



College for Certain

ARMING TEACHERS WITH DATA AND ANALYSIS TO GUIDE INSTRUCTION

October 19, 2010



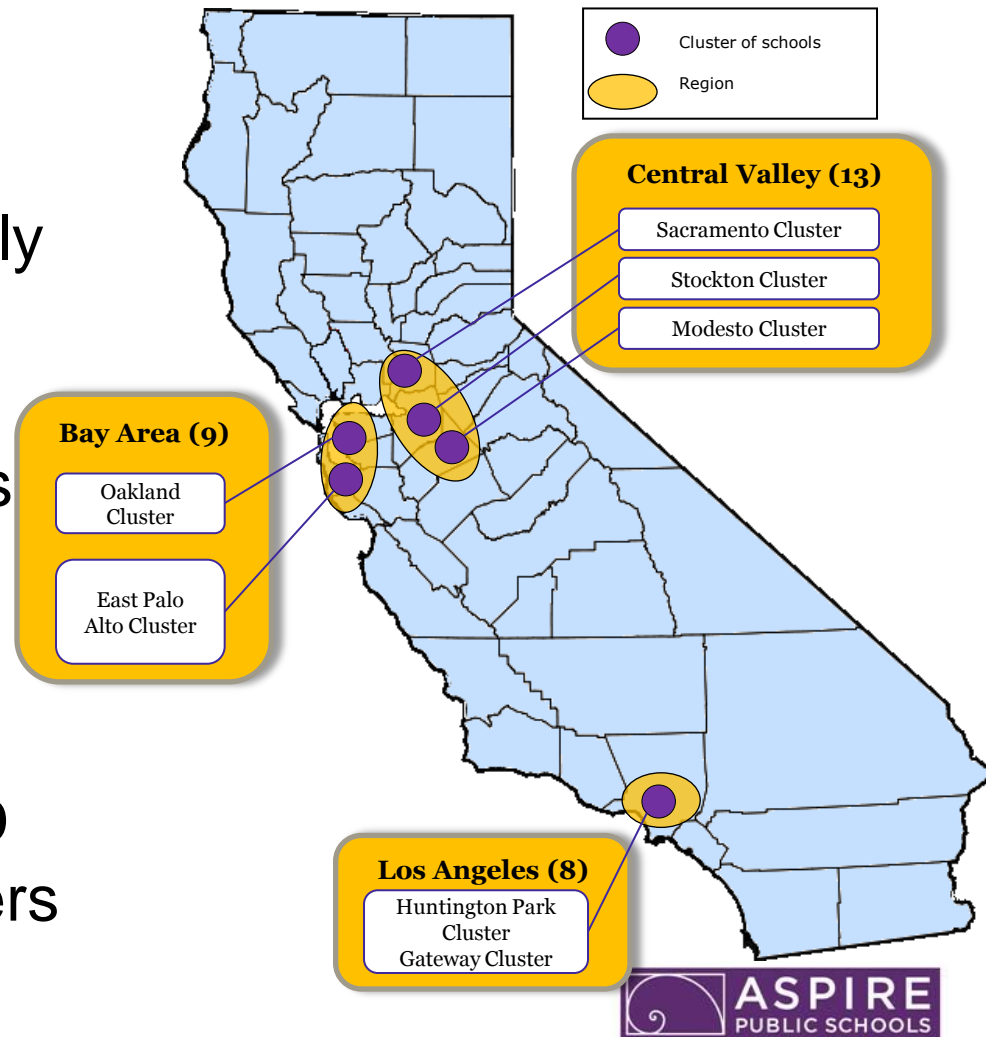
Presentation

- Aspire Public Schools Background
- Using Tableau to Make Data Easily Accessible, Actionable, and Focused on Mastery/Growth
- Strategies for Monitoring Implementation and Usage
- Impact of Data Tools and Tableau
- Key Take Aways
- Question and Answer Session

