What's Wrong With Jeffco?

And How Can We Fix It?

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Executive Summary - 1

- The Colorado Growth model uses CSAP/TCAP "scale scores" to measure students' progress over time along the novice to expert/learning curve spectrum
  - The minimum "cut-score" for proficiency rises every year
- In Jeffco, the average student's year-to-year increase in scale score is often less than the increase in TCAP's cut score for proficiency, which causes the percentage of students scoring proficient or advanced to decline from grade-to-grade
- This pattern is not due to poverty; it is present in at least the past eight years of results for all categories of students in Jeffco, including at-risk, SPED, Gifted, and other students
  - It was also in the data before and after the budget cuts that began in 2009, suggesting that lack of money is not the root cause
- There are examples of schools in and outside of Jeffco that have achieved excellent achievement improvement during the eight years of data covered in this analysis – we have excellent building teams whose achievements should be recognized and rewarded
  - However, for the past eight years, the district has not been able to identify them, understand the drivers of their success, and/or consistently scale them up to improve proficiency rates in Jeffco
- Improving achievement results will, at minimum, require significant changes in Jeffco's district management, board governance, and oversight (accountability committee) processes
- Frequently cited data about Jeffco's growth percentiles hide this failure to significantly improve proficiency. Growth percentiles only measure the relative year-to-year increase for students who all started out with the same TCAP score
  - A good analogy I have heard used is to a running race in which 100 students start on the same line, and your child finishes 24th – that is, in the 75th percentile (assuming a 0 to 99 scale)
  - While this tells you how well your child performed compared to the others who were on the starting line with her, the 75th percentile tells you nothing about whether her time was good enough to get a college track scholarship (i.e., how proficient she is against an absolute standard). For that, you need to know her time, or, in the case of TCAP, her scale score

Executive Summary - 2

- A frequently heard assertion is that Jeffco's Median Growth Percentiles are a sign of excellent performance because they are higher than the state's MGPs
- In fact, this is exactly what you would expect, because Jeffco has about 10% fewer at risk (free and reduced lunch eligible) students than the state not including Jeffco, and there is a negative correlation between MGP and the percentage of F&R students in a district
  - Based on the 2013 TCAP results, for math the negative correlation is (.19), for reading, (.21) and for writing it is (.24)
- The weakness of MGP-based claims for Jeffco's superior performance is very similar to the weakness of the frequently heard claim that Jeffco's performance is superior because its high school graduation rate ranks high among the top 50 largest school districts in the nation
  - Again, given the dynamics at work, this is exactly what we would expect to find. There is a (.83) correlation between the top 50 districts' free and reduced students percentages and their HS graduation rates
  - For the 44 of the top 50 districts for which the National Center for Education Statistics has current data on both the F&R percentage and the HS graduation rate, Jeffco has the 3rd lowest F&R percentage, but only the 6th highest HS graduation rate
  - And 29% of Jeffco's HS graduates who attend a public college or university in Colorado have to take remedial courses, which suggests we are pushing too many kids out the door who aren't prepared
- These results are <u>NOT</u> acceptable, nor are they evidence of excellent District performance:

	2013 Grade 10 TCAP Results for Jeffco	
	Free and Reduced	*Not Free and Reduced*
NOT Proficent in Math	**80%**	**48%**
NOT Proficient in Writing	**68%**	**37%**
NOT Proficient in Readin	**43%**	**18%**

*Percent of Jeffco 11th Graders **Below** ACT College and Career Ready Cut Score in 2013*

English	*Math*	*Reading*	*Science*
33%	55%	55%	61%

Who Wrote This?

- I am a former CEO, CFO, and management consultant, who now divides his time between advising corporate boards and working to improve K12 achievement performance
  - I have been involved in K12 improvement for over a decade, for the last four years here in Colorado, and before that in Alberta and Rhode Island
- My wife and I have four children in Jeffco public schools
- I am an Advisory Council member of Colorado Succeeds, chair Wheat Ridge High School's Accountability Committee, have just joined Jeffco's Strategic Planning Advisory Council/District Accountability Committee, and was formerly a member of the Colorado State Advisory Committee for Gifted Education
- Politically, I am an Independent -- an old fashioned moderate pragmatist

Why Did I Write This?

