

# National Education Rankings

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What Nevada Can Learn  
Phases One & Two – April to June 2022

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## Introduction

Nevada, it seems, has a love/hate relationship with national education rankings. These rankings, considered by many to be proxies for school quality, are frequently referenced to support various narratives in the local community and often deployed in discussions regarding education funding. Some will note Nevada’s poor performance in the rankings and argue that more money is necessary to improve the quality of education in the Silver State. Others will refer to the same ranking and ask why Nevada should “throw good money after bad.”

Similarly, education advocates frequently encounter individuals claiming Nevada is one of the worst states for education. And while this “worst in the nation” narrative is widespread, the Nevada State Board of Education is fighting back – citing that Nevada’s K-12 education system, specifically what is happening within the walls of the schools, is actually ranked 18<sup>th</sup> in the nation.<sup>1</sup>

Interestingly, it is true that Nevada is both ranked at, or near, the bottom of educational rankings while also being ranked 18<sup>th</sup> in the nation in K-12 education. **This report intends to clarify how these statements can be simultaneously true while also detailing the data points included in the frequently cited educational rankings.**

This report considers two nationwide educational rankings: The *Quality Counts* report published by *Education Week* and the Annie E. Casey Foundation’s *Kids Count Data Book*. It also includes a recent report from the Thomas B. Fordham Institute that ranks America’s best and worst metro areas for school quality. The report reviews the education-specific data points included in each ranking and compares Nevada’s outcomes to other states. The conclusion synthesizes the significant findings and highlights lessons for Nevada’s policymakers who are engaged in untangling the dual nature of the rankings when debating, for example, the pupil-centered funding formula.

## Part 1: Understanding the Rankings

While the three ranking reports analyzed in this report may appear to generate similar results, they are each unique. It is therefore important to understand the component indicators of each ranking.

### Quality Counts Rankings

*Education Week* publishes its national report card and state education rankings through its *Quality Counts* annual report. The overall ranking is based upon three distinct categories: Chance for Success, School Finance, and K-12 Achievement.<sup>2</sup> Each of these categories includes a separate state score and

ranking. The overall ranking, in which Nevada ranks 50<sup>th</sup> out of the 50 states and the District of Columbia in the most recent report, is the average of the three categories’ scores.

The Chance for Success category includes 13 data points that span an individual’s life from cradle to career, intending to understand the role of education across an individual’s lifetime.<sup>3</sup> It can be considered the “context” in which education occurs – including items such as the educational attainment of parents/family members or the percentage of adults earning at or above the national median income. Nevada ranks 50<sup>th</sup> in Chance for Success, barely outpacing New Mexico for the bottom spot.

The School Finance category utilizes eight indicators, including education spending and financial equity measures, to arrive at state rankings. In 2021, Nevada ranked 49th in this category. However, this is the equivalent of last place as Hawaii and the District of Columbia do not have a ranking in this measure.

The K-12 Achievement category includes 18 indicators. In the most recent rankings, Nevada ranked 18<sup>th</sup> overall on K-12 Achievement. As noted in the introduction above, this is the ranking referenced by the Nevada State Board of Education.

Nevada’s rankings of each of *Quality Counts*’ categories is summarized in Table 1.

*Table 1: Nevada’s Overall and Category Specific Quality Counts Rankings*

Category	National Rank
Chance for Success	50
School Finance	49
K-12 Achievement	18
Overall	50

Because it can be argued that schools and districts can only directly affect the K-12 Achievement metrics (i.e., they have little or no control over the educational attainment of the community at large or the funding levels approved by the legislature), this analysis focuses primarily on the K-12 Achievement category in the *Quality Counts* rankings.

While 18 indicators comprise the *Quality Counts* K-12 Achievement category, the data points derive from three sources: the National Assessment of Educational Progress (NAEP), high school graduation rates, and results from Advanced Placement exams.

***National Assessment of Educational Progress***

The National Assessment of Educational Progress (NAEP) is a Congressionally mandated national assessment administered by the National Center for Education Statistics (NCES). While the NAEP

offers tests in numerous subject areas, mathematics and reading are administered most frequently.<sup>4</sup> Because the *Quality Counts* rankings include just the mathematics and reading results, the information below only pertains to those two assessments.

As the NAEP is administered nationally, the results allow for a comparison of student outcomes across the states. However, the reading and mathematics portions of the assessment are only offered in odd-numbered years to a representative sample of 4<sup>th</sup> and 8<sup>th</sup> grade students in each state. Statistically, the results from the sampled students in each state should be representative of the student achievement trends of the entire state.

Students who participate in the NAEP receive a separate scale score in the reading and mathematics portion of the assessment. This scale score translates to an achievement level. Students scoring in the lowest tier are considered “NAEP Basic.” Students scoring at “NAEP Proficient” perform at an expected level for that grade level. And “NAEP Advanced” is assigned to students with the highest scale scores, signifying a superior grasp of the material tested.<sup>5</sup>

Additionally, beginning in 2001, the NAEP was administered to a random sample of students within large, urban school districts. The purpose was to focus additional attention on urban K-12 education and the student achievement trends in these districts.<sup>6</sup> This program – the Trial Urban District Assessment (TUDA) – began with six districts and expanded to its current size of 27 districts. The Clark County School District (CCSD) began participating in the program in 2017.

Data from the NAEP makes up 14 of the 18 indicators *Quality Counts* uses in its K-12 Achievement category. A brief description of each of the data points is presented below. Because there are so many metrics, the list is organized into the subcategories used by *Quality Counts*. Unless otherwise noted, the data included in the 2021 *Quality Counts* rankings reflect 2018-2019 school year results.

#### *Achievement Level*

**4<sup>th</sup> Grade Mathematics Proficiency** – The percentage of 4<sup>th</sup> grade students deemed to be performing at grade-level standards in mathematics. This measure, along with the other proficiency indicators, details how students are performing at a specific moment in time.

**4<sup>th</sup> Grade Reading Proficiency** – The percentage of 4<sup>th</sup> grade students deemed to be performing at grade-level standards in reading.

**8<sup>th</sup> Grade Mathematics Proficiency** – The percentage of 8<sup>th</sup> grade students deemed to be performing at grade-level standards in mathematics.