Aspire Public Schools - Quick Facts

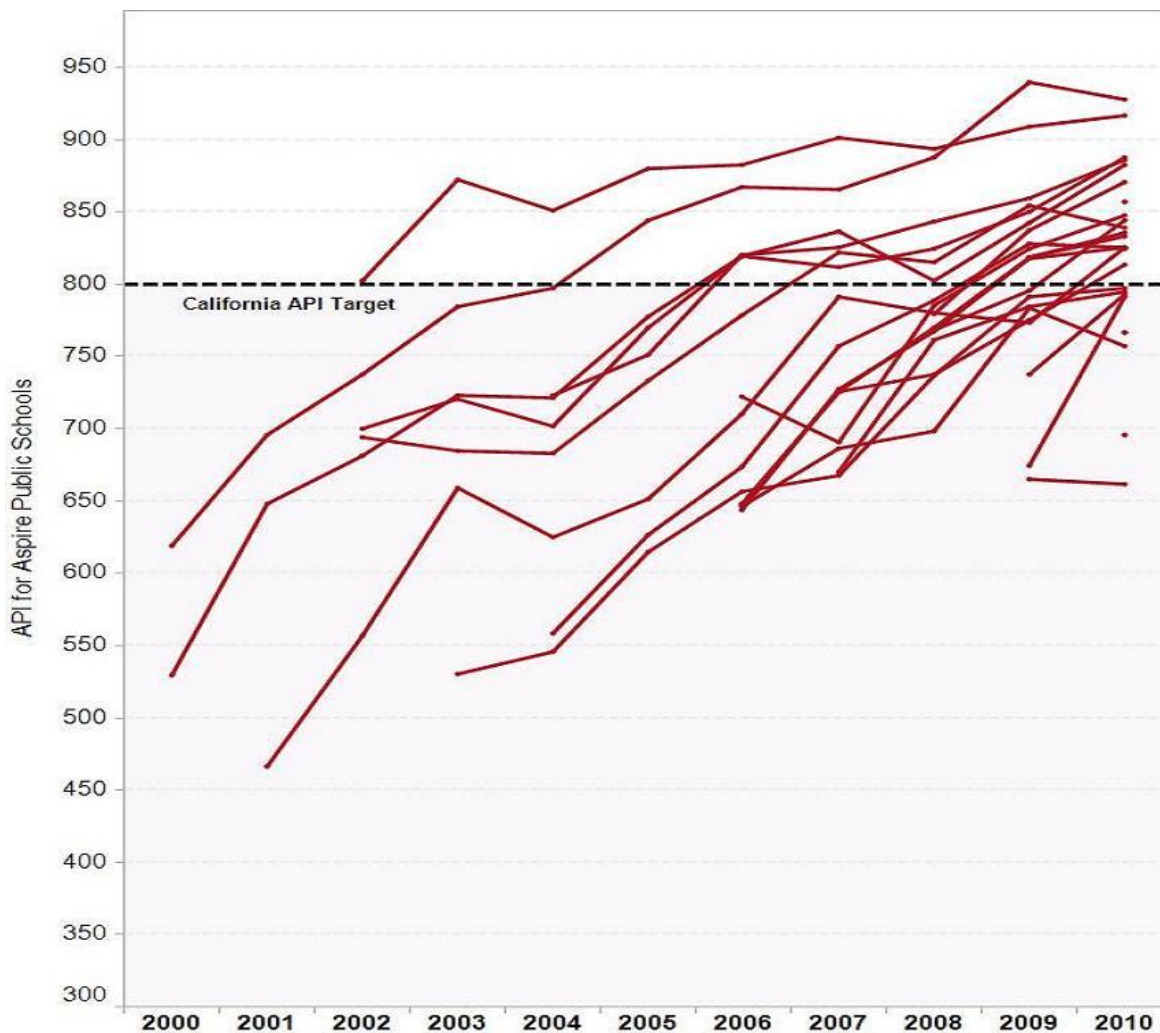
- Non Profit Charter Management Organization founded in 1998
- Mission is to get economically disadvantaged students into college
- Currently running 30 schools in California covering K-12
- Serving almost 10,000 students
- Approximately 73% are SED and 32% are English Learners

Current School Clusters & Regions



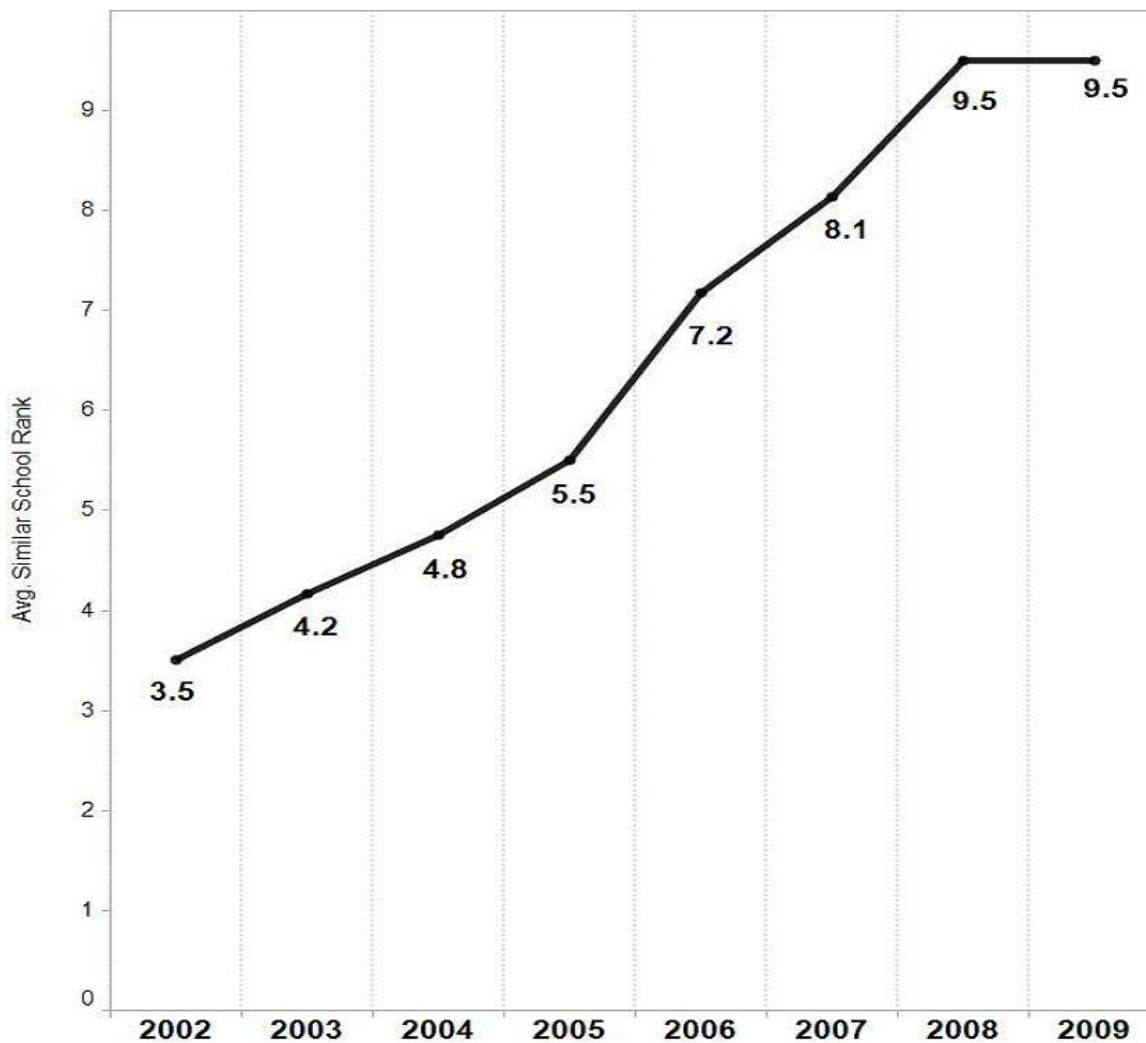
Aspire Public Schools has developed a proven track record of increasing student achievement! In 2010, 17 of our 25 schools (68%) scored above 800! 14 of our 17 schools opened for at least 3 years (82%) scored above 800.