- Before moving to Colorado, I experienced two very different K12 performance improvement processes
  - In Alberta, Canada, a long-term collaboration between K12 (including teachers unions), the business community, and politicians resulted in dramatic academic performance gains (based on the PISA global tests), which led to higher funding for K12 and substantial increases in teacher compensation. Everyone ended up a winner
  - In Rhode Island, rising conflict between K12, the business community, and politicians blocked many performance improvement initiatives and eventually led to the most heavily Democratic state in the nation voting to significantly reduce teacher pensions. Everyone ended up a loser
- I know which path I want to see Colorado follow
- I also recognize the significant challenges we face
  - Increasing pressure to fund K12 pensions (PERA)
  - The introduction of tougher (and, on a global basis, more realistic) academic standards which will undoubtedly shock a lot of people when the first testing results are published in 2016
    - In New York, which has already introduced more rigorous Common Core standards, the percent of students scoring at least proficient on state achievement tests dropped by 30% or more
- To meet these challenges, we need to accelerate the rate at which K12 performance is improving

Why Did I Write This? (cont'd)

- Accurate, timely feedback is a precondition for performance improvement in most areas of life
  - Fooling ourselves about how good we are is generally not in our long term best interest
- Unfortunately, after four years of unraveling its mysteries, I have concluded that the way data from the Colorado Growth Model (CSAP/TCAP) is being used has often lulled us into a false sense of security about how well we are doing
  - For example, I have lost track of the number of times I have heard this question: "If our median growth percentiles are so good, why aren't we seeing significant increases in the percentage of students who are scoring at the proficient and advanced levels?"

Why Did I Write This? (cont'd)

- To help parents, politicians, business leaders, and K12 professionals better understand how to use the information produced by the Colorado Growth Model to accelerate performance improvement, I launched a website, k12accountability.org
- However, the election of a new majority on the Jeffco Board of Ed, and the resignation of Cindy Stevenson after 12 years as CEO/ Superintendent of Jeffco has triggered many fervent assertions that Jeffco's achievement performance has been outstanding in recent years, and that the new Board should not make changes
- Unfortunately, this view of Jeffco's achievement track record is very badly mistaken. Continuing to hold onto this opinion will only further delay long overdue and much needed improvements in Jeffco's management, governance, and oversight processes
- In sum, it is critical that parents, politicians, business leaders, and K12 professionals understand the real Jeffco achievement story, so that we can, hopefully, replicate Alberta's successful collaborative performance improvement experience before the growing pressure of oncoming events sends us down the Rhode Island path

The Colorado Growth Model

- CSAP/TCAP "scale scores" measure progress over time along the novice to expert/learning curve spectrum
  - The TCAP scoring scale goes from 150 to 999 for Reading, and 150 to 950 for Writing and Math
  - In theory, a student starts as a novice in Grade 3 (the first TCAP test grade), and progresses up the learning curve from there to Grade 10, the last TCAP test year
- While CSAP/TCAP questions have slowly grown more challenging over time, it is still a much easier test than the National Assessment of Educational Progress
  - For example, while 52% of Colorado 8th graders scored at least proficient on the TCAP math test in 2013, only 42% of them scored at least proficient on the NAEP
  - In contrast, in Massachusetts, 54% were at least proficient on the state test, and 55% were at least proficient on the NAEP
- CSAP/TCAP uses "Cut Scores" to classify students' achievement as unsatisfactory, partially proficient, proficient, and advanced
  - The minimum score for proficiency rises every year:

The Colorado Growth Model
Minimum Scale Score to Qualify as Proficient
Source: TCAP 2012 Technical Manual

	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10
Math	419	455	494	520	559	577	602	627
Reading	526	572	588	600	620	632	642	663
Writing	465	485	498	513	539	556	563	578

The Colorado Growth Model (cont'd)

- Scale scores are the "ground truth" in the Colorado Growth Model. All other metrics are derived from these scale scores
- A student's "growth percentile" is a measure of his/her academic growth compared to all other students in Colorado who started with the same test score the previous year
  - A good analogy I have heard used is to a running race in which 100 students start on the same line, and your child finishes 24th – that is, in the 75th percentile (assuming a 0 to 99 scale)
  - While this tells you how well your child performed compared to the others who were on the starting line with him/her, the 75th percentile tells you nothing about whether his/her time was good enough to get a college track scholarship. For that, you need to know his/her absolute time, or, in the case of TCAP, his/her scale score
- A group of students' "Median Growth Percentile" is the growth percentile above and below which there are equal numbers of students

Which Metrics Are Best?

