



CHANGING CONVERSATIONS ABOUT EDUCATION

SCHOOLview®

Accountability 2.0

Next-Generation Performance, Delivery & Design

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Changing Conversations about Education®





Next-Generation Performance

- Dramatic, not incremental improvements required for students that need to catch up to become college & career ready (CCR)
 - *From a system where most students that start behind stay behind to a system where they catch up*
- Implies that our accountability systems should provide information that fuels a consensus for change & capacity for improvement



Next-Generation Accountability Systems



- Coherent systems focused on learning & building performance management capacity at all levels
 - Maximize student progress toward & attainment of college and career readiness
 - Support local ownership of high quality information to drive insight and action



Accountability Complexity

- Accountability for educator effectiveness now layered onto systems for student, school, district, state & federal accountability
- Better when these multiple layers are aligned to support the business we are in



Our Business

- Maximize student progress toward & attainment of college and career readiness
 - Bright line: **all kids ready by exit**
 - Requires a definition of readiness & the content & performance standards leading there
 - Requires measurement system that determines how well students are progressing toward & reaching the destination



Policy Perspective on Growth

- Why is measuring student growth so important?
 - NCLB (Accountability 1.0) had right intent but...
 - AYP metric not useful for school performance management
 - Incentives focused on short-term increases in percent proficient, on “bubble” kids, invited moral hazard
 - Instead of long-term effectiveness and progress for all kids toward college & career readiness
 - ESEA waivers & design of educator effectiveness systems provides opportunity to get the measures & incentives right



Next-Generation Accountability Systems



What can we learn from Moneyball?

In Moneyball, the analyst Peter Brand shares a key insight with Billy Beane, the GM of the Oakland A's:

“There is an epidemic failure within the game to understand what is really happening and this leads people who run major league baseball teams to misjudge their players and mismanage their teams.”



Moneyball & Public Education

*There is an epidemic failure within **education** to understand what is really happening and this leads people who run **school systems** to misjudge their students and educators and mismanage their schools and districts.*

This is most evident when we consider judgments about quality & effectiveness.





Speedometers & Mile Markers

Rate x Time = Distance

Consider two buses heading to the same destination but starting from different places.....

<http://vimeo.com/schoolview/bus>

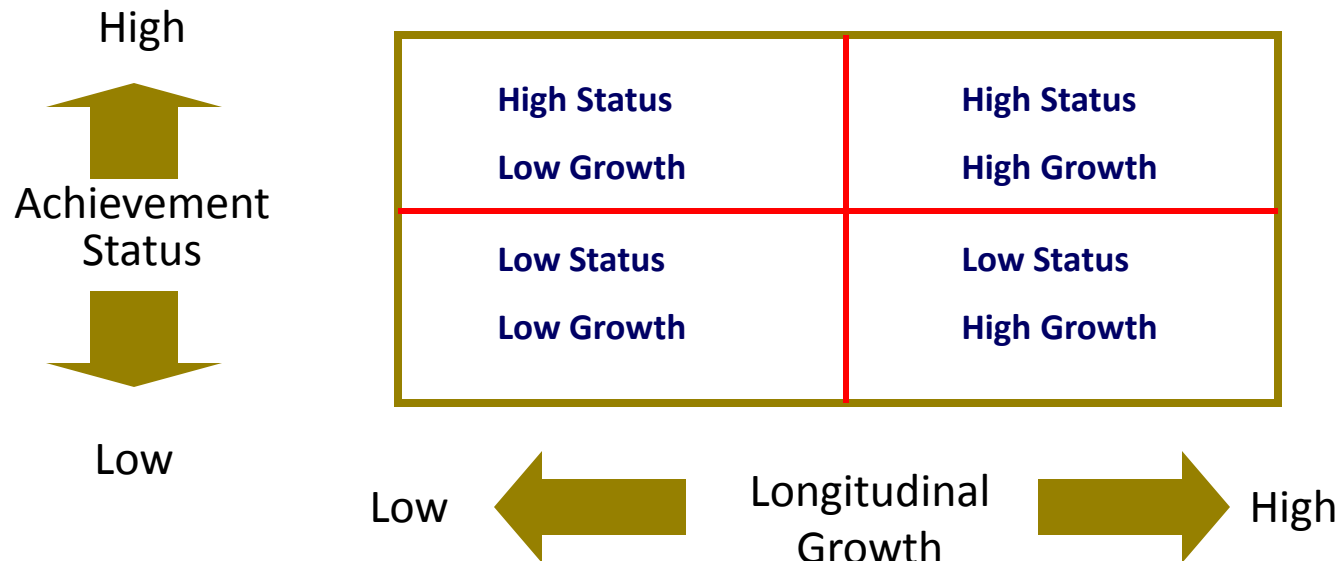


Consequential Validity

- Henry Braun (2008)
 - *Assessment practices and systems of accountability are consequentially valid if they generate useful information and constructive responses that support one or more policy goals without causing undue deterioration with respect to other goals.*



Understanding Performance





Coherent Design Serves Multiple Purposes

External Accountability Purposes: Public,
Fed, State, District



Internal Improvement Purposes:
School, Educator, Student



What Models?

