

# Comprehensive Support and Improvement 101: Understanding Scores and The Identification Process

Arizona Department of Education

Russel Potter, Ph.D. – Data Specialist Christina Aldrich – Director of School Support and Improvement



### Data-Driven Decisions

- Part 1 Understanding scores and identification
  - How does a school get identified?
  - What counts for what model?
- Part 2 Data and the Static File
  - Access and interpretation
  - Basic filtering to address questions
- Part 3 Interrogating the Data
  - Deeper analysis with pivot tables
  - Answering 2-, 3-, and 4-category questions



### CSI Resources

- Static File Codebook
- Federal Business Rules
- Graduation, Dropout, & Persistence Rate Technical Manual
- AASA Cut Scores
- AzSCI Cut Scores
- ACT Cut Scores
- Alternative Assessments
- Practice Static File



# Understanding scores and identification

- How scores are calculated
  - What counts for each model
  - What is measured, and how
- How does a school get identified?
  - How the score leads to Low Achievement or Graduation Rate identification



# The Data Pipeline

- Schools/LEAs collect data constantly with an SIS
  - Enrollment
  - Attendance
  - Demographics
  - Scores
- ADE is piped data
  - AzEDS
  - ACT
  - PearsonAccess





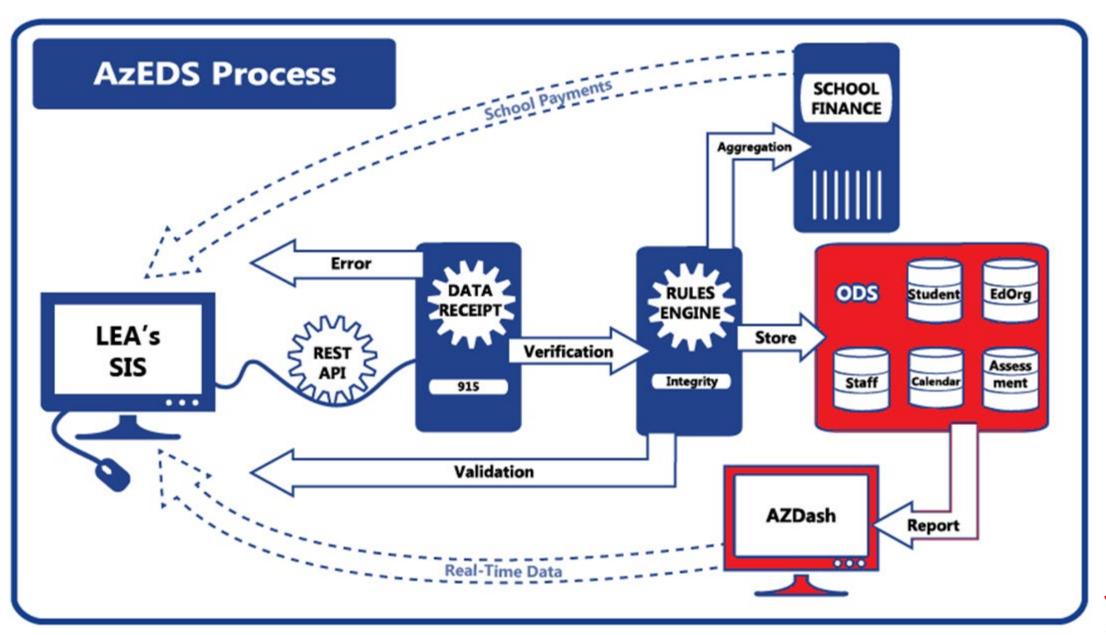














# School and LEA Reports



Federal Programs through School Support and Improvement (SSI)

- Comprehensive Support and Improvement (CSI)
- (Additional) Targeted Support and Improvement (TSI/aTSI)



# Federal Identification for School Support and Improvement

# Comprehensive Support and Improvement (CSI)

- Low Graduation Rate (CSI-G)
  - Schools under 100 Total Enrollment
  - Schools over 100 Total Enrollment
- Low Achievement (CSI-LA)
  - K-2
  - K-8
  - K-11
  - K-12
  - 9-12



### What is Measured?

- Proficiency (P)
- Growth (G)
- English Learner Proficiency and Growth (EL)
- Chronic Absenteeism\* (CA)
- Graduation Rate (GR)
  - 4-year cohort rate for CSI-LA
  - 5-year cohort rate for CSI-G
- Dropout Rate (D)



