Nevada's Virtual Charter Schools
Student Achievement and School Performance within the Current Accountability Framework

Introduction

Charter schools are public schools that are independently run and receive greater flexibility over operations and management in exchange for increased performance accountability. These schools may operate like traditional public schools with their own buildings and campuses (referred to as "brick-and-mortar" schools). Some may only offer remote online instruction ("virtual charter schools"), and still others may provide some combination of remote and in-class instruction ('blended" or "hybrid" charter schools). Data indicates that virtual public charter schools are an important educational option for many students and families in Nevada, but enrollment in these schools remains relatively limited. In Nevada, 1.2 percent of students, or 5,712 students out of the total K-12 enrollment of 485,768, were enrolled in virtual charter schools during the 2017-2018 school year.

Recently, virtual charter schools around the country have faced increased public and legislative scrutiny, largely due to low academic performance, particularly when compared to other schools. In a 2015 study, the Center for Research on Education Outcomes (CREDO) concluded that, as a whole, academic growth in virtual charter school students was lower than in traditional public schools and brick-and-mortar charter schools. However, the study noted that some individual online schools outpaced the growth noted in more traditional educational settings. The study concluded that "it is possible for online charter schools to produce stronger growth, but it is not the common outcome."[1] A study of New Mexico-based charter schools noted that virtual charter schools produced lower academic outcomes while also serving fewer at-risk students.[2] In Idaho, students attending virtual charter schools performed worse in both reading and mathematics than did students in traditional brick-and-mortar schools.[3]

Table 1 below compares performance data across different types of schools in Nevada. Using the Silver State's accountability framework, the Nevada School Performance Framework (NSPF), the average star rating is lower for state-sponsored elementary and middle school virtual charters than for other types of schools. Among high schools, both district-sponsored and state-sponsored virtual high schools have the lowest star rating among all categories of schools.

Table 1 - Academic Outcomes in Nevada, by School Type

	School Type	Star Rating 2017-2018	Graduation Rate 2016-2017	Math Proficiency 2017-2018	ELA Proficiency 2017-2018
Elementary Schools	**Brick-and-Mortar**				
	District Public Schools	2.75	-	40.6%	47.2%
	State-Sponsored Public Charter Schools	3.47	-	51.0%	56.3%
	District-Sponsored Public Charter Schools	2.27	-	32.1%	40.8%
	Virtual				
	State-Sponsored Public Charter Schools (Virtual)	1.00	-	27.8%	43.8%
	District Public Schools (Virtual)	5.00	-	60.0%	80.0%
Middle Schools	**Brick-and-Mortar**				
	District Public Schools	2.56	-	29.8%	44.1%
	State-Sponsored Public Charter Schools	3.97	-	38.4%	56.6%
	District-Sponsored Public Charter Schools	2.50	-	21.4%	41.6%
	Virtual				
	State-Sponsored Public Charter Schools (Virtual)	1.67	-	23.7%	44.8%
	District Public Schools (Virtual)	3.00	-	35.9%	56.7%
High Schools	**Brick-and-Mortar**				
	District Public Schools	3.45	80.4%	26.8%	45.1%
	State-Sponsored Public Charter Schools	4.13	90.2%	30.9%	52.4%
	District-Sponsored Public Charter Schools	2.00	59.9%	10.4%	33.5%
	Virtual				
	State-Sponsored Public Charter Schools (Virtual)	2.00	58.4%	18.6%	37.1%
	District Public Schools (Virtual)	2.33	73.8%	21.9%	53.4%

In Nevada, the inconsistent (and often low) performance of virtual charter schools operating in the state has also received the attention and scrutiny of some lawmakers and the State Public Charter School Authority (SPCSA), the Silver State's public charter school authorizing body.[4] The current law (Nevada Revised Statute 388A.330) states that the sponsor of a charter school can reconstitute the governing body of a charter school, revoke the written charter, or terminate a charter contract for the following reasons:

- If the charter has persistently underperformed, based on performance indicators and metrics presented in the performance framework of the charter school.
  - "Persistently underperformed" is interpreted to mean a school that was not rated in the first, second, or third highest tier in the three previous ratings of charter schools in the Nevada School Performance Framework (NSPF).[5]
- If the charter school operates a high school with a graduation rate in the previous year of less than 60 percent.
- If the charter school operates an elementary, middle, or junior high school that is rated in the lowest 5 percent of elementary, middle, or junior high schools in the state, based on the results of the NSPF.
- Student achievement and school performance at the charter school is deemed unsatisfactory, based on results of the NSPF.[6]

Many of these performance metrics are based on data obtained from the NSPF, which is the State of Nevada's school accountability system. While it will be discussed further in a subsequent section, simply, the NSPF allocates points to schools for various student achievement measures, resulting in an overall star rating for each school ranging from 1 (low performing) to 5 (high performing) stars. Based on the current accountability framework, which was adopted by the SPCSA, some of the virtual charter schools operating in Nevada are at risk of being closed, or have already been closed.

Against the backdrop of these ongoing discussions, our research team seeks to examine the performance of virtual charter schools in Nevada to determine how they are performing compared to state and district averages. Our review of the data finds that several virtual charter schools are performing within the bounds that will place them under consideration for termination of their contract. In the absence of new policies and interventions to support and/or guide virtual charter schools, several may be closed due to lackluster student achievement.

The next section of this policy brief presents an overview of virtual charter schools in Nevada that are the subject of this analysis. The third section discusses the data used in the study; we note here that all data was obtained from public sources, specifically the Nevada Department of Education's (NDE) Nevada Report Card website.[7] The fourth section analyzes performance metrics from virtual charters and compares them with state and district averages, where possible. The final section provides a summary of findings, as well as recommendations related to virtual charter schools.

Virtual Charter Schools in Nevada: An Overview[8]

Nevada's charter schools, including virtual schools, are public schools of choice operated by independent entities with their own governing boards. Charter schools receive funding through the Nevada Plan, Nevada's primary K-12 funding mechanism. The allocation is based on the per-pupil basic support amount where each pupil resides, minus a charter school sponsorship fee.[9] For some charter schools, all pupils reside in one county and there is a single funding rate per pupil. For other charter schools, students reside in multiple counties and generate multiple funding rates.[10]

Charter schools operate under a model of greater independence, flexibility, and control over curriculum, staffing, budget, and operations than traditional public schools. In exchange, charter schools are subjected to increased accountability for their performance.[11] Each charter school has a sponsor that plays a crucial role in ensuring accountability and is responsible for evaluating and approving charter schools, monitoring performance, and determining whether to renew or revoke/terminate the charter. The Silver State's primary charter school authorizer is the State Public Charter School Authority (SPCSA), which can sponsor schools anywhere in the State while school districts can only sponsor schools within their boundaries or through online schools.

Currently, there are more than 40 charter school campuses operating in Nevada, of which four are virtual charter schools. Table 2 displays the enrollment of virtual charter schools and compares it to student enrollment in district public schools, as well as virtual and non-virtual charter schools

sponsored by both the SPCSA and traditional school districts. While enrollment is steadily increasing in both the non-virtual district and SPCSA schools, enrollment has been relatively flat at the district-sponsored charter and virtual schools – both SPCSA and district-sponsored.

Table 2 - K-12 Student Enrollment in Nevada, by type of School Schools

Name	Student Enrollment				
	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Brick-and-Mortar					
District Public Schools	427,743	429,813	432,333	433,816	440,569
SPCSA	15,632	19,311	25,094	30,067	36,496
District-Sponsored Public Charter Schools	7,763	8,385	8,792	8,704	7,695
Virtual					
SPCSA (Virtual)	6,084	5,885	5,673	5,551	5,712
District Public Schools (Virtual)	296	793	654	530	504

As noted, there are four virtual charter schools in the State of Nevada. A brief discussion of these schools is presented below, with an emphasis on the curriculum used and any regulatory and/or administrative issues that have been addressed by the SPCSA.