- The short – but critical -- answer is that it really depends on the question you ask
- For my children's achievement performance, the TCAP scale score (and its comparison to the cut scores for proficient or advanced), and the growth percentile are both useful
  - I focus on how far away my children's TCAP scores are from the cut scores for different achievement categories, and how fast their achievement has grown relative to their peers
- For my children's teachers' performance, Median Growth Percentile seems the best metric
  - Teachers cannot control either students' socioeconomic backgrounds or the quality of the previous schooling they have received (both of which affect average scale score, and percent proficient and advance)
  - SB-191 (the Colorado teacher performance evaluation system) is based on this same logic

Which Metrics Are Best? (cont'd)

- As a SAC chair, I use different metrics to evaluate our school's performance
  - We don't use percent proficient and advanced, or absolute scale score gains, because these are both driven by factors outside our school's control – student demographics and the impact of their previous years of schooling (the latter becomes a more severe obstacle as students go up in grade). We cannot expect teachers and schools to work miracles, and make up for the cumulative learning shortfall that has occurred before a student walks in their door.
  - For example, Colorado Department of Education research has concluded that "if students are not proficient on the [CSAP/TCAP] assessment in sixth grade, they are likely to require remediation in their first year of college." (see "Shining a Light on College Remediation in Colorado" by Lefly, Lovell, and O'Brien)
  - Similarly, the ACT's "Forgotten Middle" report found that, "under current conditions, the level of academic achievement that students attain by eighth grade has a larger impact on their college and career readiness by the time they graduate high school than anything that happens academically in high school…We need to intervene in the upper elementary grades and in middle school"
  - Median Growth Percentile is useful, for the same reason as it is for teachers; however, it only measures relative annual achievement growth
  - Over a longer period of time, we want to see our building staff working as a team to systematically learn and innovate in order to raise absolute scale scores (and decrease their variance). To measure this we use Effect Size (average scale score in 2013 less average scale score at some point in the past, divided by the most recent year's standard deviation of scale scores. This standardizes the metric and makes it comparable across schools). Research has shown that the average grade-to-grade increase in standardized test scores is equal to an Effect Size of about .30. Schools with subject ES greater than .30 have added another year's worth of learning in that subject area
  - Finally, we also use metrics based on the Grade 11 ACT scores, which is the last test all Jeffco students take (unfortunately, these results are not broken down by student group in the same way that CSAP/TCAP scores are)
- At the District level, however, average scale score gains, changes in the percent proficient and advanced students, Effect Size, and Grade 11 ACT metrics (along college remediation rates for District graduates) are all very relevant metrics, as they measure multiyear, system-wide outcomes
  - As you will see in the next pages, Median Growth Percentile as a metric for measuring District performance is critically flawed
  - CDE's heavy reliance in MGP in their District Rating formula suggests that it is also a flawed system

Median Growth Percentile Can Give You A False Impression About Real Academic Improvement

- If the Median Growth Percentile (MGP) represents an absolute change in TCAP scale score which is less than the increase in the minimum cut score for proficiency, you can get a false sense of security about how well a school or district is performing, even if its MGP is significantly above 50
- The following analysis will make this painfully clear
- Because so many students in Colorado take the TCAP, at the state level the law of large numbers implies that the distribution of scores in a grade will be approximately normal (i.e., bell-curve shaped, or Gaussian).
  - In this case, the average (mean) score will equal the median score
  - Thus the grade-to-grade change in average score should closely approximate the score associated with the Median Growth Percentile

As You Can See, The 50th Median Growth Percentile Represents A Scale Score Gain That Is LESS Than The Grade-to-Grade Increase In The Minimum Cut Score For Proficiency

Change in average state CSAP/TCAP scale score, from grade to grade

Math	*2006 to 07*	*07 to 08*	*08 to 09*	*09 to 10*	*10 to 11*	*11 to 12*	*12 to 13*	*Increase in Minimum Proficient Score*
3 to 4	27.07	32.06	28.10	33.86	24.76	35.18	28.92	36.00
4 to 5	30.50	28.79	26.71	28.00	28.42	25.89	25.00	39.00
5 to 6	17.23	17.68	19.66	21.66	19.34	15.54	22.52	26.00
6 to 7	27.86	11.37	24.33	11.71	22.44	21.99	27.84	39.00
7 to 8	21.82	11.15	24.50	13.69	23.90	16.29	15.79	18.00
8 to 9	7.60	11.12	0.36	5.40	0.93	-0.15	2.48	25.00
9 to 10	10.36	16.05	10.51	19.36	13.73	17.52	17.09	25.00