- What statistical models of longitudinal student growth will promote the most coherence and alignment in our accountability system?
 - Alphabet soup: SGP, EVAAS, HLM, VAM
 - Description & Causation, Learning & Verdict
 - Scale Score Subtraction a bad idea
 - Assessment transition considerations



Some Framing Ideas

- *We understand best those things we see emerge from their very beginnings.*
 - Aristotle
- *All Models are wrong but some are useful.*
 - George E. P. Box
- *It is better to have an approximate answer to the right question than a precise answer to the wrong question.*
 - John Tukey



Growth Model Considerations

- Alphabet soup: SGP, EVAAS, HLM, VAM
- Description & Causation, Learning & Verdict
- Scale Score Subtraction a bad idea
- Assessment transition considerations



How much growth did a student make & is it good enough?

- **Describing** growth versus **ascribing** responsibility
 - The Colorado Growth Model began by separating the description of growth from discussions of responsibility/accountability
 - The description of growth facilitated stakeholder engagement and investigations of responsibility for good/bad growth
 - That in turn led to greater stakeholder support



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Understanding Student Growth Percentiles

Consider a High Jump Analogy...

<http://vimeo.com/schoolview/highjump>



Student Growth Percentile Model

What is? ➡ How much growth did a child make in one year?

What should be? ➡ How much growth is enough to reach college & career readiness?

What could be? ➡ How much growth have other students made with the same starting point?

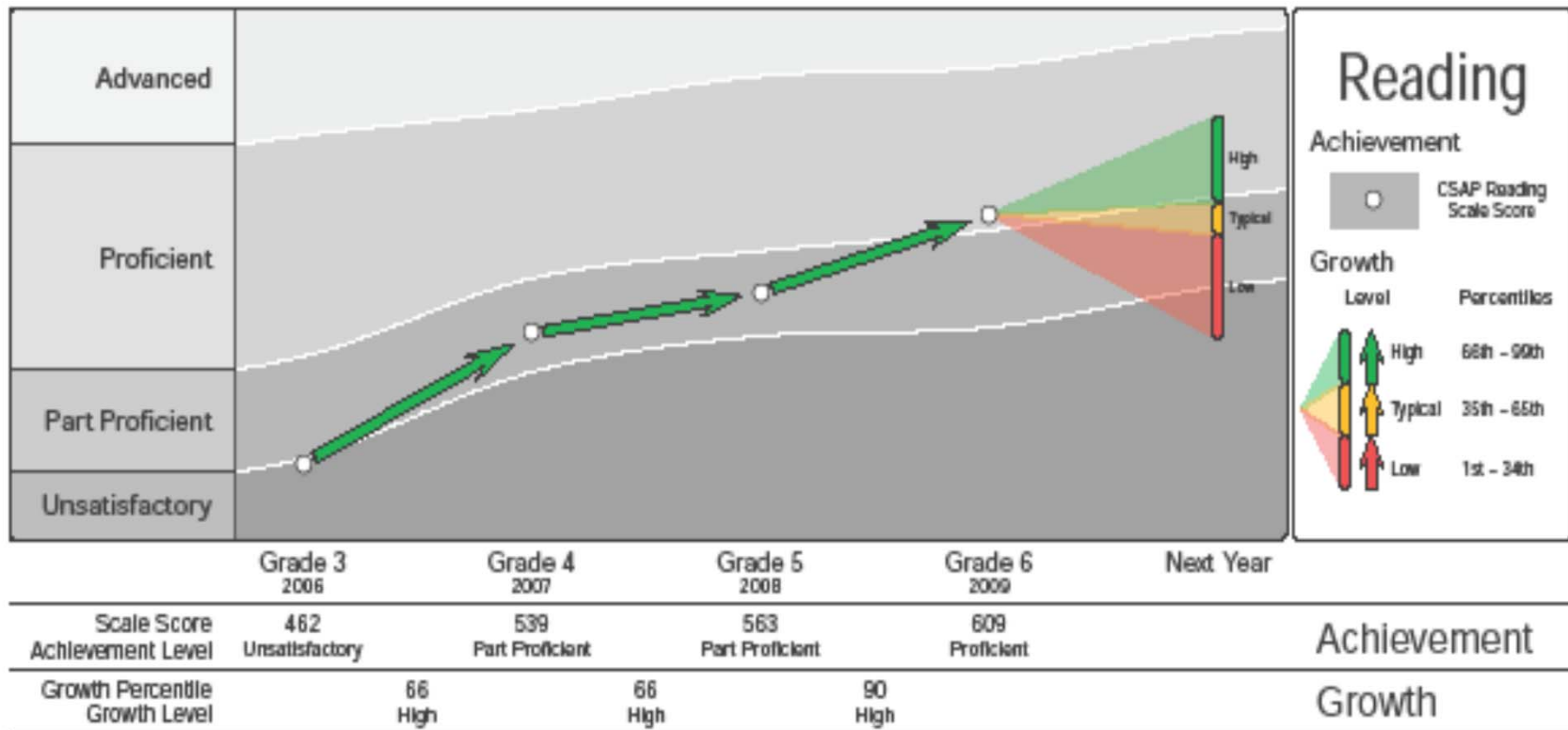


Summary: SGPs Measure...