**8<sup>th</sup> Grade Reading Proficiency** – The percentage of 8<sup>th</sup> grade students deemed to be performing at grade-level standards in reading.

### *Achievement Gains*

**4<sup>th</sup> Grade Mathematics Scale Score Change 2003-2019** – The change in 4<sup>th</sup> grade mathematics scale score between 2003 and 2019. This indicator, along with all the other scale score change metrics, attempts to approximate a student-growth measure.

**8<sup>th</sup> Grade Mathematics Scale Score Change 2003-2019** – The change in 8<sup>th</sup> grade mathematics scale score between 2003 and 2019.

**4<sup>th</sup> Grade Reading Scale Score Change 2003-2019** – The change in 4<sup>th</sup> grade reading scale score between 2003 and 2019.

**8<sup>th</sup> Grade Reading Scale Score Change 2003-2019** – The change in the 8<sup>th</sup> grade reading scale score between 2003 and 2019.

### *Poverty Gap*

**4<sup>th</sup> Grade Reading Scale Score Difference between Students Qualifying for Free-and-Reduced Price Lunch and Those that do not Qualify** – This measure compares the student achievement outcomes of 4<sup>th</sup> grade reading students. The average scale score of students qualifying for free-and-reduced-price lunch is subtracted from the average scale score of students who do not qualify for the program.

**8<sup>th</sup> Grade Math Scale Score Difference between Students Qualifying for Free-and-Reduced Price Lunch and Those that do not Qualify** – This measure compares the student achievement outcomes of 8<sup>th</sup> grade mathematics students. The average scale score of students qualifying for free-and-reduced-price lunch is subtracted from the average scale score of students who do not qualify for the program.

**4<sup>th</sup> Grade Reading Poverty Gap Change 2003-2019** – The change in the gap between average 4<sup>th</sup> grade reading scale scores for students that do and do not qualify for free-and-reduced-price lunch.

**8<sup>th</sup> Grade Mathematics Poverty Gap Change 2003-2019** – The change in the gap between average 8<sup>th</sup> grade mathematics scale scores for students that do and do not qualify for free-and-reduced-price lunch.

### *Achieving Excellence*

**8<sup>th</sup> Grade Mathematics Percent of Students Scoring “Advanced”** – In addition to determining if students score well enough to be deemed proficient, the NAEP identifies students with a scale

score high enough to be considered “Advanced.”<sup>7</sup> This indicator represents the percentage of 8<sup>th</sup> grade mathematics students that scored “Advanced.”

**8<sup>th</sup> Grade Mathematics Change in Percent of Students Scoring “Advanced” 2003-2019** – This is the difference between 2003 and 2019 8<sup>th</sup> grade mathematics students that scored “Advanced.” This indicator is another student growth type measure – attempting to answer if states are increasingly getting students to achieve at the highest level on the assessment.

In addition to these 14 NAEP indicators, *Quality Counts* draws two data points from Graduation Rates and two from Advanced Placement data. These items are included below.

### ***Graduation Rates***

Graduating from high school carries with it many personal and societal benefits. Individuals with a high school diploma make, on average, \$162 more per week than those without a high school diploma.<sup>8</sup> While this may not seem like much, it is an approximate \$8,500 difference when extrapolated over an entire year. Moreover, the unemployment rate of those with a high school diploma is less than those who did not graduate high school.<sup>9</sup> Additionally, studies have shown that graduating high school lowers the probability that an individual will commit a crime and be incarcerated.<sup>10</sup>

While some may argue that high school graduation requirements are not stringent enough,<sup>11</sup> there is no denying the benefits of a high school diploma. For this reason, *Quality Counts* grades states on their graduation rates. The data was obtained from the United States Department of Education.

**High School Graduation Rate** – Percentage of students who graduated on time with a standard diploma during the 2018-2019 school year.

**Change in Graduation Rate** – The change in the graduation rate from 2014 to 2019. It is worth noting that Nevada eliminated the high school proficiency exam beginning with the class of 2017. As has been examined by the Guinn Center previously, eliminating the high school proficiency exam increased graduation rates significantly in the Silver State.<sup>12</sup>

### ***Advanced Placement***

Advanced Placement (AP) coursework is offered to high school students through the College Board, the same organization that administers the SAT and PSAT assessments. While not all schools carry the full array of AP courses, there are 36 different courses in which students may participate.<sup>13</sup> These classes include foreign languages, English composition, literature, science, history, and the arts. AP courses allow high school students to explore topic areas of interest to them in a manner that offers more depth and rigor than traditional high school coursework. After each AP course, students may

choose to take an assessment. These tests are graded on a scale from one to five, with five being the highest score. Those students who score at least a three on a given exam may be eligible to receive college credit.<sup>14</sup>

Because of the rigor demanded by AP courses, *Quality Counts* includes two indicators that assess each state’s ability to get students to participate in AP coursework and ultimately receive at least a three on the end-of-course assessment.

**High AP Test Scores** – The number of high AP test scores (defined as a three or above) per 100 students in grades 11 and 12.

**Change in High AP Test Scores** – The change in high AP test scores from 2000 to 2020.

## Kids Count Rankings

Each year, the Annie E. Casey Foundation releases its *Kids Counts Data Book (Kids Count)*. The purpose of the ranking is to highlight child health and educational outcomes, as well as any risk factors that may confront America’s youth. It includes data encompassing all youth stages, from birth to early adulthood.<sup>15</sup>

The *Kids Count* rankings include an “Overall Rank,” which comprises the results from four categories: economic well-being, education, health, and family and community. Each of these categories includes four data points – for a total of 16 indicators that result in the overall ranking. Like the previous *Quality Counts* section, this analysis will only detail the Education rankings in the *Kids Count* report, but Table 2 summarizes Nevada’s ranking in each category.

Table 2: Nevada’s Overall and Category Specific Kids Count Rankings

Category	National Rank
Economic Well-Being	41
Education	46
Health	34
Family and Community	44
Overall	45

Interestingly, three of the four *Kids Count* indicators are also included in the *Quality Counts* K-12 Achievement ranking. The difference in Nevada’s rankings between the two reports can be directly attributed to the metrics chosen for inclusion or exclusion.