Reading	*2006 to 07*	*07 to 08*	*08 to 09*	*09 to 10*	*10 to 11*	*11 to 12*	*12 to 13*	*Increase in Minimum Proficient Score*
3 to 4	30.21	30.51	32.49	26.54	32.86	27.48	24.80	46.00
4 to 5	21.54	29.13	24.77	26.04	25.18	25.34	24.90	16.00
5 to 6	11.34	16.91	13.76	17.94	14.00	18.68	18.92	12.00
6 to 7	12.88	14.53	10.89	13.79	11.36	14.39	11.42	20.00
7 to 8	11.46	15.73	8.83	13.63	11.42	10.59	10.27	12.00
8 to 9	9.99	14.05	7.26	14.10	6.37	7.90	8.48	10.00
9 to 10	25.48	22.17	24.14	21.71	18.23	23.22	25.28	21.00

Writing	*2006 to 07*	*07 to 08*	*08 to 09*	*09 to 10*	*10 to 11*	*11 to 12*	*12 to 13*	*Increase in Minimum Proficient Score*
3 to 4	15.01	19.00	18.90	17.08	26.03	16.70	20.52	20.00
4 to 5	22.50	27.10	20.25	22.07	25.59	17.44	23.01	13.00
5 to 6	16.12	19.12	17.78	15.70	22.09	10.42	14.44	15.00
6 to 7	31.70	23.79	32.54	24.49	29.98	29.49	37.55	26.00
7 to 8	10.26	3.33	9.85	6.47	11.92	10.92	6.17	17.00
8 to 9	7.33	3.15	6.28	1.01	3.41	1.17	8.13	7.00
9 to 10	15.09	8.49	17.87	8.90	12.54	7.54	12.21	15.00

This is why MGP can be above 50, even while the percentage of proficient and advanced students is declining.

Here are Jeffco's Median Growth Percentiles for the Past Eight Years

Median Growth Percentiles; Jeffco CSAP/TCAP Data								
Math	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
3 to 4	47	45	49	45	49	49	50	54
4 to 5	50	48	55	54	56	52	54	52
5 to 6	58	56	58	61	61	61	61	61
6 to 7	50	50	53	56	51	55	58	55
7 to 8	49	51	58	55	53	52	50	51
8 to 9	47	49	54	55	53	57	54	53
9 to 10	51	50	57	55	51	56	54	57
Reading	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
3 to 4	51	56	51	51	53	54	51	52
4 to 5	46	47	49	49	49	52	49	52
5 to 6	54	58	60	60	60	63	60	60
6 to 7	45	48	47	48	45	48	47	47
7 to 8	44	48	53	47	48	48	49	49
8 to 9	44	49	51	49	50	52	46	45
9 to 10	42	50	50	51	48	54	46	50
Writing	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
3 to 4	52	51	52	51	50	54	50	53
4 to 5	48	45	48	46	45	48	46	47
5 to 6	56	51	55	52	57	60	58	58
6 to 7	47	47	47	45	45	44	45	47
7 to 8	45	48	45	44	45	46	48	47
8 to 9	46	49	49	48	49	48	48	47
9 to 10	48	52	54	52	50	50	50	49

They make Jeffco look pretty good, don't they?

Why Jeffco's Median Growth Percentile Results Are Deceiving

- If you look just at Median Growth Percentiles, you could easily get the impression that Jeffco students are performing well; indeed, this is the performance metric most often cited by Dr. Stevenson, the previous Jeffco Board majorities, and District Accountability Committee co-chair
  - i.e., many District MGPs are above the 50th percentile
- However, like our example of children in the running race, these MGPs tell us nothing about whether the scale score increases they represent were sufficient to keep or move students into the Proficient category of achievement
- Another frequently heard assertion is that Jeffco's MGPs are a sign of excellent performance because they are higher than the state MGPs
- In fact, this is exactly what you would expect, because Jeffco has about 10% fewer at risk (free and reduced lunch eligible) students than the state not including Jeffco, and there is a negative correlation between MGP and the percentage of F&R students in a district
  - Based on the 2013 TCAP results, for math the negative correlation is (.19), for reading, (.21) and for writing it is (.24)
- The weakness of MGP-based claims for Jeffco's superior performance is very similar to the weakness of the frequently heard claim that Jeffco's performance is superior because its high school graduation rate ranks high among the top 50 largest school districts in the nation
  - Again, given the dynamics at work, this is exactly what we would expect to find. There is a (.83) correlation between the top 50 districts' free and reduced students percentages and their HS graduation rates
  - For the 44 of the top 50 districts for which the National Center for Education Statistics has current data on both the F&R percentage and the HS graduation rate, Jeffco has the 3rd lowest F&R percentage, but only the 6th highest HS graduation rate
  - And 29% of Jeffco's HS graduates who attend a public college or university in Colorado have to take remedial courses, which suggests we are pushing too many kids out the door who aren't prepared

