An Evaluation of Nevada’s Pupil-Centered Funding Plan

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Executive Summary

To support K-12 students who may be at an academic disadvantage (e.g., students experiencing poverty and students who are English Learners (ELs)) compared to their peers, states often provide additional funding to schools serving these students to provide programs and services aimed at raising student achievement. In Nevada, of the nearly 487,000 students enrolled in K-12 public schools in Nevada, 13.77% of students were classified as EL and 78.86% were eligible to receive free or reduced-price lunch (FRL) during the 2021-22 school year (Nevada Report Card, 2022). To bolster academic outcomes for EL and FRL students, beginning in 2013, the Nevada legislature enacted a series of non-competitive, targeted grant programs (i.e., Zoom, Victory, and SB 178) that allocated extra fiscal resources into schools serving the highest proportions of EL and FRL students.

To more equitably distribute funding to ensure all special student populations (e.g., ELs, FRL students, gifted and talented students, and students receiving special education services) in all Nevada K-12 public schools received sufficient funding to meet their needs, the Nevada legislature then adopted a new pupil-centered funding program (PCFP) during the 2021 legislative biennium. The new funding model was implemented in the 2021-22 school year, and at the same time, the Zoom, Victory, and SB 178 programs were sunsetted. Nevada’s PCFP leverages a weighted student funding (WSF) model. Individual students are assigned funding weights according to their status, such as FRL or EL. Districts receive additional funding according to the enrollment of students for each weight, which they are then responsible for distributing to schools. At the school level, WSF models provide administrators with the autonomy to determine the specific programs and services to implement at their schools to support their special populations.
In conjunction with the shift to the new pupil-centered funding formula, the Nevada legislature approved general fund appropriations for an external evaluation to determine the impact of transferring certain state K-12 categorical programs (i.e., Zoom, Victory, and SB 178) into the PCFP and to measure the effect these transfers had on schools and students that the K-12 categorical programs previously targeted. To this end, we asked the following evaluation questions:

**Impact Evaluation Questions**

1. Did the academic achievement of Zoom-, Victory-, SB 178- and “Never-funded” students change after WSF?
2. Did the academic achievement of Zoom-, Victory-, SB 178- and “Never-funded” student subgroups (i.e., FRL and EL students) change after WSF?
3. Did the academic achievement of students at specific Zoom-, Victory-, SB 178- and “Never-funded” schools (i.e., rural, urban) change after WSF?
4. Did WSF impact academic achievement at “Never-funded” schools?
5. Did WSF impact academic achievement for specific student subgroups at “Never-funded” schools?

**Implementation Evaluation Question**

6. What are stakeholder perceptions of WSF?

**Methodology**

In the impact evaluation, we aimed to determine whether the academic achievement trajectories of students at prior Zoom, Victory, and SB 178 schools changed with the implementation of the new WSF. Further, we sought to understand whether students at schools that *did not receive* additional funding under the grant funding but *did receive* additional funding under the WSF in the 2021-22 school year benefited academically from this increased support. To do this, we
measured the changes for third through eighth graders’ achievement in English language arts (ELA) and math on the Smarter Balanced Assessment Consortium (SBAC) exams, which are statewide standardized tests assessments, between the 2017-18 and 2021-22 school years, excluding 2019-20 due to school closures in response to the COVID-19 pandemic.

In the implementation evaluation, we explored whether and how the shift to a WSF model impacted student academic achievement, programs, and services from the perspective of the district and school administrators tasked with distributing and implementing the funds. We conducted in-depth interviews with 31 administrators working in a variety of contexts to understand their experiences and attitudes around the new WSF model and to learn recommendations they would make to improve the PCFP moving forward.

The overall goal of these two parts of the evaluation was to provide early evidence to Nevada policymakers and educators about the efficacy and equity of the pupil-centered funding model thus far.

**Results**

The results from our quantitative analysis measuring the impact of the switch to WSF on student achievement suggest that the new funding model holds some promise for bolstering students’ academic achievement. Of note, we found that students receiving WSF for the first time performed 0.15 SD higher in ELA and 0.9 SD higher in math compared to students at “always funded” schools after the shift to WSF. Keep in mind that, on average, student achievement improves by about 0.40 SD or less for the average 5th grader in an academic year (Bloom et al., 2008). Thus, a 0.15 SD increase in student achievement would account for about 38% of the annual student growth in achievement for the average 5th grader. This is a moderate effect on a scale of small, moderate, and large (Kraft, 2020).
We further show that, on average, the shift to WSF had no deleterious effects on the academic achievement of students at Zoom, Victory, and SB 178 schools. However, we found that student achievement for students in rural schools decreased after the switch to WSF, particularly in rural Zoom, Victory, and SB 178 schools. This finding indicates that there may be substantial differences in how rural school districts and urban school districts are able to adapt and accommodate the changes in budgets associated with WSF.

Similarly, our qualitative analyses revealed that while many school and district level administrators acknowledged potential improvements in equity and autonomy across schools in the state from WSF, many expressed some trepidation about the change in funding models. Administrators shared concerns that the loss of Zoom, Victory, and SB 178 funding would negatively impact schools’ ability to provide needed services and programs to FRL and EL students. They also expressed fears that gains in student achievement made in the years that schools received categorical funding would be lost with the change to WSF. These concerns were especially apparent in rural districts, where administrators felt that the redistribution of funding would seriously reduce the operational capacities of their schools. We also found that many schools and districts had not yet fully implemented WSF and instead were relying on the state’s hold harmless policy and federal COVID-19 funding as temporary measures to offset potential changes in budgets due to WSF. Additionally, interview participants felt that both the funding amount and the inclusion criteria for at-risk weighted funding were not sufficient to support struggling students.

Ultimately, because there has only been one year of WSF and since full implementation has not happened in all schools yet, it is unclear yet whether the WSF will increase inequity or will work as designed to increase equity.
Recommendations

The results from our analyses led to several recommendations for Nevada legislators and policymakers to consider. First, we recommend that the state allow time for full implementation of the WSF model in all schools. Given that there is only one year of student achievement data following the transition to the PCFP, we cannot fully conclude the extent to which WSF can improve student outcomes for EL and at-risk students in Nevada. We advise that another evaluation be conducted after multiple years of student achievement data is available. This will also give schools and districts more time to adjust and reconfigure their budgets using WSF. Second, we recommend that Nevada legislators and policymakers explore ways to offset administrators’ concerns about how school budgets and the subsequent programs they can offer to students who need extra support. Relatedly, if many schools are forced to eliminate programs that were previously funded through grants, state leaders should consider ways to offset these losses through community-based programs or other funding mechanisms. Addressing budget shortfalls is an especially important consideration in rural school districts, as both the quantitative and qualitative results showed negative impacts from the change to WSF. Finally, as suggested by interview participants, the state should reconsider the weight and definition for the at-risk student weight. Participants shared that the current weight was not sufficient to provide needed services and programs for these students. Likewise, participants recommended that the inclusion criteria for what constitutes an at-risk student be expanded to encompass the complex challenges students face, such as generational poverty and chronic trauma.
Introduction

In the third decade of the 21st century, the demographics of the nation’s school-age population continue to diversify to include more children who are English learners (EL) and more children who are experiencing poverty (U.S. Census Bureau, 2015). Despite changes in the composition of K-12 students to include learners with various needs, academic outcomes for ELs and students who are eligible for or receive free or reduced-price school lunches (FRL) often lag their more advantaged peers (Gandara & Orfield, 2010; Jacob & Ludwig, 2008). Moreover, K-12 schools serving these subgroups often lack the resources to fully support students’ learning (Gándara et al., 2003). Recent research affirms that there is a strong causal link between school spending and student achievement (Jackson, 2020). To this end, policymakers have implemented several strategies to boost the funding available to schools serving high proportions of EL and FRL students.

Of the nearly 487,000 students enrolled in K-12 public schools in Nevada, 13.77% of students were classified as ELs and 78.86% were classified as FRL during the 2021-22 school year (Nevada Report Card, 2022). Beginning in 2013, state legislators enacted a series of non-competitive grant programs that provided additional funds to schools to support EL and FRL students. Zoom funding provided targeted funds to schools with high proportions of EL students (SB 504, 2013). Victory funding provided targeted funds to schools with high proportions of FRL students (SB 432, 2015). SB 178 funds provided additional funding for EL and FRL students in the bottom quartile of student achievement at schools that were not already receiving Zoom or Victory funds (SB 178, 2017). The Nevada Department of Education distributed these grants to school districts that were required to distribute the funds to schools according to EL and FRL student enrollment.
During the 2021 legislative biennium, Nevada adopted a new pupil-centered funding formula that led to the sunset of the Zoom, Victory, and SB 178 programs prior to the start of the 2021-22 school year. The new pupil-centered funding formula leverages a weighted student funding (WSF) model. A WSF model provides a base funding amount for each individual student and then applies a supplemental amount of support for students with higher needs, such as ELs, students with disabilities, and students at risk of academic failure (Levin et al., 2013; Levin et al., 2019; Miles & Roza, 2006; Roza et al., 2020; Tuchman et al., 2022).

The switch to the pupil-centered funding formula shifted Zoom, Victory, and SB 178 funding from non-competitive grant programs to student weights. Zoom funding was applied to the EL student weight, Victory to the at-risk student weight, and SB 178 was split between the two.

In conjunction with the shift to the new pupil-centered funding formula, the Nevada legislature approved general fund appropriations for an external evaluation to determine the impact of transferring certain state K-12 categorical programs (i.e., Zoom, Victory, and SB 178) into the Pupil-Centered Funding Plan and to measure the effect these transfers had on schools and students that these K-12 categorical programs previously targeted.

In fulfillment of this evaluation request, we investigated how Nevada’s shift from non-competitive grants funding to weighted pupil-centered funding impacted the academic achievement of EL and FRL students. Using quantitative methods, we aim to determine whether the academic achievement trajectories of students at prior Zoom, Victory, and SB 178 schools changed with the implementation of the new WSF. Further, we aim to understand whether students at schools that did not receive additional funding under the grants funding but did receive additional funding under the WSF in the 2021-22 school year benefited academically from this increased support. Using qualitative evidence, we seek to understand whether and how the shift to a WSF model impacted
student academic achievement from the perspective of the district and school administrators tasked with distributing and implementing the funds. In doing so, we aim to provide early evidence to Nevada policymakers and educators about the efficacy of the pupil-centered funding model thus far.

