

September 4, 2014

Dear Superintendent Flanagan:

I am writing to express my concerns over the Michigan Department of Education’s “Dashboard and Accountability Scorecard” and its color-coded rating scale. According to your spokesperson, Jan Ellis, the color scale “is meant to be a fairly easy way for the public to understand from a variety of measurements how their school buildings and districts are doing.”

Well, it may be easy to understand the color scale: Green is the best, followed by lime, yellow, orange and red, which is the worst. When I learned that two of Ann Arbor’s high schools – Pioneer and Skyline – received the lowest possible rating of “red”, my reaction was... I SAW RED!!!

I imagine that many parents will simply look at the color rating and make a judgment regarding the quality of a particular school. That is, after all, the intent – to make it easy to measure how a school is doing. Some parents may use the color scale to select what school or district they want their children to attend. Who would want to send their child to a school given the lowest rating the state can assign?

As it so happens, I have a son who attends Pioneer High School – and his experience is absolutely inconsistent with the “red” designation. According to “U.S. News and World Reports”, Pioneer ranked 11<sup>th</sup> out of 873 Michigan high schools; Skyline ranked 28<sup>th</sup>. I also am a member of the Ann Arbor Board of Education, and am regularly briefed regarding the various measurements of academic success for Pioneer and Skyline – and by most objective measurements, these schools are excellent.

So, where is the disconnect? As usual, the devil is in the details. But first, let’s look at some of the other data the State provides regarding our schools.

The Michigan Department of Education provides a “top to bottom” percentile ranking of all Michigan public schools (including charter schools) on its website. Pioneer ranks in the 93<sup>rd</sup> percentile of all schools in the State. Skyline is not far behind, with a percentile ranking of 89. So what is the relationship between the percentile ranking and the color code? Apparently there is none.

And which high schools earned the highest “green” rating? I could find only three schools on the State’s database that were rated “green”. I wanted to compare their achievement data to Pioneer to see if they scored an even higher percentile. What I found was that none of the three “green” high schools even received a percentile ranking. Furthermore, two of the schools were listed as “closed”, and a third (Ashley) had no published achievement data, presumably due to its small size. Apparently, for a school to receive a “green” rating, it must either be closed or must have such a small number of students that no meaningful achievement data is available.

Let’s move on to the next-best rating of “lime”. At least here, there are some schools we can compare to Pioneer:

Percent of Students Proficient by Subject Comparison of Pioneer High School to Lime Rated Schools					
Subject	Pioneer	Mayville	Reed City	White Cloud	Lake City
Math	80.88%	35.71%	31.86%	35.29%	39.39%
Reading	93.31%	66.67%	81.42%	80.88%	80.3%
Social Studies	86.14%	56.13%	52.25%	67.16%	60.27%
Science	76.25%	45.24%	33.83%	44.12%	49.29%
Writing	88.8%	66.67%	57.41%	46.27%	66.67%
Color Rating	Red	Lime	Lime	Lime	Lime

As you can see, achievement for these four “lime” schools is significantly lower across the board than for Pioneer. So what gives?

As I understand it, the color rating is not based on the overall achievement level of the school, but on a rubric that includes a number of subcategories of the student population. These include: students who rank in the bottom 30% of all scores, various racial and ethnic sub-groups, students with disabilities, and economically disadvantaged students. Points are awarded to each of the academic subjects for each subgroup. A maximum of 2 points are awarded per subject, for a total of 10 possible points for any given subgroup. Additional points are added for the completion rate (i.e. graduation rate) for each subgroup, and for “other factors,” including educator evaluations and compliance factors. The actual number of points is added up, and divided by the maximum number of possible points. The result is a percentage, which is used to rate the schools. The higher the percentage, the “better” the color score of the school.

Here is the way Pioneer’s score was calculated: **Pioneer Michigan 2014 Accountability Score Card**

Category	Math	Reading	Soc Stud	Science	Writing	Graduation Rate	Total Points Awarded	Total Points Possible
All students	2 out of 2	12	12					
Bottom 30%	0 out of 2	N/A	0	10				
African American	0 out of 2	0 out of 2	1 out of 2	0 out of 2	0 out of 2	2 out of 2	3	12
Asian	2 out of 2	12	12					
Hospanic	N/A	N/A	N/A	N/A	N/A	2 out of 2	2	2
White	2 out of 2	12	12					
Economically Disadvantaged	0 out of 2	0 out of 2	1 out of 2	0 out of 2	0 out of 2	2 out of 2	3	12
Students with Disabilities	0 out of 2	0 out of 2	N/A	0 out of 2	0 out of 2	2 out of 2	2	10
Educator Evaluations							3	3
Compliance Factors							3	3
Totals							52	86
Percent of Points Possible							60.5%	

Now, here is how Mayville’s score was computed: **Mayville 2014 Michigan Accountability Score Card**