Aspire's Historical API Scores



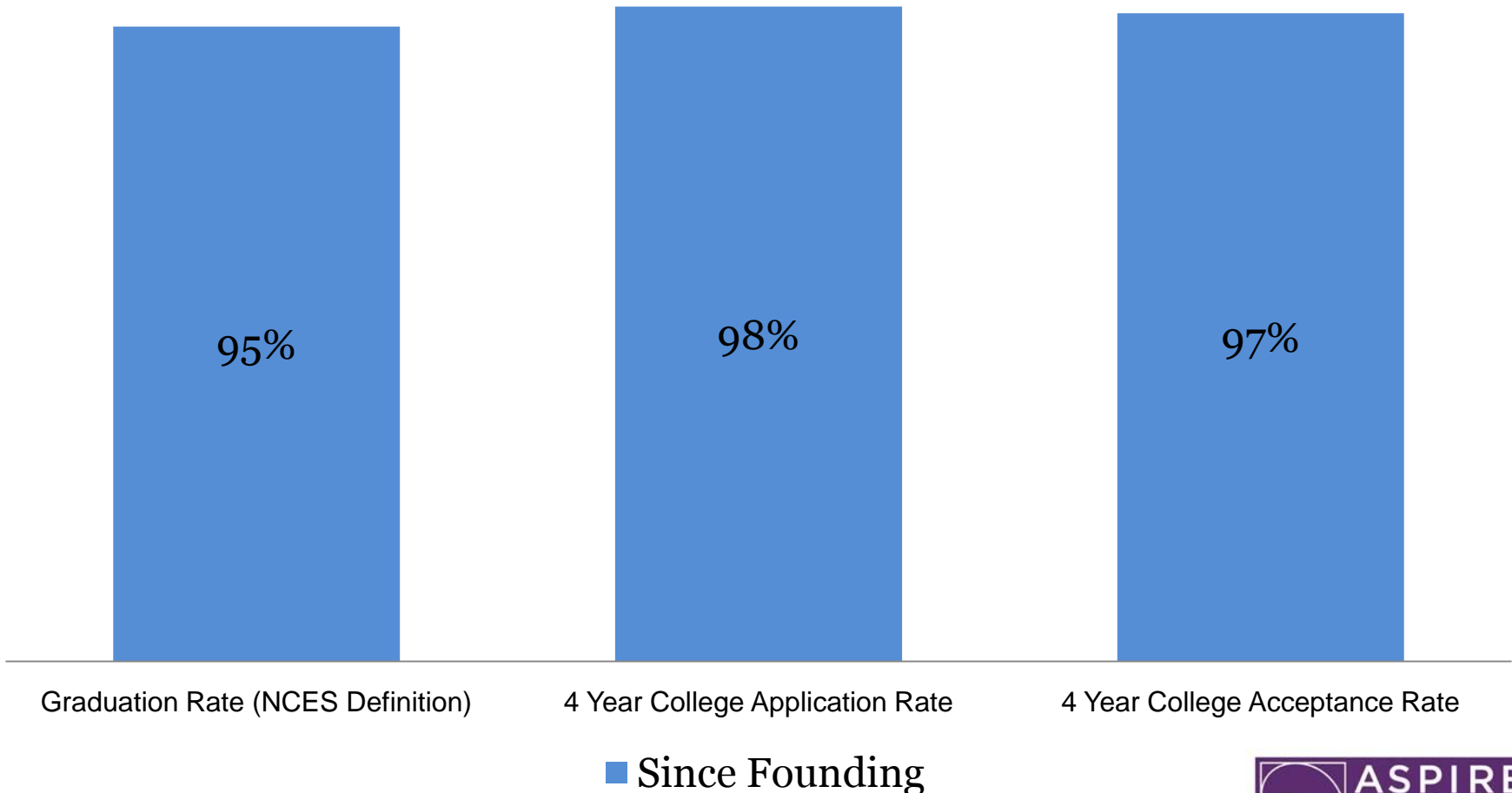
Almost all Aspire schools perform at the top in the state when compared to schools with similar demographics. Aspire's average Similar School Rank was 9.5 out of 10 in 2009!

Aspire's Average Similar School Rank History



Since its founding Aspire has graduated approximately 95% of its students! At least 97% of its graduates have applied and been accepted to a 4 year college!

Aspire's Graduation, College Application and College Acceptance Rates Since Founding



Aspire believes data driven instruction is essential to achieving our mission.