Argent Preparatory Academy: This charter school was operated from Carson City, Nevada, and offered both a virtual and traditional (i.e., brick-and-mortar) option for students in grades 9-12. As students showed gains in academic achievement and attendance, they were allowed greater independence in their education.[12] However, in 2015, the SPCSA sent a notice of closure to Argent Preparatory Academy for a "pattern of fiscal mismanagement" as well as for investing in a derivative account that was in violation of Nevada law.[13] However, after two hearings, the SPCSA decided against closing the school and instead appointed a receiver. At the recommendation of the receiver, Argent Preparatory Academy closed after the Summer 2018 term, citing low enrollment, a highly transient student population, and low graduation rates.[14] While the school is closed, the results of the 2017-2018 school year for Argent Preparatory Academy are included in this report. In 2017-2018, Argent had an enrollment of 133 students. The basic support per pupil was $9,170 for Fiscal Year (FY) 2018.

Leadership Academy of Nevada: Opening its doors in 2014, Leadership Academy of Nevada was formed by five parents in Las Vegas. The school provides a liberal arts education to students in grades 6–12. The school utilizes the Williamsburg Curriculum, developed by the Williamsburg Academy, a private online middle and high school based out of St. George, Utah. Beginning with the 2019-2020 school year, Leadership Academy of Nevada will no longer use the Williamsburg Curriculum, opting instead for more local control over curriculum decisions.[15] For the 2017-2018 school year, Leadership Academy of Nevada's enrollment was 283 students. The basic support per pupil was $7,225 for FY 2018.

Nevada Connections Academy: One of two virtual charter schools with a national parent company, Nevada Virtual Academy being the other (see below), Nevada Connections Academy began offering a virtual education option in Nevada in 2007.[16] Nevada Connections Academy offers educational opportunities to students in grades K-12. Since 2011, Pearson (a for-profit company) has been operating the Connections Academy brand. The school uses both structured and self-paced instruction for students at each grade-level. In 2017, enrollment was 3,199 students. The basic support per pupil was $7,217 for FY 2018.

Nevada Virtual Academy: Nevada Virtual Academy is a virtual option for students in grades K-12 and uses the K12, Inc. curriculum. Students participate in on-line activities, virtual classrooms, and independently complete coursework off-line. The school is presently headquartered in Las Vegas, but like the other virtual charter schools, is open to all students located in Nevada. Due to academic difficulties at its elementary school, Nevada Virtual Academy has volunteered to cease its grade K-5 operations after the 2018-2019 school year.[17] Total enrollment in FY 2017-2018 was 2,097 students. The basic support per pupil was $7,145 for FY 2018.

For more specific enrollment data for the virtual charter schools, Table 3 presents the five year student enrollment data for these schools. Here, it is noted that two schools have experienced an increasing enrollment – Leadership Academy of Nevada and Nevada Connections Academy. Two schools are experiencing declining enrollment. Argent Preparatory Academy's student enrollment has declined steadily since the 2013-2014 school year; the school is currently closed. Nevada Virtual Academy's enrollment has decreased as well.

Table 3 – Student Enrollment in Nevada Virtual Charter Schools

	Student Enrollment				
Name	**2013-2014**	**2014-2015**	**2015-2016**	**2016-2017**	**2017-2018**
Argent Preparatory Academy	428	412	358	168	133
Leadership Academy of Nevada	-	217	255	240	283
Nevada Connections Academy	1,987	2,624	2,851	3,091	3,199
Nevada Virtual Academy	3,669	2,632	2,209	2,052	2,097
SPCSA	**15,928**	**20,104**	**25,748**	**30,597**	**37,000**
State of Nevada	**451,730**	**459,095**	**467,527**	**473,647**	**485,768**

Data and Analysis

The data for this analysis was obtained from the Nevada Report Card, which contains publicly available data released by the Nevada Department of Education (NDE). The data presented (with the exception of demographic profiles and transiency rates of the schools) are measures used to rate schools on the Nevada School Performance Framework (NSPF). All data, unless otherwise specified, was obtained from the NSPF for the 2017-2018 school year. The NSPF allocates points to schools for various student measures, resulting in an overall star rating ranging from 1 (low performing) to 5 (high performing) stars.

When appropriate and available, data is presented with a state and/or district average for comparison to the virtual charter schools. The district (SPCSA) and statewide average include the virtual charter schools in the respective averages. Unfortunately, due to suppression rules at the NDE, determining a district or statewide average that does not include virtual charters would be impossible to calculate accurately. To assist further in comparing measures of virtual charter schools, a percentile rank is included for each data point. This reflects where the virtual charter school's performance compares to all other elementary, middle, or high schools, depending on the school level that is being presented. The analysis section of this report is comprised of seven subsections.

- Demographic composition of virtual charter schools
- SBAC proficiency and growth results (SBAC is an assessment which is administered to students in grades 3-8)
- Results from the WIDA ACCESS assessment, the statewide, K-12 English Language Learner (ELL) assessment
- High school ACT performance
- Data related to graduation rates and "college and career readiness"
- Chronic absenteeism and transiency rates
- A comparison of the NSPF index score, star rating, and the ranking of each school for the 2016-2017 and 2017-2018 school years

Demographics

Table 4 compares the demographic breakdown of each virtual charter school to that of SPCSA schools and the statewide average for the 2017-2018 school year. In particular, our research team highlights the racial and ethnic composition of the schools, as well as three special populations: English Language Learners (ELL), students qualifying for Free-and-Reduced price Lunch (FRL), and students with an Individualized Education Program (IEP).

Table 4 – Race/Ethnicity and Special Populations

Name	Race/Ethnicity							Special Populations		
	Native American/ Alaskan Native	Asian	Latino	Black	White	Pacific Islander	Two or More Races	IEP	ELL	FRL
Argent Preparatory Academy	A	0.0%	12.0%	A	74.4%	A	A	27.8%	0.0%	39.1%
Leadership Academy of Nevada	A	A	11.7%	A	75.6%	A	7.8%	6.0%	0.0%	11.3%
Nevada Connections Academy	0.8%	2.9%	23.6%	11.0%	50.2%	1.2%	10.3%	8.4%	0.9%	35.1%
Nevada Virtual Academy	1.5%	5.5%	24.2%	17.3%	48.7%	2.7%	0.0%	11.7%	1.5%	46.9%
SPCSA	**0.6%**	**6.6%**	**29.4%**	**10.2%**	**44.1%**	**1.7%**	**7.5%**	**9.1%**	**6.6%**	**21.9%**
State of Nevada	**0.9%**	**5.5%**	**42.4%**	**11.1%**	**32.5%**	**1.4%**	**6.2%**	**12.3%**	**16.8%**	**58.3%**

A = Data Suppressed by Nevada Department of Education

With respect to race and ethnicity, all virtual charter schools enroll a higher percentage of white students than does the SPCSA or statewide average. Both Argent Prepatory Academy and Leadership Academy of Nevada report a student enrollment that is approximately 75 percent white; Nevada Connections Academy and Nevada Virtual Academy enroll a lower percentage of white students, approximately 50 percent. All SPCSA schools have an enrollment that is about 44 percent white; statewide, the average is roughly 33 percent. All virtual schools have a lower than average percentage of Latino/Hispanic students, which is the second largest student racial or ethnic group statewide. Nevada Virtual Academy enrolls a higher percentage of African American students than the SPCSA or state average.