**Evaluation Questions**

Our evaluation questions were as follows:

**Impact Evaluation Questions**

1. Did the academic achievement of Zoom-, Victory-, SB 178- and Never-funded students change after WSF?
2. Did the academic achievement of Zoom-, Victory-, SB 178- and Never-funded student subgroups (i.e., FRL and EL students) change after WSF?
3. Did the academic achievement of students at specific Zoom-, Victory-, SB 178- and Never-funded schools (i.e., rural, urban) change after WSF?
4. Did WSF impact academic achievement at Never-funded schools?
5. Did WSF impact academic achievement for specific student subgroups at Never-funded schools?

**Implementation Evaluation Question**

6. What are stakeholder perceptions of WSF?

**Background**

**Adequate and Equitable K-12 Education Funding**

State governments and local education agencies (LEAs), such as school districts, provide approximately 92% of funding for K-12 schooling in most states, and the remaining 8% comes from the federal government (Gordon, 2006; Center on Budget Priorities, 2018). State and local
governments generate funds to provide for public education through taxes—namely, sales, property, and income tax (Baker, 2021). However, revenue generated by taxes varies greatly across contexts. Property taxes, for example, are based on local wealth based (Corcoran & Evans, 2015; Condron, 2017). Sales and income tax are more volatile and responsive to fluctuations in the markets, as consumers are likely to spend less during economic downturns; additionally, unemployment rises in a recession (Baker, 2021). In response to the resultant wide variation in school funding revenue, court challenges to state school finance systems have placed preeminence on equity and adequacy in policy debates regarding the ways in which school districts are funded.

Equity refers to the level of fairness in the allocation of resources across districts and schools, regardless of racial and socioeconomic demographics or geographic location (Carey & Roza, 2008; Houck, 2015; Ladd, 2008). Court rulings in the 1970s and 1980s (e.g., McInnis v. Shapiro, 1968; Serrano v. Priest, 1971) focused on equity by prompting court-order and preemptive school finance reforms that sought to provide all school districts with a minimum foundational amount and thereby increase parity between disadvantaged school districts and their more advantaged counterparts (Condron, 2017). In this era, many states’ proportions of public K-12 expenditures rose considerably (Corcoran & Evans, 2015; Picus et al., 2015).

Adequacy refers to the level of financial support for schools relative to the overall desired level of student outcomes (Baker, 2005; Ladd, 2008). In the 1990s, adequacy lawsuits (e.g., Pauley v. Kelly, 1979; Rose v. Council for Better Education, 1989) challenged school finance systems based on whether funding levels produced adequate student outcomes across disparate student groups (Baker & Welner, 2017; Picus et al., 2015). Many state school finance formulas were subsequently adjusted to not only provide sufficient foundational amounts to school districts but to also address cost differences based on student and school district needs (Baker & Green, 2008; Picus et al., 2015). This approach incorporates an understanding that “students from different backgrounds require
different levels of educational services” and that funding should be allocated accordingly (Picus et al., 2015, p. 286).

One approach that school districts have adopted in recent years to address student needs and produce more adequate outcomes across student populations is through WSF models. WSFs are intended to provide schools more autonomy and flexibility over their budgets because dollars are allocated to schools versus to specific staffing positions (Chambers et al., 2009). According to recent research, approximately 30 large school districts moved to WSFs in an effort to improve student achievement, promote school-level accountability, increase transparency, and improve equity (Levin et al., 2013; Levin et al., 2019; Roza et al., 2020). Some preliminary evidence from states suggests that WSF models may be associated with some gains in student achievement, although the evidence is limited and not necessarily causal (Lee & Fuller, 2022; Roza et al., 2020; Tuchman et al., 2022).

**Nevada School Funding**

Nevada’s journey towards WSF started with the implementation of its first state funding formula in 1967 (Financial Support of School System, 1967). Named the Nevada Plan, this funding formula was established as a minimum foundation program where local school districts receive a guaranteed basic support per pupil with funding coming from state and local dollars. The basic support guarantee was derived through a formula that included a wealth equalization factor that adjusted the amount of basic support based on how much local revenue a school district raises in addition to the formula. In short, the amount of state support changes based on local fiscal capacity. For example, prior to changes to the Nevada Plan, only 2.2 percent of their basic support came from state aid in wealthy mining counties in Nevada like Eureka County whereas Lincoln County received 70.4 percent of their basic support from state aid (Legislative Counsel Bureau, 2017).
Funding for special student populations, class size reduction, career and technical education, and other specialized programs could be provided to school districts through categorical grants.

Over the years, the Legislature modified the formula periodically through various tax increases and decreases in response to economic conditions (Nevada Legislature, 2017). In 1999, the Legislature moved the Class-Size Reduction program to the Distributed School Account (DSA) funded entirely by state appropriations. In 2011, the Legislature created a committee to study a new funding method for public schools, and in 2013, they created a task force to develop a plan for revising the formula.

**Zoom**

Nevada’s legislature enacted Senate Bill (SB) 504 during the 77th legislative session (2013) to create the Zoom program. The bill established the English Mastery Council in Nevada in order to improve the quality of education for Nevada’s English learners (EL). The act also carved out funding (nearly 25 million dollars) for both Clark and Washoe counties to designate and implement programs and services (described below) at a number of “Zoom” schools. The Board of Trustees chose the Zoom schools based on schools that met the following criteria: 1) “Have the highest percentage of pupils who are limited English proficient or eligible for designation as limited English proficient” and 2) “are the lowest performing academically.” Beyond Clark and Washoe, SB 504 provided approximately 1.5 million dollars to the State Public Charter School Authority and the other school districts (hereafter referred to as “Zoom Districts”) for the same purpose of improving the quality of education for Nevada’s EL students.

SB 405 (2015-17), SB 390 (2017-19), and SB 467 (2019-20) renewed and expanded the Zoom initiative. Importantly, SB 405 expanded the initiative to secondary schools (middle schools, junior high schools, and high schools), as well as doubled the total amount of funding provided to
50 million dollars per year; this funding was sustained through the 2015-17 and 2019-20 biennium through SB 390 and SB 467, respectively. Since the inception of the initiative, funding to Zoom schools and Zoom districts could only be expended on certain programs and services to help EL students, including pre-kindergarten, reading skills centers, summer academy, extended school days, professional development, incentives for hiring and retention, family engagement, class size reduction, direct instruction, and wrap-around services.

**Victory**

Nevada’s legislature enacted SB 432 during the 78th legislative session (2015). The bill launched a new initiative designed to support student learning at Nevada’s highest poverty schools by providing funding to schools that have a high number of students that live in “households that have...incomes that are less than the federally designated level signifying poverty” and learn in schools that received “one of the two lowest possible ratings indicating underperformance of a public school.” (Nevada Senate Bill 432, p. 2). Designated by the Nevada Department of Education as “Victory Schools”, additional funding would be provided to the schools on a per pupil basis.

The Nevada legislature renewed the Victory initiative in subsequent legislative sessions (2017-19, AB 447 and 2019-21, SB 432) with only minor changes to the requirements. The initiative provided 25 million dollars a year for 35 selected schools. The majority of Victory funds (at least 51%) must be used to provide services like prekindergarten, summer academy, additional instruction, professional development, incentives for hiring and retention, employment of personnel, reading skills centers, wrap-around services, health care services, family engagement, school climate and culture, and zone-in-learning.
SB 178

Nevada’s legislature enacted SB 178 during its 79th legislative session in 2017. The act required additional funding would be provided to school districts and charter schools through the New Nevada Education Funding plan, a weighted formula that provides $1,200 dollars per pupil above and beyond the basic guarantee for pupils who “are English learners or are eligible for a free or reduced price lunch,” “scored at or below the 25th percentile on an assessment of proficiency,” “are not enrolled at a Zoom school or Victory school,” and “do not have an individualized education program” (SB 178, 2017). The Nevada Department of Education selected schools that had one-star ratings in the state’s accountability system and continued with two-star and three-star schools until funds were exhausted. At least ninety percent of the funds had to be spent on evidence-based academic interventions, extended-learning opportunities, prekindergarten, family engagement, school climate and culture, and/or health care services. No more than ten percent of the funds could be spent on professional development, coursework reimbursement, and/or incentives for hiring and retention. In total, 159 schools received SB 178 funding in 2017-18 and 2018-19. The legislature extended (and expanded) the weighting funding to a second biennium (2019-2021) with the passage of SB 549 and SB 555 (2019). In 2019-20, 452 schools received SB 178 funding. While the program was supposed to continue in 2020-21, the funding was cut due to budget constraints associated with Nevada’s response to the COVID-19 pandemic.

Pupil-Centered Funding Plan

The most recent modification of Nevada's education funding formula came in the 2019 legislative session when Nevada lawmakers enacted SB 543, which laid the groundwork for a new Pupil-Centered Funding Plan and created the 11-member Commission on School Funding to study how to make WSF work in Nevada. This bill also created a single State Education Fund for the
twenty different sources of education revenue and a hold harmless requirement to protect schools from loss of funding if their revenue comes in lower under the WSF than it did under the Nevada Plan.

Nevada finalized the plan in 2021 with the enactment of SB 439. The state established a base per pupil amount for school districts that is subsequently adjusted for school district size and cost of living/labor. In addition, WSF is provided to schools for at-risk, EL, and gifted and talented students. To determine the amount of WSF a school receives, the statewide base per pupil amount (before adjustments) is multiplied by the pupil counts as of student count day for the specific at-risk, EL, or gifted and talented subgroups. The legislature originally defined at-risk students as those eligible for free or reduced-price lunch, but also gave provision for the state board of education to adopt an alternative definition of at-risk. The state board of education altered the definition of at-risk in November 2020 to include students with “an economic or academic disadvantage such that they require additional services and assistance to enable them to graduate with their cohorts (Nevada State Board of Education, 2020).” The Nevada Department of Education officially determines at-risk through a range of academic, attendance, behavior, enrollment, and home factors (Nevada Department of Education, 2023). For the first year of implementation, Nevada used a 0.20 weight for EL students, a 0.03 weight for at-risk students, and a 0.12 weight for gifted and talented students (Nevada Department of Education, 2021).