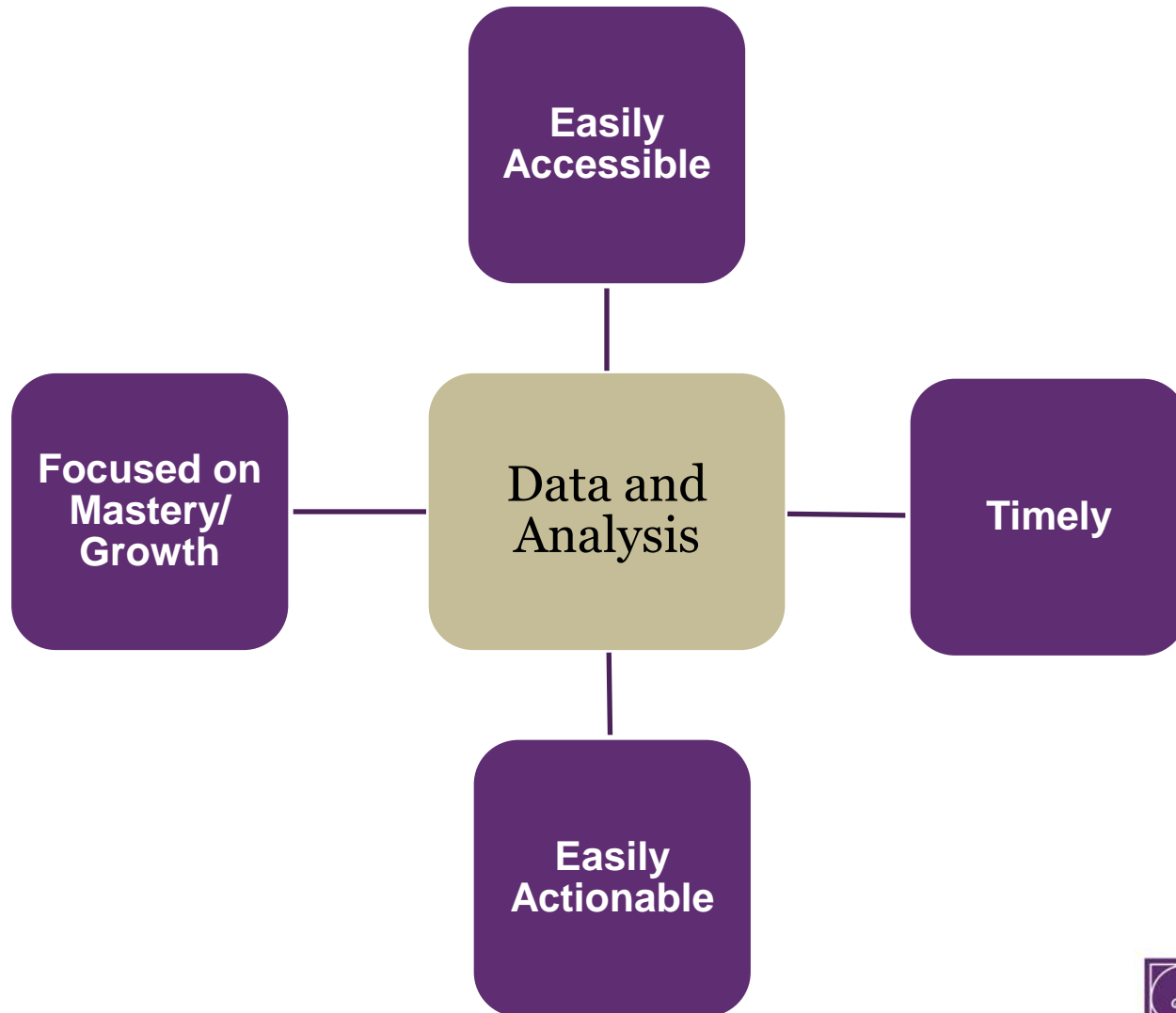


Tableau is a Visual Analytics/Business Intelligence software Aspire first implemented about 18 months ago.