When comparing special populations, including English Language Learners (ELL), students qualifying for Free-and-Reduced price Lunch (FRL), and students with an Individualized Education Program (IEP), it is apparent that most virtual charter schools fall below both SPCSA and Nevada averages. However, it is important to note this is not true for all schools and special populations. The percentage of students with an IEP at Argent Preparatory Academy is more than double the state average. Also at Argent Preparatory, Nevada Connections, and Nevada Virtual Academies, the FRL percentage (a measure of poverty) is above the SPCSA average. But, none of these schools meet or exceed the state average. Of the virtual schools, two do not have any English Language Learners enrolled, while the other two serve a negligible percentage therein. It is unclear whether the low number of ELLs enrolled is because the virtual charter schools do not market to these students or if ELL students/parents are unaware of this option.

Demographically, virtual charter schools enroll a higher percentage of white students than the averages of the SPCSA or State of Nevada. Additionally, these schools enroll very few students who are classified as English Language Learners. To ensure equitable access to all students, virtual charters should continue to reach out to underserved populations to ensure these students and parents understand the educational opportunities available to them.

SBAC Proficiency and Growth

Student achievement can be measured in various ways. In Nevada, the Department of Education (NDE) relies primarily on results from the Smarter Balanced Assessment Consortium (SBAC) standardized test to measure the achievement of elementary and middle school students; high school achievement is measured through the ACT assessment and will be presented in a subsequent section. Currently, SBAC is administered to all students in grades 3–8, and it provides several metrics to report student achievement.

First, and generally the most cited metric, is school-level proficiency rates. This is the percentage of students that are determined to be proficient in grade-level standards for mathematics and English Language Arts (ELA). However, proficiency is often thought to be a cumulative measure, as each year's proficiency determination is built upon the curriculum a student learned in previous years. Therefore, a school's proficiency rate could actually be a flawed measure if that school has a high transiency rate (i.e., a large percentage of students that are new every year), resulting in a proficiency rate that is not reflective of how well the students are actually learning at the school in question.

To account for this, SBAC also includes several growth measures. The first is a median growth percentile (MGP) for each school. For students that have taken the SBAC in both of the last two years, a growth percentile is provided. To calculate, students who score similarly in the first year of the assessment are grouped together. Each student's results on the second year of the assessment are measured against their comparison group and given a percentile rank – the growth percentile. At the school level, all student growth percentiles are aggregated and the median is taken to obtain the median growth percentile. This growth measure is more reflective of the actual learning that took place within a school for a given year, as it only includes the learning gains from the previous year. Another growth measure provided by the SBAC is the Adequate Growth Percentile (AGP); the description and results of which are presented in the appendix.

Because of concerns that a student might receive an assessment at a given school but have enrolled in that same school mid-year (i.e., the school providing the assessment would receive credit for the results of a student who received a substantial portion of their education at another school location), the State of Nevada adjusts its results accordingly. At the school level, students need to have attended the same school from validation day (the first school day in October) to the opening of the assessment window in order to be counted toward a school's results.[18] This is important, as all data included in the analysis present the results of students who obtained a substantial portion of the school year's instruction at the school in question. Those students who left or enrolled mid-year are not included.

Table 5 presents the SBAC proficiency rates for virtual charter elementary and middle schools. Both the proficiency rates of the English Language Arts (ELA) and mathematics portions of the assessment are presented. As shown in the table, virtual charter elementary and middle schools' proficiency rates in ELA and mathematics are below the state average.

However, the results on the ELA portion suggest most virtual charter schools are performing at, or above, the 50th percentile of similar elementary and middle schools. The Nevada Virtual Academy elementary and middle schools are the exceptions, which perform at the 38th and 39th percentile, respectively. On the mathematics portion of the SBAC assessment, the virtual charter schools underperform, relative to the SPCSA and the State of Nevada. Nevada Connections Academy and Leadership Academy middle schools perform in the 41st and 39th percentile, respectively. The remainder of the schools perform in the bottom 30 percent of schools in the State of Nevada.

Table 5 – SBAC Proficiency Rates

Name	ELA Proficiency Rate	Percentile Rank	Math Proficiency Rate	Percentile Rank
Nevada Connections Academy Elementary	46.0%	48%	27.8%	21%
Nevada Virtual Academy Elementary	41.6%	38%	27.8%	21%
SPCSA - Elementary Schools	**58.6%**	**-**	**52.8%**	**-**
State of Nevada - Elementary Schools	**50.1%**	**-**	**43.4%**	**-**
Leadership Academy Middle	45.2%	50%	25.4%	39%
Nevada Connections Academy Middle	47.7%	57%	25.5%	41%
Nevada Virtual Academy Middle	41.4%	39%	21.2%	28%
SPCSA - Middle Schools	**56.1%**	**-**	**36.8%**	**-**
State of Nevada - Middle Schools	**47.8%**	**-**	**32.4%**	**-**

However, some stakeholders argue that proficiency rates might skew an analysis of virtual charter performance, as students attending those schools may have come to the schools as non-proficient. To address this concern, our research team examined a separate measure – median growth percentile (MGP). Table 6 presents the MGPs for each virtual elementary and middle school on the same SBAC assessments. At the elementary level, Nevada Virtual Academy has a growth percentile on ELA and mathematics of 43.0 and 35.5, respectively. This places the school in the bottom 21 percent of schools on ELA and 10 percent on mathematics. Nevada Connections Academy fares worse on ELA, scoring at the 16th percentile of elementary schools. The MGP for mathematics places the school at the 19th percentile.

Table 6 – SBAC Median Growth Percentiles

Name	ELA Median Growth Percentile	Percentile Rank	Growth Classification	Math Median Growth Percentile	Percentile Rank	Growth Classification
Nevada Connections Academy Elementary	41.5	16%	Typical	41.0	19%	Typical
Nevada Virtual Academy Elementary	43.0	21%	Typical	35.5	10%	Typical
SPCSA - Elementary Schools	**Not Reported**	-	-	**Not Reported**	-	-
State of Nevada - Elementary Schools	**50**	-	-	**50.0**	-	-
Leadership Academy Middle	34.0	2%	Low	31.0	4%	Low
Nevada Connections Academy Middle	40.0	8%	Typical	41.0	15%	Typical
Nevada Virtual Academy Middle	44.5	26%	Typical	43.0	23%	Typical
SPCSA - Middle Schools	**Not Reported**	-	-	**Not Reported**	-	-
State of Nevada - Middle Schools	**50.0**	-	-	**50.0**	-	-

At the middle school level, Nevada Virtual Academy has median growth percentiles of 44.5 and 43.0 in ELA and mathematics, respectively. This corresponds to performing in the bottom 26 percent of middle schools in ELA and the bottom 23 percent in mathematics. Nevada Connections Academy has an MGP in ELA of 40.0, placing it in the bottom 8 percent of middle schools. Its mathematics MGP is 41.0, placing it in the bottom 15th percentile. Finally, Leadership Academy Middle School has an ELA MGP of 34.0 and mathematics MGP of 31.0. This places the school in the bottom 2 and 4 percent, respectively.

The analysis above demonstrates that each virtual charter school has an MGP below 50. This can be interpreted to mean that the median student enrolled in a virtual charter school is performing below the 50th percentile of all other students in their peer group, or the "benchmark" MGP. Additionally, many schools are only a few points below 50 but are scoring near the bottom of the percentile. This is because there are so many schools that have MGPs around 50 that small deviations from that number can cause large decreases in percentile ranks.

The second item to note is that the State of Nevada, on its accountability report card, suggests that an MGP between 35 to 65 indicates "typical" growth, whereas anything below 35 or above 65 suggests "low" or "high" growth, respectively. Using this metric, Nevada Virtual Academy Elementary School is performing at the threshold between "typical" and "low" growth on the SBAC mathematics assessment. Additionally, Leadership Academy Middle School is exhibiting "low" growth in both ELA and mathematics. Ultimately, while most virtual charter schools are performing with "typical" growth, they are performing below the State of Nevada average.