**Evaluation of Nevada’s Pupil-Centered Funding Formula**

The purpose of this evaluation is to understand how the shift to a WSF model impacted student achievement in Nevada. We employed two approaches to answer this question. First, we leveraged a student-level longitudinal panel data (2018-2022) to understand the impact of the funding switch on student academic achievement at formerly Zoom, Victory, and SB178 schools.
We subsequently compared the academic achievement of students at formerly Zoom, Victory, and SB178 to those that never received additional funding support to understand the impact of WSF on newly funded students. Second, we conducted in-depth interviews with school administrators from around the state who were tasked with distributing and implementing the funds. The aim of these interviews was to understand the factors that administrators responsible for implementing the funding observed about Nevada’s WSF model, its efficacy, and its impact on day-to-day operations in schools. Taken together, these two approaches provide a comprehensive picture about the rollout of Nevada’s pupil-centered funding plan that policymakers and educational leaders can leverage in order to make informed decisions about the program and funding for K-12 education in the state.

**Data and Methods**

This evaluation was completed in two parts. In the first part, we sought to understand the impact of the new WSF model on academic achievement of students in Nevada. In the second part, we sought to understand the process of implementing the change to the funding formula at the school level by gathering school administrators’ experiences of implementing WSF. The methods for each of these strands are described in the following sections.

**Impact Evaluation**

To estimate the impact of the transition to the state’s new pupil-centered funding formula on student achievement during the 2021-22 school year, we employed a quasi-experimental design. This approach enables us to evaluate the impact of the new funding formula in the absence of randomization. Because our evaluation considers the impact of the funding formula retrospectively, we cannot randomly assign students in schools to treatment and control groups and then measure the results as would be feasible in a true experimental design.
Instead, we investigated the impact of WSF through two types of quasi-experimental analytical models: interrupted time series and event study models. The interrupted time series (ITS) analysis leverages the longitudinal nature of the panel to measure the average change in student achievement in Zoom, Victory, and SB 178 schools, as well as in schools that received funding for the first time. ITS models are considered a “next best” approach when randomization is not possible (Kontopantelis et al., 2015 p.1). However, a limitation of ITS is that the impact of a single policy (here, WSF) cannot be disentangled from other external shocks to the population. In our case, exogenous shocks include the COVID-19 pandemic as well as the subsequent federal funding Nevada received in response (i.e., the Elementary and Secondary School Emergency Relief (ESSER) funds).

A more precise way to understand the impact of WSF is to consider what student achievement might have looked like had the intervention not occurred in the schools that received new funding from WSF, which is sometimes called a counterfactual. In quasi-experimental research designs, a counterfactual can be used to illustrate what might have happened to the treatment group had the intervention not occurred (Gerson et al., 2005). A counterfactual group has similar characteristics to the intervention group. In our case, we used propensity score matching to match schools that received funding in 2021-22 from WSF to similar schools that had received Zoom, Victory, or SB178 funds. We then ran an event study model to compare student achievement between students at intervention (schools that had never received Zoom, Victory, or SB178 funds, or Never Funded schools) and counterfactual schools (schools that had received Zoom, Victory, or SB178 funds). In education research and evaluation, event study models are used to measure policy effects, such as Nevada’s switch in funding mechanisms from grants to WSF (Freyaldenhoven et al., 2021).
Data

Data for the analysis comes from a panel consisting of student-level data from 2017-18 to 2021-22 from the Nevada Department of Education as well as school-level data from the National Center for Education Statistics (NCES). Using panel data allows us to explore trends in student achievement prior to the implementation of WSF. Our measure of student achievement was students’ performance on the Smarter Balanced Assessment Consortium (SBAC) English language arts and math assessments. We used SBAC as our measure of academic achievement because our quasi-experimental design requires repeated measures of achievement from the same group of students over time. Nevada students do not always take other Nevada academic achievement assessments like ACT and WIDA multiple times across multiple years. The SBAC assessments are administered annually to Nevada students in third through eighth grade, except during the 2019-20 school year due to the COVID-19 global pandemic. For ease of interpretation, we standardized the test scores within grade, year, and subject. The coefficients can be interpreted in terms of standard deviation changes.

Sample

We narrowed our sample to only include students in elementary and middle schools since only students in grades 3 through 8 take the state’s SBAC ELA and math exams. We removed schools and students from our sample that were periodically funded by the Zoom, Victory, and SB178 programs as students at these schools were less likely to experience the full benefits of these programs.
Treatment Group

To identify the treatment group, our first task was to identify the students in Nevada schools who were impacted by the change in the funding mechanism from school-based grants to a WSF model. Theoretically, the shift to the pupil-centered funding formula would mean that more students would be eligible for additional funding because of the applied weights that they would qualify for based on their EL or FRL status. The schools that these students attend would subsequently receive additional funding according to each student’s weight. Under the prior grants-based system, only schools with high proportions of FRL and EL students would have received additional funding. We therefore define treatment as schools that received additional funding in the 2021-22 school year that had not previously received funding under the Zoom, Victory, and SB 178 grants.

According to data for the baseline 2020-21 school year shown in Table 1, 76 schools and 12,052 student observations were part of the treatment group, which we call “never funded” because they never received money through the grant programs. With the implementation of WSF, the “never funded” schools would be eligible to receive additional funding based on the weights assigned to the individual EL and FRL students in their populations.

Counterfactual

We encountered two obstacles in developing an appropriate counterfactual to the treatment group. First, Zoom, Victory, and SB 178 schools were targeted grant programs specifically designed to provide additional financial support to schools serving the largest proportions of students with high needs—EL students, FRL students, and either EL or FRL students in the bottom quartile of achievement. Eighty schools serving 27,317 students had received Zoom funding at least once.
Table 1. Characteristics of Zoom-, Victory-, SB178-, “Always”- and “Never-Funded” Schools and Students at Baseline (2020-21)

<table>
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<tr>
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<th>Zoom</th>
<th>Victory</th>
<th>SB178</th>
<th>Always</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Schools</strong></td>
<td>All N=80</td>
<td>Matched N=16</td>
<td>All N=29</td>
<td>Matched N=8</td>
<td>All N=165</td>
</tr>
<tr>
<td>% FRL</td>
<td>92.37 (19.67)</td>
<td>61.88 (28.25)</td>
<td>98.17 (7.01)</td>
<td>96.58 (9.68)</td>
<td>97.56 (11.51)</td>
</tr>
<tr>
<td>% EL</td>
<td>29.08 (12.41)</td>
<td>11.73 (8.78)</td>
<td>22.76 (14.11)</td>
<td>4.02 (4.65)</td>
<td>18.14 (9.93)</td>
</tr>
<tr>
<td>Enrollment</td>
<td>564.30 (215.15)</td>
<td>497.88 (201.00)</td>
<td>512.52 (381.50)</td>
<td>148.25 (125.96)</td>
<td>724.45 (385.23)</td>
</tr>
<tr>
<td><strong>Students</strong></td>
<td>All N=27,317</td>
<td>Matched N=2,473</td>
<td>All N=8,895</td>
<td>Matched N=297</td>
<td>All N=28,798</td>
</tr>
<tr>
<td>FRL</td>
<td>91.83%</td>
<td>66.07%</td>
<td>97.89%</td>
<td>87.88%</td>
<td>98.53%</td>
</tr>
<tr>
<td>EL</td>
<td>28.15%</td>
<td>13.79%</td>
<td>27.91%</td>
<td>8.04%</td>
<td>19.07%</td>
</tr>
<tr>
<td>IEP</td>
<td>13.40%</td>
<td>14.03%</td>
<td>13.18%</td>
<td>17.17%</td>
<td>12.88%</td>
</tr>
<tr>
<td>SBAC ELA</td>
<td>-0.38 (0.92)</td>
<td>-0.26 (0.98)</td>
<td>-0.49 (0.88)</td>
<td>-0.63 (0.82)</td>
<td>-0.36 (0.94)</td>
</tr>
<tr>
<td>SBAC Math</td>
<td>-0.36 (0.93)</td>
<td>-0.16 (0.96)</td>
<td>-0.57 (0.87)</td>
<td>-0.61 (0.76)</td>
<td>-0.39 (0.92)</td>
</tr>
</tbody>
</table>
between 2017-18 and 2020-21, 29 schools serving 8,895 students received Victory funding at least once, and 56 schools serving 28,898 students received SB 178 funding at least once. Of these schools, 165 were “always funded,” meaning that they received grant funding from the state all four years prior to the state’s transition to WSF.

Given the student populations they serve, the Zoom, Victory, and SB 178 schools have substantially different demographics than the "never funded” schools, especially concerning their EL and FRL student populations. As shown in Table 1, Zoom schools are 92.37% FRL and 29.08% EL. Victory schools are 98.17% FRL and 22.76% EL. SB 178 schools are 97.56% FRL and 18.14% EL. On the other hand, “never funded” schools are 55.94% FRL and 4.23% EL.

Second, the COVID-19 pandemic complicated the ability to establish a suitable counterfactual. Low-income communities and communities of color, like those where Zoom, Victory, and SB 178 schools were likely to be located, experienced disproportionate negative impacts from the pandemic. We observe these impacts in looking at the student achievement for grant schools between 2019 and 2021. In a quasi-experimental research design, a suitable counterfactual typically has parallel trends in the pre-treatment period. Parallel trends are observed graphically and through statistical tests. The parallel trend assumption states that the difference between the treatment and control groups are constant over time. The assumption provides a reasonable estimate of what may have happened in the post-treatment period without the intervention (Li et al., 2010).

Figures 1 and 2, which show student achievement in math and ELA on the SBAC, illustrate how the parallel trends assumption is violated when comparing the achievement of students at Zoom, Victory, and SB 178 schools to students at “never funded” schools in the pre-treatment period. Between 2019 and 2021, Zoom, Victory, and SB 178 students experienced declines in ELA and
Figure 1. Trends in Student ELA Achievement in Zoom-, Victory-, SB178-, and "Never-Funded" Schools

Notes: Student achievement is reported for students in grades 3-8 who were in Zoom- (blue line), Victory- (green line), SB178- (red line), and “never funded” schools (black line). The SBAC was not administered in 2019-20 so no data was reported for that year. SBAC scores were standardized relative grade-year means.
Figure 2. Trends in Student Math Achievement in Zoom-, Victory-, SB178-, and “Never-Funded” Schools

Notes: Student achievement is reported for students in grades 3-8 who were in Zoom- (blue line), Victory- (green line), SB178- (red line), and never-funded schools (black line). The SBAC was not administered in 2019-20 so no data was reported for that year. SBAC scores were standardized relative grade-year means.
math achievement on the SBAC. However, achievement for students at “never funded” schools remained relatively constant over the same period. Therefore, simply estimating the differences in achievement between Zoom, Victory, SB 178, and “never funded” schools would not accurately show the impact of WSF.

