How to Access and Use CSAP/TCAP Data to Assess School Performance

It cannot be easy to be a school system CEO/Superintendent or teachers union leader today, particularly if your district has enjoyed a strong measure of success in the past.

Across Colorado (and indeed the United States), public school districts are finding their traditional business model under rapidly increasing pressure from multiple directions, including rising pension costs, changing student and taxpayer demographics, the rapid accumulation of publically available data on comparable education system performance, the need to implement the Common Core's tougher standards and new curriculum, the arrival of new competitors (such as charter schools and online courses), and an explosion of new technologies and possibilities for applying them to education.

That substantial change will be needed in our approach to public education in the years ahead is undeniable; the pressures on the current business model will not stop intensifying. Whether the current leadership will be up to this challenge is uncertain, as is true of every organization in need of fundamental transformation. With few exceptions, it simply goes against most leaders' human nature to aggressively question the business model and assumptions that are at the core of their past success. At best, this usually happens only when an organization's survival is clearly threatened; unfortunately, in many cases this questioning comes too late in the game, and the company either fails or is taken over.

Yet there is still cause for hope. For example, I have seen administrators, union leaders, politicians and business executives work together very effectively to dramatically improve education system performance in Alberta, Canada, where we used to live. The province, which is demographically very similar to Colorado, now routinely scores at the top of the global PISA achievement test rankings. And here in the United States, there is a growing body of research that can guide our education leaders on the journey we must take (see, for example, *Achieving More for Less in U.S. Education with a Value-Based Approach*, just published by The Boston Consulting Group).

One of the most important catalysts for change in the years ahead will be the increasing availability of school performance data. Parents who work in the private sector can remember twenty years ago, when the digitization of business processes began to generate terabytes of new data that could be easily accesses and analyzed to guide substantial improvements in companies' competitive performance. Today, our public schools are beginning that journey, and experiencing some familiar problems, such as a lack of staff comfortable with data analytics and the integration of quantitative and qualitative goals to drive performance improvement. However, the schools have an advantage we lacked – they have a deep pool of parents with years of experience in these areas.

Whether school leaders choose to seek parents' help remains to be seen. However, with Senate Bill 191 having created a much more rigorous, and quantitative, system for evaluating principal and teacher performance, and with school and district "Accountability Committees" having been legislatively mandated, school staff would have to be shortsighted indeed to not seek parents' analytical support.

In order to help parents play this role, we have prepared this short guide to help them access school performance data that is available on the Colorado Department of Education (CDE) website.

The point of access that parents are likely most familiar with is www.schoolview.org, the home page for which is shown in the following screenshot:

Clicking on the SchooView Data Center takes you to this page:
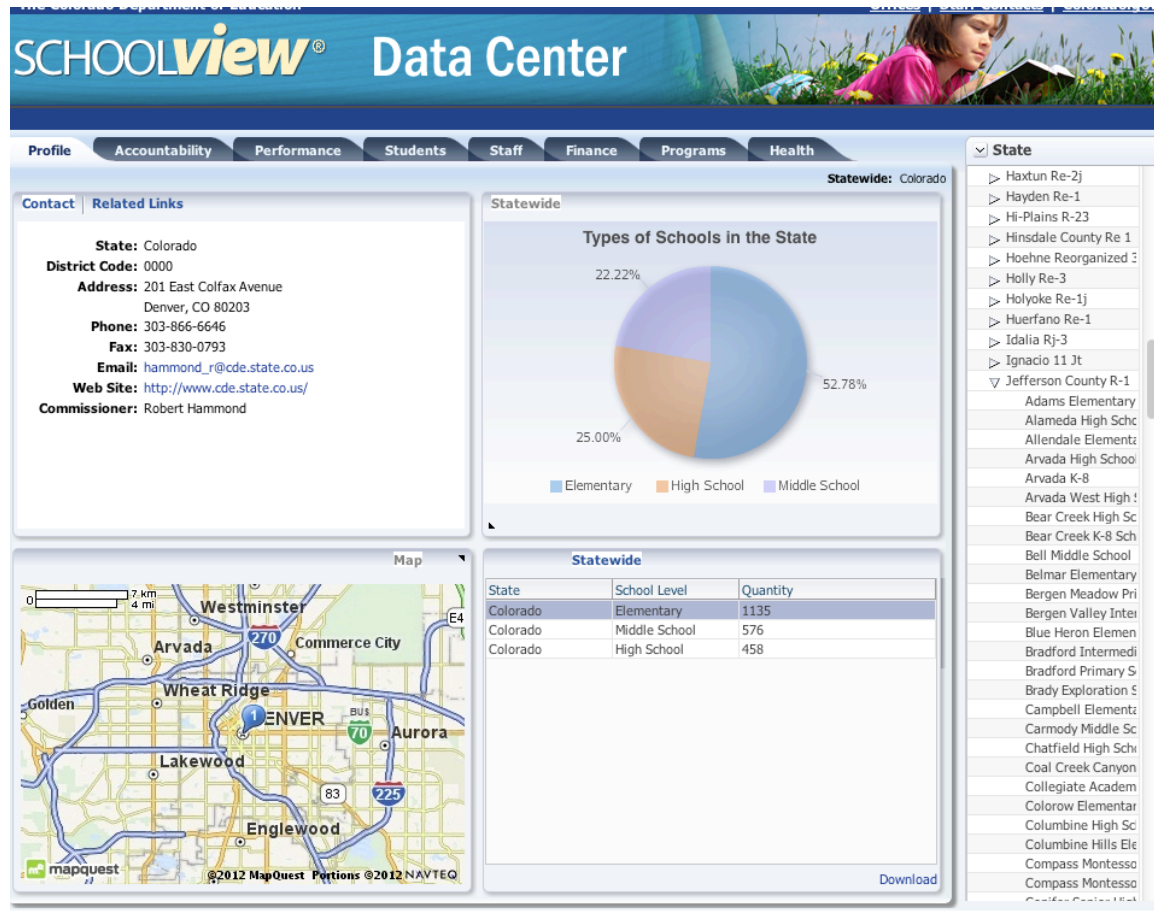
As you can see, SchoolView enables you to obtain information at various levels of aggregation (state, district, and school) and for different performance metrics, such as growth and scores on different CSAP tests. For example the following screen shot shows reading scores for Wheat Ridge High School:

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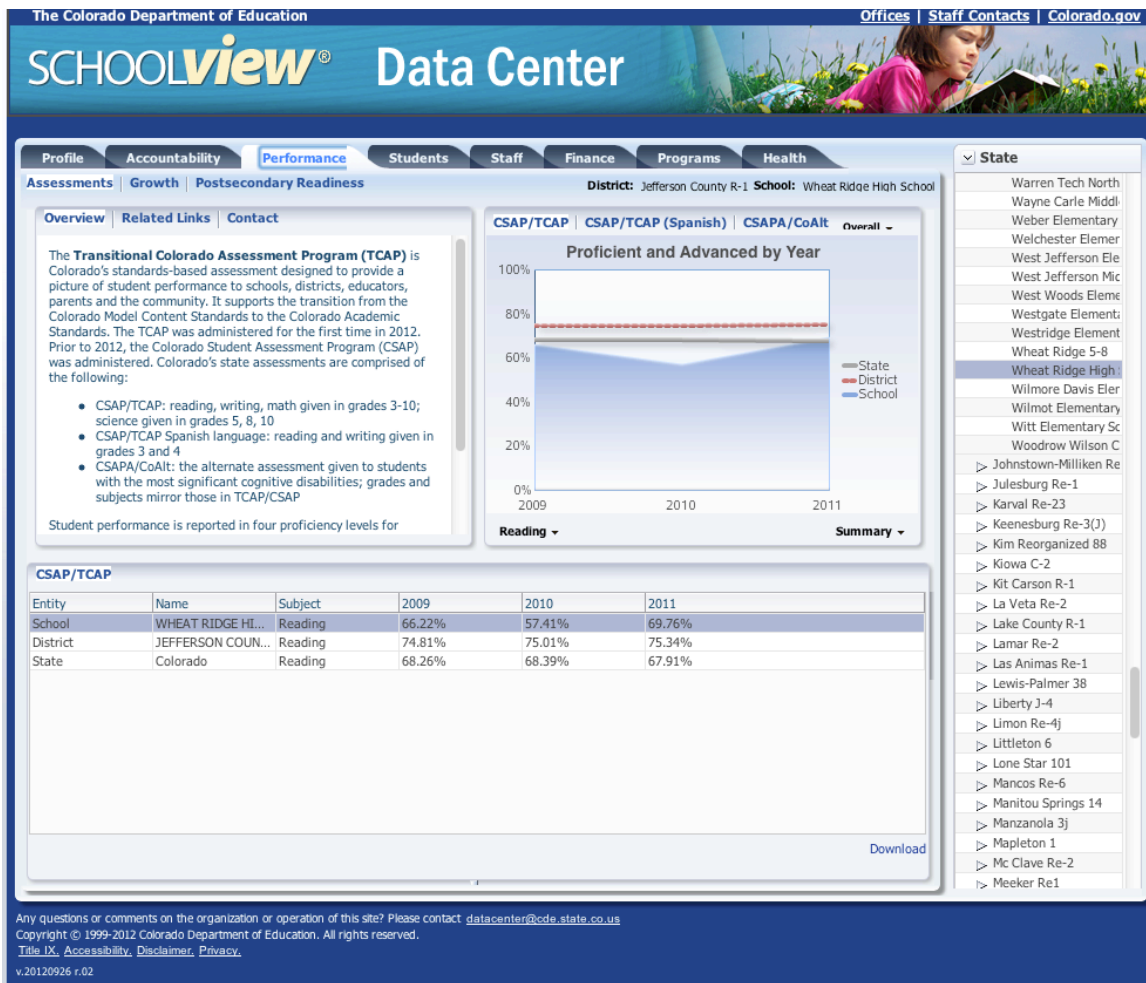
The good news is that this view allows you to see time series data, and a comparison to the overall district and state scores on the same test. The bad news is that it combines the percentage of students scoring at the Proficient and Advanced level.