To assist in visualizing how each virtual charter elementary and middle school is performing, Figure 1 presents the results of proficiency and growth on the SBAC ELA and mathematics for both elementary and middle schools. The x-axis represents the MGP of each school, and the y-axis represents the proficiency rate. For ease of comparison, virtual charter schools are denoted with a purple dot, and the State of Nevada proficiency rate for each assessment and school level (i.e., elementary and middle) is provided.

Based on this chart, placement on the far upper right corner indicates that a school has both a high proficiency rate and a high level of growth. Placement in the bottom left hand corner suggests a school has a low proficiency rate and low growth. Figure 1 shows that all virtual charter schools are performing below the statewide proficiency average in both ELA and mathematics. Additionally, the schools are placed on the left side of the charts, suggesting lower than normal growth.

Figure 1 – Proficiency to Growth Charts
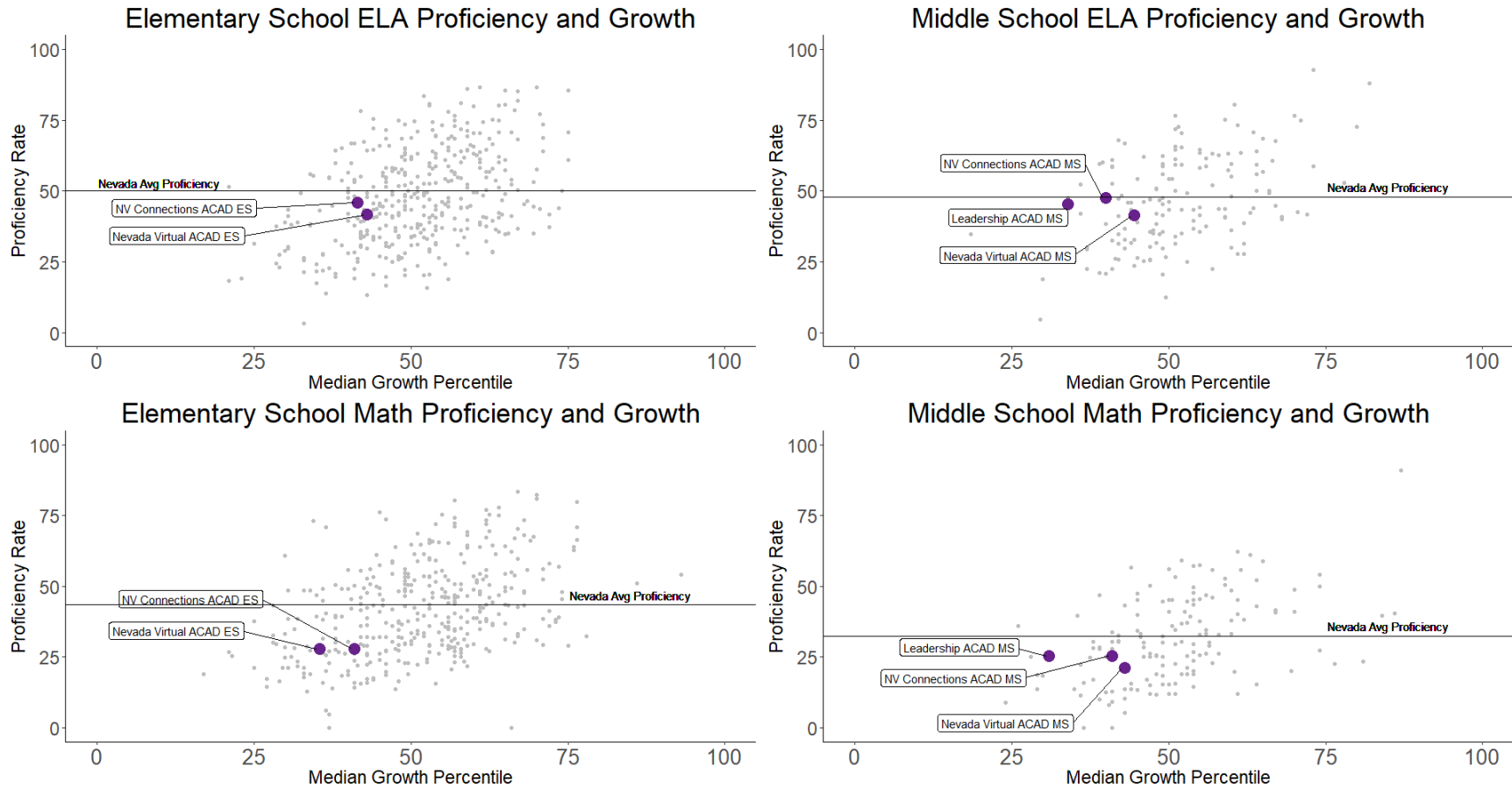
A more rigorous method that can be used to understand proficiency rates is to determine what the predicted proficiency rates would be when holding demographic characteristics and virtual charter designations constant. This method is called multivariate regression. Table 7 presents the results of two multivariate regression models. The first column presents the results of the model with ELA proficiency as the dependent variable (i.e., the outcome to be explained), and the second column presents the results when mathematics proficiency is the dependent variable. The independent variables, or explanatory variables, are percentage of students who identify as white[19] (as a measure of racial/ethnic diversity in a school), the percentage of students who are classified as IEP, ELL, or FRL, and a dummy variable for virtual charter schools. Note the results only include elementary schools. When a similar analysis was completed for middle schools, 113 out of 158 schools were omitted due to missing data because of suppression rules from NDE. The results were similar to those presented in Table 7, but the large number of missing observations is a threat to inference.

Table 7 – Multivariate Regression Results - Proficiency Rates in the Context of Demographics

	Dependent Variable[a]	
	ES	ES
Independent Variables	ELA Proficiency	Math Proficiency
Constant	67.60 ***	43.89 ***
	(2.79)	(3.11)
Percentage of Caucasian Students	0.17 ***	0.25 ***
	(0.04)	(0.05)
Percentage of IEP Students	-1.16 ***	-0.58 ***
	(0.15)	(0.16)
Percentage of FRL Students	-0.11 ***	-0.13 ***
	(0.03)	(0.03)
Percentage of ELL Students	-0.24 ***	0.04
	(0.06)	(0.06)
Virtual Charter Schools	-19.09 ***	-24.85 ***
	(4.05)	(4.53)
Observations	283	283
Adjusted R^2	0.4495	0.3088

a - The top entries are the coefficients. Standard errors are in parentheses.
*** $p < .001$; ** $p < .01$; * $p < .05$

By taking the results of the models on Table 7, it is possible to create an equation to predict any elementary ELA or mathematics SBAC proficiency rate. Each school begins with a predicted ELA and mathematics proficiency rate of 67.60 and 43.89 percent, respectively. Then, each school's predicted proficiency rate is adjusted based on the demographics of the school. Additionally, for virtual charter elementary schools, their predicted proficiency rates are predicted to be 19.09 and 24.85 percent

less than brick-and-mortar schools in ELA and mathematics proficiency, respectively (see the bolded area of equation). The "ε" in the equation represents the error term, which is the difference between actual and predicted proficiency rates.