**Percentage of 2018-2019 4<sup>th</sup> Graders Not Proficient in Reading** – Like *Quality Counts* K-12 Achievement rankings, this indicator derives from the NAEP. However, *Quality Counts* uses the percentage of students proficient, and this indicator is the percentage not proficient.

**Percentage of 2018-2019 8<sup>th</sup> Graders Not Proficient in Mathematics** – See comments on the previous indicator. Data is obtained from the NAEP and inversely relates to the results reported on *Quality Counts*.

**Percentage of 2018-2019 High School Graduates Not Graduating On-Time** – This again is the inverse of the graduation rate included on *Quality Counts*, which uses the percentage of high school students who graduate on time.

**Young Children (Ages 3 and 4) Not in School, 2017-2019** – Based on data from the American Community Survey, this data point reflects the percentage of young children not enrolled in a school of any kind during the previous three months.<sup>a</sup> Because of the small sample size, a three-year average is reported.<sup>16</sup> An interesting caveat applies to this data point. A similar metric is included in *Quality Counts*; however, it is included within the “Chance for Success” category. While this is an extremely important indicator, it lies outside the traditional scope of K-12 education.

## America’s Best and Worst Metro Areas Report

In December 2021, the Thomas B. Fordham Institute released a new educational ranking for America’s largest metro areas (*America’s Best and Worst Metro Areas for School Quality*). Unlike other rankings that focus on statewide results, this report only considered the 50 largest metro areas in the country, including Clark County. Because a large proportion of the statewide K-12 student enrollment resides in Clark County and attends schools in the Clark County School District,<sup>17</sup> many were curious about the findings of this report. Unfortunately, the Las Vegas Metro ranked 49<sup>th</sup> out of 50 metros in this ranking. Only Honolulu ranked lower.

Beyond focusing on metro areas instead of statewide results, another significant difference found in Fordham’s rankings is its almost singular focus on academic growth. *Quality Counts* attempts to include measures of both academic achievement (e.g., single year proficiency rates) and growth (e.g., change in proficiency rates over time), while *Kids Count* only includes measures of academic achievement. Fordham’s reliance on growth creates an interesting byproduct – little correlation between the proficiency rates for a metro area and its place in the rankings. According to the Fordham authors, “The level of average achievement is not a good predictor of how a metro area performs on the rankings; having high overall achievement does not mean a metro will earn a high rank, nor does it guarantee a low rank.”<sup>18</sup>

In creating its ranking, Fordham created a Student Learning Accelerating Metros (SLAM) metric that relies on four data points. While the previously examined educational rankings relied heavily on the NAEP, Fordham’s ranking of metro areas primarily uses information from the Stanford Education Data

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<sup>a</sup> The American Community Survey is an annual survey administered by the United States Census Bureau.



Archive (SEDA). This data source uses the results from federally mandated mathematics and English Language Arts (ELA) assessments states must administer from 3<sup>rd</sup> to 8<sup>th</sup> grade. However, different states give different assessments. As noted in the following subsection, SEDA employs advanced statistical techniques to standardize assessment results from the various state tests. This allows the organization to compare outcomes across districts, metro areas, and states – allowing for greater flexibility than the NAEP offers.

Another unique aspect of Fordham’s rankings is the use of statistical methodologies to adjust for demographic differences in metro areas’ educational outcomes. Using regression models,<sup>b</sup> Fordham creates predicted student outcomes, and its rankings are based on how the metro areas outperform or underperform these predictions. While this type of analysis is commendable for recognizing the demographic differences between metro areas, it also prevents easy interpretation of the final rankings.

As noted previously, Fordham’s SLAM ranking consists of four data points. Those data points, and the associated weight each carries in the overall ranking, are presented below.

- Cohort Academic Growth (from SEDA) – 60 percent
- Cohort Academic Growth for Disadvantaged Groups (from SEDA) – 20 percent
- Metro Improvement (from SEDA) – 10 percent
- High School Graduation Rate – 10 percent.

### ***Stanford Education Data Archive***

While NAEP proponents note that it allows for a comparison of student achievement across all states, detractors highlight that it is (a) only given every two years (on the odd year), (b) given to a statistical sample of students (so not all students take it), and (c) only administered to 4<sup>th</sup> and 8<sup>th</sup> grade students. However, the NAEP is not the only test that assesses student learning, and it is these other assessments that the Stanford Education Data Archive relies upon for its analysis.

Nationally, every Spring, districts across the United States administer an assessment to 3<sup>rd</sup> to 8<sup>th</sup> grade students to determine their progress in attaining state education standards. In the Silver State, the Nevada Department of Education declared the Smarter Balanced Assessment Consortium (SBAC) as the test of record for students in 3<sup>rd</sup> to 8<sup>th</sup> grade beginning in the 2014-2015 school year. However, Nevada is one of only 13 states that use the SBAC.<sup>19</sup> Because states can select the assessment they

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<sup>b</sup> Regression models are based on statistical principals and are a complicated procedure to explain without using jargon. However, the Harvard Business Review provides a succinct definition and reason to use this technique when multiple variables are in play. “Regression analysis is a way of mathematically sorting out which of those variables does indeed have an impact. It answers the questions: Which factors matter most? Which can we ignore? How do those factors interact with each other?” See Gallo, Amy. 2015. “A Refresher on Regression Analysis.” *Harvard Business Review* <https://hbr.org/2015/11/a-refresher-on-regression-analysis>

wish to use, the scores from these tests are not standardized across the states, making the comparison of the results difficult for many reasons.

Seizing the opportunity to use assessments administered every year to all students (in the selected grades) and across several more grade levels, the Stanford Education Data Archive (SEDA) gathered assessment data from all states. However, SEDA needed to normalize the data across states who might have different tests, different score result ranges, and even different proficiency determinations. Using advanced statistical techniques, SEDA created a dataset with annual achievement results for students in grades 3 to 8 in both math and reading.<sup>20</sup>

While these results are comparable across years and tests, the primary drawback is the interpretability of the data. In 2017, the SBAC determined that 46.2 percent of Nevada's 4<sup>th</sup> grade students were proficient in English Language Arts (ELA).<sup>21</sup> NAEP results for the same year suggested that 31 percent of 4<sup>th</sup> grade students were proficient in reading.<sup>22</sup> By contrast, in 2017, SEDA results suggested that Nevada 4<sup>th</sup> grade students score 3.6 in reading. According to SEDA's codebook, a score of 4 denotes the national average.<sup>23</sup> So, in this case, the SEDA data indicates Nevada's 4<sup>th</sup> grade students taking the SBAC assessment in Nevada underperformed the national average in reading in 2017. Unfortunately, according to SEDA data, the magnitude of the underperformance is not as simple as subtracting Nevada's proficiency rate from the national rate. Interpreting the results requires an understanding of statistical concepts and the knowledge that the score itself does not relate to a conception of proficiency. Conversely, the NAEP and SBAC results are reported in terms of the percentage of proficient students, making interpretation easier.