To resolve this problem, we generated an alternative treatment and control group using a narrowed sample of “never funded” and “always funded” schools that were matched using propensity scores. Because WSF funding is distributed at the school-level, we narrowed the sample to include a subset of treatment and comparison schools based on school-level FRL, school-level EL, and enrollment. Schools in the “never funded” treatment group represent the next most likely schools to have been funded through the Zoom, Victory, and SB 178 grant programs had funds not been exhausted. In developing the matches, we followed Austin’s (2011) nearest-neighbor propensity matching strategy based on a caliper width. The caliper sets the maximum tolerance for the distance between a matched treatment and control. The caliper method draws only on matches that have a propensity score within a reasonable distance (here, 0.02) of the treated individual, and importantly, it allows for obtaining stronger matches while dropping poor matches from the analysis (Caliendo & Kopeinig, 2005). Austin (2011) recommends using a caliper with a width of 0.20 SD when estimating differences in means.

As shown in Table 1, this approach yielded 38 “never funded” and 38 “always funded” schools. A disadvantage of using propensity score matching is that it reduces the sample size. However, the major advantage of this approach is that it creates a suitable counterfactual for the matched “never funded” schools using “always funded” schools. Prior to the matching, there were 165 “always funded” schools and 76 funded schools. Given the specific, targeted funding that the Zoom, Victory, and SB 178 grant programs provided, there were substantial differences between the “always funded” and “never funded” schools. At “always funded” schools, 95.15% of students were
FRL and 24.26% were EL. At “never funded” schools, 55.94% of students were FRL and 4.23% were EL. Propensity score matching narrows the distance between these two groups, allowing us to estimate what might have happened without the switch to WSF. At matched “never funded” schools, 74.76% of students were FRL and 7.13% were EL in the baseline year. At matched “always funded” schools, 80.08% of students were FRL and 8.63% were EL.

Figures 3 and 4 illustrate the trends in ELA and math for matched “always funded” and “never funded” schools. Now, both the treatment and comparison groups show similar declines in student achievement between 2019 and 2021. While smaller than the original sample, the matched sample upholds the parallel trends assumption needed to develop unbiased estimates of the treatment impact.

**Impact Evaluation Analytic Approach**

The analytic approaches used in this evaluation, ITS and event study models, offer two different ways of understanding the impact of Nevada’s transition to WSF.

**Interrupted Time Series**

We first used an ITS model to understand how the switch to WSF impacted students at Zoom, Victory, and SB 178 schools. When a randomized control trial cannot be conducted, ITS is considered a useful alternative research design (Kontopantelis et al., 2015). The purpose of the ITS model is to examine whether there are changes in the average outcomes among segments of a population before and after an intervention occurs. Here, the ITS model enabled us to estimate whether there was a change in average student achievement in Zoom, Victory, SB 178, and "never funded” schools in the year after the state implemented WSF.
Figure 3. Trends in Student ELA Achievement in “Never-Funded” and “Always-Funded” Matched Sample

Notes: Student achievement is reported for students who were in “never funded” schools (black line) at baseline (2020-21) and the treatment year (2021-22) relative to “always funded” (yellow dotted line) (Zoom, Victory, and SB178 schools) at baseline (2020-21) and the treatment year (2021-22). The SBAC was not administered in 2019-20 so no data was reported for that year. SBAC scores were standardized relative grade-year means.
Figure 4. Trends in Student Math Achievement in “Never Funded” and “Always-Funded” Matched Sample

Notes: Student achievement is reported for students who were in “never funded” schools (black line) at baseline (2020-21) and the treatment year (2021-22) relative to “always funded” schools (yellow dotted line) (Zoom, Victory, and SB178 schools) at baseline (2020-21) and the treatment year (2021-22). The SBAC was not administered in 2019-20 so no data was reported for that year. SBAC scores were standardized relative grade-year means.
We performed the ITS model on the full sample of students at Zoom (n=80), Victory (n=29), SB178 (n=56) and "never funded" (n=76) elementary schools shown in Table 1. The fully specified ITS model employed is:

\[ Y_{ist} = \beta_0 + \beta_1 T + \beta_2 X_t + \partial_i + \delta_s + \beta_4 S_{st} + \beta_5 I_{ist} + \epsilon_{ist} \]  

(1)

where \( Y_{ist} \) represents either the ELA or math SBAC score for student \( i \) in school \( s \) in year \( t \), standardized within grade, year, and subject; \( T \) represents a continuous variable that indicates the number of school years that have passed since the start of the observational period (here the observational period starts in 2017-18); \( X_t \) represents an indicator variable that equals 0 if the observation occurred before the intervention and 1 if the observation occurred after the intervention (here, the switch to WSF is the intervention); \( \partial_i \) represents a student fixed effect to account for time-invariant characteristics of students; \( \delta_s \) represents a school fixed effect to account for time invariant characteristics of schools; \( S_{st} \) represents a vector of time-varying school control variables; \( I_{ist} \) represents a vector of time-varying student control variables; and \( \epsilon_{ist} \) represents an error term. The coefficients of interest are: \( \beta_1 \), which shows the pre-intervention trends in student achievement, and \( \beta_2 \), which shows the change in student achievement immediately post-intervention.

Because the Zoom, Victory, and SB 178 grant programs provided additional funding to at-risk, EL, and gifted and talented students, we also used the ITS model to investigate the average change in student achievement for these two subgroups. We did not have data to replicate the Nevada Department of Education’s at-risk designation, so we used FRL as a proxy. Additionally, we did not have an indicator for gifted and talented students. These models were estimated using an
interaction between a student’s membership in each subgroup (i.e., FRL and EL) and the key independent variables from Equation 1 (\( T \) and \( X_c \)). As an additional subgroup analysis, we compared the average change in student achievement between rural and urban schools in the state. The purpose of this analysis was to observe whether the change in funding models impacted rural and urban schools differently.

Finally, we also investigated how the effects on students at Zoom, Victory, and SB 178 schools varied based on specific school characteristics, including whether the school was in an urban or rural district.

It is important to note that the results of ITS models cannot provide a causal estimate of the effect of WSF on student achievement for students in Zoom, Victory, and SB 178 schools. ITS models are not able to disarticulate the treatment effect of a policy from other events happening at the same time. In our case, the ITS model cannot separate the impact of WSF from other confounding exogenous events, including the COVID-19 pandemic and the accompanying ESSR funds.

**Event Study**

To explore how the move to WSF impacted “never funded” students, we utilize an event study model. An event study model can correct the confounders that presented a problem in our ITS models. Originating in finance literature, event study models are used to measure return behaviors around an event. The model has been co-opted by a number of different disciplines, including education policy to measure change over time following an intervention (Armitage, 1995). In our event study model, we use propensity score matching to observe student achievement for the treatment (never funded) schools and the counterfactual (always funded) schools. An important advantage of the event study model is that it can account for staggered treatment, which is a
common feature of educational programs, especially as they are scaled up. In our study, we can think of the change from the Zoom, Victory, and SB 178 targeted grants programs to WSF as a type of scaling up, since WSF expanded the number of schools receiving additional funding to support FRL and EL students. This point lends further credence to using the matched counterfactual schools as the comparison group because they were already “treated” by additional grant funding to support FRL and EL students between 2017-18 and 2020-21. The counterfactual schools are less likely to benefit from WSF as much as “never funded” schools.

In our event study model, we center event time at zero, which represents the 2021-22 school year, which is when the state transitioned to WSF. Time is equal to -1 in 2020-21 to signal that it is the year prior to treatment. Time is equal to -2 in 2018-19 and -3 in 2017-18. The 2020-21 school year is excluded from the model since the SBAC was not administered due to the COVID-19 pandemic. In the model, event time is represented by a series of dichotomous (1,0) indicators for whether a given observation is before or after the event of treatment. In this case, event time is equal to 1 for “never funded” schools in 2021-22 and equal to 0 for all other years. “Always funded” schools operate solely as a comparison and receive a 0 for all event time indicators. The fully specified event study model employed is:

\[
Y_{ist} = \alpha + \sum_{j=-3}^{3} 1(t = t_s + j)\beta_j + (U_g \ast \tau_t) + \delta_s + I_{ist} \theta + \partial S_{st} + \epsilon_{ist} \tag{2}
\]

where \(Y_{ist}\) represents either the ELA or math SBAC score for student \(i\) in school \(s\) in year \(t\), standardized within grade, year, and subject; \(U_g \ast \tau_t\) represents a school by time fixed effect; \(\delta_s\) is a school fixed effect; \(I_{ist}\) represents a vector of student controls; and \(S_{st}\) represents a vector of school-level controls; and \(\epsilon_{ist}\) represents an error term. The model includes a series of event time
indicators $t$ that equal 1 when the observation is a given number of years before and after treatment, and $t_x$ represents 2021-22, the first year that “never funded” schools received additional funding. The standard errors for this model were clustered at the school-level to adjust for repeated school observations over time. $\beta_j$ represents the time event indicators, which are the coefficients of interest. $\beta_j$ ranges from three years prior to the switch to WSF (-3 to -1) and one year after the change (0). All coefficients for these indicators are relative to the year prior to WSF (-1), which is omitted from the model.

As with the ITS models, we also investigate student achievement for FRL and EL students, the two subgroups for whom the additional WSF funding is intended to support. To do this, we run an additional event study model that includes an interaction between the treatment and year indicator with students’ FRL and EL status.