Predicted Elementary School ELA Proficiency = 67.60 + 0.17(% of Caucasian Students) +
        -1.16(% of IEP Students) + -0.11(% of FRL Students) + -0.24(% of ELL Students) +
        -19.09(Virtual School) + ε

Predicted Elementary School Math Proficiency = 43.89 + 0.25(% of Caucasian Students) +
        -0.58(% of IEP Students) + -0.13(% of FRL Students) + 0.04(% of ELL Students)+
        -24.85(Virtual School) + ε

The results suggest, all else equal, virtual charter schools are associated with a decrease of 19.09 and 24.85 percentage points in ELA and mathematics proficiency rates, respectively. This lower than expected performance in elementary virtual charter schools could be attributable to the schools serving very low populations of ELL students, a group that traditionally has lower proficiency rates.[20] However, it is important to note that this analysis does not include a measure of the students' proficiency rates at the beginning of the year, so it is possible that students who enroll in virtual schools have a lower than expected proficiency level. Regardless, when combined with the growth measures, the data suggest virtual charter elementary and middle schools have lower predicted proficiency rates than brick-and-mortar schools, while also performing lower on growth measures.

Ultimately, the data suggests that students at virtual schools are exhibiting ELA proficiency rates below the statewide average, with only two schools close to the average (Leadership Academy and Nevada Connections Academy Middle Schools). Mathematics proficiency rates at all virtual charter schools are lower and further from the statewide average than are ELA proficiency rates. Additionally, growth measures suggest students at these schools lag most schools in the State of Nevada, with several schools exhibiting "low" growth as defined by NDE.

WIDA ACCESS

The demographic portion of this report suggested that virtual charter schools serve a relatively small percentage of English Language Learners (ELLs). This section presents data to determine how well these schools serve the ELL populations that are enrolled. The data presented is from the WIDA ACCESS assessment, which is provided to ELL students in grades K-12. The Adequate Growth Percentile (AGP) represents the percentage of students who are on track to be proficient in the English language within five years or 12th grade, whichever is sooner.

Table 8 presents data for virtual charter elementary, middle, and high schools. Based on the small population of ELL students at most virtual schools, the number of schools without data is not

surprising. For the one school that presents WIDA ACCESS AGP data – Nevada Virtual Academy – the middle school and high schools both have AGPs of 27.2 percent. For the middle school, this is below the state average. It also ranks the school in the 32nd percentile of all Nevada middle schools. The WIDA ACCESS AGP for Nevada Virtual Academy High is approximately 6 percent above the state average, and places Nevada Virtual Academy High School in the 58th percentile of all schools.

Table 8 – WIDA ACCESS AGP

Name	WIDA ACCESS AGP	Percentile Rank
Nevada Connections Academy Elementary	N/A	-
Nevada Virtual Academy Elementary	N/A	-
SPCSA - Elementary Schools	**42.5%**	**-**
State of Nevada - Elementary Schools*	**48.9%**	**-**
Leadership Academy Middle	N/A	-
Nevada Connections Academy Middle	N/A	-
Nevada Virtual Academy Middle	27.2%	32%
SPCSA - Middle Schools	**32.4%**	**-**
State of Nevada - Middle Schools*	**33.3%**	**-**
Argent Prepatory Academy High	N/A	-
Leadership Academy High	N/A	-
Nevada Connections Academy High	N/A	-
Nevada Virtual Academy High	27.2%	58%
SPCSA - High Schools	**26.8%**	**-**
State of Nevada - High Schools*	**21.0%**	**-**

* The State of Nevada WIDA ACCESS AGP is not provided by NDE. The average presented is the weighted average AGP based on growth data presented on the Nevada Report Card.

Because of the small percentage of ELL students the virtual charter schools serve, the data could have drastic swings year-to-year, as a single student could have a significant impact on performance. As such, *we reiterate our previous recommendation that virtual charters seek ways to better serve the ELL population in Nevada.*

ACT

The primary student achievement indicator in high school is the ACT, as all high school juniors are required to take this assessment. For accountability purposes, schools report a "proficiency rate" based on the ACT ELA and mathematics portion of the exam. NDE has determined that a student is

considered proficient if they score at, or above, a 17 on the ELA portion of the assessment. For mathematics, students must score at, or above, 20 to be considered proficient.[21]

Additionally, while not included for school accountability purposes, NDE reports an ACT composite score for each high school. Both proficiency rates and composite scores are presented for virtual charter high schools in Table 9. For comparison, the SPCSA and statewide averages are included as well.

Table 9 – ACT Composite Scores and Proficiency Rates

Name	ACT Composite Score	Percentile Rank	ACT ELA Proficiency Rate	Percentile Rank	ACT Math Proficiency Rate	Percentile Rank
Argent Prepatory Academy High	15.2	21%	13.5%	9%	8.1%	17%
Leadership Academy High	21.0	91%	66.6%	81%	37.0%	79%
Nevada Connections Academy High	16.3	34%	28.7%	24%	11.0%	24%
Nevada Virtual Academy High	16.7	39%	39.7%	42%	18.2%	37%
SPCSA - High Schools	**17.4**	**-**	**44.5%**	**-**	**23.8%**	**-**
State of Nevada - High Schools	**17.5**	**-**	**Not Reported**	**-**	**Not Reported**	**-**

Argent Preparatory Academy, Nevada Connections Academy, and Nevada Virtual Academy high schools all had composite scores below the state average. However, Leadership Academy High School outperformed the state average, and its composite score of 21 placed it in the 91st percentile of all Nevada high schools.

Proficiency rates based on ACT results suggest similar findings. The ELA and mathematics proficiency rates at Leadership Academy High School were 66.6 and 37.0 percent, respectively. These results placed the school at the 80th percentile for both portions of the assessment. The other three virtual charter schools did not perform as well as other high schools in Nevada. Only 13.5 percent of students at Argent Preparatory Academy, 28.7 percent at Nevada Connections Academy, and 39.7 percent of students at Nevada Virtual Academy were proficient in ELA. Similarly, in mathematics, 8.1 percent of students at Argent Preparatory Academy were proficient, as were 11.0 percent at Nevada Connections Academy and 18.2 percent at Nevada Virtual Academy.

The same caveat applies here as was provided in the SBAC Proficiency and Growth section of this analysis. Proficiency determinations are cumulative in nature, meaning that a student may have obtained most of their education at another school - only attending the virtual charter school for their junior year when the ACT is given to the students. It would be unfair to judge a school for a student's performance when that school had little impact on the cumulative proficiency determination. A growth measure that reported the amount a student learned in the previous year would be more beneficial to more accurately assess performance. Unfortunately, Nevada currently does not measure growth in high school.

High school academic performance, as measured by the ACT, suggests students at Leadership Academy High School are outperforming many other schools in the state. The three remaining virtual charter high schools exhibit results below the state average.

College and Career Readiness and Graduation Rates

In addition to the ACT, high schools can be compared based on graduation rates and how well the schools prepare their students to be "college and career ready." While defining "college and career readiness" is difficult, the State of Nevada defines it as enrollment in various programs that prepare students for the rigors of life after high school, including: Advanced Placement, International Baccalaureate, Dual Credit/Enrollment, and Career and Technical Education coursework.[22] The state further classifies students of these programs into participants and completers. The following comparison is provided for a more detailed explanation of the differences between participants and completers.

Participants

- Advanced Placement (AP)
  - Pass at least one AP course during high school career.

- International Baccalaureate (IB)
  - Pass at least one IB course during high school career.

- Dual Credit/Enrollment
  - Pass at least two dual credit/enrollment classes and earn six college credits.
- Career and Technical Education (CTE)
  - Student completed enough CTE courses to be considered a "CTE concentrator."

Completers

- Advanced Placement (AP)
  - Pass at least one AP exam with a score of 3 or higher during high school career.

- International Baccalaureate (IB)
  - Pass at least one IB exam with a score of 4 or better during high school career.

- Dual Credit/Enrollment
  - Pass at least four dual credit/enrollment classes and earn 12 college credits.
- Career and Technical Education (CTE)
  - Student completed enough CTE courses to be considered a "CTE completer."