This difficulty in interpretability is not a limitation of the SEDA data. Instead, it is the natural byproduct of an assessment environment reliant on arbitrary proficiency determinations, where states can define their own "line in the sand." Whereas one state may set standards and proficiency cut scores that determine a student as proficient, that same student might be deemed nonproficient in another. However, lay audiences still desire more straightforward data to compare educational outcomes. SEDA provides a much more academic result. But it does so at the cost of interpretability.

As noted previously, the Fordham report uses three data points from SEDA to create the metro areas ranking.

**Cohort Academic Growth** – This measure reports student growth over time by tracking cohorts of students across grades. It includes all grades where testing data are available (3<sup>rd</sup> to 8<sup>th</sup> grade) from 2016 to 2018, using results from 2015 as the baseline. It consists of the results of both ELA and math assessments. Of interest to this metric, Nevada's assessment system failed in the 2014-2015 school year, so data from that year would have been unavailable for the analysis.<sup>24</sup>

**Cohort Academic Growth for Disadvantaged Groups** – This is similar to the Cohort Academic Growth measure above but weights the achievement results based on the proportion of traditionally disadvantaged students in each metro area. Based on the methodology provided by Fordham, “Metros with many Hispanic students and few Black students will be assigned rankings based more on the growth of Hispanic students than that of Black students.”<sup>25</sup>

**Metro Progress** – While the measures above track the growth of a cohort of students, the Metro Progress indicator presents the improvement in the average achievement of all grades in both ELA and math over approximately 10 years.

### ***Graduation Rates***

The graduation rate used in the Fordham report differs in several ways when compared to how the other rankings use this metric. First, because the unit of analysis is the metro area and not the state, Fordham uses the graduation rate of the metro area. Second, instead of a single year’s rate, Fordham uses the average graduation rate, obtained from the US Department of Education, from 2016 to 2018. And lastly, the graduation rate is adjusted for demographics, whereby a regression equation calculates the predicted graduation rate based on student demographic factors. The rankings are based on how each metro area over/underperforms based on the expected graduation rate.

As noted in an earlier section, Nevada eliminated the high school proficiency exam beginning with the class of 2017. This date overlaps with Fordham’s graduation rate metric, so it would include graduating classes that were and were not subject to the high school proficiency exam.

## **Part 2: How Nevada Performs in the Rankings**

Knowing what indicators make up the rankings is important; however, understanding how Nevada ranks on these indicators is a more interesting endeavor. This section includes Nevada’s rankings on the underlying data points in the three national rankings explored previously. For both *Quality Counts* and *Kids Count*, three years of data are included: the most recent rankings from 2021, the 2018 rankings, and the 2013 rankings.<sup>c</sup> When compared to the 2021 rankings, the 2018 data allow for an analysis of recent fluctuations in the data, while the 2013 rankings allow for a comparison of results to pre-categorical program timing (e.g., Zoom, Victory, and SB178 programs). Because Fordham’s report of the best and worst metro areas was first released in 2021, only one year of data is presented.

There are two significant cautions to be aware of when considering the results of the rankings. Both will be expanded upon in a subsection below, but they warrant mentioning at the outset. First, the data making up the rankings is several years old (even when viewing the most recent results).

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<sup>c</sup> Both *Quality Counts* and *Kids Count* rankings are released annually. This report only selected three years of the rankings to compare how Nevada has performed in recent history.

Practically, this means that any programs aimed at improving Nevada’s educational rankings will take several years to show up in these rankings, even if the program shows immediate results.

The second caveat is that rankings, by nature, are relative. If Nevada’s students improve in a specific indicator, this alone does not mean the state will improve in the rankings. Nevada does not exist in a vacuum; each state is also trying to improve its educational outcomes, so increases or decreases in the rankings may not indicate better student performance within one state – only a relative comparison to other states.

### **Quality Counts Rankings**

Figure 1 presents the results of the *Quality Counts* rankings. The purple dots represent the 2021 rankings, with the yellow and grey dots representing the 2018 and 2013 rankings, respectively. Many, but not all, indicator rankings remained stable over the period analyzed. Still, several important conclusions can be drawn from the figure.