**Implementation Evaluation Qualitative Approach**

Ultimately, the ITS and event study models allowed us to evaluate how WSF impacted student academic achievement. However, the quantitative analysis cannot provide in-depth insights into the implementation of Nevada’s new K-12 education funding plan. Therefore, we paired the quantitative analysis with a qualitative inquiry that employed interviews with school leaders and central staff from several of Nevada’s urban and rural districts. The goal of the interviews was to discern themes related to implementation and contextualize the impact of the plan on schools and students. By combining both quantitative evidence of how the change in funding models influenced student performance and qualitative evidence of how school administrators experienced the change in practice, we can establish a more complete picture of WSF. Using both approaches in the evaluation provides Nevada policymakers and education leaders with practical, usable information to make informed decisions about WSF going forward (Creswell & Plano Clark, 2020).
In-depth Interviews with School Leaders and Central Staff

Through Nevada Department of Education leadership, we contacted school principals and central staff from all 17 Nevada districts and charters by email to invite them for interviews. Thirty-one Nevada educators were interviewed overall, including 20 school principals and 11 central staff members from multiple Nevada school districts and charters. Interviews were conducted through Google Meet or via phone in order to promote maximum accessibility and to mitigate any residual concerns related to the COVID-19 pandemic. Each interview lasted approximately 30-60 minutes and followed semi-structured protocols (see Appendix for principal and central staff member interview protocols). The interviews focused on three main areas: (1) how implementation has been progressing thus far at the district and school levels, (2) participants' perceptions of the new funding plan’s impact on school budgets, programs, and students, and (3) the participants’ reflections on funding weights and common-sense recommendations for improving the plan for the future.

Interviews were transcribed using a third-party transcription service. Then, they were coded for themes related to the interview agenda using applied thematic analysis and phenomenological methodology. Using these approaches, the analysis sought to uncover the meanings of individuals’ first-hand knowledge and experiences (Creswell, 2013; Eddles-Hirsch, 2015; Guest et al., 2011). Phenomenology was a useful approach for evaluating the implementation of WSF because it enabled us to unpack how administrators across Nevada experienced the change in funding models and their perceptions of what these changes meant for K-12 students in their schools and in the state. Intercoder reliability techniques were applied to enhance the trustworthiness of the data analysis (Lincoln & Guba, 1985; Carlson, 2010; O'Connor & Joffe, 2020).

Interview participants, on average, had 22 years of experience in the field of education, including time spent as classroom teachers, learning strategists, and school- or district-level
administrators. They have worked as school- or district-level administrators for approximately 12 years, including 5 years in their current positions. Twenty-five respondents currently serve as administrators in urban districts (including three at charter schools), while six are administrators in rural districts (including one at a charter school). It is relevant to note 19 of the 20 principals serve as administrators at schools that received Zoom, Victory, or SB178 monies during the years immediately prior to WSF, suggesting they are well positioned to discuss budgetary, staffing, and programmatic changes since Nevada legislation sunsetted those programs and enacted the new funding plan. As an important caveat, the interview sample is not representative of school and district administrators across the state. Rather, the sample provides a variety of perspectives that can inform an understanding of how leadership in schools and districts currently perceive and implement WSF.

Upon receiving the transcribed interviews, all responses were anonymized, to exclude names, school names, districts, or any other identifying information. Coding was a rigorous and iterative process. We leveraged both deductive and inductive approaches to analyze the data. Using both approaches allowed us to capture participants’ key responses related to the interview agenda and leverage the “richness of the data” from the semi-structured interview approach (Harvey-Jordan & Long, 2001, p.219). Deductively, we employed thematic analysis techniques to guide coding and develop themes (Hsieh & Shannon, 2005). Deductive codes based on constructs in the interview protocol were used to discern themes related to (a) the state’s new funding formula and (b) participants’ recommended modifications for legislators to consider. Inductively, transcriptions were coded for themes using phenomenological methodology to understand and describe the shared perceptions of a social phenomenon through individuals’ lived experiences (Qutoshi, 2018). For example, dialogue was analyzed to understand (c) how participants conceptualized the positive or negative effect of the new funding plan on individual school budgets and programs and (d)
participant beliefs about student impact. Throughout the analysis, we also refined the codebook iteratively to capture emergent themes. Intercoder reliability, a technique used to bolster the systematicity and transparency of the coding process, was applied to enhance the analytic validity of the data (O’Connor & Joffe, 2020). Findings from the interviews were collated, and recommendations based on those findings are presented below.

**Results**

We present our results in three phases. We first describe the ITS results, which capture the average change in achievement for students in Zoom, Victory, and SB178 after the move to the WSF. However, as we note above, these should not be viewed as causal estimates of the effect of the WSF on performance of Zoom, Victory, and SB178 students. There are multiple confounding influences during this time period, including the COVID-19 pandemic and the accompanying federal expenditures (i.e., Elementary and Secondary School Emergency Relief (ESSER) Funds).

In the second phase, we attempt to correct for these confounding influences by utilizing a quasi-experimental event study strategy that compares matched Zoom, Victory, and SB178 schools to “never funded” schools. Zoom, Victory, and SB178 schools serve as useful comparisons in these models because they were already “treated” by WSF and thus, may not experience the same benefit of WSF as “never funded” schools. Additionally, with the event study models and matching strategy, we can observe the student achievement trend for similar treated and comparison schools to understand if and how achievement at Zoom, Victory, and SB178 changed after the implementation of WSF.

In the third phase, we present themes of perceived impact for the new funding plan culled from interviews with 31 school and district leaders. Although understanding PCFP implementation is complicated by budgets consisting of multiple funding sources, including federal aid, and policies
intended to ease the transition to the new plan, our data demonstrate a variety of perspectives,
 ranged from receptive to restrained to resistant, and depth of understanding of the impact of
 Nevada’s new funding plan. Respondents also communicated their perceptions of how the funding
 formula is weighted with specific consideration for at-risk and English language learners (EL).

**Evaluation Question 1: Did the Academic Achievement of Zoom-, Victory-, SB
178-, and “Never Funded” Students Change After WSF?**

Table 2 reports the results from the ITS models. The row labeled “year” shows the average
change in student achievement for each additional year prior to the implementation of WSF. The
row labeled “2021-22” shows the change in student achievement after WSF relative to before.
Column 1 shows the average change in ELA SBAC achievement for students in Zoom schools after
the implementation of WSF. Column 2 shows the same for students in Victory schools, Column 3
shows students in SB178 schools, and Column 4 shows students in “never funded” schools.
Columns 5 to 8 show the same for math SBAC achievement.

The results show that Zoom students were growing in achievement at a rate of 0.20 SD per
year in ELA (Column 1, p<0.001) and 0.17 SD per year in math (Column 5, p<0.001) prior to the
implementation of WSF. We find a small but not statistically significant decrease in student
achievement after the implementation of WSF at Zoom schools in both ELA and math.

Among students at Victory schools, we find that they were growing in achievement at a rate
of 0.13 SD per year in ELA (Column 2) and 0.18 SD per year in math (Column 6) prior to the
implementation of WSF; however, these effects are not statistically significant. We find that students
at Victory schools improved in performance after the implementation of WSF. Students at Victory
schools improved by 0.08 SD in ELA (however, this effect is not statistically significant) and by 0.14
SD in math (p<0.05).
## Table 2. Interrupted Time Series estimates of change in Student ELA and Math Achievement at Zoom-, Victory-, SB178-, and “Never-Funded” Schools

<table>
<thead>
<tr>
<th></th>
<th>Zoom</th>
<th>Victory</th>
<th>SB178</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>0.209*** (0.049)</td>
<td>0.125 (0.071)</td>
<td>0.213*** (0.051)</td>
<td>0.049 (0.053)</td>
</tr>
<tr>
<td>2021-22</td>
<td>-0.028 (0.026)</td>
<td>0.080 (0.053)</td>
<td>0.010 (0.029)</td>
<td>0.042 (0.045)</td>
</tr>
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<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Student Fixed Effect</td>
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<td>X</td>
<td>X</td>
</tr>
<tr>
<td>School Controls</td>
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<td>X</td>
<td>X</td>
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<td>Student Controls</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>N</td>
<td>74,141</td>
<td>19,334</td>
<td>61,791</td>
<td>36,997</td>
</tr>
<tr>
<td>R-Sq</td>
<td>0.881</td>
<td>0.887</td>
<td>0.891</td>
<td>0.907</td>
</tr>
<tr>
<td>Math</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>0.165*** (0.042)</td>
<td>0.176 (0.101)</td>
<td>0.201*** (0.048)</td>
<td>0.081 (0.065)</td>
</tr>
<tr>
<td>2021-22</td>
<td>-0.018 (0.031)</td>
<td>0.143* (0.056)</td>
<td>0.077* (0.030)</td>
<td>0.018 (0.065)</td>
</tr>
<tr>
<td>School Fixed Effect</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Student Fixed Effect</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>School Controls</td>
<td>X</td>
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<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Student Controls</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>N</td>
<td>73,974</td>
<td>19,259</td>
<td>61,452</td>
<td>36,841</td>
</tr>
<tr>
<td>R-Sq</td>
<td>0.897</td>
<td>0.896</td>
<td>0.899</td>
<td>0.925</td>
</tr>
</tbody>
</table>

* p<0.05; ** p<0.01; *** p<0.001; The coefficient on the 2021-22 indicator represents the ITS estimate for the change in student achievement from the pre-treatment trend. Models include all students at Zoom-, Victory-, SB178-, and “Never-Funded” Schools.
For students at SB178 schools, we find that they were growing in achievement at a rate of 0.21 SD per year in ELA (Column 3, p<0.001) and 0.20 SD per year in math (Column 7, p<0.001) prior to the implementation of WSF. Students at SB178 schools further improved by 0.10 SD in ELA and 0.08 SD in math after the implementation of WSF, although only the effect in math is statistically significant.

Finally, our results show that students at “never funded” schools were increasing in performance prior to the implementation of WSF in both ELA and math, but these effects were not statistically significant (Columns 4 and 8). We also show small, positive, non-statistically significant effects after the implementation of WSF in both ELA and math.