To obtain scores on other tests, change the "Reading" toggle to the test you want. To obtain a more granular view of how different groups performed, you can change the "Summary" toggle, as shown below:
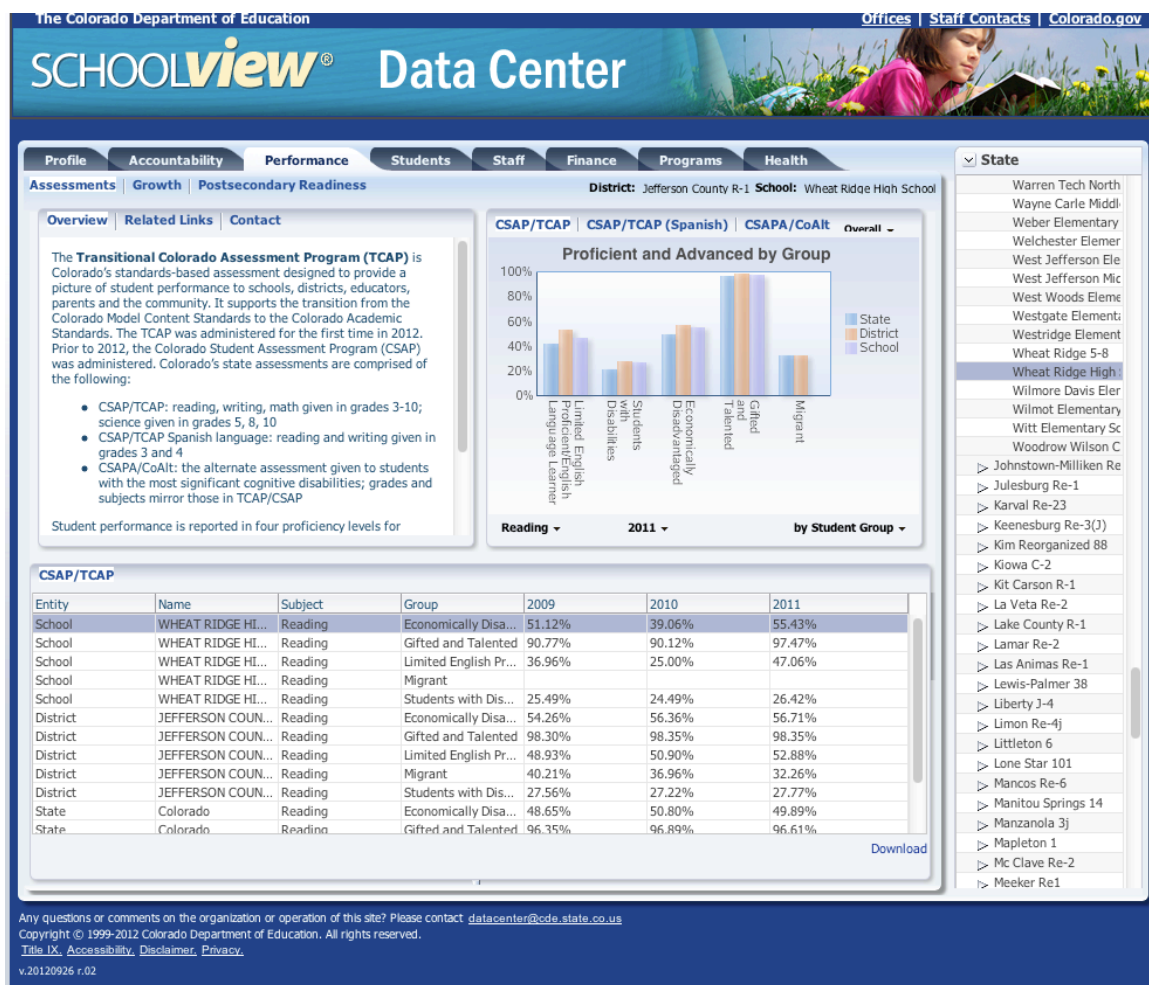
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You can also use SchoolViews to obtain high-level Growth information about a school and subject area. While the CSAP scores tell you the percent of different groups scoring at the Proficient or Advanced level in a given year, the Growth Score tells you the extent to which the median student improved his or her CSAP score in a given subject area over the past year. Growth scores are calculated by taking the difference in CSAP scores between two years for all students, and normalizing the absolute differences on a 0 to 100 scale. The reported Growth Score is the median score on this growth scale for a given group of students. A score of 50 signifies average growth. Above 50 is better than average, and below 50 worse than average. As you have no doubt figured out by now, the combination of CSAP and Growth Scores generate a matrix, with CSAP showing current achievement level and Growth showing the rate of change.