**Aspire's
Data Needs**



**Automate
Production of
Data Analysis
Products**

**Make Tools
and Analysis
Interactive**

**Deliver Data Tools
and Analysis
Directly to
Teachers at Same
Time**

Tableau



**Ability to Create
Templates
Replicating
Existing
Products**

**Ability for
Users to Drill
Down in the
Data to the
Individual
Student Level**

**Web-based
(Tableau Server)**



College for Certain

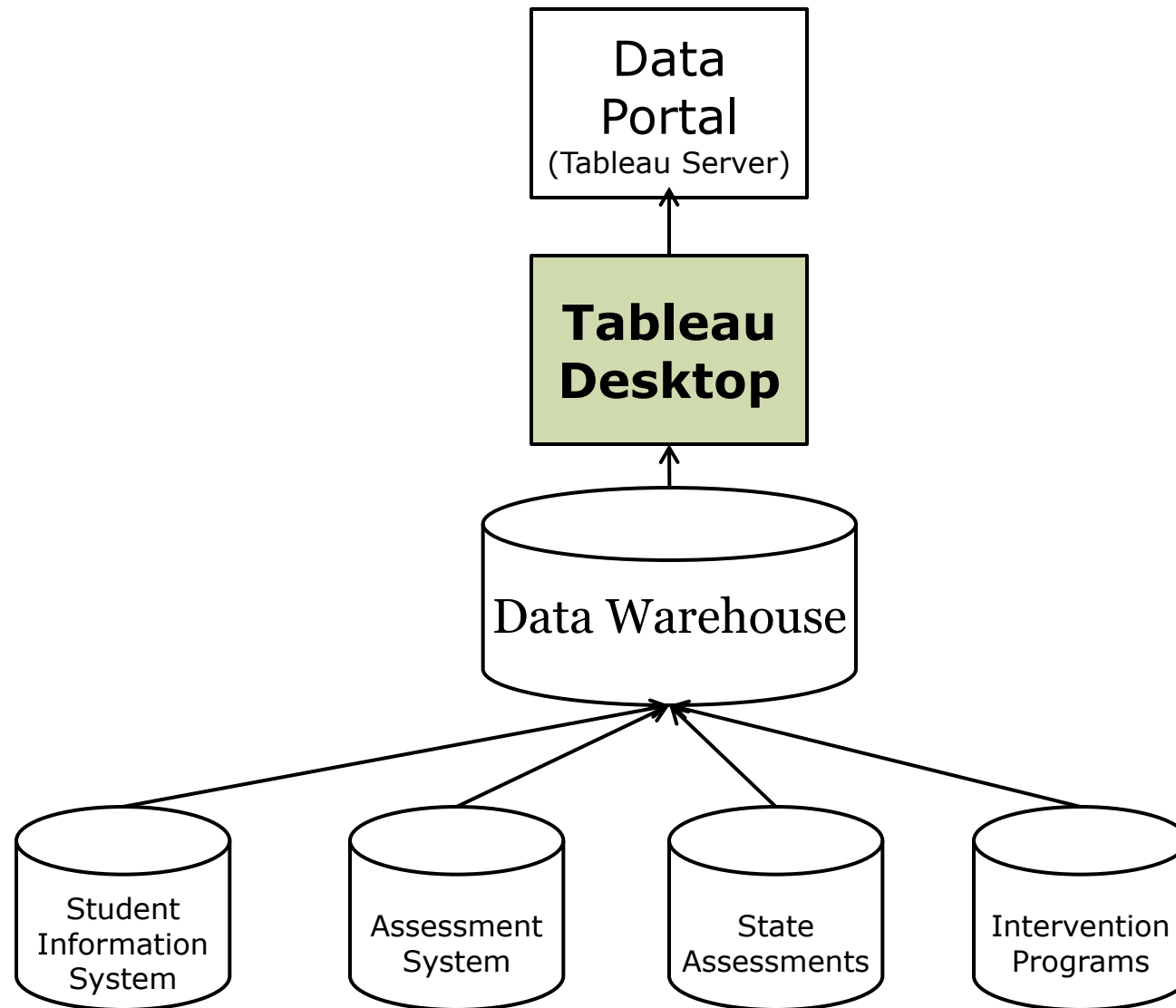
USING TABLEAU TO MAKE DATA EASILY ACCESSIBLE, ACTIONABLE, AND FOCUSED ON MASTERY/GROWTH



Aspire's Tableau Based Data Analysis Tools and Products Demos

- **Data Analysis Tool: Teacher Data Portal**
- **Data Analysis Products:**
 - **Benchmark/Interim Data Analysis Product**
 - **Individual Teacher STAR Data Analysis Product**

We use Tableau Desktop to create all our reports and data analysis products.



Making Data
Easily
Accessible/Timely

Teacher Data Portal



Teacher Data Portal

Welcome to your new data portal! Please check out the [5 minute intro video](#) and [guide](#).

Quick Summary Reports (My Students)

[Class Snapshot](#)

[\(Excel Compatible Version\)](#)

One-page summary of assessment data for all students in a class

[Student Profile](#)

One-page summary of assessment/enrollment/attendance data for one student

Detailed Reports (My Students)

Assessment Data

Detailed, assessment-specific reports for students in a class

Non-Assessment Data

Detailed non-assessment reports for students in a class

[CST Reports](#)

[Benchmark & Interim
Reports](#)

[Other Assessment Reports](#)
(DRA, SRI, CELDT, SAT, etc.)

[Attendance Report](#)

[Demographic Report](#)

School & Aspire Reports

Assessment Data

Detailed, assessment-specific reports for a school or Aspire

Non-Assessment Data

Detailed non-assessment reports for a school or Aspire

[CST Reports](#)

[Benchmark & Interim
Reports](#)

[Other Assessment Reports](#)
(DRA, SRI, CELDT, SAT, etc.)

[Attendance & Enrollment
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[Demographic Reports](#)

Have questions or comments? Email us at: GODZILLA@aspirepublicschools.org



Assessments available in the Teacher Data Portal

	<u>Assessment</u>	<u>Description</u>	<u>Frequency</u>
National	ACT	College admissions test	Rolling
	SAT	College admissions test	Rolling
	SAT2	College admissions test	Rolling
State	CST	CA Standards Test (2-11)	Annual (May)
	CELDT	CA English Language Development Test	Annual (October)
	CAHSEE	CA High School Exit Exam	Rolling
Aspire	Benchmarks	Standards-based assessments (K-12)	Quarterly
	Interims	Standards-based assessments (6-12)	Quarterly
	DRA	Development Reading Assessment(K-8)	~Quarterly
	SRI	Scholastic Reading Inventory (4-12)	~Quarterly
	Writing Snapshot	Writing assessment (6-12)	~Quarterly
	Math Basic Skills	Math basic skills assessment (5-12)	Until passed

Collaboration Report

Collaboration Report - Benchmarks & Interims - Standards: **7th Grade Math - Pre-CST - 2009-2010**

Standard	Standard Description	CST Num Questions	LHA	BMA	Ben Holt	EPACS	Vanguard	Wilson Prep
NS 1.1	1.1 Read, write, and compare rational numbers in scientific..	1	75	67	77	57	81	78
NS 1.2	1.2 Add, subtract, multiply, and divide rational numbers ..	4	72	86	73	80	84	90
NS 1.4	1.4 Differentiate between rational and irrational numbe..	1	87	74	79	45	71	79
NS 1.6	1.6 Calculate the percentage of increases and decreases ..	1	57	80	72	61	61	71
NS 1.7	1.7 Solve problems that involve discounts, markups,..	5	59	60	60	78	71	82
NS 2.1	2.1 Understand negative whole-number exponents. M..	1	58	80	10	31	65	91
NS 2.2	2.2 Add and subtract fractions by using factoring to find co..	1	75	89	83	96	73	84
NS 2.3	2.3 Multiply, divide, and simplify rational numbers by ..	3	64	58	53	65	69	73
NS 2.5	2.5 Understand the meaning of the absolute value of a nu..	2	73	96	72	82	82	74

Aspire's Tableau Based Data Analysis Tools and Products Demos

- **Data Analysis Tool: Teacher Data Portal**
- **Data Analysis Products:**
 - **Benchmark/Interim Data Analysis Product**
 - **Individual Teacher STAR Data Analysis Product**

**Easily
Actionable**

Initial Analysis can be done using one tool.