**Evaluation Question 2: Did the Academic Achievement of Zoom-, Victory-, SB 178- and “Never Funded” Student Subgroups Change After WSF?**

Since mainly at-risk (as measured by FRL in our study) and EL students were meant to benefit from the Zoom, Victory, SB178 program, in Table 3, we show results from models estimating how these students did relative to non-FRL and non-EL students after the implementation of WSF. The first two panels of Table 3 contain the results in ELA and math for FRL students. The last two panels contain the results in ELA and math for EL students. FRL students at Zoom schools were experiencing a small decrease in performance by about 0.02 SD in ELA (column 1, not statistically significant) and 0.05 SD in math (column 5, p<0.05) each year prior to WSF. However, EL students at Zoom schools were experiencing a small increase in performance by about 0.05 SD in ELA (column 9, p<0.001) and 0.05 SD in math (column 13, p<0.001). Both subgroups (FRL and EL) experienced a small positive, but not statistically significant increase in performance after the implementation of WSF in both ELA and math.
Table 3. Interrupted Time Series estimates of change in Student ELA and Math Achievement at Zoom-, Victory-, SB178-, and “Never-Funded” Schools (FRL and EL Subgroups)

<table>
<thead>
<tr>
<th></th>
<th>ELA FRL</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Zoom</td>
<td>Victory</td>
<td>SB178</td>
<td>Never</td>
</tr>
<tr>
<td>Year x FRL</td>
<td>-0.020 (0.018)</td>
<td>0.003 (0.036)</td>
<td>-0.026 (0.030)</td>
<td>-0.013 (0.020)</td>
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<td>19,334</td>
<td>61,791</td>
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<tr>
<td>R-Sq</td>
<td>0.881</td>
<td>0.887</td>
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<td></td>
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<td>SB178</td>
<td>Never</td>
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<td>Year x FRL</td>
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<td>-0.011 (0.040)</td>
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<table>
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<td>Victory</td>
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<tr>
<td>Year x EL</td>
<td>0.050*** (0.010)</td>
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<td>0.014 (0.014)</td>
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<td>Zoom</td>
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<td>Year x EL</td>
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<td>0.044 (0.022)</td>
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* p<0.05; ** p<0.01; *** p<0.001; The coefficient on the 2021-22 indicator represents the ITS estimate for the change in student achievement from the pre-treatment trend for FRL and EL students relative to non-FRL and non-EL students. Models include all students at Zoom-, Victory-, SB178-, and “Never-Funded” Schools.
At Victory schools, we see no statistically significant change in student performance prior to the implementation of WSF, and no statistically significant change afterwards, for both FRL and EL students. The average change in student performance at Victory schools for FRL students in ELA was essentially zero (column 2). In math, we find that FRL student achievement was decreasing by 0.10 SD per year (column 6); however, this effect was not statistically significant. We show small, positive, non-statistically significant effects in ELA and moderate, negative, non-statistically significant effects in math for FRL students after the implementation of WSF. For EL students, we show positive effects in years prior to the implementation of WSF and small negative effects after the implementation of WSF (columns 10 and 14); however, these effects are not statistically significant.

Among students at SB178 schools, we observe small and not statistically significant changes in ELA and math achievement for FRL students leading up to the implementation of WSF (columns 3 and 7). Further, we see no effect in ELA and math achievement in the year after implementation as the coefficients are close to zero and not statistically significant. For EL students leading up to the implementation of WSF (columns 11 and 15), we show small improvements in math achievement (0.04 SD; p<0.001) but not in ELA. We do not find any evidence that math and ELA achievement meaningfully changed for EL students at SB178 schools after the implementation of WSF.

Finally, columns 4, 8, 12, and 16 show the effects on student ELA and math achievement at “never funded” schools. We find that FRL student achievement was decreasing prior to implementation at “never funded” schools, but these effects are small and not statistically significant. We further find that FRL student performance increased in ELA by 0.12 SD (p<0.05) and in math by 0.15 SD (p<0.05). We find that EL student achievement at “never funded” schools was increasing prior to implementation by 0.08 SD in ELA (p<0.05). In math, we also found a positive
but non-statistically significant effect. We also find that EL student achievement did not meaningfully change after the implementation of WSF at “never funded” schools.

**Evaluation Question 3: Did the Academic Achievement of Students at Specific Zoom-, Victory-, SB 178- and Never Funded Schools (i.e., rural, urban) change After WSF?**

We next explore the impact of WSF on specific types of schools, namely schools in rural and urban school districts. We first show the impact on all schools in rural and urban school districts in ELA (columns 1 and 2) and math (columns 5 and 6) and then on Zoom-, Victory-, SB 178- and “never funded” schools in rural and urban school districts in ELA (columns 3 and 4) and math (columns 7 and 8). These results are shown in Table 4.

As provided in column (1), we found that each additional pre-treatment year was associated with a -0.061 SD decrease in ELA achievement for students at schools in rural school districts; however, this effect was not statistically significant. In comparison, each additional pre-treatment year was associated with a 0.140 SD increase in ELA achievement (p<0.01) for students at schools in urban districts (Column 2). After the implementation of WSF, we find that students at schools in rural districts experienced a 0.12 SD decrease in ELA achievement (p<0.01), while students at schools in urban districts experienced a 0.14 SD increase in ELA achievement (p<0.001). The effects are similar in math (columns 5 and 6).

When looking at students at Zoom, Victory, and SB 178 schools in rural and urban school districts, specifically, we see similar results. Students at rural Zoom, Victory, and SB 178 schools experienced no significant change in ELA and math achievement prior to or after the implementation of WSF (Columns 3 and 7). Students at urban Zoom, Victory, and SB 178 schools, however, experienced a statistically significant positive increase in ELA and math achievement prior
Table 4. Interrupted Time Series estimates of change in Student ELA and Math Achievement at Zoom-, Victory-, SB178-Funded Schools by School Characteristics

<table>
<thead>
<tr>
<th></th>
<th>Rural All</th>
<th>Urban All</th>
<th>Rural Zoom, Victory, SB178</th>
<th>Urban Zoom, Victory, SB178</th>
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<tr>
<td>Year</td>
<td>-0.061 (0.050)</td>
<td>0.097*** (0.017)</td>
<td>0.032 (0.063)</td>
<td>0.203*** (0.032)</td>
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<tr>
<td>2021-22</td>
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<td>0.140*** (0.018)</td>
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<tr>
<td>Year</td>
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<td>0.880</td>
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<td>0.889</td>
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</table>

* p<0.05; ** p<0.01; *** p<0.001; The coefficient on the 2021-22 indicator represents the ITS estimate for the change in student achievement from the pre-treatment trend for FRL and EL students relative to non-FRL and non-EL students. Models include all students at Zoom-, Victory-, SB178-, and Never-Funded Schools.
to or after the implementation of WSF (Columns 4 and 8). This could suggest that student achievement at urban Zoom, Victory, and SB 178 was growing at a faster rate prior to WSF and this trend continued after implementation.

**Evaluation Question 4: Did WSF Impact Academic Achievement at Never Funded Schools?**

To capture the causal impact of WSF on student achievement, we estimated a series of event study models that compare trends in ELA and math achievement at matched “never funded” schools to a set of matched Zoom, Victory, and SB178 schools. The matched “never funded” schools represent the most likely Zoom, Victory, or SB178 schools had these programs’ selection criteria been expanded to encompass a wider set of schools.

Figure 5 shows the event study estimates for the impact of WSF implementation on student ELA achievement. The blue dot represents the mean difference in ELA achievement between treated “never funded” schools and comparison Zoom, Victory, and SB 178 schools relative to the year prior to WSF implementation (i.e., the last pre-treatment year). The capped blue lines show the 95 percent confidence intervals on these estimates. If “never funded” and comparison schools were trending similarly prior to the implementation of WSF, then we would expect to see the mean pre-treatment difference in year -3 (i.e., 2017-18) and year -2 (2018-19) to be close to zero. We show that these mean pre-treatment differences are close to zero in year -3 and year -2. Year zero is the treatment year (2021-22) and 2019-20 is excluded from this analysis because SBAC exams were not administered in that year. The deviation from zero in year zero represents a positive treatment effect. In other words, we find that “never funded” students perform 0.15 SD higher in ELA compared to comparison students after implementation of WSF relative to before implementation. This effect is statistically significant.
Figure 5. Event Study Estimates of Impact of Switch to New Nevada Plan on Student ELA Achievement

Notes: Event study estimates are reported for students who were in “never funded” schools at baseline (2020-21) and the treatment year (2021-22) relative to “always funded” schools. The blue dot represents the point estimate (average difference between “never funded” and “always funded” schools relative to the last pre-treatment year) and the blue capped line represents the 95% confidence interval. The treatment effect is shown in year zero.
Figure 6 shows the results in math, which are similar to the ELA results. We find that students at "never funded" schools were trending similarly in match achievement to comparison schools prior to the implementation of WSF. Further, we find that treated “never funded” students experienced a 0.90 SD increase in math achievement after implementation relative to comparison students. This effect is statistically significant.

**Evaluation Question 5: Did WSF Impact Academic Achievement for Specific Student Subgroups at Never Funded Schools?**

Since the WSF directs additional funding to at-risk and EL students, we explore heterogeneity in the effects presented above based on a students’ FRL and EL student status. We run a variation on the event student models by interacting the treatment and year indicator with student FRL and EL student status. These results are shown in Table 5. We find no significant change in the performance of FRL students relative to non-FRL students after the implementation of WSF in the treatment group relative to the comparison group (columns 1 and 2). Similarly, we find no significant change in the performance of EL students relative to non-EL students after the implementation of WSF in the treatment group relative to the comparison group (columns 3 and 4).