Here are Jeffco's Grade-to-Grade Gains in Average Scale Score, Compared to the Increase in the Cut Scores for Proficient

Jeffco CSAP/TCAP Average Scale Score Grade-to-Grade Changes									
Math	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**	***Increase in Minimum Proficient Score***
3 to 4	23.59	17.84	14.61	21.12	30.89	23.37	34.09	30.66	36.00
4 to 5	36.29	28.90	33.89	30.76	33.27	30.64	29.19	25.31	39.00
5 to 6	18.43	22.17	18.54	27.48	28.22	28.12	22.69	29.35	26.00
6 to 7	9.20	24.37	16.72	25.26	8.20	22.61	22.96	28.16	39.00
7 to 8	10.79	19.95	24.49	25.55	12.71	22.96	13.32	12.86	18.00
8 to 9	13.25	7.90	15.93	2.93	7.38	4.60	2.58	5.92	25.00
9 to 10	14.14	7.97	17.83	10.48	14.17	14.48	16.80	19.76	25.00
Total Gain	*125.69*	*129.10*	*142.01*	*143.58*	*134.83*	*146.79*	*141.64*	*152.03*	*208.00*
Reading	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**	***Increase in Minimum Proficient Score***
3 to 4	31.87	34.81	27.96	29.63	24.05	30.36	23.80	22.85	46.00
4 to 5	22.52	19.96	25.65	23.90	25.01	26.14	24.84	26.21	16.00
5 to 6	13.26	17.64	23.81	20.58	24.24	22.24	23.55	23.25	12.00
6 to 7	6.63	10.59	7.97	6.61	6.67	6.34	7.25	5.51	20.00
7 to 8	9.21	10.07	16.61	7.30	11.51	10.82	8.70	9.22	12.00
8 to 9	6.85	9.69	13.67	4.12	13.90	6.12	4.32	5.39	10.00
9 to 10	19.45	24.57	21.78	22.52	19.80	19.74	19.37	26.65	21.00
Total Gain	*109.80*	*127.32*	*137.47*	*114.66*	*125.19*	*121.77*	*111.84*	*119.08*	*137.00*
Writing	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**	***Increase in Minimum Proficient Score***
3 to 4	13.74	12.59	18.83	17.65	15.26	28.32	14.45	21.66	20.00
4 to 5	22.20	18.04	26.36	16.44	18.09	24.19	14.25	21.70	13.00
5 to 6	23.49	16.97	25.61	20.40	22.67	31.96	17.40	21.04	15.00
6 to 7	16.92	28.99	21.08	26.61	21.28	22.96	23.17	33.50	26.00
7 to 8	4.38	10.43	-0.10	5.86	5.83	10.70	10.56	5.07	17.00
8 to 9	8.79	9.26	2.89	7.70	5.53	4.47	2.52	8.87	7.00
9 to 10	8.65	15.52	11.99	16.93	8.57	10.52	6.15	11.10	15.00
Total Gain	*98.17*	*111.80*	*106.67*	*111.60*	*97.22*	*133.12*	*88.50*	*122.93*	*113.00*

In contrast to Median Growth Percentiles, grade-to-grade scale score data show that over time Jeffco students are falling further behind the cut-scores for proficiency, and face an ever larger catch-up challenge, which many of them will never meet.