Create Lesson Plans & Reteach

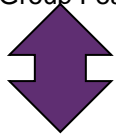
(Tool: Aspire Lesson Plan Template)

Questions: How can I best address students' misconceptions and what is the optimal teaching format (e.g. DOL, guided reading, direct instruction, center, etc.)

Resources:

Peers/Coaches/MyAspire

To generate student lists for small group instruction you can use Edusoft's Item Analysis Report and the Create an Intervention Group Feature



Deep Data Analysis

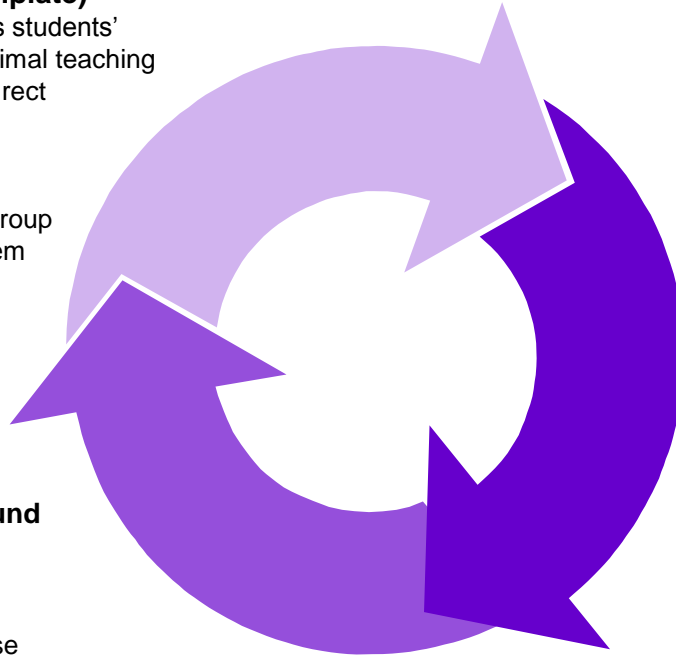
Questions: Which students found specific standards particularly challenging and why?

Resources:

Edusoft Item Analysis and Response Reports to Determine which specific test question (s) students missed and what their misconceptions were.

CST Released Questions to Task
Analyze Challenging Stds
Coaches Analysis Protocols

Give and Scan the Pre-CST Benchmark/



Revise Pacing/Create CST Review Guide

(Tool: Calendar including all non-instructional days until the CSTs)

Initial Data Analysis

(Tool: CST/Bench/Interim Summary Dashboard or CSTBI Template)

Questions: What standards has my class mastered, partially mastered, and not mastered?

Prioritize Standards to Reteach/ Teach Prior to the CSTs

(Tool: CST/Bench/Interim Summary Dashboard or CSTBI Template)

Identify Standards to Reteach Whole Class (Less than 50%) and Small Group (Above 50%)

(Tool: Color Coded CST/Bench/Interim Summary Dashboard or CSTBI Template One can also use the Interactive CST/Bench/Interim Dashboard to quickly identify how many students need to be in the reteach groups)

Benchmark/Interim Analysis Product.



1. To get started, click on a school's name, then click on a teacher's name and finally click on a subject and grade.

Katte Iainorg - Benchmark/Interim Standards Matrix

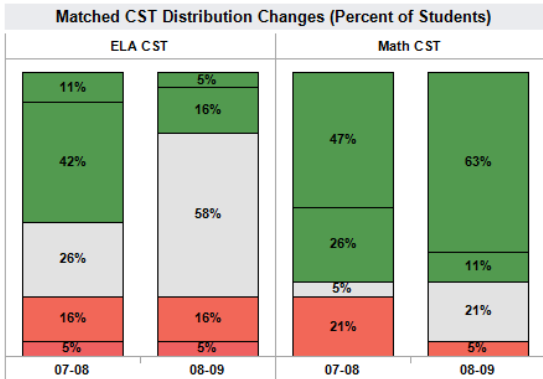
2. To print the matrix, click on the printer icon.

Schools		Benchmark/Interim Scores - Teacher Average					
Aspire Order	Strand and Std Number	Standard Description	# of Questions on CST	5th Math 09-10 Fall Bench	5th Math 09-10 Winter Bench	5th Math 09-10 Pre-CST Bench	
AMLA	1	NS 2.1	2.1 Add, subtract, multiply, and divide with decimals; add with negative integers; subtract..	7	55	88	91
ATCPA	2	AF 1.2	1.2 Use a letter to represent an unknown number; write and evaluate simple algebraic ..	6	83	95	90
Ben Holt	3	NS 1.2	1.2 Interpret percents as a part of a hundred; find decimal and percent equivalents for com..	5	44	99	94
BMA	4	NS 2.3	2.3 Solve simple problems, including ones arising in concrete situations, involving the ad..	5	8	96	90
Cal Prep	5	AF 1.5	1.5 Solve problems involving linear functions with integer values; write the equation; and gr..	5	54	77	100
Centennial	6	AF 1.4	1.4 Identify and graph ordered pairs in the four quadrants of the coordinate plane.	4	63	67	88
CHA	7	MG 2.2	2.2 Know that the sum of the angles of any triangle is 180° and the sum of the angles of ..	4	25	35	89
EPACS	8	NS 1.4	1.4 Determine the prime factors of all numbers through 50 and write the numbers as the prod..	3	56	85	95
EPAPA	9	NS 2.2	2.2 Demonstrate proficiency with division, including division with positive decimals and l..	3	29	87	88
	10	MG 1.1	1.1 Derive and use the formula for the area of a triangle and of a parallelogram by comparin..	3	71	85	66
	11	MG 1.3	1.3 Understand the concept of volume and use the appropriate units in common measuring s..	3	54	58	95
	12	MG 2.1	2.1 Measure, identify, and draw angles, perpendicular and parallel lines, rectangles, a..	3	69	71	92
	13	SDP 1.4	1.4 Identify ordered pairs of data from a graph and interpret the meaning of the data in terms..	3	60	75	84
	14	NS 1.5	1.5 Identify and represent on a number line decimals, fractions, mixed numbers, and posit..	2	44	83	80
	15	MG 1.2	1.2 Construct a cube and rectangular box from two-dimensional patterns and use these patte..	1	37	42	88
	16	SDP 1.5	1.5 Know how to write ordered pairs correctly; for example, (x, y).	1	33	29	72