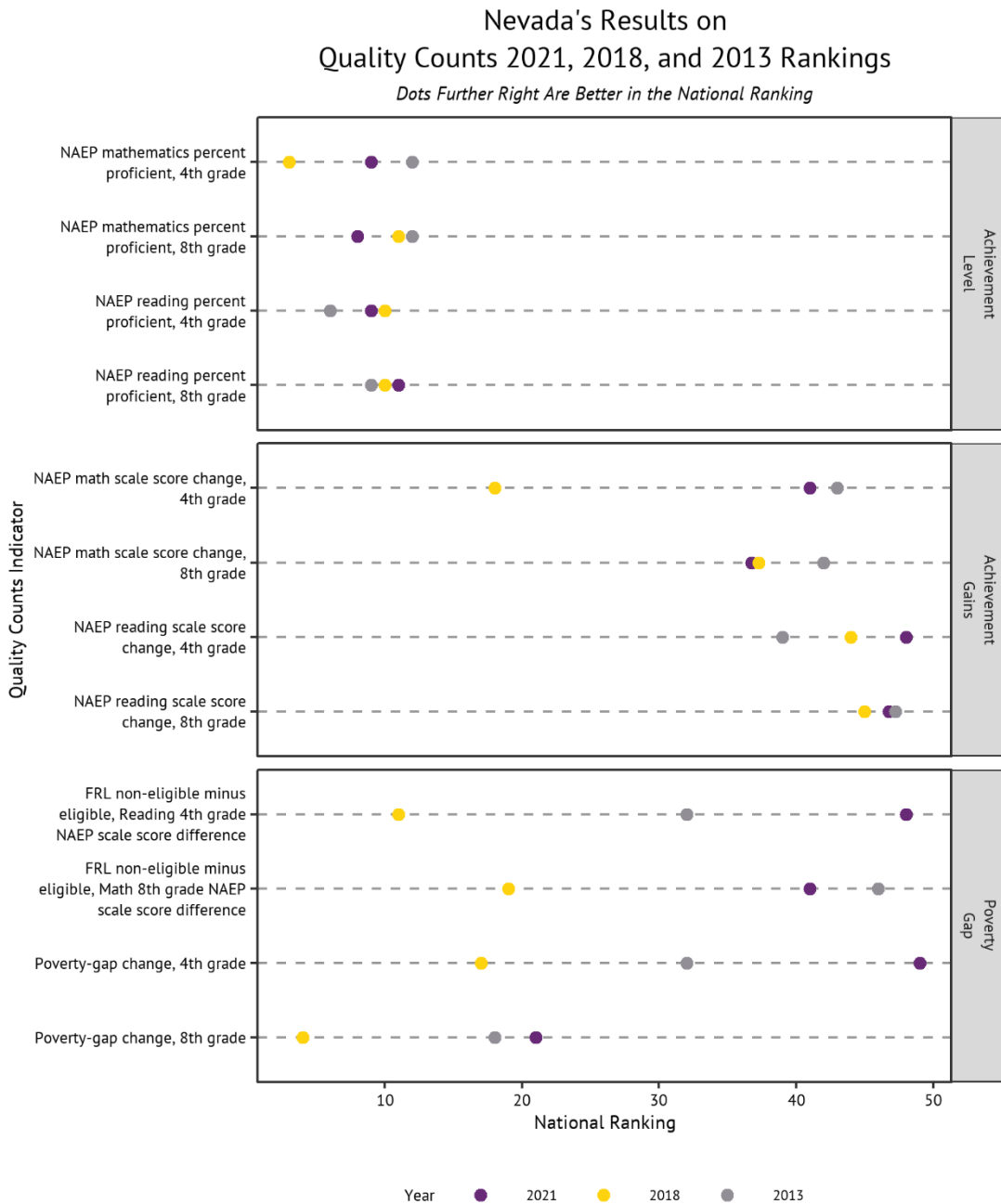
Compared to other states, Nevada does not perform well on the NAEP when considering only proficiency rates (see Achievement Level breakout in Figure 1). However, this is counterbalanced by gains over time, in which Nevada performs better (see Achievement Gains breakout in Figure 1). Some may use this conclusion as evidence that Nevada’s recent infusion of money – in the form of categorical programs – was successful. However, we urge caution in this interpretation. As will be explored in the following subsection, the data on which the 2013 rankings are based precedes the influx of money, and Nevada still ranked high in this category in pre-categorical times.

Additionally, the recent jump in Nevada’s national rank, from 36<sup>th</sup> in the 2013 K-12 Achievement rankings to 18<sup>th</sup> in 2021, is likely led by the increases in graduation rates and the change in graduation rate over time. While this change should be celebrated, it is primarily due to a policy decision to remove the high school proficiency exam from the graduation requirements. While previous research has suggested this policy change positively affected several underrepresented groups,<sup>26</sup> this positive outcome can not be attributed to significant changes or improvements in K-12 education processes. In the 2021 rankings, Nevada is ranked first in the nation in the change in graduation rates over time.

This high ranking in the change in graduation rates will likely decrease in future reports. Currently, in the 2021 rankings, the graduation rate change is measured from 2014 to 2019. In the 2013 rankings, the difference in graduation rate was calculated based on the 2000 and 2008 graduation rates. Future rankings will likely continue this pattern of increasing the starting year of the comparison (i.e., 2014 in the 2021 rankings versus 2000 in the 2013 rankings). When the starting year surpasses the first year of Nevada’s change in graduation requirements (the 2016-17 school

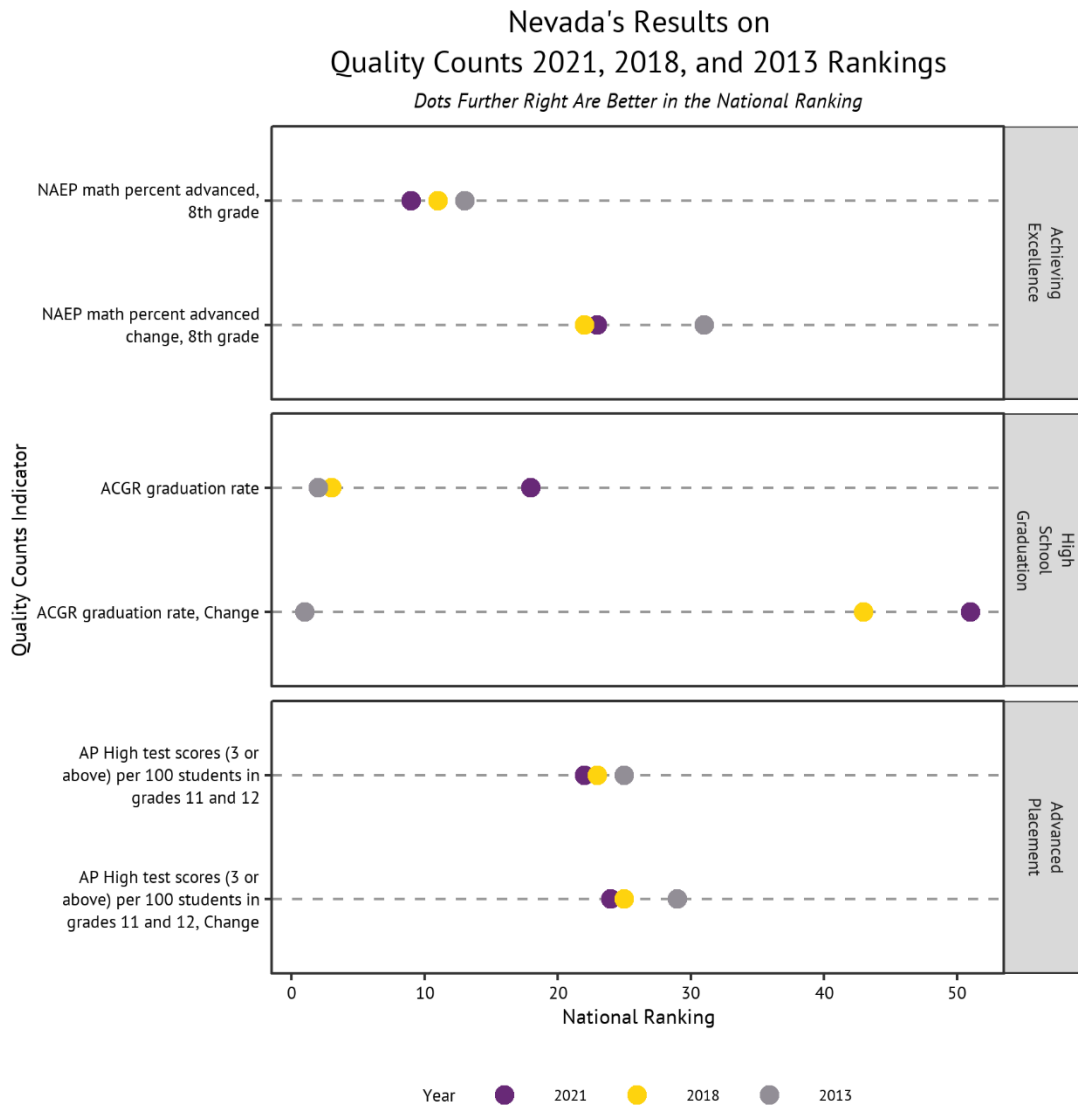
year), this ranking will likely decrease, assuming there are no significant graduation rate improvements – based on policy decisions or growth within districts.