Given Jeffco's Scale Score Shortfalls, We See A Continuing Pattern of Grade-to-Grade Declines in the Percent of Proficient Students

Percent of Students Scoring Proficient or Advanced on CSAP/TCAP by Subject, Grade, and Year								
Jeffco TCAP Data from CDE Schoolview/Datalab								
Math	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	76	72	74	76	74	76	75	74
Grade 4	72	73	71	72	75	75	77	77
Grade 5	70	67	70	67	70	71	68	70
Grade 6	65	68	67	71	69	71	71	70
Grade 7	53	58	55	61	56	61	61	63
Grade 8	54	55	56	61	58	59	58	59
Grade 9	47	44	48	45	50	47	43	46
Grade 10	38	39	40	40	39	42	42	43
Reading	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	75	77	77	80	76	80	80	80
Grade 4	74	72	72	72	75	73	75	76
Grade 5	75	73	77	74	75	78	77	78
Grade 6	77	79	80	81	82	82	84	83
Grade 7	72	72	71	73	75	74	75	76
Grade 8	73	70	75	69	74	73	74	74
Grade 9	72	73	73	75	73	72	72	72
Grade 10	70	74	72	75	70	71	71	75
Writing	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	62	63	59	63	56	61	58	56
Grade 4	60	57	60	57	58	63	56	58
Grade 5	68	62	65	62	62	66	63	63
Grade 6	69	68	68	69	66	71	65	67
Grade 7	64	68	65	67	65	64	67	68
Grade 8	57	59	58	57	60	59	59	60
Grade 9	58	57	56	59	56	58	56	59
Grade 10	54	57	55	56	53	53	52	53

This pattern of grade-to-grade proficiency decline has not changed over the eight years for which we have CSAP/TCAP data.

This Problem is Not Due to Poverty: Here are the Percent Proficient and Advanced for Students Not Eligible for Free and Reduced Lunch

Percent Proficient & Advanced -- Students Not Eligible for Free and Reduced Lunch								
Jeffco TCAP Data from CDE Schoolview/Datalab								
Math	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	83	78	81	82	82	84	84	83
Grade 4	79	80	79	80	83	83	86	85
Grade 5	77	74	78	76	79	80	78	81
Grade 6	72	75	74	79	78	79	80	79
Grade 7	60	64	63	70	66	72	73	74
Grade 8	61	62	63	69	67	69	69	71
Grade 9	53	50	54	52	57	56	52	57
Grade 10	43	44	45	46	45	49	50	52
Reading	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	82	83	84	86	84	87	87	87
Grade 4	80	79	81	80	83	81	85	85
Grade 5	83	80	84	82	84	86	85	87
Grade 6	84	85	86	88	88	89	91	90
Grade 7	78	79	78	80	83	84	84	85
Grade 8	79	76	81	77	82	82	84	83
Grade 9	78	78	79	81	80	80	80	82
Grade 10	75	79	77	81	77	78	79	82
Writing	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	69	70	67	71	66	71	68	67
Grade 4	67	65	69	67	68	72	67	69
Grade 5	76	70	74	72	72	75	74	74
Grade 6	76	75	75	78	76	80	74	77
Grade 7	71	74	72	76	74	74	77	78
Grade 8	64	66	65	66	69	69	70	71
Grade 9	65	62	63	66	63	68	66	70
Grade 10	59	63	60	62	61	60	61	63

Moreover, this problem existed before District budget cuts started in 2009, which suggests that a lack of money is not the root cause.

You Also See the Same Performance Problems for Free and Reduced Students (34% of the District) – Only They Are Worse

Percent Proficient & Advanced -- Students Eligible for Free and Reduced Lunch								
Jeffco TCAP Data from CDE Schoolview/Datalab								
Math	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	56	54	53	59	56	58	58	57
Grade 4	53	53	51	53	57	59	60	61
Grade 5	48	43	47	45	49	53	49	50
Grade 6	43	47	47	51	49	54	53	51
Grade 7	28	33	27	35	32	38	39	42
Grade 8	29	28	31	34	34	36	35	36
Grade 9	22	21	23	20	27	23	21	24
Grade 10	16	15	19	16	17	21	20	20
Reading	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	54	59	58	64	60	64	66	65
Grade 4	55	48	51	51	58	55	57	59
Grade 5	53	50	56	55	56	60	60	60
Grade 6	56	60	63	62	67	67	71	70
Grade 7	50	48	49	51	54	54	57	58
Grade 8	49	46	52	45	52	50	54	56
Grade 9	47	51	51	51	53	50	53	53
Grade 10	46	50	49	53	47	52	51	57
Writing	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	38	42	37	41	35	38	39	36
Grade 4	37	33	35	35	35	44	34	37
Grade 5	44	37	39	39	39	46	44	41
Grade 6	47	46	46	47	46	53	46	50
Grade 7	40	45	39	42	41	42	47	49
Grade 8	33	33	33	32	35	35	37	38
Grade 9	30	31	31	32	32	33	32	37
Grade 10	29	30	30	31	27	30	29	32

In Massachusetts in 2013, 82% of Free and Reduced students in Grade 10 scored at least proficient on the English Language Arts state achievement test, and 63% did so on the math test. And these tests are tougher than TCAP.