Table 10 presents both the graduation rates and data related to college and career readiness for all virtual charter high schools. Although the data for Leadership Academy High School is not available, the results for the other schools suggest that virtual charter high schools are performing near the bottom of all Nevada high schools in college and career readiness (as defined by the State of Nevada). Nevada Virtual Academy leads the virtual charters with 20.4 percent of its students categorized as participants and 9.6 percent as completers. This places the school in the 13th and 18th percentile,

respectively. Nevada Connections Academy and Argent Preparatory Academy are at, or below, the 10th percentile in both the percentage of students considered to be college and career readiness participants and completers.

Table 10 – Graduation Rates and College and Career Readiness

Name	Graduation Rate 2016-2017	Percentile Rank	College and Career Readiness - Participants	Percentile Rank	College and Career Readiness - Completers	Percentile Rank
Argent Prepatory Academy High	34.5%	5%	1.7%	3%	1.7%	10%
Leadership Academy High	70.0%	12%	Not Available	-	Not Available	-
Nevada Connections Academy High	45.0%	7%	11.5%	8%	0.5%	8%
Nevada Virtual Academy High	84.1%	23%	20.4%	13%	9.6%	18%
SPCSA - High Schools	**65.3%**	**-**	**38.3%**	**-**	**24.7%**	**-**
State of Nevada - High Schools	**80.9%**	**-**	**Not Reported**	**-**	**Not Reported**	**-**

The data for graduation rates exhibits a similar pattern. Nevada Virtual Academy's graduation rate is approximately three percentage points higher than the state average (and 19 percentage points higher than all charter high schools within the SPCSA), but this places the school at the 23rd percentile. This seeming contradiction (being above the state average, but below approximately 75 percent of all high schools) is due to the inclusion of behavior schools within the statewide graduation rate that have exceedingly small rates. A further discussion of the graduation rate is outside the scope of this report, for more information, see the Guinn Center's related analysis.[23] Leadership Academy High School's graduation rate is approximately 11 percentage points below the statewide average and places the school at the 12th percentile of high schools. Argent Preparatory Academy and Nevada Connections Academy High Schools have graduation rates of 34.5 and 45.0 percent, placing the schools in the 5th and 7th percentile, respectively.

Overall, graduation rates at three of the four virtual high schools are below the statewide average, and the data suggests that the schools are performing near the bottom of all Nevada high schools in college and career readiness.

Chronic Absenteeism and Transiency

Student transiency, or the movement of a student to another school during the school year, is a potential predictor of lagging student achievement.[24] The flexibility to enroll in virtual education may result in a higher transiency rate as students and/or parents determine it is not an appropriate fit for their educational needs. Previous studies support this theory that virtual charter schools have high transiency rates, but it also suggests that understanding the causes of student transiency is an important, but often neglected, activity.[25] Table 11 reports the transiency rates at Nevada's virtual charter schools.

The data presented suggests that Nevada virtual charter schools, at all levels, suffer from high transiency rates. Nevada Connections Academy Elementary School's transiency rate ranks in the top 99th percentile. Additionally, Argent Preparatory Academy High School's transiency rate is the highest of all high schools. No school is below the 82nd percentile, with most in the 90th percentile or above. Further investigation is warranted to understand this finding because with the data currently available, it is impossible to know the cause of the high transiency rates experienced by virtual charter schools.

Table 11 – Chronic Absenteeism and Transiency Rates

Name	Transiency Rate	Percentile Rank	Percentage of Students Chronically Absent	Percentile Rank
Nevada Connections Academy Elementary	53.4%	99%	20.4%	81%
Nevada Virtual Academy Elementary	44.1%	95%	10.5%	22%
SPCSA - Elementary Schools	**22.6%**	**-**	**10.1%**	**-**
State of Nevada - Elementary Schools	**23.0%**	**-**	**Not Reported**	**-**
Leadership Academy Middle	35.7%	93%	0.5%	1%
Nevada Connections Academy Middle	53.4%	97%	29.7%	93%
Nevada Virtual Academy Middle	44.1%	95%	4.5%	7%
SPCSA - Middle Schools	**22.6%**	**-**	**11.1%**	**-**
State of Nevada - Middle Schools	**23.0%**	**-**	**Not Reported**	**-**
Argent Prepatory Academy High	143.6%	100%	15.3%	27%
Leadership Academy High	35.7%	82%	0.6%	1%
Nevada Connections Academy High	53.4%	89%	32.5%	75%
Nevada Virtual Academy High	44.1%	85%	13.0%	21%
SPCSA - High Schools	**22.6%**	**-**	**21.0%**	**-**
State of Nevada - High Schools	**23.0%**	**-**	**Not Reported**	**-**

Table 11 also provides data on chronic absenteeism. Because students need not be physically present in a classroom to receive instruction in a virtual charter school, questions arise as to how to define an absence. In speaking with NDE, the State allows schools to best determine how to measure and report the attendance rates of students. This can result in virtual charter schools defining and measuring attendance differently, causing the metric to fluctuate between schools. With this caution, the data in Table 11 suggests the Leadership Academy schools have some of the lowest chronic absenteeism rates in the State. Nevada Connections Academy Elementary, Middle, and High Schools all have higher than average chronic absenteeism rates, placing them in the 81st, 93rd, and 75th percentiles respectively. However, because each school can choose how they measure absences, a

better definition from the State of Nevada of what constitutes attendance/absence at a virtual school would be beneficial. Virtual charter schools in other states have varied policies for measuring attendance:

- Setting a minimum number of hours a student is to be engaged in school work (either in class or independent study).
- Mandating a certain number of assignments to be completed – regardless of the amount of time spent on-line.
- Maintain active, daily communication with the teacher.[26]

The data suggests that virtual schools in Nevada do experience very high transiency rates, the cause of which warrants further investigation. The wide discrepancy between the percentage of chronically absent students begs an interesting question of how to define a student absence at a virtual school.

Comparison of NSPF Index Points

A final way to compare virtual schools is to analyze the index points received on the State of Nevada's school accountability framework, the NSPF. For school accountability/rating purposes, the data presented previously (except for demographics and transiency rates) are given a point value. These points are summed to provide a total index score (from 0 to 100), and then a star rating is assigned based on the index score (from 1 to 5 stars).

Table 12 presents the index score and star ratings for the 2016-2017 and 2017-2018 school years. For virtual charter elementary and middle schools in 2017-2018, no school was assigned a rating higher than 2 stars. In 2016-2017, all virtual charter middle schools were 3-star schools but have since declined. Virtual charter high schools exhibit mixed results, with Leadership Academy and Nevada Virtual Academy High Schools achieving 3 stars, whereas Argent Preparatory Academy and Nevada Connections Academy High Schools have 1-star status. Year-over-year comparison is impossible at the high school level because the high school NSPF added measures for star ratings in the 2017-2018 school year, making any comparison meaningless.

Table 12 – Comparison of NSPF Index Scores and Star Ratings

Name	2017-2018 NSPF Index Score	2017-2018 Star Rating	Rank	2016-2017 NSPF Index Score	2016-2017 Star Rating	Rank
Nevada Connections Academy Elementary	18.89	1	372/396	24.44	1	327/366
Nevada Virtual Academy Elementary	21.33	1	362/396	21.11	1	340/366
Leadership Academy Middle	36.11	2	124/158	53.89	3	71/140
Nevada Connections Academy Middle	26.11	1	145/158	51.67	3	75/140
Nevada Virtual Academy Middle	40.5	2	113/158	61.11	3	52/140
Argent Prepatory Academy High	11.11	1	116/124	A	A	A
Leadership Academy High	57.14	3	81/124	A	A	A
Nevada Connections Academy High	12.78	1	115/124	A	A	A
Nevada Virtual Academy High	52	3	92/124	A	A	A

A - The 2016-2017 High School NSPF was different (included different measures) than the 2017-2018 NSPF. As such, a comparison between years would not be appropriate.