**Evaluation Question 6: What are Stakeholder Perceptions of WSF?**

In our implementation analysis, we explored how school, district, and charter administrators perceived the change from the Zoom, Victory, and SB 178 grant programs to the WSF model. Our findings revealed several important themes for policymakers in the state to consider. First, participants revealed that full implementation of PCFP had not happened yet. Clarity around the new funding model was complicated by school- and district-level budgets consisting of multiple funding sources, including federal aid from COVID-19 relief packages and Title I. Second, although the state enacted policies intended to ease the transition to the new plan, participants also
Figure 6. Event Study Estimates of Impact of Switch to New Nevada Plan on Student Math Achievement

Notes: Event study estimates are reported for students who were in “never funded” schools at baseline (2020-21) and the treatment year (2021-22) relative to “always funded” schools. The blue dot represents the point estimate (average difference between “never funded” and “always funded” schools relative to the last pre-treatment year) and the blue capped line represents the 95% confidence interval. The treatment effect is shown in year zero.
Table 5. Event study estimates of change in Student ELA and Math Achievement at Never-Funded Schools Relative to Always-Funded Schools (FRL and EL Subgroups)

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<tr>
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<tr>
<td>2017-18 x treatment x FRL</td>
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<td>-0.053 (0.092)</td>
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<td>2018-19 x treatment x FRL</td>
<td>-0.118 (0.079)</td>
<td>-0.109 (0.081)</td>
</tr>
<tr>
<td>2020-21 x treatment x FRL</td>
<td>Ref</td>
<td>Ref</td>
</tr>
<tr>
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<td>0.006 (0.095)</td>
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<td>R-Sq</td>
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<td>-0.067 (0.087)</td>
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<td>2018-19 x treatment x EL</td>
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<tr>
<td>R-Sq</td>
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* p<0.05; ** p<0.01; *** p<0.001; The coefficient on the 2021-22 indicator represents the event study estimate for the change in student achievement from the last pre-treatment year for FRL and EL students relative to non-FRL and non-EL students at Never-Funded relative to Always-Funded schools. Models include all students at Zoom-, Victory-, SB178-, and Never-Funded Schools.
demonstrated a variety of attitudes about the change to WSF, ranging from receptive to restrained to resistant. Twelve were generally receptive to the plan. Five were agnostic. Fourteen voiced resistances to the plan. Third, participants offered recommendations for improving WSF moving forward, including their perceptions of how the funding formula is weighted with specific consideration for at-risk (formerly FRL) students.

**A Transition Complicated by Federal COVID-19 Funding and the State’s Hold Harmless Policy**

Emergent patterns in the data suggest that other factors have supported principals to continue implementing programs, and accordingly, they had not yet fully implemented the PCFP. Participants identified federal funding sources (e.g., ESSR and Title I) and the state’s hold harmless policy for the move to WSF as protective factors against a full transition to WSF in their schools and districts. The hold harmless policy was designed to protect school districts from unexpected losses in revenue during the change in funding models (Nevada Department of Education, 2020). Our analyses showed that these factors complicated participants’ interpretations of WSF, as school leaders and central staff members have not yet seen the full effect of the new funding formula and therefore did not yet have a full accounting of its impact.

Still, they described anticipated adjustments to budgets, as well as a range of strategic responses either to continue providing programming and support in the face of reductions or to leverage funding increases. When asked about changes, if any, they’ve noticed in budgeting or programming since the implementation of the PCFP, one principal reflected, “Not really, because we got ESSER funds, which I was able to use to fill anything that I might have lost through Zoom, but that goes away this year.” Her comments captured the common refrain of “wait and see.” Similarly, participants shared that they had many questions about how their budgets would be
affected by full implementation of WSF. They wondered, “What are we going to do when the money runs out?” and “How can we do things” now that “ESSER dollars…are disappearing,” or whether “the district has a plan for how they’re going to make up for the money they gave everybody?” When asked to anticipate how the new funding plan may affect schools, one central staff member expressed that sense of ambiguity:

I think that that's hard to truly answer yet, but knowing that it's coming, there are potential changes. The challenge is this will be the first year, the ’23-'24 budget… [PCFP] has only been in operation for two years, and even in year one, we didn't fully, fully adopt it to make sure that we're fully understanding this before we fully go to some components.

Another district central staff member was franker. In her words: “We're definitely approaching a funding cliff, and we've been trying to think about how we're going to solve that problem.”

Participants’ responses showed some anxieties around full implementation of WSF, with many school districts using stop gap measures, such as federal funding and the hold harmless clause to avoid fully adopting the new model. While these measures were working in the near-term, participants knew that they are not sustainable long-term, as some funds such as ESSER, will expire in the coming school year. There seemed to be considerable concern that the new model would not equally fund districts in the same way as prior programs, leaving many districts trying to come up with solutions to looming budget shortfalls. In the meantime, responses suggest that districts are still working through how they will navigate the funding change.

A Range of Attitudes about the Pupil-Centered Funding Plan

Although respondents have a still-evolving picture of the PCFP, their range of perceptions offers nuanced, descriptive insights into the new funding plan. Interview data were organized into
three emergent categories: receptive to the PCFP, restraint for the PCFP, and resistant to the PCFP. Receptive school and district leaders described the PCFP as fairer and more supportive of strategic, school-level planning. They viewed less prescriptive controls as signaling increased capacity to address the “needs of your campus or your students,” allowing leaders to contour educational supports to each school or district’s needs. Restrained leaders mostly shrugged at the new plan, depicting it as not having much of an effect, positive or negative, on budgets and bottom lines. In contrast, resistant leaders shared concerns about being able to fund student success programs, replace old technologies, hire staff, and provide supportive resources, programs, curricula in order to facilitate or maintain student growth in the face of perceived lack of support. This was particularly true for respondents in rural districts. In the data below, we demonstrate this range of perspectives.

**Receptive to the Pupil-Centered Funding Plan**

Across those who expressed receptivity to the funding plan, respondents viewed the new plan as an efficient, commonsense approach to funding education for Nevada’s student body. Beyond more money for resources and programs, school and district leaders described the new plan as more conducive to targeting individual student needs. Since principals “are the closest individuals to the customers,” one reasoned that “they should have that ability to make those funding decisions without a bureaucracy that is not efficient or effective in making decisions for your students.” Another saw the benefits of being able to make financial decisions at the school level as opposed to at a district level when they said:

[Central office members are] getting less control, which from a principal standpoint is excellent, because [the] central office is a huge hub. They don't know the needs of my school. And the more bureaucracy that is in the way of those funding, the more difficult my job as an administrator.
In particular, respondents zeroed in on increased flexibility of use for PCFP funds. With fewer prescriptive limitations on how to allocate funding, they viewed the plan as signaling fewer top-down controls which, as one district central staff member said, encourages schools “to be more strategically aligned to where the needs are for students at the individual school level.” Similarly, a principal of “an at-risk school and an inner-city school,” said programming flexibility allowed her to cater to her community’s specific educational needs, adding “The new formula is helping a school like this….The kids that I have are getting the most assistance that they need. That's what we needed in a school like this.” Another principal felt schools like his now, “have more choice of how they were going to spend this money and invest this money for students.” A third principal, who said she did not “fully understand how the formula works” beyond getting “additional monies for students that are at-risk and EL kids,” was quick to point out that “at-risk is expensive.” She shared her strategic vision for the how the new funding plan will support vital interventions in addition to academic support:

It helps tremendously because we provide a lot of wraparound services as well. A lot of what our kids struggle with is a gigantic need outside of just instruction for academics. So, I'm able to use that money to support them in other ways. Those additional wraparound services that we can provide here at the school that the EL money and the at-risk money allows me to purchase class-size-reduction teachers, so that we keep our class sizes smaller and additional strategists to work with our lower-performing kids…There's a lot of support that we're able to provide with extra money for staff and programs that support student success, because at this moment in time, we really, really need it. The kids that we're trying to support at a high-needs, Title I school, it takes an army to do that. And that's why I hired one.
Another central staff member similarly lauded the new plan from a district-level perspective, describing increased resources and flexibility of school-level decision making as positioning leaders to best support individual schools and students most in need. In her words:

I like the flexibility of the funding and being able to identify what student needs are and then target those supports. Whereas Zoom was a very prescriptive model—it was funding, but we allocated positions—now we can say, ‘Okay, what does this school need? What does this group of children need?’ And we need to make tweaks to that because maybe this wasn’t exactly the support that were beneficial here.

Relatedly, another central staff member, depicted perceived flexibility as supporting efficiency or, at least, lessening waste. In her words:

Any time you have to use money in a specific way that may not fit the needs of your campus or your student needs, that's going to cause an issue with the services that you're providing. And there are several instances that I can think of where it's like, ‘All right, we don't need this, but we have to spend this money this way because this is the only thing that's going to help us right now, so use this money this way.’ It's not efficient. And when something's not efficient, it ends up not making the changes in services that you would like.

Beyond increasing funding for schools of significant need and inviting school-level granularity of use, other respondents saw the new plan as righting an inequity, by providing funds for EL and at-risk students who hadn’t received prior support due to school-level EL and at-risk populations not meeting minimum thresholds. A central staff member appreciated being able to convey this shift to those schools who in the past did not qualify for special funds despite having sizable EL and at-risk populations, adding, “now everyone gets a little bit of that [funding] because they have those students.” This, he suggested, both allows for more transparency at the district level
“in terms of what's happening with the budget formula” and supports school leaders to accommodate the needs of their entire student bodies. He continued:

That was always the piece that we heard on the other side. Why this cutoff? Why is it at this cutoff? And now I don't get, even though I'm at 49.9%, I still have those kids. How am I supposed to serve them? I think this allows that to be more strategically aligned to where the needs are for students at the individual school level to be able to provide those resources.

Another principal agreed, arguing that “the money should follow the kid and it should be used directly for what it's intended for.” She described the new plan as “allowing [her] to budget in resources that I know I can afford in the long term.” In her words:

I understand the old system where you group the money up, and these schools have lots of needs, so they get that pot of money. But the problem is then it shorts all the other kids that may not be at a predominantly FRL school or a predominantly Title I or Title III school. The money needs to go with every kid, whatever school they're at, no matter what the rest of the population is….Because I don't have a large population of English language learners or a large population of free and reduced lunch students, a lot of times, we get nothing. I'm hoping that the money following the kid will provide more supports and resources for those students who need it, and they shouldn't be punished just because they're in a school with a whole bunch of kids who don't need it.

Altogether, the participants whose responses were categorized as receptive to PCFP appreciated how the new model could better meet the needs of students because funding and programmatic decisions would be made by the leaders with the most first-hand knowledge of an individual school. They also expressed enthusiasm for how WSF would distribute resources to
reduce waste and provide additional funding to schools that had not previously qualified under the Zoom, Victory, or SB 178 grant programs.

**Restraint for the Pupil-Centered Funding Plan**

Other school and district leaders expressed muted views of the new funding plan, depicting it as not having a large effect, positive or negative, on budgets and bottom lines. They saw the new plan as “fairer” but mostly just “a little bit more money” that registers a small impact. Respondents, too, saw increased funding opportunities, however meager, as more equitable across their districts. As one principal said:

I don't think it'll really change a whole lot. I think it's a lot fairer, to tell you the honest truth. Granted, I lost a little bit of money… In the past, I've always had so much money, and then people in [the district] would be like, “That's not fair. You've got all this money.” I'm like, “Well, my school needs it.” But they did too, really. And so, now they can use it more as well.