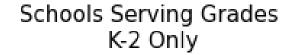
### Models and Metrics

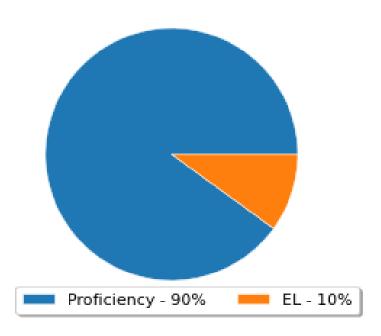
5 models based on the grades your organization services

- K-2 (proficiency, and EL proficiency and growth)
- K-8 (proficiency, growth, chronic absenteeism, and EL proficiency and growth)
- 9-12 (proficiency, 4-year graduation rate, EL proficiency and growth, and dropout rate)
- K-12 (proficiency, growth, chronic absenteeism, EL proficiency & growth, 4-year graduation rate, and dropout rate)
- K-11 (proficiency, growth, chronic absenteeism, EL proficiency and growth, and dropout rate)

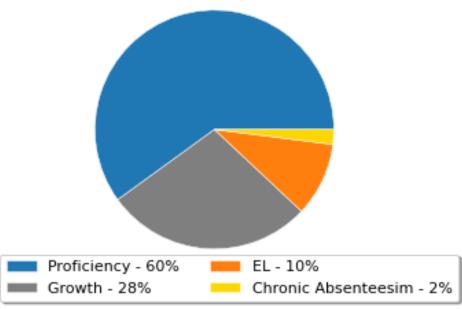


# Primary Schools



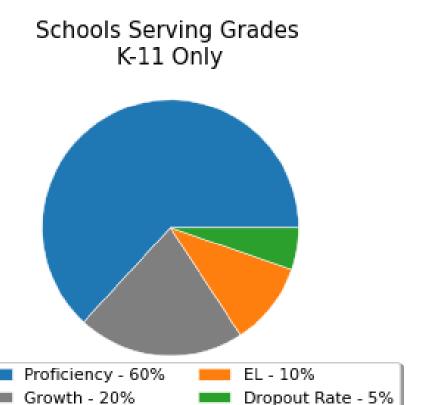


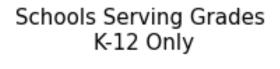
### Schools Serving Grades K-8 Only

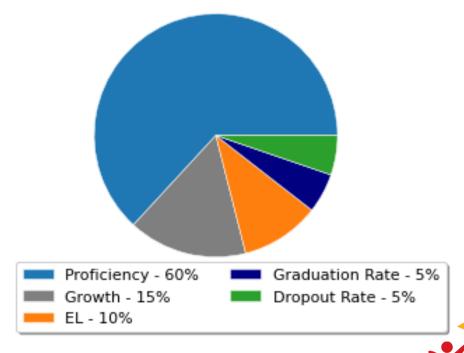




# Comprehensive Schools

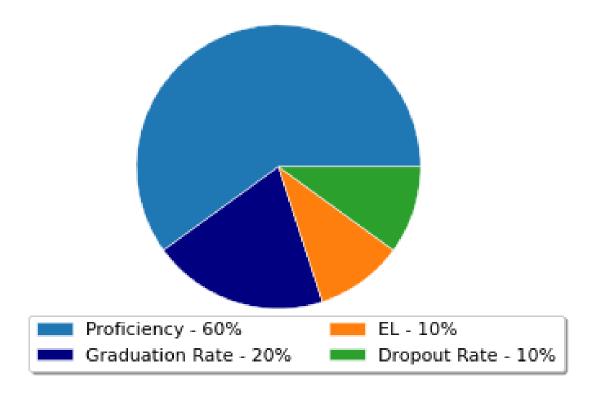






# High Schools

Schools Serving Grades 9-12 Only





### Who Counts?

- FAY students are Full Academic Year enrolled
  - Must be enrolled in the first 10 days of the academic year
  - Must be continuously enrolled until the first weekday in May
  - Any student 10-day-dropped falls off the metric, even if they reenroll
- 20 FAY students are required for nearly all metrics (n=20)
  - Some metrics have special additional rules

- \*not every student is included in counts
- You are not penalized for students who enroll late or withdraw early
- You do not benefit from students who enroll late or withdraw early