Category	Math	Reading	Soc Stud	Science	Writing	Graduation Rate	Total Points Awarded	Total Points Possible
All students	2 out of 2	12	12					
Bottom 30%	0 out of 2	N/A	0	10				
African American	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Asian	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Hispanic	N/A	N/A	N/A	N/A	N/A	N/A	0	0
White	2 out of 2	12	12					
Economically Disadvantaged	N/A	N/A	2 out of 2	N/A	N/A	2 out of 2	4	4
Students with Disabilities	N/A	N/A	N/A	N/A	N/A	N/A	0	0
Educator Evaluations							2	2
Compliance Factors							2	2
Totals							32	42
Percent of Points Possible							76.2%	

Both Pioneer and Mayville got the maximum number of points in the “all students” and “white” categories (although it is hard for me to understand how Mayville could get the maximum number of points in math for having only a 35% proficiency rate). Both schools received zero points for the “bottom 30%” category. The difference between the schools is that Pioneer is much more diverse. There were not enough African-American, Asian, Hispanic or disabled students in Mayville to be statistically meaningful. So they were awarded no points for these sub-groups, but neither were these sub-groups included in the “possible points” column. So Pioneer has more than twice as many possible points, and because Pioneer received no points for some of these sub-groups, it dragged down their average.

In other words, schools with very little diversity will have higher scores than those with wider diversity. Each additional line of sub-categories is another chance for a school to be marked down.

(To draw a somewhat ridiculous analogy: It is as though you were comparing the GPAs of two students. The first takes only one class (basket- weaving) and receives an A. The second takes basket-weaving, calculus, English, physics and Latin IV. Even though the second student gets an A in basket-weaving and three of his other four classes, his GPA will be lower than the first student’s if he gets a B in calculus.)

So that is how the scores are derived. But how does this relate to a school’s overall color rating? According to the web site, the cut-off scores for the various color designations are as follows:

Green	85% or higher
Lime	70% to 84.5%
Yellow	60% to 69.9%
Orange	50% to 59.9%
Red	Below 50%

So, based on this standard, Pioneer just made the cut-off for a score of “yellow” – not exactly stellar, but still much better than its actual designation of “red”. But there is a catch. After all the scores are calculated, an “audit check” occurs. If a school fails to pass certain audit criteria, the result will be an “automatic red” (or as I call it, “automatic flunk”). One of these criteria is, if a school has more than two subgroups with less than 95% participation in assessment in any of the academic cells, it is an “automatic red” – regardless of the school’s percentile ranking, or its overall score on the rubric. This is what tripped up Pioneer.

Pioneer’s participation rate among three subgroups was below the target of 95% participation:

Subgroup	Subject	Students Enrolled	Students Assessed	Percent Assessed
Economically disadvantaged	Mathematics	70	66	94.29%
Hispanic	Social Studies	47	43	92.41%
Economically disadvantaged	Science	70	66	94.29%

Had only one additional economically disadvantaged student been assessed in mathematics and science, the percentages for both categories would have been raised to 95.73%, and Pioneer would have been classified as a “yellow” school. Of the 600 Michigan schools that received the “red” designation, nearly half were due to this “automatic flunk” provision.

The “automatic flunk” is apparently designed to punish schools who allow even a small number of students to fall through the cracks when it comes to taking assessments. I would point out once again that this has the effect of punishing only those districts with highly diverse student populations. If a school has no subgroups (or no subgroups large enough to be considered statistically significant), it is exempt for the “automatic fail” provision. The more subgroups a school has, the greater the likelihood that it will miss at least one student in at least one subgroup.

The “automatic flunk” provision also offers a somewhat different perspective on the question I raised earlier: “Who would want to send their child to a school given the lowest rating the state can assign?” Given the way “automatic flunk” works, the question might be more reasonably expressed as, “Who would want to send their child to a school in which four out of 70 economically disadvantaged students are not properly assessed in math or science?” My guess is that most parents would answer these two questions quite differently.

Finally, let's compare some overall measurements of success, including percentile ranking, math proficiency and color score for a number of high schools:

School	Percentile Rank	Math Proficiency	Color Designation
Ashley	Not available	Not available	Green
Mayville	6	35.71%	Lime
West Bloomfield	44	55.91%	Yellow
Portage Northern	77	57.72%	Orange
Pioneer	93	80.88%	Red

Notice a trend? One would expect a strong correlation between performance measurements (such as math proficiency and percentile ranking) and color designation. However, for these schools, at least, the higher the student achievement data, the worse the color rank.

So, to summarize my findings:

- The only ways for a high school to get a green designation are 1) to have so few students that no statistically significant measurements can be obtained, or 2) to close.
- The best way to get a lime designation is to have a school with no minorities present – no minorities, no achievement gap
- If you are a large, diverse school and have even a small number of students in the various subgroups who are not tested, you receive an “automatic red”
- Schools with very high achievement scores can nevertheless receive a lower color designation than schools with very low achievement scores.

Given these findings, I believe the color rating scheme used by Michigan Department of Education is not only arbitrary, meaningless and useless, it is actually destructive. It completely fails the stated objective of providing “a fairly easy way for the public to understand from a variety of measurements how their school buildings and districts are doing.” In fact, anyone relying on these color ratings would, in all likelihood, be completely misled regarding the quality of a given school.

It's high time to toss this system into the nearest trash can and start over.

Sincerely,

*Andy Thomas*

Andy Thomas, Secretary  
Ann Arbor Public Schools Board of Education