The introduction of this policy brief presented the school performance levels that could place a school at risk of having its charter contract terminated. All virtual charter elementary schools in Nevada have experienced two years of star ratings below three stars. If these schools do not reach 3-star status for the 2018-2019 school year, each elementary virtual charter school will meet the criteria of three consecutive years below a three-star status that would place the school at risk of having its charter contract terminated.

All the virtual charter middle schools in Nevada received a star rating below three stars in the 2017-2018 school year. For each school, it is their first year below a three-star rating. At the high school level, Nevada Connections Academy and Argent Preparatory Academy both performed at the one-star level (the 2017-2018 school year was the first year that the new NSPF rankings applied to high schools, so this is considered their first year at 1-star status). Additionally, and more immediately concerning, is that both high schools reported graduation rates below 60 percent. This places Nevada Connections Academy and Argent Preparatory Academy in immediate danger of contract termination. As a reminder, Argent Preparatory Academy has since closed, so the results from this school are for informational purposes only.

The results from the NSPF comparison suggest that most virtual charter schools are 1- or 2- star schools (the exception being Leadership Academy and Nevada Virtual Academy High Schools). Additionally, Nevada Connections Academy and Argent Preparatory Academy's most recent graduation rate is less than 60 percent, placing them in immediate danger of contract termination. These low star ratings and graduation rates places many schools at risk of contract termination by the SPCSA.[27]

Conclusions and Recommendations

Education policy experts suggest there are several unique factors that may explain the consistently and relatively low performance of virtual charters. Among these are the nature of instruction, which often incudes self-paced courses. The nature of a virtual education may more effectively serve students who are motivated and parents who understand the pace and requirements of an online education. As one report noted, "Currently, students who aren't a good fit for the independent, self-motivated learning environment of online schools, or who lack adult support at home, are more likely to drop out, do poorly on state tests, and not graduate on time, if they do at all."[28] Often there are minimal requirements related to the number of minutes students must log in and/or communicate with their instructors varies by school and by state.[29]

In Nevada, we find the state's virtual charter schools are never the lowest performing schools in the State of Nevada. However, in nearly all measures, these schools perform below the statewide average. Several data points and conclusions were included in the previous sections. For ease of understanding, we summarize our findings here.

- *Demographically, virtual charter schools enroll a higher percentage of white students than the SPCSA or State of Nevada average. Additionally, virtual charter schools enroll very few, if any, students who are classified as English Language Learners.*

- *Results from the SBAC suggest virtual charter schools are operating with both lower than average proficiency rates and student growth.*
    - *Grade 3-8 ELA and mathematics proficiency rates at virtual charter schools are below the statewide average. Additionally, when demographic characteristics are controlled for at the elementary school level, virtual charter schools are predicted to have proficiency rates between 20 to 25 percent lower than brick-and-mortar schools.*
    - *The amount of learning (measured by annual student growth) that is occurring at virtual charter schools is lagging most schools in the State of Nevada, with several schools exhibiting "low" growth as defined by NDE.*

- *High school academic performance, as measured by the ACT, suggests students at Leadership Academy High School are outperforming many other schools in the state. The three remaining virtual charter high schools exhibit results below the state average.*

- *Graduation rates at three out of the four virtual high schools is below the statewide average. Additionally, virtual charter high schools are performing near the bottom of all Nevada high schools in getting students college and career ready.*

- *Virtual schools in Nevada show high transiency rates and are some of the highest in the State. The cause of transiency warrants further investigation.*

- *The results from the NSPF comparison suggest that most virtual charter schools are 1- or 2-star schools (the exception being Leadership Academy and Nevada Virtual Academy High*

Schools). Additionally, Nevada Connections Academy and Argent Preparatory Academy's most recent graduation rate is less than 60 percent, placing them in immediate danger of contract termination. These low star ratings and graduation rates places many schools at risk of contract termination by the SPCSA.

Recommendations

Based on our research and analysis, the Guinn Center offers several recommendatinos that Nevada, SPCSA, and virtual charter schools may want to consider to improve student achievement.

Strengthen Accountability for Virtual Charter Schools

- **Virtual charter schools can choose to be exempt from the standard accountability mechanisms under the NSPF, and can instead choose to be rated under the alternative performance framework.** Nevada law requires all schools with an enrollment greater than 10 students to receive a star rating under the NSPF.[30] However, NRS 385A.740 allows all public schools, including charter schools, to petition to be rated under the Alternative Performance Framework (APF). To do so, the charter school must serve <u>at least 75 percent</u> of students that fall into one or more of the following categories:

  o Having been expelled from another school, including another charter school.
  o Determined to have continual disciplinary problems.
  o Having been retained in the same grade level two or more times or having a deficiency in credits to graduate on-time.
  o Deemed delinquent;
  o Determined to need supervision for a reason set forth in NRS 62B.320.
  o Have an individualized education program (IEP).[31]

  While it is impossible to know from the publicly available data if virtual charter schools enroll students that have disciplinary problems or have been expelled from their previous school, if a virtual charter school finds it enrolls a large percentage of students who are off track to graduate on-time, or decides to cater to students who are falling behind academically, they would be excused from the rigors of the traditional accountability system.

- **Collect better data: Track and report reasons for students who transfer into and from a virtual charter school.** This data, collected by the virtual charter school and reported to the sponsoring organization, can assist all parties to understand the reasons parents and students decide to both enroll in, and leave, a virtual charter school. This data can then be used to improve educational delivery and develop interventions to maximize the student's educational experience and improve academic outcomes. Data related to students who decide to enroll can assist in determining if the school qualifies for the alternative performance framework (see previous recommendation). This data can also assist in understanding the diverse needs a student brings to their new virtual school.

Data related to students that decide to transfer from the virtual charter school can be used by the sponsoring organization to understand why virtual education was not the proper fit for the student. The data might show that students and parents utilize virtual charter schools as a temporary education solution before deciding on a more permanent option. However, students might choose to leave because the virtual charter school is not meeting their educational needs. The former reason would not carry with it a negative implication to the virtual charter school, whereas a significant number of the latter would be a pertinent warning indicator to the sponsoring organization.

Improve Alignment of Student Needs at Virtual Charter Schools

- **Consider an application process that includes criteria to increase the chances of student success.**[32] This recommendation is seemingly contrary to the spirit of the charter school movement, which seeks to provide an option for all students that meets the needs of each individual student. However, as one study noted, "Perhaps more than any other type of educational environment, full-time virtual charter schools require self-motivated students and highly involved parents."[33] Specifically, most virtual charter schools' curriculum is self-paced, and the instructional strategy most frequently used is independent study.[34] The recommended application process should not be viewed as a way to only provide educational opportunities to the highest performing students, but rather to ensure that those students who do enroll have the necessary support systems in place to provide the most conducive environment for learning.