Achievement Data for Gifted Students (11% of District) Tell the Same Frustrating Story

Percent of GT (ALP) Students Scoring Advanced on CSAP/TCAP								
Jeffco TCAP Data from CDE Schoolview/Datalab								
Math	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	85	72	83	77	91	83	83	79
Grade 4	76	76	73	80	82	82	82	80
Grade 5	79	82	83	79	85	86	84	80
Grade 6	71	80	78	83	81	88	85	87
Grade 7	73	71	73	82	76	80	86	87
Grade 8	74	69	74	74	79	75	79	84
Grade 9	62	56	63	57	63	61	58	67
Grade 10	31	28	31	31	29	33	37	35
Reading	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	31	39	34	39	42	37	33	34
Grade 4	30	39	28	42	25	34	26	24
Grade 5	41	41	42	45	51	43	42	41
Grade 6	48	53	54	58	64	65	55	55
Grade 7	39	41	41	40	41	44	41	42
Grade 8	41	39	47	33	38	44	37	40
Grade 9	23	21	33	19	23	19	23	19
Grade 10	48	42	47	43	41	36	29	40
Writing	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	50	47	50	44	46	37	31	34
Grade 4	38	40	44	41	47	51	34	35
Grade 5	52	41	52	45	44	47	46	38
Grade 6	50	48	46	44	50	55	44	45
Grade 7	48	57	50	54	48	46	53	52
Grade 8	36	43	43	34	42	42	39	39
Grade 9	33	35	37	34	34	33	31	31
Grade 10	36	35	40	37	36	21	22	28

Note that this analysis uses percent scoring advanced, not percent scoring proficient or advanced. Percent advanced is a more rigorous metric for GT student achievement.

The Same Depressing Pattern Also Occurs in the Results for Special Education Students (10% of District)

Percent of Special Education (IEP) Students Scoring Proficient or Advanced on CSAP/TCAP								
Jeffco TCAP Data from CDE Schoolview/Datalab								
Math	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	40	36	41	41	39	41	35	36
Grade 4	34	33	33	35	33	35	34	35
Grade 5	27	26	30	26	27	27	27	25
Grade 6	19	25	26	24	24	25	26	25
Grade 7	12	14	15	17	11	15	15	16
Grade 8	12	12	15	17	16	14	13	15
Grade 9	8	8	12	7	11	10	5	8
Grade 10	5	5	7	7	3	6	7	4
Reading	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	31	36	36	37	35	35	35	39
Grade 4	29	24	30	27	24	28	27	29
Grade 5	28	27	31	28	27	31	30	29
Grade 6	30	35	34	34	36	37	38	37
Grade 7	22	24	24	23	23	24	24	24
Grade 8	23	21	27	21	24	21	24	26
Grade 9	22	23	25	25	25	23	22	24
Grade 10	16	22	23	25	24	21	22	27
Writing	**2005/2006**	**2006/2007**	**2007/2008**	**2008/2009**	**2009/2010**	**2010/2011**	**2011/2012**	**2012/2013**
Grade 3	19	20	19	19	17	17	14	17
Grade 4	19	14	19	14	13	20	14	15
Grade 5	21	18	22	19	16	18	20	16
Grade 6	21	20	22	19	20	24	18	20
Grade 7	15	20	20	16	14	15	16	18
Grade 8	9	12	11	10	10	9	10	11
Grade 9	11	10	11	10	11	11	8	11
Grade 10	5	9	8	8	9	9	7	6

In sum, despite spending about $1 billion per year for eight years, at the district level Jeffco has failed to improve student achievement performance.

These Results Are Not Acceptable!

	2013 Grade 10 TCAP Results for Jeffco	
	Free and Reduced	*Not Free and Reduced*
NOT Proficent in Math	**80%**	**48%**
NOT Proficient in Writing	**68%**	**37%**
NOT Proficient in Readin	**43%**	**18%**

*Percent of Jeffco 11th Graders **Below** ACT College and Career Ready Cut Score in 2013*

English	*Math*	*Reading*	*Science*
33%	55%	55%	61%

Jeffco's failure to improve achievement has imposed a very heavy cost on too many students' futures. For example, over the eight years covered by this analysis, 30,155 Grade 10 students scored below proficient in math. That is about equal to the population of the City of Wheat Ridge.

