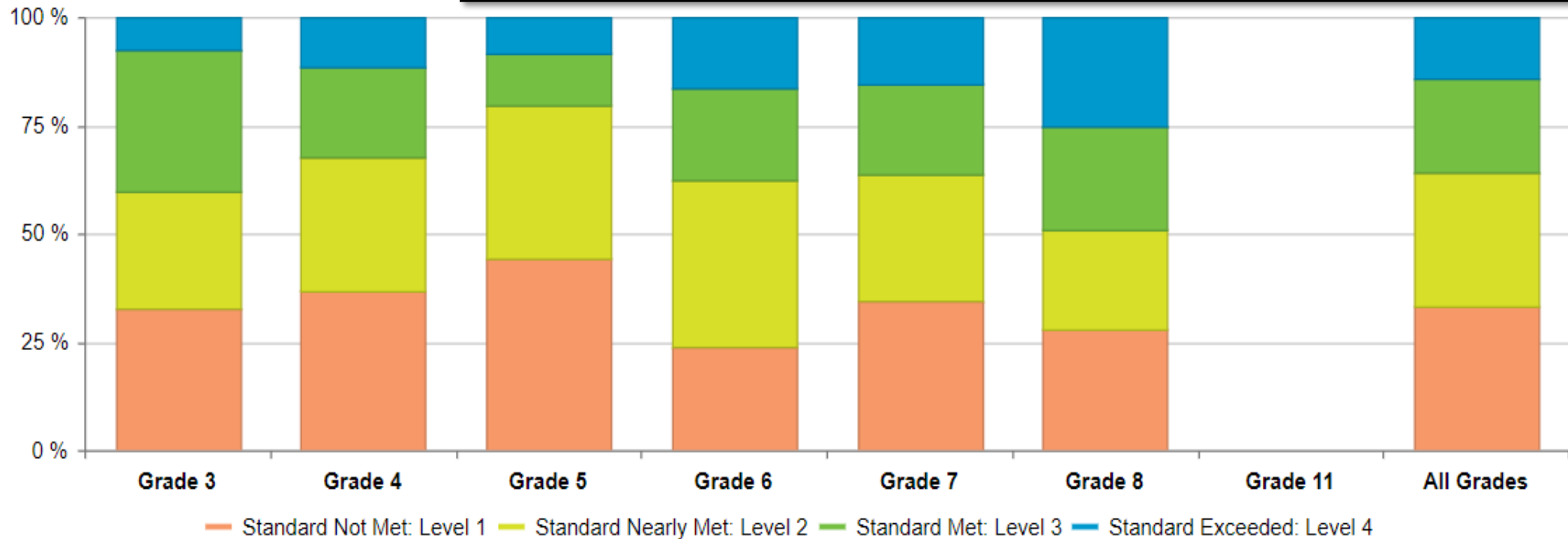


CAASPP All – Math 2017-18

MATHEMATICS

Achievement Level Distribution

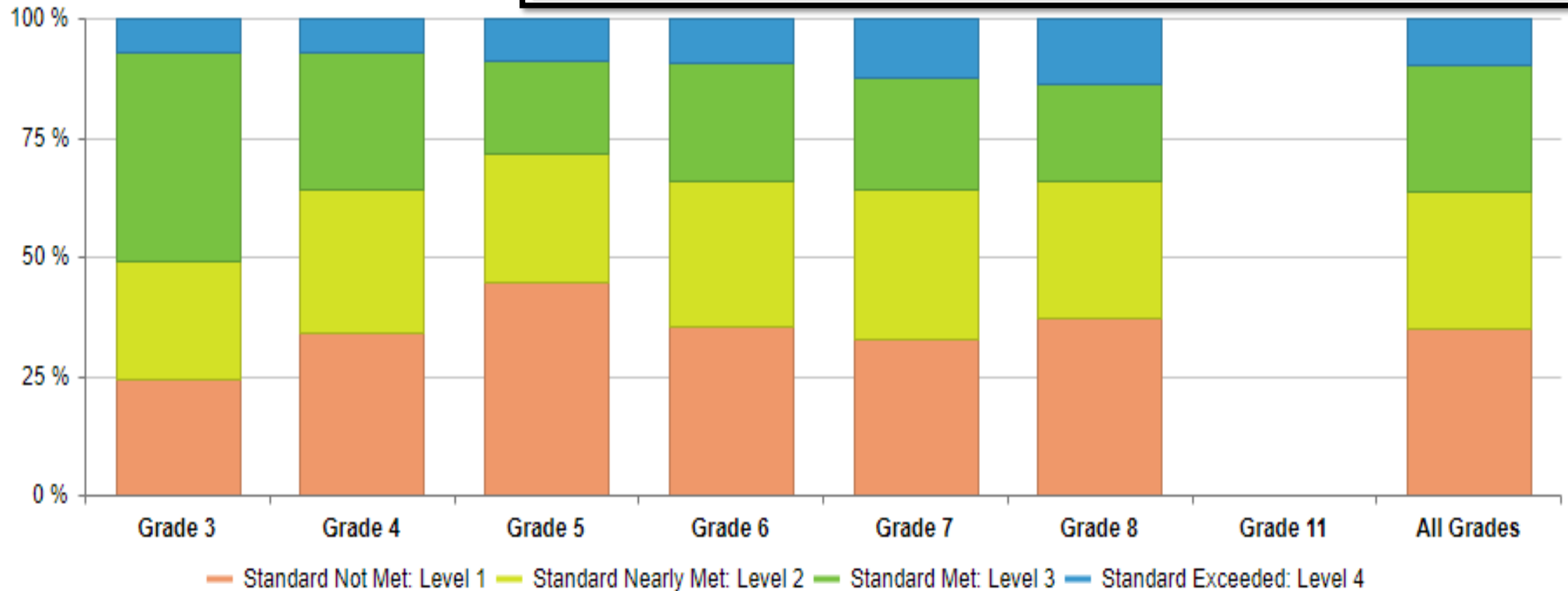
Standard Exceeded: Level 4	7.48 %	11.71 %	8.26 %	16.54 %	15.45 %	25.00 %	N/A	14.09 %
Standard Met: Level 3	32.71 %	20.72 %	11.93 %	21.05 %	20.91 %	24.04 %	N/A	21.81 %
Standard Nearly Met: Level 2	27.10 %	30.63 %	35.78 %	38.35 %	29.09 %	23.08 %	N/A	31.01 %
Standard Not Met: Level 1	32.71 %	36.94 %	44.04 %	24.06 %	34.55 %	27.88 %	N/A	33.09 %