# Proficiency - what counts?

- 60% in most models,
   90% in K-2 model
- Exam depends on grade:
  - State Assessments
    - 3-8: AASA ELA and Math
    - 5, 8, 11: AzSCI\*
    - Alternative State Assessments -MSAA
  - National Assessments
    - 9<sup>th</sup> graders: ACT Aspire\*
    - 11th graders: ACT



# Proficiency



### **Expectations:**

- 95% of all students will be tested
- Recently Arrived ELs are not included in ELA
- 20 FAY students are needed to receive points
- Most students will have two scores, some three



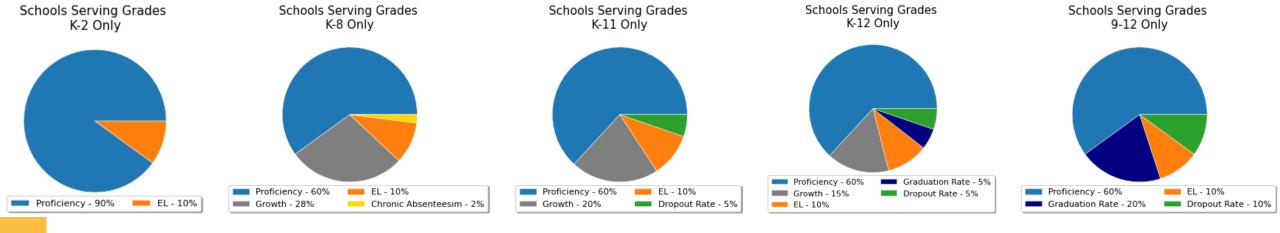
# Proficiency Calculation Process

- Points earned for Proficient and Highly Proficient performance
  - Tests: ELA and Math (and Science)
  - Each student can earn the school one point for each exam
- If too few are tested, a penalty is based on the number needed to achieve 95%
- Recent Arrival English Learners are not included in the ELA score

```
\frac{ELA\ points\ +\ Math\ Points}{(ELA\ Tests\ +\ Math\ Tests)\ +\ 2(\#\ to\ reach\ 95\%)}
```

- ELA: Tested 46, 12 passed
- Math: Tested 54, 15 passed
- Population is 60
  - Could have given 120
  - Gave 100 tests
  - Needed to give 95% (114)
  - Short 14 tests

$$\frac{12+15}{(46+54)+2(14)} = \frac{27}{100+28} = \frac{27}{128} = 21.09\%$$



### **Student Growth**

- 15-28% in schools that serve middle-school-age students
- Modified by changes in Chronic Absenteeism for the 21-22 year



### Growth - what counts?



### **State Assessments:**

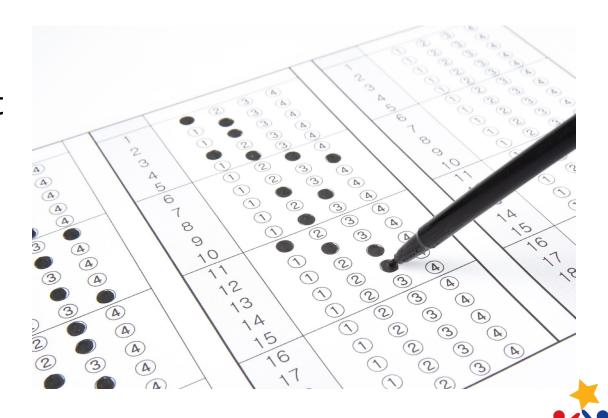
- 3-8: AASA ELA and Math
- No Alternative State Assessments

### **Expectations:**

- Students must be FAY
- Students must have a prior score
- Compared to academic peers

### Growth Calculation Process

- Students take tests
- All students in the state with test scores get grouped (peer cohort)
  - By test (3<sup>rd</sup> ELA, 5<sup>th</sup> Math...)
  - By score group



# **Growth Calculation Process**



- A year goes by, students take another test
- Performance on the second test is compared to the performance of others from the peer cohort
- This comparison is the SGP, the **Student Growth Percentile**



# SGP – Individual Example

- Each student has a starting score from a prior year
- That score determines the individual student's cohort group for the following year
- The SGP shows how much growth that student exhibited compared to others in the cohort
- An SGP of 80 means a student scored better than 80% of the kids in his specific cohort.