- Each student's norm- and criterion-referenced progress compared to other students in the state with similar score history on statewide and interim assessments
- The adequacy of individual year-to-year and shorter cycle student progress toward state standards
- The growth rate needed for groups of students to catch up or keep up to be on track to reach college and career readiness
- Norm- and criterion-referenced growth rates among different groups of students at the state, district, school, and classroom levels
- Statewide and cross-state growth benchmarks for schools, districts, and education service providers

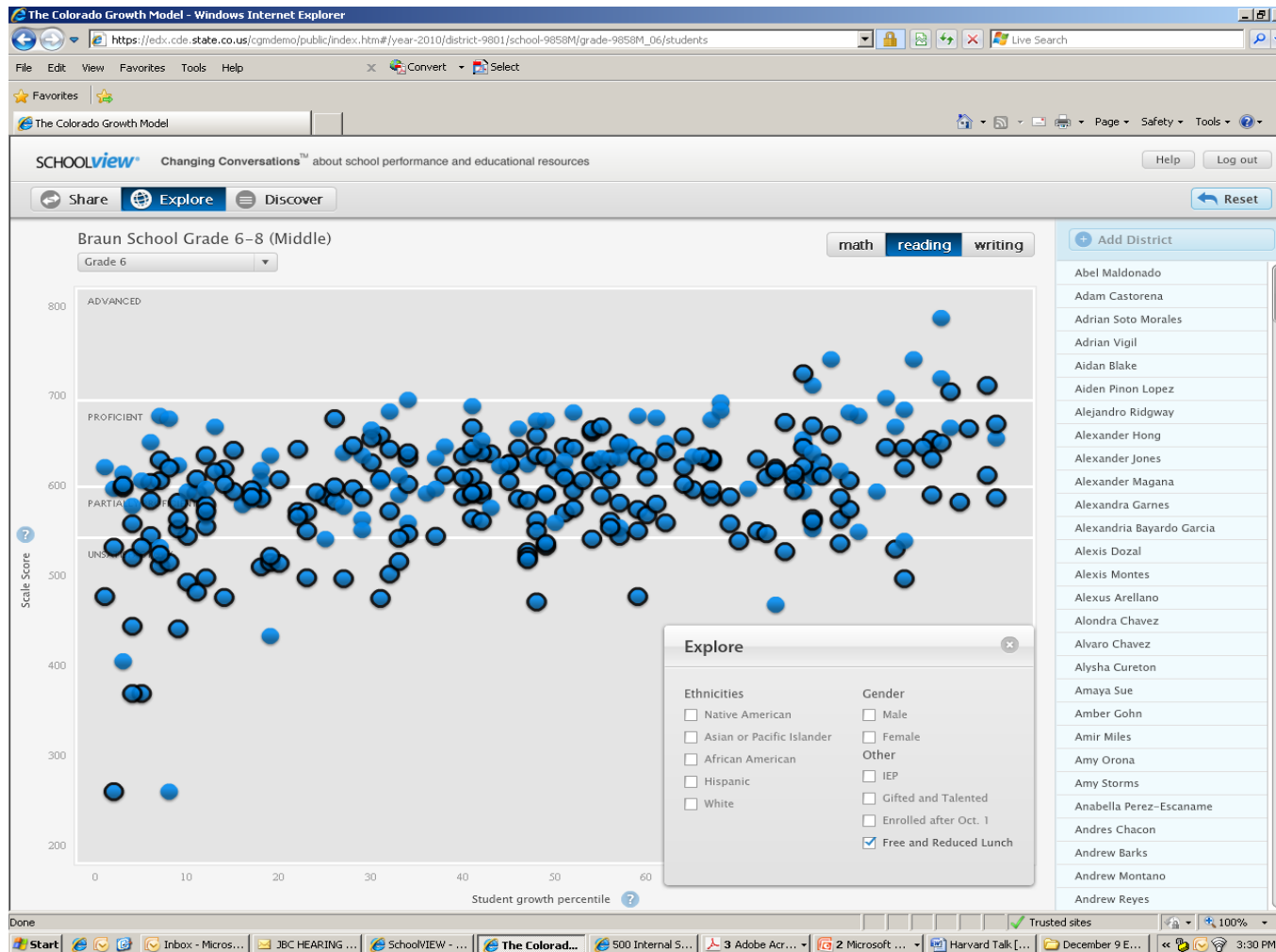


One Student's Growth Percentiles



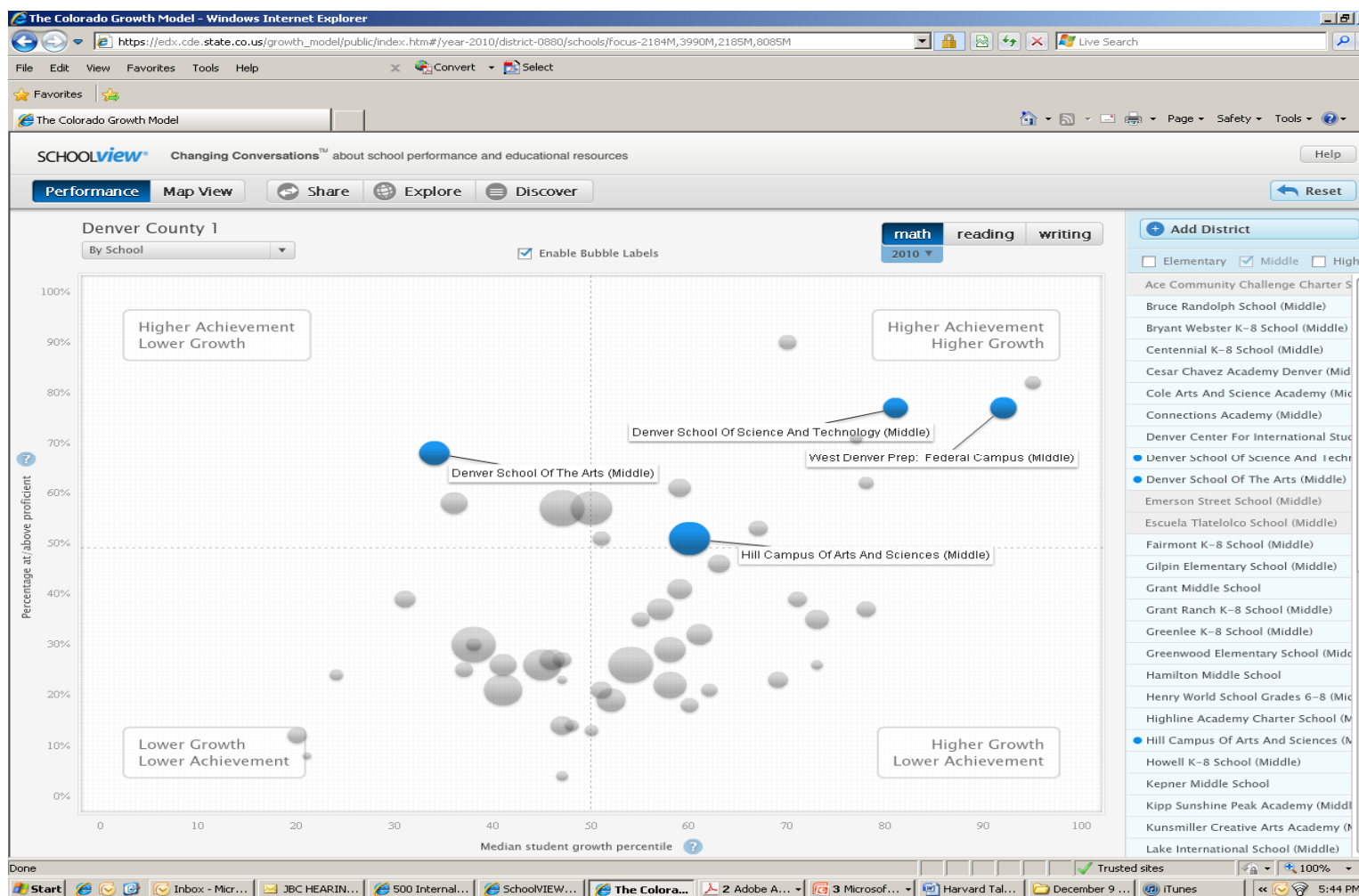


Students within a Grade



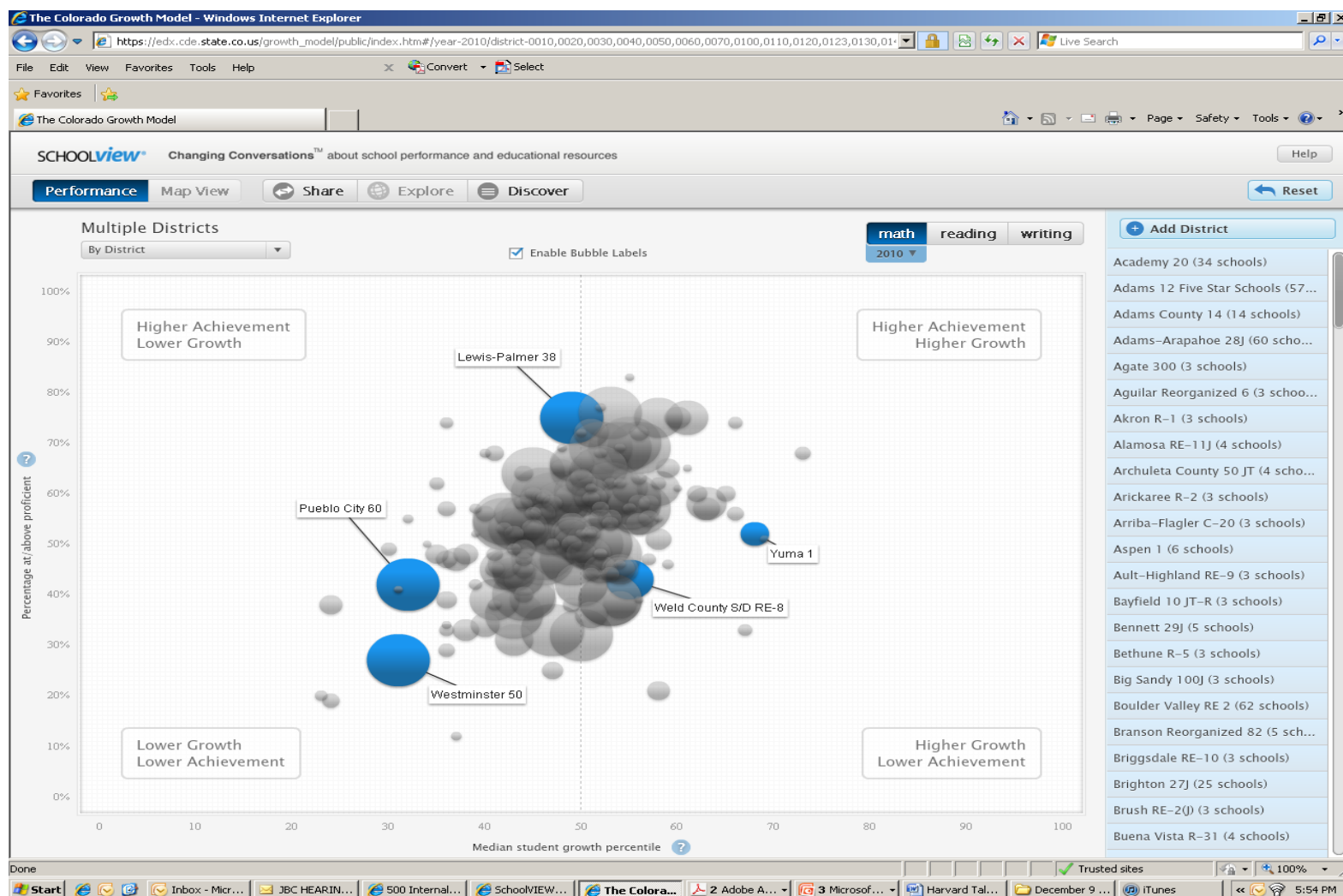


Authorizer's School Portfolio