CAASPP All-Math 2018-19

MATHEMATICS

Achievement Level Distribution



Transiency & Our Enrollment History 2017-18

CURRENT 8TH GRADERS

CLASS SIZE REDUCTION (20:1) WAS IN PLACE K-3 FOR THIS GROUP

- 121 enrolled
- 58 have been in MLUSD since kindergarten (*2 of the 58 are in CARE- an EDCOE program*)
- 48% of the 8th grade class have been with us for nine years
- 14 of the 58 were retained in grade K, 1, 2 3 (24%)
- *Currently there are 35 8th graders at-risk for promotion; 13 or 37% of them have been with us since kindergarten.*

CURRENT 7TH GRADERS

CLASS SIZE REDUCTION (20:1) WAS IN PLACE K-2 FOR THIS GROUP

- 123 enrolled
- 62 have been in MLUSD since kindergarten (*5 of the 62 are in CARE- an EDCOE program*)
- 50% of the 7th grade class has been with us for eight years
- 11 of the 62 were retained in grades K or 1st (18%)

Status of MLUSD Current Budget

- ❑ Current Reserves estimated 19% (Unrestricted including reserves for planned expenditures)
 - ❑ PERS and STRS employer costs are stable but have increased to an average 20% of total salaries
 - ❑ Deficit spending over next two years (Unrestricted only):
 - 2019-20 <\$104,000>
 - 2020-21 <22,000>
 - 2021-22 40,000
- *Negotiations are not settled for 2019-20, deficits will increase after.
- ❑ LCFF Revenues are not increasing at the same pace costs are increasing
 - ❑ Enrollment is an unknown. We have been in decline for the past 13 years.

Potential Fiscal Impacts

❑ 2019-20 Average Teacher Cost:

- \$96,000

❑ Operational Costs:

- Maintenance, electricity, supplies, furniture, carpets
 - Estimated \$5,000 for a classroom set of desks
 - Additional custodial impact
- Teacher supplies, teacher curriculum, classroom materials (i.e., manipulatives)
- Student/teacher technology

❑ Unsettled Negotiations for 2019-20 (The cost of 1% for all groups is \$81K)

Other Potential Impacts for Consideration & Discussion

SHORT-TERM

- Use of our available time
- Timing
- Priorities
- HR Considerations

LONG-TERM

- Use of our available time
- Timing
- Priorities
- HR Considerations

Research on Class Size & Student Achievement

Meta-analysis of class size studies have been inconsistent in findings, methods, and metrics.

The Project STAR (Student Teacher Achievement Ratio) study conducted by the state of Tennessee found enhanced achievement for children, especially minority children, in smaller classes.

California and Wisconsin's Class Size Reduction policies (class sizes to 20 in grades K-3) were influenced by the STAR study. California did not achieve the results seen in Tennessee, while Wisconsin did. *Class Size Reduction ended in CA after the 2012-13 school year and was replaced Grade Span Adjustment in 2013-14.*

In his article, "[Does class size matter? Research reveals surprises](#)," by John Higgins, Seattle Times education reporter was published on October 28, 2014 states, "Reducing class sizes can have the potential to make a big difference for students only if teachers get the training and administrative support to take advantage of the situation by changing how they teach and how they interact with parents." (see the full article at the hyperlink above)

Research on Student Achievement

What works best in education?

VISIBLE LEARNING FOR TEACHERS (HATTIE, 2011)

Hattie developed a way of ranking various influences in different meta-analyses related to learning and achievement according to their *effect sizes*.

Effect size is a simple way of quantifying the difference between two groups. It emphasizes the size of the difference between groups. An effect size of .80 is considered large (8/10 of a standard deviation unit).

He ranked **150 influences** that are related to learning outcomes from very positive to very negative effects.

Six areas that contribute to learning were studied: the student, the home, the school, the curricula, the teacher, and teaching and learning approaches.

The key: Making teaching & learning visible

THE 150 INFLUENCES AND EFFECT SIZES RELATED TO STUDENT ACHIEVEMENT (2011)

#1 Self-reported grades (i.e., Student Expectations) (1.44)

#2 Piagetian programs (Teaching methods based on cognitive development and children's stages of learning) (1.28)

#3 Response to intervention (early, systematic assistance to struggling students) (1.07)

#4 Teacher credibility (trust, competence, dynamism and immediacy) (.90)

#5 Providing formative evaluation (activity used as an assessment of learning progress before or during the learning process itself) (.90)

#6 Micro teaching (student-teacher small group mini-lessons with and post-discussion about the lessons) (.88)

#7 Classroom discussion (.88)

#115 Class size (.21)

Average "effect size" of all interventions studied (.40)