The following screenshot shows Growth Scores for Reading at a given school:

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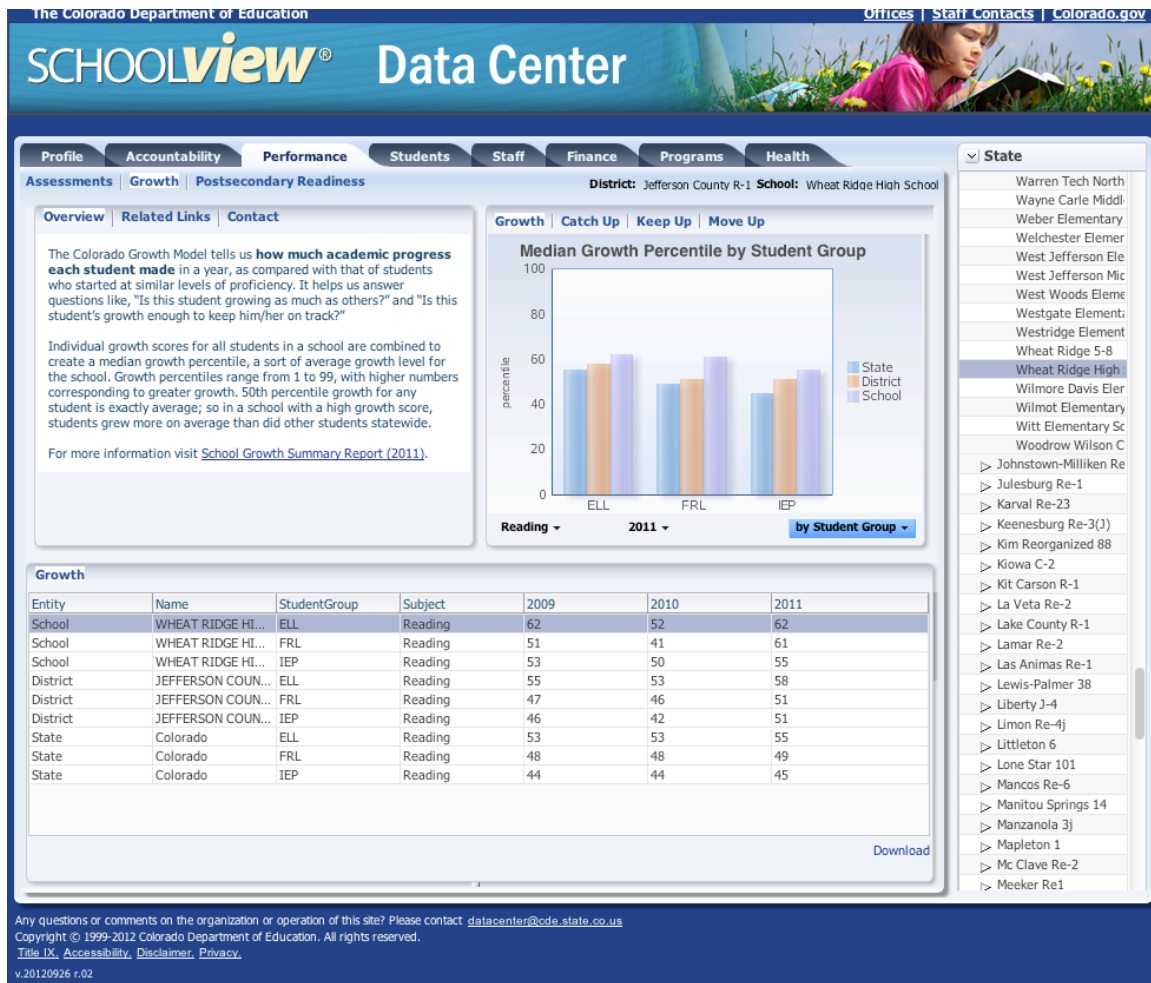
At this point, if you are like me, you are probably saying that SchoolView is adequate, but really doesn't give you the information you'd like to have for your next meeting with your child's teachers or principal. For example, rather than the relatively high-level information provided by the SchoolView website, wouldn't you really like to have more disaggregated data – for example, that showed the CSAP writing performance over the past three years for gifted women who are no eligible for free and reduced lunch? Coming from the private sector, that is probably the level of disaggregation you are used to at work, and so you're asking, "where can I get that on SchoolView?"