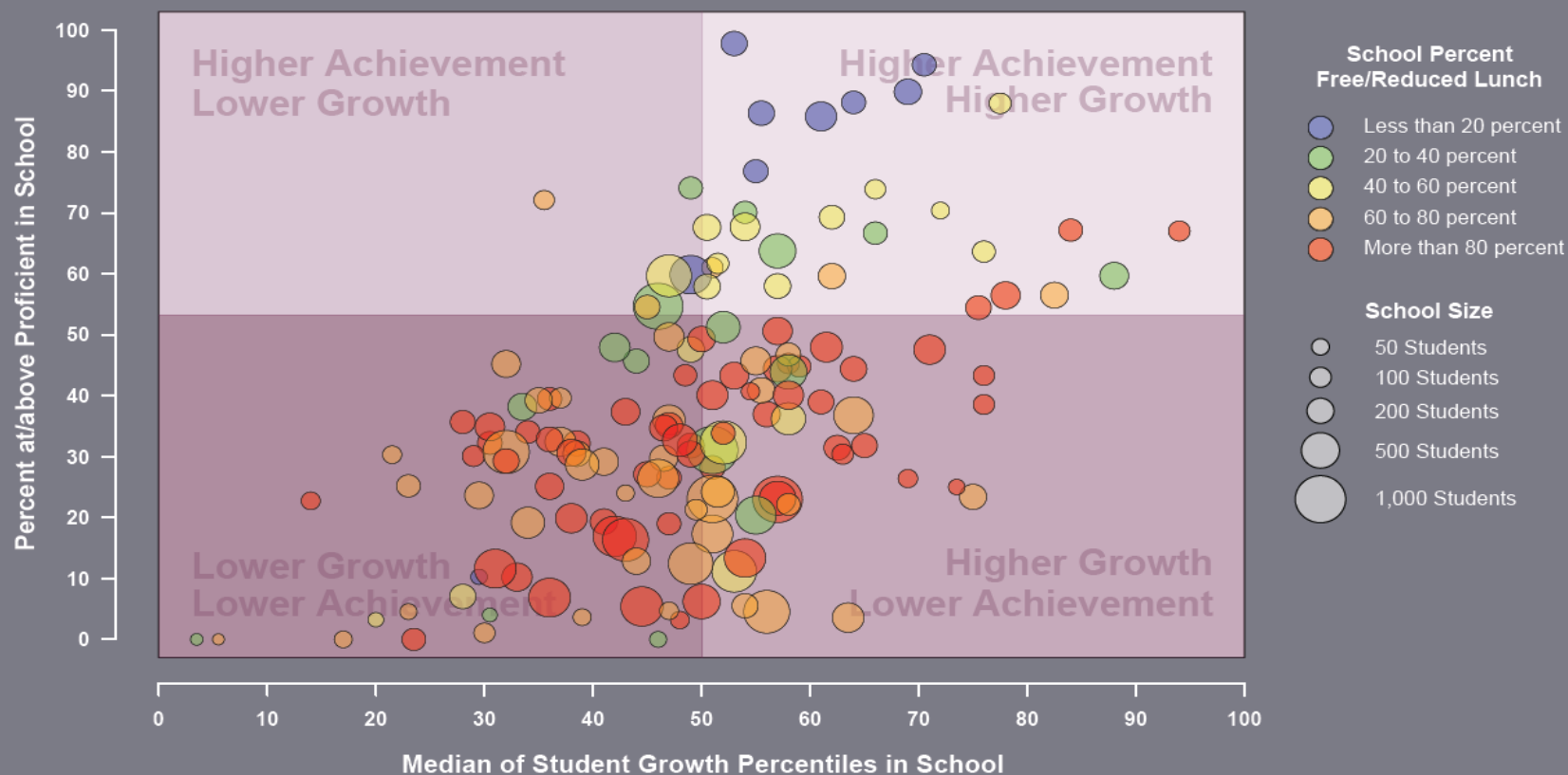


Districts within a State





District C: 2008 CSAP Math School Results
Student Growth versus Student Achievement by Percent Free/Reduced Lunch





District Performance Framework Report 2010 - initial

Level: All Levels






District: STEAMBOAT SPRINGS RE-2 - 2770 (1 Year***)

Accredited with Distinction

This is the accreditation category for the district. Districts are designated an accreditation category based on their overall framework score, which is a percentage of the total points they earned out of the total points eligible in each performance indicator. The overall score is then matched to the scoring guide below to determine the accreditation category.

Plan Assignment	Framework Points Earned
Accredited with Distinction	at or above 80%
Accredited	at or above 64% - below 80%