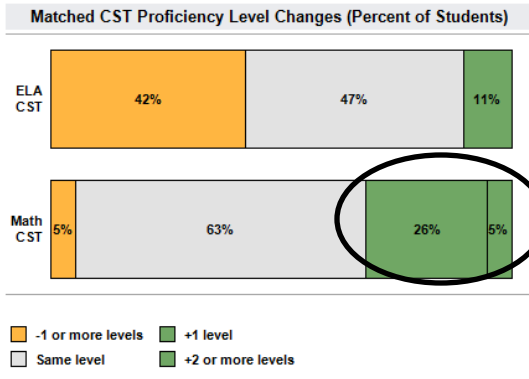
Subject and Grade
ELA, 5
Math, 5



Teachers can easily identify how their students did (pre and post) and how much they grew on the CSTs.



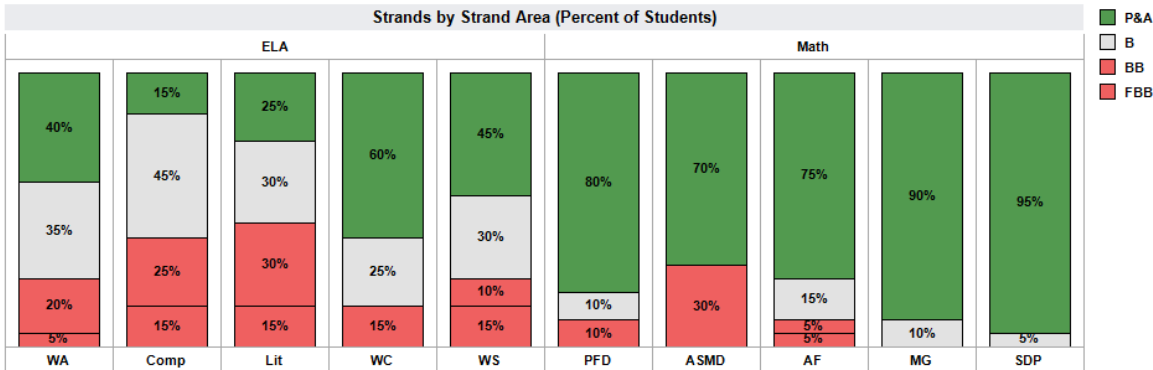
Analysis Prompt: How did the proportion of your matched students scoring at the P/A and FBB/BB levels change between the 08-09 and 09-10 school years?



Analysis Prompt: What proportion of your students decreased and increased proficiency levels between the 08-09 and 09-10 school years?



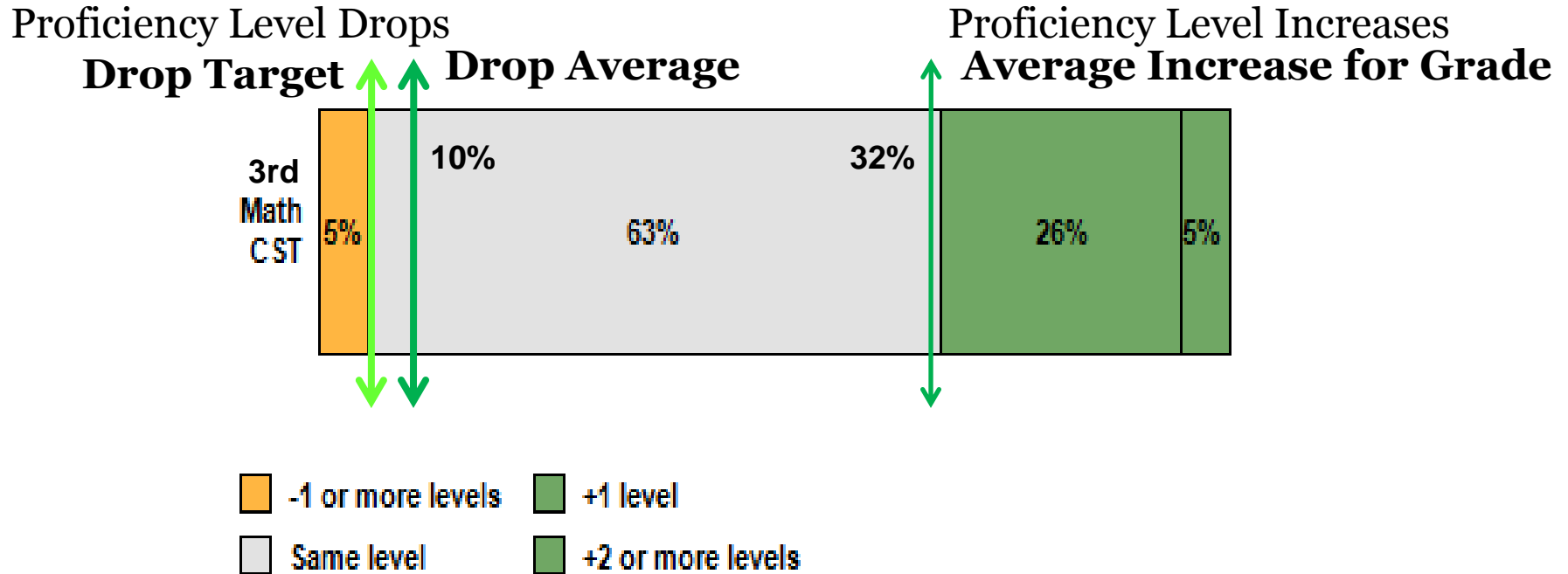
31% of students increased at least 1 proficiency level in Math