- Last year, Jimmy scored 2500 on the ELA 3<sup>rd</sup> grade exam
- All of last year's 3<sup>rd</sup> grade ELA 2500's in the state are in a comparison peer cohort
- This year, Jimmy's 2375 score is compared to the scores of the rest of the cohort
- Jimmy's 2375 is better than 80% of last year's 3<sup>rd</sup> grade 2500's

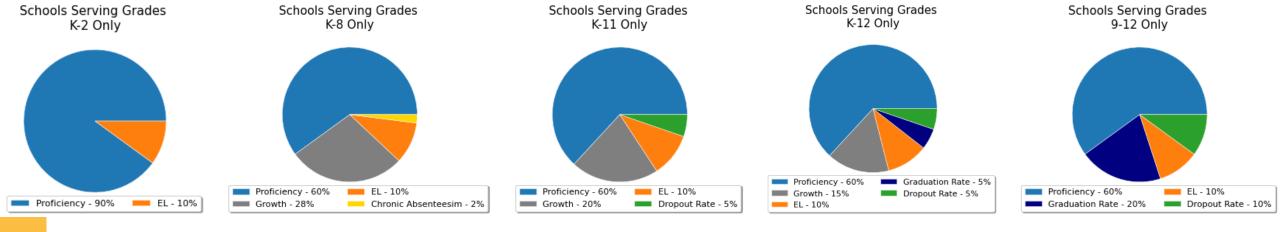
# SGP – School Level Example

Median SGP for the School: A single number that represents the performance of students at that school

- All FAY student SGPs are ordered, and the *middle value* is found
- Half the students are above median, half are below

- The school's median SGP is multiplied by the model percentage for Growth Points
  - K-8: Growth is 28%
  - If a school's median SGP is 36.5
  - $0.28 \times 36.5 = 10.22$
  - This K-8 school gets 10.22 points





### **English Learners (EL)**

- 10% in all models
- Score is split between proficiency and growth





# English Learners - what counts?

 $n \ge 20$  EL FAY students – any student identified as needing EL services (with a less-than-proficient score on AZELLA)

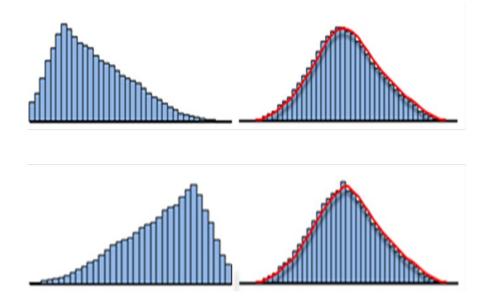
- Includes Recent Arrival English Learners (RA\_EL)
- Based on scores from AZELLA or Alt ELPA
- Proficiency is 5%
- Growth is 5%, students must have two successive test records.



# English Learners – fancy math

EL calculations require score normalization

- Effectively, the math forces the data into a bell curve
- The mean  $(\mu)$  equals the *median*
- This allows us to compare students across the state



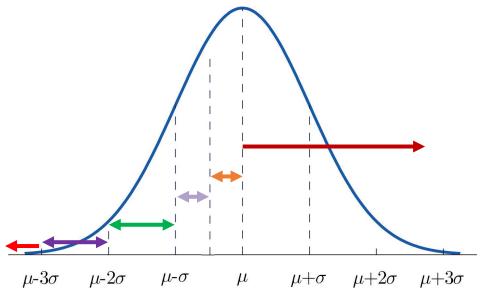


# English Learners - what counts?

### **Proficiency**

- School proficiency is compared to statewide average  $(\mu)$
- Up to 5 points granted based on a normed comparison model
  - Greater than statewide average
  - Within -0.5 $\sigma$  of  $\mu$
  - Between -0.5 $\sigma$  and -1 $\sigma$  of  $\mu$
  - Between  $-1\sigma$  and  $-2\sigma$  of  $\mu$
  - Between -2 $\sigma$  and -3 $\sigma$  of  $\mu$

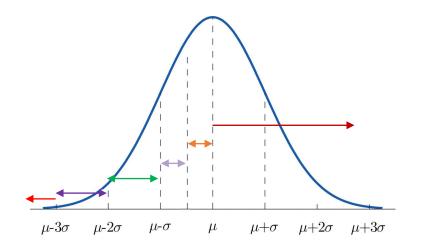
# of Proficient AZELLA FAY Students
# All FAY Students with EL Need