Figure 1: Nevada's Quality Counts' Indicator Rankings



Source: Education Week Quality Counts Reports

Figure 1: Nevada's Quality Counts' Indicator Rankings (continued)



Source: Education Week Quality Counts Reports

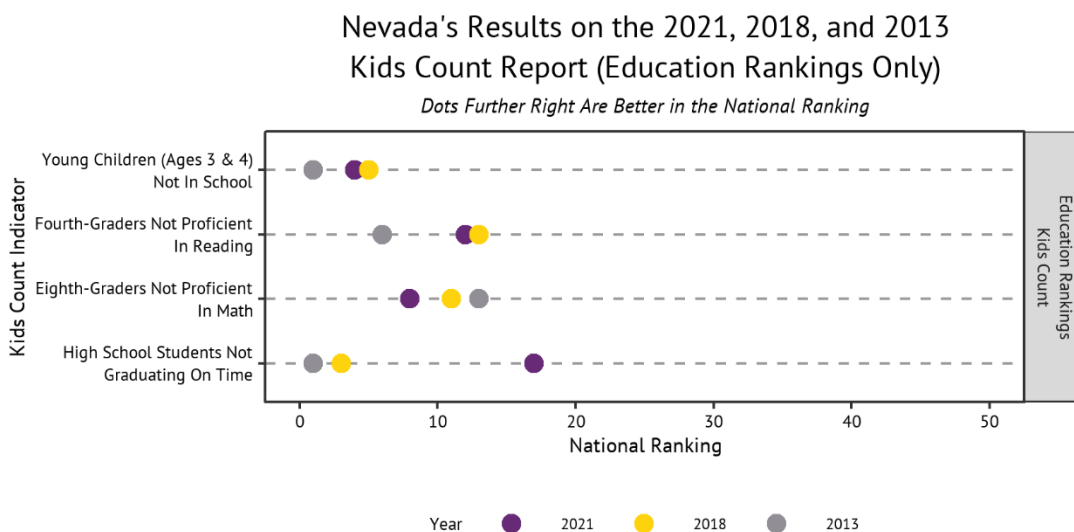
Lastly, the indicators in the “Poverty Gap” section of the *Quality Counts* rankings warrant further investigation. Three of the four data points suggest Nevada ranked highest in the 2021 rankings, followed by the 2013 rankings, while the results of the 2018 rankings are the worst. There is a possibility that Victory programming, and its targeted funding to students in poverty, is showing positive outcomes in the 2021 rankings. However, the caution in this conclusion is that the 2018 rankings also include multiple years of the Victory program. Those results suggested Nevada performed near the bottom of all states in each poverty gap indicator.

### Annie E. Casey Kids Count Rankings

Because the *Kids Count* rankings offer similar data points as the *Quality Counts* rankings (just fewer total indicators), the rankings provide analogous conclusions. The rankings all group relatively close together, without significant separation between the 2013 and 2021 rankings. The possible exception is in graduation rates. However, as noted previously, this change is likely due to a change in Nevada’s graduation requirements. Figure 2 presents Nevada’s rank on the *Kids Count* education indicators in the 2021, 2018, and 2013 reports.

The difference in the total number of indicators making up the *Kids Count* and *Quality Counts* rankings is shown with striking contrast here. While individuals like to cite one or both of these rankings, Figures 1 and 2 illustrate how different the two ranking systems are – even if they include several of the same indicators.