Accredited with Improvement	at or above 52% - below 64%
Accredited with Priority Improvement Plan	at or above 42% - below 52%
Accredited with Turnaround Plan	below 42%

Framework points are calculated using the percentage of points earned out of points eligible. For districts with data on all indicators, the total points possible are: 15 points for Academic Achievement, 35 for Academic Growth, 15 for Academic Growth Gaps, and 35 for Postsecondary and Workforce Readiness.

Performance Indicators	Rating/Plan	% of Points Earned out of Points Eligible*	
Academic Achievement	Exceeds	93.8%	(14.1 out of 15 points) 
Academic Growth	Meets	80.6%	(28.2 out of 35 points) 
Academic Growth Gaps	Meets	62.8%	(9.4 out of 15 points) 
Postsecondary and Workforce Readiness	Exceeds	91.7%	(32.1 out of 35 points) 
Test Participation**		95% Participation Rate Met	
TOTAL	Distinction	83.8%	(83.8 out of 100 points) 
Finance	Meets requirements		
Safety	Meets requirements		

* Districts may not be eligible for all possible points on an indicator due to insufficient numbers of students. In these cases, the points are removed from both the points earned and the points eligible, so scores are not negatively impacted.

** Districts do not receive points for test participation. However, districts that do not meet the 95% participation rate in two or more subject areas are assigned one accreditation category lower than their points indicate.

Districts do not receive points for finance and safety assurances. However, districts that do not meet requirements in at least one area default to Accredited with Priority Improvement Plan (or remain Accredited with Turnaround Plan) until they meet requirements.