# English Learners - what counts?

Prior Year Achievement Level (or Placement Test)	Current Year Achievement Level	Point Value
Basic/Intermediate	Intermediate	
Pre-Emergent/Emergent	Basic	1
Basic	Intermediate	
Intermediate	Proficient	
Pre-Emergent/Emergent	Intermediate	
Basic/Intermediate	Proficient	2
Basic	Proficient	1
Pre-Emergent/Emergent	Proficient	3



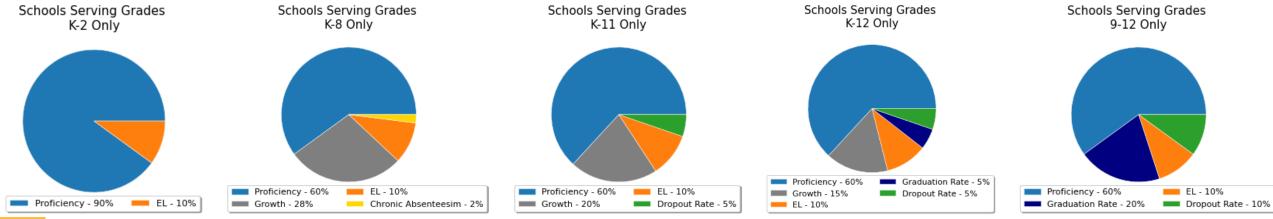
### Growth

- Current and prior records are compared
- Students get a point for every level of improvement
- School gets a score

 $\frac{\sum AZELLA\ FAY\ Student\ Growth\ Points}{\#ALL\ FAY\ Students\ with\ EL\ Need}$ 

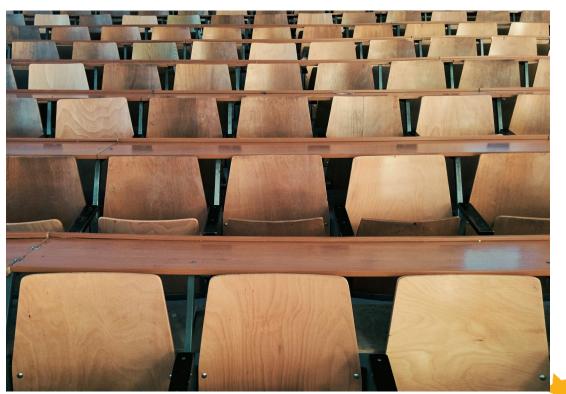
Score is compared to state





### **Chronic Absenteeism**

- 2% in K-8 schools
- Modified for 2021-2022
  - Usually 10% in K-8
  - Usually 5% in K-12 and K-11





### Chronic Absenteeism

### Who counts?

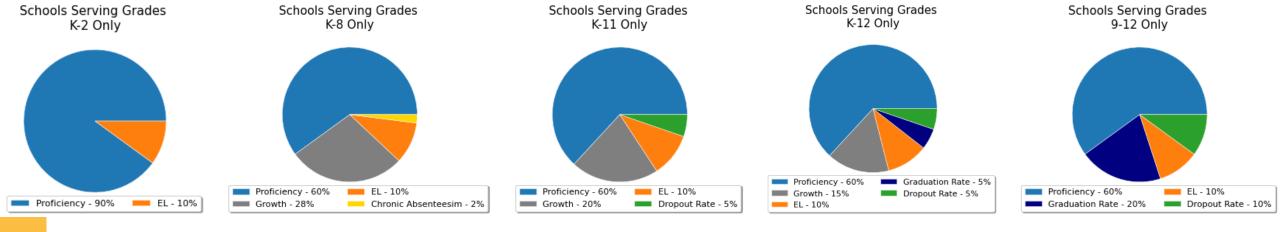
- All 1-12 students, regardless of FAY status
- No kindergartners in calculation
- Chronic illness students are removed from calculation

### Calculation

- Attendance
- Partial days add up
- Anyone missing 10% or more of the school year
  - 18 days in a year-long 5-day model
  - 14.4 days in a 4-day model

$$1 - \frac{\#\ of\ Chronic\ Absentees}{Student\ Population}$$





### **Graduation Rate**

- 5% in K-12
- 20% in 9-12





### Graduation

- CSI Low Achievement
- 4-year graduation rate
- CSI Low Graduation Rate
- 5-year graduation rate