Figure 2: Nevada’s Kids Count Indicator Rankings



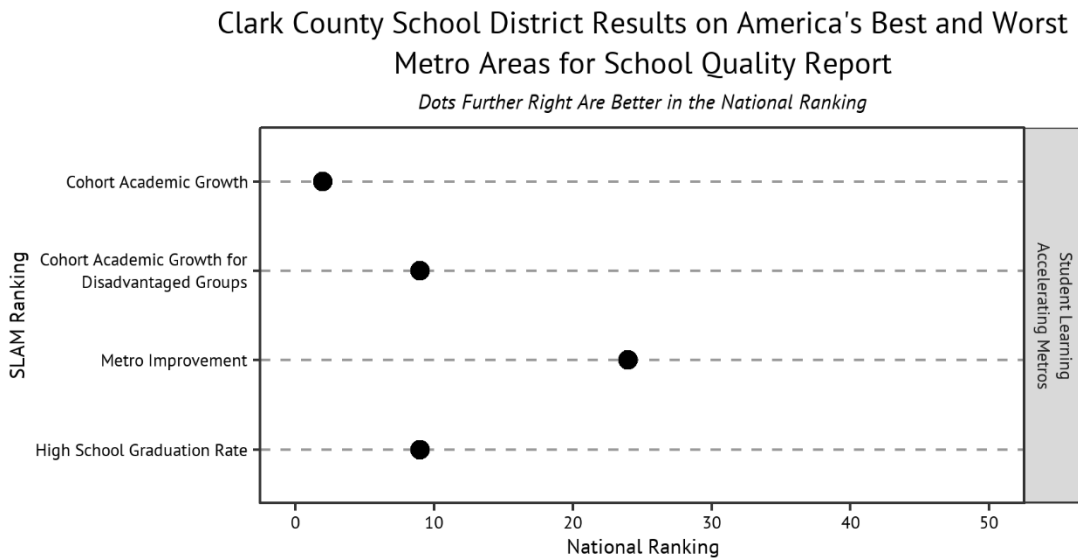
Source: Annie E. Casey Kids Count Reports

### Fordham’s Best and Worst Metro Rankings

Unlike the previous two rankings, Fordham’s consideration of the best and worst metro areas for education has only been released once, so there is no comparative data. The data in Figure 3 is based solely on their 2021 rankings. Additionally, the previous two reports consider statewide education results, whereas Fordham only considers the results of the Clark County School District. While it is a large district,<sup>27</sup> it should not be considered a proxy for statewide educational outcomes.

As a reminder, Fordham’s report does not simply rank metro areas based on educational outcomes. Based on their statistical analyses, the organization ranked metro areas based on how they over/underperformed. This methodological choice makes interpreting the data in Figure 3 even more difficult. For example, asserting that increasing the overall graduation rate would positively affect the ratings may not be accurate.

Figure 3: Clark County School District Rankings on America’s Best and Worst Metro Areas Report



Source: 2021 America's Best and Worst Metro Areas for School Quality - Fordham Institute

### Part 3: Cautions When Interpreting the Rankings

#### The Data are Stale

A significant caution when considering these rankings is that the data underlying even the most current rankings are several years old. While efforts to improve indicators may be highly successful, this may not appear in the rankings for several years. Part of this is because the NAEP, which many of the *Quality Counts* and *Kids Count* indicators are based upon, is only given every other year. However, for other non-NAEP indicators, it takes time to aggregate the data to be ready for inclusion in the reports.

Tables 3, 4, and 5 highlight the discrepancy between the year the rankings are published and the year student outcomes represent. The year of the ranking is included in the purple ribbon at the top of the table, and the year in the body of the table indicates what year the data reflects in the ranking. For example, in Table 3, the NAEP data in the 2021 *Quality Counts* ranking is taken from the 2019 assessment –two years before the ranking was released.



Table 3: *Quality Counts Data Sources and Years Included in the Rankings*

Data Source	Year of Rankings		
	2013	2018	2021
NAEP	2011	2017	2019
Graduation Rates	2008	2016	2019
Advanced Placement	2010	2016	2020

As noted in Table 3, the 2021 *Quality Counts* rankings are based upon 2019 and 2020 data, highlighting the fact that rankings are based on data that may not be reflective of what is occurring in the classroom at the current moment.

Similarly, Table 4 presents the data sources for the *Kids Count* rankings and the year the data was obtained. Like the *Quality Counts* rankings, the information is several years older than the ranking suggests. Of specific interest may be the pre-K enrollment data. It is a rolling three-year average. So even if Nevada began enrolling 100 percent of 3- and 4-year-olds for the 2022-2023 school year, it would take several years to be fully reflected in the rankings. This is first because of the delay in including the data and second because the three-year average will take until the 2024-2025 school year to reflect that complete enrollment.

Table 4: *Kids Counts Data Sources and Years Included in the Rankings*

Data Source	Year of Rankings		
	2013	2018	2021
NAEP	2011	2017	2019
Graduation Rates	2010	2016	2019
Pre-K Enrollment	2009-2011	2014-2016	2017-2019

Lastly, Table 5 presents the data source of Fordham’s rankings of metros, along with the respective years of data used in the rankings. Similar to the previous two reports, the metro rankings use data that are several years old. It carries the same caution as previously noted: **these reports will take several years to reflect changes in academic performance.**

Table 5: *America’s Best and Worst Metros Data Sources and Years Included in the Rankings*

Data Source	2021
SEDA	2016-2018
Graduation Rates	2016-2018

Perhaps the best metaphor for these education rankings is to compare the person looking at these reports to an individual looking up at the night sky. The person looking up at the sky believes they see the stars like they currently are. However, they are really looking at light that has taken several years to get to earth. What is happening at that exact moment at the star’s location – or Nevada classrooms – may be vastly different from what is observed by looking at the sky or, in this case, national educational rankings.

**By their Nature, Rankings are Relative**

Each of the rankings considered above shows how Nevada is doing compared to other states. While this observation is obvious, it has significant repercussions. By determining academic success based on national education rankings, we only know how Nevada is doing compared to others, not how Nevada students perform in absolute terms. Other states are not waiting for Nevada to improve before beginning their educational improvement efforts. Changes in other states will affect Nevada’s rankings just as much, if not more so, than what is being done in classrooms across the Silver State.

One of the repercussions of the relativity of rankings is that even if Nevada increases educational outcomes, it does not mean the state will improve in the rankings. Figure 4 displays how Nevada has grown on the *Quality Counts* high Advanced Placement test scores indicator. While Nevada students have improved by approximately nine percentage points from 2013 to 2021, the national ranking has decreased three spots during that time (Table 6 presents the data underlying the figure).