Analysis Prompt: On which strands were your students most likely to score at the P/A levels (strength)? On which strand were they least likely to score at the P/A levels (broad challenge)? On which strand were they most likely to score at the FBB/BB levels (specific challenge)?

We provide teachers with the metrics to analyze how they did on the CSTs compared with the rest of teachers at the same grade and/or subject.

Matched CST Proficiency Level Changes



Analysis Prompt: What proportion of your students decreased and increased proficiency levels between the 08-09 and 09-10 school years?



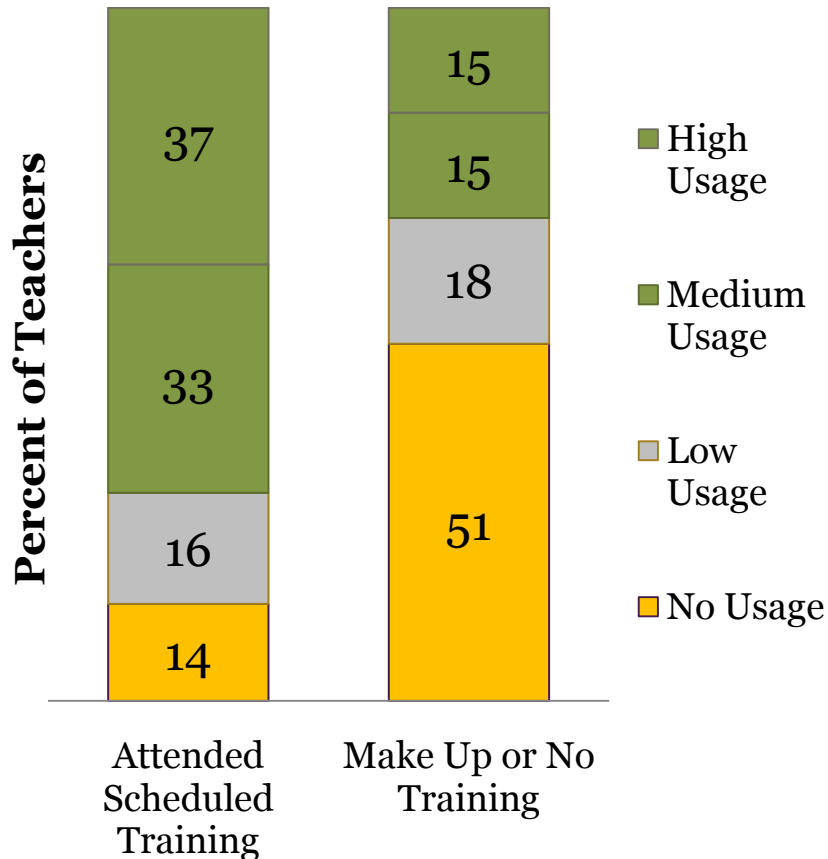
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MONITORING PRODUCT USAGE AND IMPACT



Monitoring Product Usage in Tableau

Data Drivers and Teacher Usage of the 09-10 STAR Data Analysis Product



Aspire's Data Drivers

Purpose: A teacher rep at each site (Data Driver) trains her/his colleagues on how to use Aspire's Data Analysis Products and Tools

- Trainer of Trainers Model
- Data Drivers also provide follow up coaching at their site to ensure teachers are using the tools to strategically drive their instruction

The data tools we have created allow teachers to spend more time strategically focused on teaching and learning.

I used the product daily. It was extremely helpful!
3rd grade Teacher, Rosa Parks



We used it to aid us in making small groups after the Pre-CST benchmark. We were able to quickly identify the students who needed particular help for specific standards.
Algebra Teacher, EPACS

The UCS staff is really excited about the teacher data portal and all it does to make working with their data much more efficient!
Data Driver, UCS

The benchmark product saved me a lot of time, and made creating small groups very easy.
2nd grade teacher, Berkley Maynard

This tool was the best because it immediately enabled me to prioritize standards for teaching and re-teaching.
10th English Teacher, Cal Prep

Key Take Aways

Aspire's actionable data analysis products and tools drive instruction by:

- Identifying students' standards based strengths and skill gaps;
- Promoting collaboration around effective instructional strategies; and
- Providing insight into how effective teachers are at accelerating their students.

Tableau has allowed Aspire to:

- Automate the creation of our analysis product and tools;
- Provide easily accessible, timely, and interactive individualized analysis directly to our key stakeholders;
- Easily monitor implementation and usage.

Question and Answer Session

- Data, Data Tool, Impact, Policy Implication or Other Questions
- Tableau Specific or Technology Questions
 - Lynzi Ziegenhagen, Director of Technology Solutions



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APPENDIX



Data Warehouse & Analysis/Reporting – Architecture

Business Intelligence Technology Architecture