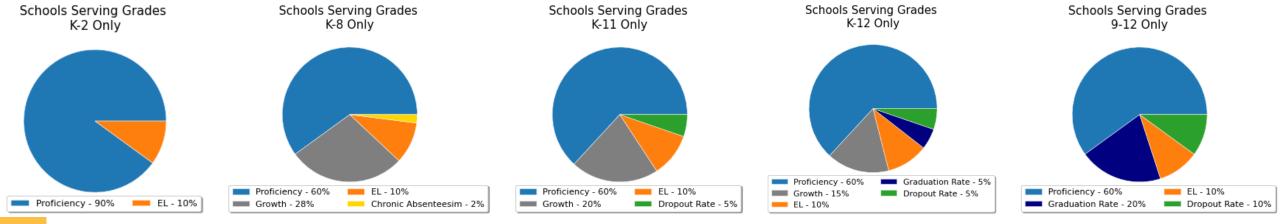
Graduation Rate is reported a year in lag – 2021 graduates for the 2022 report

### Who counts

- Cohort is determined by first enrollment in 9<sup>th</sup> grade
  - Graduated
  - Non-graduates
  - Exits

# of Grads in Cohort # of Students in Cohort





### **Dropout Rate**

- 5% in K-11 and K-12
- 10% in 9-12





# Dropout Rate

### Who counts?

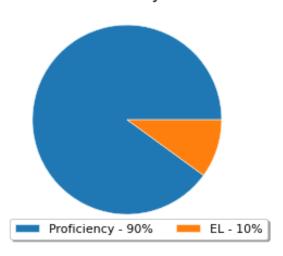
- Students in grades 7-12
- Student population: All students enrolled during the year
- Dropouts\*:
   Any student not enrolled at the end of the year who did not transfer, graduate, or die

$$1 - \frac{\# \ of \ Dropouts^*}{Student \ Population}$$

\*refer to the *Grad Drop and Persistence Technical Manual* for enrollment codes

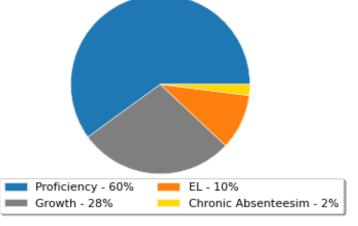


### Schools Serving Grades K-2 Only

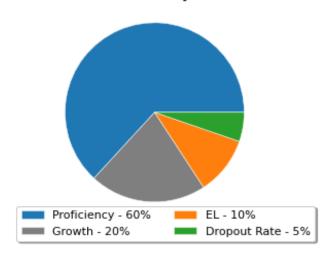


## Models

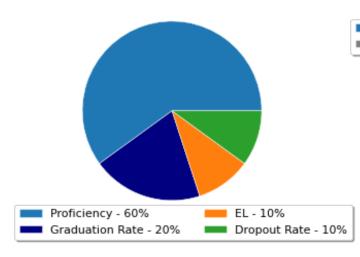
Schools Serving Grades K-8 Only



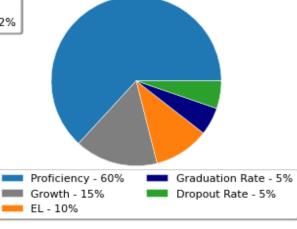
Schools Serving Grades K-11 Only



Schools Serving Grades 9-12 Only



Schools Serving Grades K-12 Only

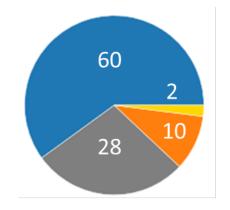


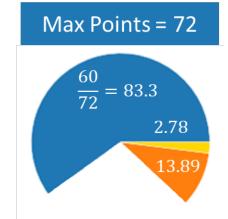


### Final Total Points

- Model determines point split
- Any low-n component is excluded
  - This reduces max possible points
  - Final total is based on maximum possible for each school

$$\frac{Total \# of \ Points}{Eligible \ Points} = Final \ Points$$







# Final Points



Total Points (CSI-LA)



Schools ordered by final points



At least the lowest 5% of Title I schools are identified for CSI-LA



\* Note – your school's final points reflect a percent of your school's total possible points, not a percent of every measure.

### CSI – Low Graduation Rate

- Schools graduating less than 2/3<sup>rds</sup> of their students
- Identification on a rolling basis, every 3 years
  - Current identification was FY 2021
  - Next identification is in FY 2024
- Schools with populations less than 100 may opt in
- Exit after 2 years of improvement and graduating 2/3<sup>rds</sup> of their students or more



# Questions

- Part 2: Intro to the Static File
- Part 3: Interrogating Your Data
- russel.potter@azed.gov
- 602-542-3281