If the State of Nevada believes an application-based enrollment model is too restrictive for students wishing to enroll in a virtual charter school, perhaps the Georgia State Charter School Commission's addendum required for all virtual charter schools could serve as a compromise. Specifically, the Georgia State Charter School Commission, in an effort to ensure the virtual charter school provides thought into how it will serve students in the absence of strong student discipline or parental engagement, asks the following questions of charter school operators operating a virtual charter school:

  - Describe the level of participation in instructional activities students will be required to meet to receive credit for successfully completing a course and receive a satisfactory grade for that course.
  - Describe how cooperative and group learning activities will be integrated in the instructional program.[35]

Clarifications like these can allow the charter sponsoring organization additional context to ensure virtual charter schools are prepared to meet the educational needs of all students. Other states, including Indiana, are also considering an alternative model whereby virtual charter schools would "be allowed to enroll students based on the likelihood they'd do well in a virtual setting or on the support they have at home."[36]

Manage Enrollment at Virtual Charter Schools

- **Consider an enrollment cap for underperforming virtual charter schools**. This cap would apply to virtual charter schools until they are deemed to meet adequate student performance/growth targets. As noted by the Center for Research on Education Outcomes (CREDO), virtual schools do not have significant restraints on their expansion, in contrast to the limited land and/or classroom space that inhibits brick-and-mortar schools. Because of this, "this makes it critical for authorizers to ensure online charter schools demonstrate positive outcomes for students before being allowed to grow and that online charter schools grow at a pace which continues to lead to improved outcomes for their students."[37] Once a virtual charter school has been determined to be successful for students, the cap may be removed at the discretion of NDE, the SPCSA, or school district that is sponsoring the virtual charter school.

- **Mandate that district-sponsored virtual charter schools are only allowed to enroll students who physically reside within the sponsoring school district.** A New Mexico report suggests that authorizing a virtual charter school presents unique challenges not commonly faced by traditional brick-and-mortar schools, and these challenges impede a district's ability to monitor and review the operations of a virtual charter school.[38] By allowing only a single sponsor of virtual charter schools, that single authorizing organization can become an expert on the issues unique to these schools. This could allow a better service level at the virtual charter school, and will also allow the accountability structure to be consistently applied across all virtual schools.

  This recommendation is particularly salient, as K12, Inc. operates both Great Basin Virtual Academy and Destinations Career Academy of Nevada, both of which are virtual charter schools.[39] It also operates Nevada Virtual Academy. Great Basin Virtual Academy and Destinations Career Academy of Nevada began enrolling students in the 2017-2018 school year. Great Basin Virtual Academy educates students in grades K-8, whereas Destinations Career Academy of Nevada enrolls students in grades 9-12. The primary difference between the Nevada Virtual Academy and Great Basin Virtual Academy/Destinations Career Academy of Nevada is the sponsoring organization. The SPCSA sponsors Nevada Virtual Academy, while the White Pine School District sponsors Great Basin Virtual Academy and Destinations Career Academy of Nevada. Both Great Basin Virtual Academy and Destinations Career Academy of Nevada began operations around the time that Nevada Virtual Academy announced it would cease offering grade K-5 education. Presently, both Great Basin Virtual Academy and Destinations Career Academy of Nevada can enroll students who reside anywhere in the State of Nevada. Some education stakeholders have asked why K12, Inc. decided to close the elementary school associated with Nevada Virtual Academy and open two schools that are in seeming competition with the remaining grades offered at Nevada Virtual Academy.

Fund Virtual Charter Schools More Efficiently

- **Consider alternative methods of funding virtual charter schools based on either actual costs of instruction or student achievement.** Virtual charter schools have unique characteristics that may challenge the application of traditional funding formulas. Among these characteristics are student enrollment (unlimited), size of schools, student counts for funding purposes, and the cost of providing educational services (lower than brick-and-mortar schools - one estimate suggests is costs almost 25 percent less to educate a student in a virtual setting).[40] As such, several states – including Colorado, Georgia, Ohio and Pennsylvania – have considered alternate ways of funding virtual charter schools.[41] Currently, virtual charter school students in Nevada receive the same basic support per pupil that students in traditional schools in the district they reside receive. Several alternate funding options are available, but most would require legislative action to alter virtual charter school funding.
  - A New Mexico Legislative Education Study Committee recommended a scale adjustment factor to reduce school funding for virtual charter schools (similar to Nevada's education funding adjustment for small/rural districts).[42] This was due to lower school staffing and operational costs of virtual schools than traditional, brick-and-mortar schools.
  - In Pennsylvania, school districts are required to pay an amount to a virtual charter school for each resident student who attends. The amount that the district is required to pay is equal to their total funding per-pupil, minus the cost of transportation, adult education and debt service.
  - Colorado provides slightly less guaranteed basic per pupil funding to students enrolled in virtual charter schools.
  - In Ohio's school funding formula, virtual charters receive a base-funding amount that is equal to traditional schools. However, virtual schools are not entitled to receive funding for several different programs, including: at-risk students, English language learners, and career and technical education.[43] (*In Nevada, virtual charters are currently eligible for categorical programs, including Senate Bill 178 funds.*)

Another option is to provide performance-based funding, whereby the virtual charter school would receive half of its annual funding at the beginning of the school year and the remainder once agreed-upon student achievement targets are met. Creating a performance-based funding mechanism that applies only to virtual charter schools may seem like it is specifically targeting these schools, but other states have experimented with this policy recommendation. Florida requires students pass an end-of-course assessment for the virtual charter school to receive full funding. New Hampshire requires the student's teacher to determine if the student has mastered the course content prior to the school receiving the full per pupil funding. Minnesota and Utah require the student to receive course credit prior to the full funding amount to be released to the virtual charter school.[44] Moving toward a separate funding mechanism for virtual charter schools could both better reflect the actual costs these schools incur to educate its students, as well as incentivize student achievement.

Appendix A – Adequate Growth Percentile

Another way to examine growth and proficiency within a school is through the Adequate Growth Percentile (AGP). This is a blending of proficiency determinations and student growth percentiles. A student's current SBAC results are compared to the assessment score that corresponds to the grade-level proficiency cut-score. A necessary student growth percentile is calculated that allows the student to be proficient in three years, or 8th grade, whichever is sooner. This necessary student growth percentile is then compared to the actual student growth percentile. If the actual is greater than the necessary growth percentile, that student is determined to be meeting adequate growth. At the school-level, the adequate growth percentile is the percentage of students who are meeting adequate growth.

Table A.1 presents the ELA and mathematics AGP and rank for each virtual charter school. Virtual charter schools are predominantly performing in the bottom third of all schools. The exception is Nevada Connections Academy Middle School, with an ELA AGP in the 54th percentile and a mathematics AGP in the 44th percentile. The percentages of students meeting adequate growth are not surprising, as they closely mirror, or are a little below the proficiency rates. This is to be expected as the growth rates at most of the virtual charter schools are relatively low when compared to the other schools in the State of Nevada.

Table A.1 – Adequate Growth Percentile

Name	Percentage Meeting Adequate Growth - ELA	Percentile Rank	Percentage Meeting Adequate Growth - Math	Percentile Rank
Nevada Connections Academy Elementary	43.6%	33%	25.9%	20%
Nevada Virtual Academy Elementary	41.6%	27%	21.3%	13%
SPCSA - Elementary Schools	**55.7%**	**-**	**48.8%**	**-**
State of Nevada - Elementary Schools	**51.2%**	**-**	**40.5%**	**-**
Leadership Academy Middle	40.9%	31%	23.0%	29%
Nevada Connections Academy Middle	46.9%	54%	27.8%	44%
Nevada Virtual Academy Middle	43.3%	36%	24.0%	30%
SPCSA - Middle Schools	**56.5%**	**-**	**37.8%**	**-**
State of Nevada - Middle Schools	**48.8%**	**-**	**33.1%**	**-**

About the Guinn Center

The Kenny C. Guinn Center for Policy Priorities is a 501(c)(3) nonprofit, independent policy institute focused on providing fact-based, relevant, and well-reasoned analysis of critical policy issues facing Nevada and the Intermountain West. The Guinn Center engages policy-makers, experts, and the public with innovative, data-driven research and analysis to advance policy solutions, inform the public debate, and expand public engagement.

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