To Improve Achievement Results in Jeffco, We Have to Fix District Management Processes …

- When you look at the achievement data for individual schools instead of the District as a whole, you find many examples of successful innovation, continuous improvement, and excellent progress
  - It is not the case that Jeffco lacks for highly effective teachers, principals, and building teams (whose success I believe we should not hesitate to celebrate and reward)
- What the District has not been able to do over the past eight years is systematically identify these excellent examples (and examples from outside Jeffco), understand the drivers of their success, and transfer them to our underperforming schools
  - This is critical, because one of the enduring lessons of Alberta's experience is that there are no silver bullet solutions for K12 performance improvement. Instead, as is true of all complex adaptive systems (including companies), you have to take a systematic, disciplined approach to "experimenting your way to success"
- In various presentations, the District has identified some of the obstacles to improvement that for at least the past 8 years it has been unable to overcome:
  - Poor "fidelity of implementation" in some schools – e.g., of new initiatives, Uniform Improvement Plans, etc. (Dr. H Beck to Board of Ed, 3 October 2013)
  - "Widely varying levels of rigor" in classrooms, and the "lack of a common understanding in Jeffco of what rigor means" (Dr. H Beck to SPAC, 4 January 2014)

… We Also Have to Fix Board Governance Processes …

- Besides poor District management processes, weak Board governance processes have likely contributed to Jeffco's poor achievement results
  - These include direction setting (the explicit alignment of goals, strategy, and resource allocation), risk control, and performance evaluation
- When setting direction, achievement goals appear to have lacked clear priorities and measurable targets. Also, there have been few explicit linkages between achievement goals and the changes in activities that are required to achieve them, and then to the budgets required to implement these activity changes
  - Goals, strategy, and budgets seem to have been disconnected from each other
  - E.g., the annual community budget survey lacks any integrated description of goals, strategy and resource allocation, or any analysis of the trade-offs between them. At best, it provides the illusion of community engagement without the substance
- Risk control seems to have focused on "operational" risks that can be insured, and appears not to have addressed "strategic" risks that threaten the achievement of the Board's goals (e.g., poor "fidelity of implementation")
- Performance evaluation has focused on metrics like Median Growth Percentile and High School Graduation Rates that paint Jeffco in a deceptively flattering light
  - The Board also seems to have failed to ask for regular updates from District leadership on the implementation of key initiatives being undertaken to meet its achievement goals (e.g., key projects and UIP execution, etc.)

… And We Have to Fix Oversight Processes

- The Colorado State Legislature created District and School Accountability Committees to act as independent sources of oversight and advice to districts and school boards on the critical issue of academic achievement improvement
  - See Colorado Revised Statutes 22-11-301 et seq. for DACs' and CRS 22-011-401 et seq. for SACs' duties and powers, which are quite extensive
- Jeffco combined its DAC (which is supposed to be an independent entity) with the District's Strategic Planning and Advisory Council, which, per its handbook, "has a fall meeting designated as a district accountability meeting". The law clearly envisions more than one DAC meeting per year
  - In various documents (e.g., Board Executive Limitation Policy EL-5), Jeffco also claims to have created wholly new accountability entities, "school articulation area accountability committees" (SAAACs?) which allegedly stand between SACs and the DAC, but which are not mentioned in state law. As a SAC chair, I have never been invited to a meeting of my "SAAAC", nor have I ever been told who its chair is
- Jeffco's implementation of School Accountability Committees has been of widely varying quality
  - E.g., one middle school had their SAC chaired by a 7th grade student
- In sum, the steps the District has taken over the years that have weakened the accountability process established by state law need to be reversed

Conclusions

- The fervently held view that over the past eight years Jeffco's academic achievement track record has been excellent is, quite simply, dead wrong
- If parents, K12, business, and political leaders are to collaboratively work together to increase student achievement, then we have to move beyond ideology and anecdote and ground our views in a common understanding of the rich set of data that are available to us today
- If we are to successfully "experiment our way" to higher achievement, we have to improve core management, governance, and oversight processes in Jeffco
- If we fail to make these changes, we will likely follow the Rhode Island path towards intensifying conflict, and everyone will end up a loser
- In contrast, if we follow the Alberta example and sustain a successful long term collaborative improvement process, everyone can end up a winner