*Figure 4: Nevada’s Educational Improvement on AP Test Scores but Declining National Rank on the Indicator*



Source: Education Week Quality Counts Reports

Both Figure 4 and Table 6 illustrate an essential reminder – **even if Nevada’s educational system improves, that does not guarantee an improvement in the rankings.**

Table 6: Nevada’s High AP Test Scores and National Rankings

Year	Increasing High AP Test Scores (per 100 Students)	Decreasing National Rank on this Indicator
2013	15.6	27
2018	23.4	29
2021	24.0	30

The second repercussion of the relativity of rankings is related to the first. While neither of the following statements are accurate or even likely outcomes, there is a possibility that Nevada could have a 95 percent reading proficiency rate on the NAEP. However, the Silver State could still be ranked low in the national rankings (if every other state also improved to 95+ percent proficiency). Likewise, Nevada could rank high in reading proficiency but report only 10 percent of students proficient (if every other state was below this rate). Again, as unlikely as those scenarios are, it begs the question – **which is more important, the outcome or the ranking?**

While the most likely outcome given an improvement on any indicator would be an improvement in the corresponding rankings,<sup>d</sup> focusing on rankings may not be the most optimal outcome to concentrate energies. Instead, Nevada would do well to highlight the indicators we feel are most important and direct programs and efforts to improve those educational outcomes.

#### Part 4: What We Can Learn

Given the nature and Nevada’s results on the three education rankings examined in this report, several lessons can be learned. This section explores the conclusions of the previous analysis.

1. **Each national/metro ranking is unique, and they should not be compared to one another.** Because of the disparate data included in the individual rankings, each should be considered independent of the others. And before citing any rankings, education policymakers and advocates must consider whether the data that underlie the ranking in question reflects Nevada’s vision for our educational system.

Table 7 highlights how different the educational rankings analyzed in this report are, based upon the data included in each.

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<sup>d</sup> However, as Figure 4 and Table 6 highlight, that is not guaranteed.

Table 7: Summary of Indicators

Data Point	Quality Counts	Annie E Casey/Kids Count	Fordham
<b>NAEP</b>			
4th Grade Percent Proficient - Math	x		
4th Grade Percent Proficient - Reading	x		
4th Grade Percent Not Proficient - Reading		x	
8th Grade Percent Proficient - Math	x		
8th Grade Percent Not Proficient - Math		x	
8th Grade Percent Proficient - Reading	x		
4th Grade Math Scale Score Change	x		
8th Grade Math Scale Score Change	x		
4th Grade Reading Scale Score Change	x		
8th Grade Reading Scale Score Change	x		
4th Grade Reading - Scale Score Difference - non-FRL minus FRL	x		
8th Grade Math - Scale Score Difference - non-FRL minus FRL	x		
Poverty Gap Change - 4th Grade Reading	x		
Poverty Gap Change - 8th Grade Math	x		
8th Grade Math - Percent Advanced	x		
8th Grade Math - Percent Advanced, Change	x		
<b>Graduation Rates</b>			
Graduation Rates	x		x
Change in Graduation Rates	x		
Percent HS Students not Graduating on Time		x	
<b>Advanced Placement</b>			
AP Scores 3 or Above per 100 Students in Grades 11 and 12	x		
Change in AP Scores 3 or Above	x		
<b>Pre-K Enrollment</b>			
Percent Young Children Not in School		x	
<b>Stanford Education Data Archive (3rd - 8th Grade)</b>			
Cohort Academic Growth			x
Cohort Academic Growth for Disadvantaged Groups			x
Metro Improvement			x

2. **The choice of data points significantly influences the rankings.** This finding is most prominent when examining the results of the *Quality Counts* and *Kids Count* rankings. Of the four indicators that make up the *Kids Count* education rankings, three are also included in *Quality Counts*. However, Nevada is ranked 46<sup>th</sup> in *Kids Count* and 18<sup>th</sup> in *Quality Counts*. And while *Kids Count* data is similar to some indicators in the *Quality Counts* rankings, the former includes a measure of early childhood education, and the latter includes several additional data points.
3. **The rankings are based upon a sample of students or challenging-to-interpret data.** Several of the data points in the various rankings are based upon a sample of Nevada’s students. And while the statistical procedures are designed to reflect statewide achievement averages, some in the

community may not be comfortable basing national rankings on an assessment given to only a small subset of students.

Additionally, the data used in the Fordham report is adjusted several times using statistical methodologies. First, the data obtained from SEDA has been standardized across states and assessments, resulting in data that is not in the form of a proficiency rate. Instead, results are anchored on the number four. States, districts, and metro areas “scoring” above a four outperform the national average, whereas those under four are underperforming. Additionally, Fordham researchers based their rankings on how well metro areas under or overperformed predicted results using regression techniques. This does not make the ranking less effective or valuable; however, it makes for more difficult interpretation of the results.

4. **The data are dated – any new programs intended to improve Nevada’s national education ranking will not be reflected immediately.** As is noted in Tables 3, 4, and 5, the most recent data available in the rankings are from 2019 or 2020 (in the case of Advanced Placement data). Beyond the questions about what the COVID-19 pandemic will have on national rankings going forward, anything Nevada policymakers do to address the Silver State’s education rankings will have a delayed impact. It will likely be two years before the rankings reflect any policy change. And that also assumes any policy enacted would have immediate and drastic effects on student achievement.
5. **The rankings are relative.** As noted above, even when Nevada improves an educational outcome, that does not guarantee the state will improve in the national rankings on that respective indicator. While equating Nevada’s academic results and national rankings is easy to do, it ignores the nuances of these rankings. Perhaps educational advocates would be better served to identify several (but not too many) critical educational outcomes and focus efforts on improving the absolute performance of students on those metrics.

## Conclusion

This report began with an acknowledgement that Nevada has a love/hate relationship with national education rankings. The analysis above provides a means to discern the similarities and differences of three such rankings, and explains how Nevada can be both at the bottom of some rankings while holding a mid-tier position (18<sup>th</sup> in the nation) in others. Disclaimers and cautions have been provided, with a handful of lessons to be learned. The rankings might be interesting, but they may not encompass a strategy for improvement – or even a logical target at which to aim – in and of themselves. What matters most, therefore, is establishing a process by which the state’s education leaders could isolate those indicators – or related policy levers and instructional or procedural

strategies – that might lift Nevada in the rankings but more importantly would yield improvements for students. The Guinn Center will examine these solutions in the third phase of this report.



### About the Guinn Center

The Guinn Center is a 501(c)(3) nonprofit, nonpartisan, independent policy center that seeks to advance evidence-based policy solutions for Nevada through research, public engagement, and partnerships.

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