The short answer to your question is that it is there, but CDE doesn't make it easy for parents to get it. Let me start with a screen shot of the page you are looking for:

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The good news is that, as you can see, this is where you can really obtain the data cuts that are useful for driving performance improvement. The bad news is that the url for this page on the CDE site keeps changing (not sure why, but one can imagine…). The most reliable way I know to find it is to google or bing the following search terms: "SchooView Data Lab Cognos Viewer". That always finds its latest address.

As you can see, on this page you can obtain multiple years of CSAP scores, and various outcome measures. The Median Growth Percentile will get you the Growth number as on SchoolView; however, the "Achievement Level %" will get you breakouts as to the number and percentage of students scoring at different levels of proficiency – including a separate category for Advanced.

By checking different districts, you can compare outcomes for them. More powerfully, the "Show Schools" button lets you compare either schools withing a district or across districts (e.g., I regularly compare high school results for Boulder Valley, Cherry Creek, Douglas County, and Jeffco).

Finally, and most critically, the "Grouping Variables" pulldown menus at the bottom allow you to cut your data in different ways. The following screen shot shows how I obtained CSAP and Growth data broken down by Gifted/NonGT, Male/Female, and Eligible/NonEligible for Free and Reduced Lunch.

SCHOOLview® Data Lab Report

Disclaimer : This online tool and the results that it gives are not to be considered official reporting of demographics, assessment or growth scores for Colorado's K-12 public education system. As far as has been determined in limited quality assurance testing, the tool's output matches that of official reporting from http://www.cde.state.co.us. However, because of the number and types of data aggregations available here, many results have not been verified. This beta tool has been set up primarily for investigative and research purposes. If you have questions about the output or find a discrepancy with official reporting, please write us a message at cedar@cde.state.co.us.

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The output from this query to the CDE database is reported back as an HTML table, that can also be downloaded in Excel2007 format, which enables you to further analyze it. If there are less than 20 students in a category (the CDE's threshold for statistical significance and privacy protection), then no data is provided.

Attached to this memo are two examples of data extracted from the CDE database. The first shows a state level performance breakdown for the most recent set of CSAP scores that are available on the CDE site. The second shows an example of how I used Excel to further analyze school level data in advance of a meeting with a teacher.

As I said at the outset, one of the most important drivers of the private sector's transformation over the past twenty years has been a dramatic increase in the availability of performance data, and a sharp improvement in employees' ability to analyze it and translate it into specific performance improvement objectives and metrics. The good news is that our public school systems are finally making data available that can drive the substantial performance improvements we need in their effectiveness, efficiency and adaptability. However, these gains won't be realized unless more and more parents start using the data themselves, and helping administrators, principals and teachers to also use it more effectively. Here in Colorado, we have what we need to accelerate this process. It is up to us to seize the opportunity.