Performance Indicators							Level: High School	
School: ABRAHAM LINCOLN HIGH SCHOOL - 0010							(1 Year***)	
Academic Achievement	Points Earned	Points Eligible	% Points	Rating	N	% Proficient/Advanced	School's Percentile	
Reading	1	4		Does Not Meet	933	32.5%	2	
Mathematics	1	4		Does Not Meet	932	9.9%	6	
Writing	1	4		Does Not Meet	931	14.3%	3	
Science	1	4		Does Not Meet	441	12.7%	3	
Total	4	16	25.0%	Does Not Meet				
Academic Growth	Points Earned	Points Eligible	% Points	Rating	N	Median Growth Percentile	Median Adequate Growth Percentile	Made Adequate Growth?
Reading	3	4		Meets	806	55	78	No
Mathematics	2	4		Approaching	808	52	99	No
Writing	2	4		Approaching	804	51	96	No
Total	7	12	58.3%	Approaching				
Academic Growth Gaps	Points Earned	Points Eligible	% Points	Rating	Subgroup N	Subgroup Median Growth Percentile	Subgroup Median Adequate Growth Percentile	Made Adequate Growth?
Reading	14	20	70.0%	Meets				
Free/Reduced Lunch Eligible	3	4		Meets	688	55	76	No
Minority Students	3	4		Meets	780	55	78	No
Students w/ Disabilities	2	4		Approaching	85	52	99	No
English Language Learners	3	4		Meets	601	55	83	No
Students needing to catch up	3	4		Meets	569	55	92	No
Mathematics	9	20	45.0%	Approaching				
Free/Reduced Lunch Eligible	2	4		Approaching	689	52	99	No
Minority Students	2	4		Approaching	781	52	99	No
Students w/ Disabilities	1	4		Does Not Meet	84	37	99	No
English Language Learners	2	4		Approaching	603	51	99	No
Students needing to catch up	2	4		Approaching	691	53	99	No
Writing	10	20	50.0%	Approaching				
Free/Reduced Lunch Eligible	2	4		Approaching	687	51	95	No
Minority Students	2	4		Approaching	778	51	96	No
Students w/ Disabilities	2	4		Approaching	85	44	99	No
English Language Learners	2	4		Approaching	599	53	97	No
Students needing to catch up	2	4		Approaching	648	51	99	No
Total	33	60	55.0%	Approaching				
Postsecondary and Workforce Readiness	Points Earned	Points Eligible	% Points	Rating	N	Rate/Score	Minimum State Expectation	
Graduation Rate	1	4		Does Not Meet	345	64.9%	80%	
Dropout Rate	2	4		Approaching	2964	5.2%	At/below State average	
Colorado ACT Composite	1	4		Does Not Meet	359	14.7%	At/above State average	
Total	4	12	33.3%	Does Not Meet				



Scoring Guide					Level: High School	
Scoring Guide for Performance Indicators on the School Performance Framework Report						
Performance Indicator	Scoring Guide	Rating	Point Value	Total Possible	Framework Points	
Academic Achievement	The school's percentage of students scoring proficient or advanced was:					
	• at or above the 90th percentile of all schools.	Exceeds	4	16 (4 for each content area)	15	
	• below the 90th percentile but at or above the 50th percentile of all schools.	Meets	3			
	• below the 50th percentile but at or above the 15th percentile of all schools.	Approaching	2			
	• below the 15th percentile of all schools.	Does Not Meet	1			
Academic Growth	If the school meets the median adequate student growth percentile and its median student growth percentile was:					
	• at or above 60.	Exceeds	4	12 (4 for each content area)	35	
	• below 60 but at or above 45.	Meets	3			
	• below 45 but at or above 30.	Approaching	2			
	• below 30.	Does Not Meet	1			
	If the school does not meet the median adequate student growth percentile and its median student growth percentile was:					
	• at or above 70.	Exceeds	4			
	• below 70 but at or above 55.	Meets	3			
	• below 55 but at or above 40.	Approaching	2			
	• below 40.	Does Not Meet	1			
Academic Growth Gaps	If the student subgroup meets the median adequate student growth percentile and its student growth percentile was:					
	• at or above 60.	Exceeds	4	60 (5 for each subgroup group in 3 content areas)	15	
	• below 60 but at or above 45.	Meets	3			
	• below 45 but at or above 30.	Approaching	2			
	• below 30.	Does Not Meet	1			
	If the student subgroup does not meet the median adequate student growth percentile and its student growth percentile was:					
	• at or above 70.	Exceeds	4			
	• below 70 but at or above 55.	Meets	3			
	• below 55 but at or above 40.	Approaching	2			
	• below 40.	Does Not Meet	1			
Postsecondary and Workforce Readiness	Graduation Rate: The school's graduation rate was:					
	• at or above 90%.	Exceeds	4	12 (4 for each sub-indicator)	35	
	• above 80% but below 90%.	Meets	3			
	• at or above 65% but below 80%.	Approaching	2			
	• below 65%.	Does Not Meet	1			
	Dropout Rate: The school's dropout rate was:					
	• at or below 1%.	Exceeds	4			
	• at or below the state average but above 1%.	Meets	3			
	• at or below 10% but above the state average.	Approaching	2			
	• at or above 10%.	Does Not Meet	1			
	Average Colorado ACT Composite: The school's average Colorado ACT composite score was:					
	• at or above 22.	Exceeds	4			
	• at or above the state average but below 22.	Meets	3			
	• at or above 17 but below the state average.	Approaching	2			
	• at or below 17.	Does Not Meet	1			
Cut-Points for each performance indicator			Cut-Points for plan type assignment			
	Cut Point: The school earned ... of the points eligible on this Indicator.			Cut Point: The school earned ... of the total Framework points eligible.		
Achievement;	• at or above 87.5%	Exceeds	Total Framework Points	• at or above 60%	Performance	
Growth; Gaps;	• at or above 62.5% - below 87.5%	Meets		• at or above 47% - below 60%	Improvement	
Postsecondary	• at or above 37.5% - below 62.5%	Approaching		• at or above 33% - below 47%	Priority Improvement	
	• below 37.5%	Does Not Meet		• below 33%	Turnaround	



