

A Critique of the USNWR High School Ranking Study

US News and World Report (USNWR) magazine publishes an annual list of what it modestly calls “the best high schools in America.” I am of the general belief that anyone who publishes such rankings is taking on a no-win task, as the methodology that underlies their conclusions inevitably contains at least two, and often three, subjective components. The first is the criteria that are to be used to assess the subjects of the ranking exercise. The second is how these subjects are assessed against each criterion. And the third is the weights that are used to combine criteria ratings to arrive at the final rankings.

Given my beliefs about ranking exercises in general, I am pretty skeptical about a lot of attempts to rank schools, as too many of them use criteria that are outside the control of the building team; I cynically call this rewarding zip codes, or, more technically, family socioeconomic status. So my first reaction to the USN&WR ranking was to cast a gimlet eye over the methodology they used. Here is how USNWR described it:

“A three-step process determined the Best High Schools. The first two steps ensured that the schools serve all of their students well, using performance on state proficiency tests as the benchmarks. For those schools that made it past the first two steps, a third step assessed the degree to which schools prepare students for college-level work.

Step 1: *The first step determined whether each school's students were performing better than statistically expected for the average student in the state. We started by looking at reading and math results for all students on each state's high school proficiency tests. We then factored in the percentage of economically disadvantaged students – who tend to score lower – enrolled at the school to identify the schools that were performing better than statistical expectations.*

Step 2: *For those schools that made it past this first step, the second step determined whether the school's least-advantaged students – black, Hispanic and low-income – were performing better than average for similar students in the state. We compared each school's math and reading proficiency rates for disadvantaged students with the statewide results for these student groups and then selected schools that were performing better than this state average.*

Step 3: *Schools that made it through the first two steps became eligible to be judged nationally on the final step – college-readiness performance – using Advanced Placement or International Baccalaureate test data as the benchmarks for success, depending on which program was largest at the school. This third step measured which schools produced the best college-level achievement for the*

highest percentages of their students. This was done by computing a College Readiness Index based on the school's AP or IB participation rate – the number of 12th-grade students in the 2011-2012 academic year who took at least one AP or IB test before or during their senior year, divided by the number of 12th-graders – and how well the students did on those tests. The latter part, called the quality-adjusted AP or IB participation rate, is the number of 12th-grade students in the 2011-2012 academic year who took and passed – received an AP score of 3 or higher or an IB score of 4 or higher – at least one of the tests before or during their senior year, divided by the number of 12th-graders at that school. Any individual AP or IB subject test was considered when determining if a student took or passed at least one test. For the College Readiness Index, the quality-adjusted participation rate was weighted 75 percent in the calculation, and the simple AP or IB participation rate was weighted 25 percent. The test that was taken by the most students at a particular school – either AP or IB – was used to calculate that school's College Readiness Index.”

As school ranking methodologies go, this one isn't that bad, though it is far from perfect.

In Step 1, I have a problem with the use of school performance relative to the state average as a criterion. USNWR probably took this approach was to facilitate the comparison of schools that are located in different states. However, this overlooks the important fact that state standards vary widely in their rigor. Outperforming Mississippi's state standard is very different from outperforming Massachusetts'. An excellent way to capture this variation in state standards is to compare the percentage of eighth grade students who score at least proficient on the National Assessment of Educational Progress with the percentage that score at least proficient on a state's assessment test.

For example, on grade 8 math, the percent of Colorado students scoring at least proficient on TCAP was ten percent higher than the percent scoring at least proficient on the NAEP. In other states the gap is even wider (Massachusetts is an exception; there the percentages are essentially the same). The reality is that when students leave K12, they are going to face a world characterized by absolute, and not relative standards. Yes, their school may have outperformed the state. But if they don't meet absolute standards for reading, writing, and math, they aren't going to get a job, or admission to college.

One way around this would have been to use an absolute standard, like student performance on the ACT test (for example, the percent of students meeting the "college and career ready" standard). However, this approach runs into two problems. First, unlike Colorado, not every student in every other state takes the ACT or SAT. Second, a student's performance on the ACT reflects not only the quality of his or her high school, but also the quality of the schooling received before high school, as well as family socioeconomic circumstances.

On the positive side, in Step 1 USNWR makes an attempt to adjust schools' relative performance data for their different percentages of at-risk students based on the percentage of students eligible for free and reduced lunch. A small quibble here is that free and reduced is but one of the three main categories of at-risk students, the others being English Language Learners and minorities. To be sure, there is considerable overlap. However, a school with a relatively high percentage of ELL and minority students who are not free and reduced eligible would be disadvantaged in the USNWR methodology.

Step 2 compares reading and math achievement rates relative to state standards for free and reduced eligible students. The same issues noted with respect to Step 1 apply here too.

In Step 3, I have a significant problem with the ranking methodology. The percentage of students passing AP/IB tests is affected by both socioeconomic status and by the effectiveness of the elementary and middle schools in the articulation area from which a high school draws the majority of its students. Research studies (e.g., by the Colorado Department of Education and the ACT Organization) have found that it is extremely difficult, if not impossible, for a high school to fully make up for ground that has been lost during a student's earlier years of schooling. In my view, it is simply not fair to use as a criterion for ranking high schools, a variable over which the school building team has such a relatively low degree of control. In light of this, I think it was wrong in Step 3 of the methodology for USNWR to attach only a 25% weight to the simple AP/IB test participation rate, and a 75% weight to a metric driven by the AP/IB pass rate. It would have been better if these weights had been reversed.

As I said at the outset, anyone who publishes a ranking sets themselves up for criticism, and the USNWR "Best High Schools in America" ranking is no exception to this rule. That said, provided that readers understand the underlying methodology, I continue to believe that assessments like the one published by USNWR are a useful source of feedback for parents, educators, community members and policymakers, especially when they are combined with other rankings that use different methodologies.