Key Performance Indicators (KPIs)

- Establish KPI's and a multi-measure performance framework used for authorizer and school accountability purposes.
 - Growth, Status, College & Career Readiness, Gaps & others...
- Consider State ESEA Flex Proposal



Multi-Measure Framework

- Develop a multi-measure framework with measures, metrics, and targets for each big indicator
- Balance normative and criterion-referenced growth & status evidence
 - Take note of variance in assessment cutpoints by subject



Multi-Measure Framework, cont.

At least two functions:

- **Improvement** - diagnostic feedback to support a solid planning process
- **Accountability** - summative evaluation with a set of performance categories that describe overall performance across KPIs & signal rewards (money, autonomy) and consequences (intervention)



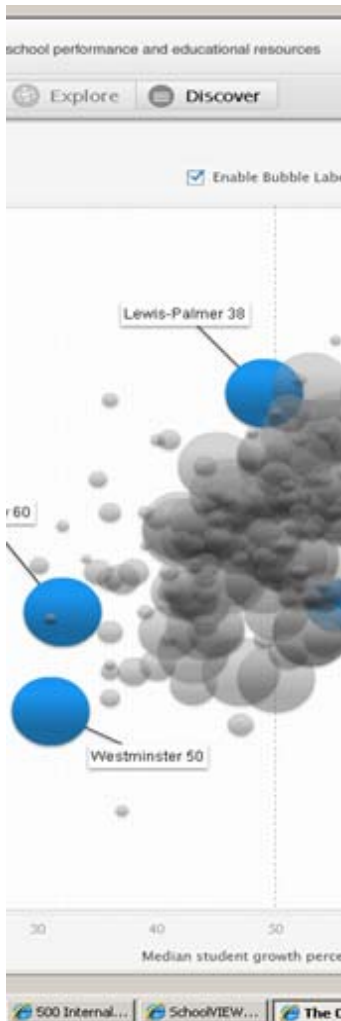
Incentives for Change & Innovation

Rewards, sanctions, and disclosure

- Recognition and financial awards for high growth schools & incentives to replicate
- Renewal & revocation processes
- Public access to insightful information about student, school, district & state performance



Developing a Common and Open Measure: The SGP Model



- The Student Growth Percentile (SGP) methodology (The Colorado Growth Model) was developed by the Colorado Department of Education in partnership with Dr. Damian Betebenner and made available for free to public and private entities
 - Code available on <http://cran.r-project.org/>
 - Creative Commons-Share Alike-Attribution-Commercial Use License





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Open Code & Collaboration: SchoolView®

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- The SchoolView® and R-based visualizations of SGPs can be used for free for public purposes and cannot be used for commercial purposes
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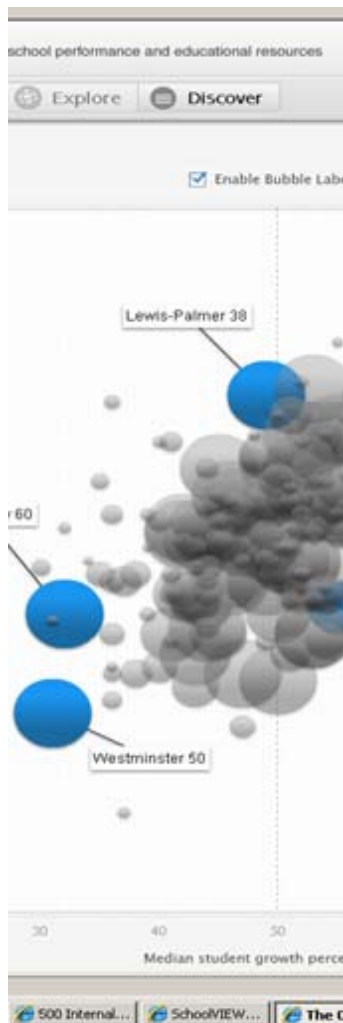
SchoolView® Foundation: Fostering Collaboration

Purpose:

Enable dramatic improvement in education performance and delivery.

Mission:

Revolutionize data access and engagement with insightful information about student and school performance—within and across states.





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