Another principal saw pupil-centered funding as an opportunity to make small changes, saying: [It's] not a significant amount of money, just a few thousand dollars for some EL programs and things. I think I do appreciate that the funding gives me the ability to give the kids that need more, as opposed to the kids that come in proficient.”

A third principal appreciated the slight boost but similarly shrugged at the amounts, reasoning that the allotted funds do not put much of a dent in student needs nor support significant change. She said:

I was excited when I heard about it, but the truth is our at-risk funding is pretty low considering how much time and effort it takes to teach students. We're not going to be able to do anything really exciting or out of the box or break the mold. Just change the status
quos. We're going to keep fighting this uphill battle, because it's really not a very significant amount of money.

A final principal registered the new plan mostly as a nuisance, suggesting the biggest impact was with tracking, using, and reporting expenses across different funding sources that required her to develop her “own little flipping spreadsheet to keep track.” In her words:

Honestly, it didn’t really make a huge difference for me other than I now had to put things in different buckets. Did we get any extra money? I think I got a little more money. Honestly, the big issue with budgeting is all the strings that are attached to it. That's why we run into the most problems. It's just so many different little pots of money that you've got to sort out.

As a whole, administrators who offered a tepid response to WSF described how the shift in funding models would not radically transform the budgets or standard operating procedures at their schools. They did acknowledge that restructuring how the funding would be assigned to individual students as opposed to schools would expand the number of schools that receive funding, increasing equity and potentially improving the outcomes for at-risk and EL students in those schools.

**Resistant to the Pupil-Centered Funding Plan**

Across those who expressed resistance to the funding plan, a common concern was the loss of grant funding under Zoom, Victory, and SB 178, which was assigned at the school level. Previously, schools had leveraged these resources to provide support to all students, including at-risk students who may not qualify as EL but still benefit from these programs. One principal who had led Zoom schools for several years prior to the new funding plan, reflected on ushering her school through the transition into and then away from Zoom-specific funding. She had used the Zoom
funding to expand pre-K programming, reduce class sizes, and help all students develop literacy skills. In her words:

When Zoom came in, all of a sudden our kindergarten classes went from 35 to 21. I will never forget the first year of being a Zoom kindergarten and my kindergarten teachers came to me crying and said, “Thank you, thank you, thank you. I now know what it's like to teach kindergarten and not herd cats.”

She was among several principals who described how non-EL students, who are “needing the exact same language support as those students that we were serving in our Zoom Reading Center,” were able to benefit from those resources. Losing those funds, she inferred, portended unintended consequences for non-EL students who also needed extra support now that her funding dollars have decreased significantly. She continued:

Right now, we're half funded for Zoom. So even between '21-'22 and this year, it's a half a million dollars that I have to make up out of my general budget to continue what we are doing as former Zoom schools. All of those things that made us successful, I am having to offset using general education funds. The amount of money, even though we're a 100% at-risk and have a significant EL population, does not cover the cost of those programs that made it so successful. I definitely have concerns, and I feared this when we heard about weighted funding, that we were not going to be weighted enough and it has totally come true. At this time, I don't know what I'm going to cut. There are some Zoom schools who have eliminated their reading center, or eliminated their strategists or I know some of them who are, a lot of them are going down to one pre-K unit and having a waiting list again.

As with others, she expressed concern about maintaining, much less building on, demonstrated student growth at her school. In her words:
So I've been able to over the last two years, heading into our third year being formerly known as Zoom, our students have not experienced a change, because I've been able to sustain those programs. But they will. I see it's going to impact our students, again. We are on a growth projectile…That growth is not going to be sustained if we lose this funding.

This principal was not the only respondent to express concerns for student growth and continuity of services, describing an all-too-familiar scramble to fund programs and limit class sizes. As another principal explained:

I've either had Zoom or ESSER grants to get myself more teachers to keep our class sizes small because I'm an impacted school. But I will not be able to do that next year because there's no supplemental grant that's taking the place of Zoom.

A third estimated, unless legislators approve a plan that funds at-risk students differently, he will be forced to "reduce my budget," projecting the “need to cut about five teachers.” Another Zoom school principal shared how she anticipated the effect of losing the extra funding associated with special programming, explaining:

All we did with the pupil-centered funding model, in my opinion, is just move money around…It's not enough. So, I'm sure that everybody's saying that we just don't fund schools appropriately and we can't compete. We're not going to be able to reduce class sizes and bring in more teachers and implement strategies that would actually make a difference in students' lives.

A central staff member added a district-level perspective, wondering about the relationship between the shifts in targeted funding and campuses losing resources. He explained:
There is going to be a shift for those schools and kind of growing pain per se, where they might have to cut the reading center in order to balance their budget or they might have to leverage other funds to provide early childhood services on their campus.

He and others questioned the impact on schools with high at-risk, low-EL populations that no longer receive special funds. In his words:

It is critical for students that are at-risk to have those early interventions and services, at least for kindergarten readiness. So that’s going to be a gap. The reading center did wonders at my school. It truly was an amazing resource to catch students up. It was very strategic. So, schools may have a larger gap or not be able to close the gap between students at grade level and those below grade level within a short term or within a year. It might take longer if they don't have the resources available for the students.

For administrators resistant to WSF, the new model posed threats to the programs (i.e., reading centers and expanded Pre-K classes) and instructional staff (i.e., class-size reduction teacher and learning strategists) that schools had been funding through Zoom, Victory, and SB 178. These participants expressed concern that the loss of additional funding to their schools under WSF would diminish the positive academic growth their schools had experienced in recent years.
Rural Districts and the Pupil-Centered Funding Plan

Resistance to the new funding plan was brought into sharper relief during interviews with educators from rural districts (and charter schools, regardless of location). Across the data, principals and central staff members in rural districts largely expressed resistance to the new funding plan. Most, but not all, depicted themselves as “frustrated from a place of inequity” in comparison to the larger districts. They described their scenarios, alternately, as “trying to do more with less,” as “right at the precipice…[of being] in a world of hurt” when the new plan is fully realized, and as “being double penalized” due to funding decreases further aggravating existing challenges, such as recruiting and retaining talent, and lack of community funding opportunities to augment fiscal gaps.

As an example, one rural central staff member held up teacher shortages to illustrate how similar issues can disproportionately affect smaller Nevada districts. In his words:

We're in the same boat in as much as we have a shortage; we are not in the same boat in as much as level of difficulty of attracting employees. And so, every little obstacle that's put in the way, if it's a small rock in a big city, it's a big boulder in a rural county.

The frustration is further evident in another principal’s description of efforts to improve student outcomes in the face of fiscal reality. In his words:

We've pitched best teaching practices of, ‘Hey, can we get class size numbers down?’ But we don't have the funds to add staff. ‘Can we do literacy coaches or teaching coaches that other districts have?’ And again, it's one of those, ‘Hey, the funding's just not there to be able to add those type of personnel’…You just end up almost limiting so much that all you can do is go skeletal, and you can only run that way for so long before it just dies out and does detriment to students.
Another principal was similarly concerned with student outcomes, describing the situation in dire terms. In her words:

We are not a wealthy school...I mean, class sizes will go bigger. We will not be able to have the resources. The teachers will have to make cuts that way. I mean, we just can all see it. It's like watching a train wreck. I really don't know how we're going to survive. I think that we're going to have to go into such a bad state that maybe the governor realizes that we have to have something, because right now, I don't think they know. I think it's easy for legislators to say,'Oh, this just sounds fair,’ and it does. It does sound very fair, but we're going to crash.

A district central staff member summarized perceived challenges of rural districts, expressing concern for the quality of learning experiences and robustness of support. In his words:

When you're going per pupil, you've only got so much to keep those schools running. I'm going to have to rob Peter, Paul and Mary to pay whoever. It's not a one for one, it's we're going to have to rip programs from everywhere just to try to have an equity of programs anywhere...I know the voices, even though there's 15 of us, they're the voices of thousands and tens of thousands of kids. It's not 15 school district superintendents whining. It's 15 school district superintendents advocating on behalf of tens of thousands of students and the quality of education that the legislature is trying to say we need more accountability on right now does not match up with what they're providing, it's just not realistic. And it's not lack of effort, it's not for lack of caring, it's not for lack of innovation and creativity, it's a lack of resources to be able to realize what they're asking us to realize. And until that changes, it's hard to envision sweeping improvements like they want to see.

Indeed, rural leaders voiced frustration over the perceived “disconnect between what it takes to run a school financially and just emotionally and willpower and all that stuff,” another principal
said, “and the people who made these decisions on the pupil-centered funding plan.” In light of anticipated cuts to programming, which, he said, are inconsistent with student growth, before adding, “All the while, accountability, like ‘you need to get these scores up while we underpay, underfund,’ and then, ‘here, we're going to throw a little bit of money at you’ and now let's see the magic happen.”

**Administrators’ Recommendations for Improving PCFP**

Interviewees were asked about their perceptions of the actual dollar amounts tied to individual PCFP funding weights, specifically, the weighted differences among at-risk, EL, and gifted and talented students. They were also asked what adjustments, if any, they would make to the new funding model. Our analysis showed that respondents, regardless of their perception of the program overall, overwhelmingly felt the amount of weighted funding for at-risk students does not reflect real need and was not enough money to implement impactful programming and support. Participants both described the disconnect between weighted funds versus the actual costs of servicing at-risk populations and advised that the state reconsider the definition of “at-risk.”

Respondents expressed concern for weighing at-risk students at a significantly smaller percentage than EL (or gifted and talented) students, viewing the funding formula as disconnected from “true costs.” They depicted weighted amounts as too small to make a difference and at-risk students as requiring far more support than the per-pupil funding level infers. In one district central staff member’s words:

I think for at-risk, those kids are so complicated. They have so many issues going on that I would say, my own experience for the way we write for those types of programming is, they're expensive…The at-risk amount is pitiful. I mean, if you're saying $250 [sic] a kid and think about one counseling session, a $100 to $150 right now, right? Which it's just not
enough to cover things. Yeah, I would adjust the weights for sure. I mean, we need to focus on mental health and safety. And I know there's some money out there already, but it's not enough.

To further illustrate this point, one principal shared how pupil-centered at-risk budgeting works at her school, offering a real-world example of how the funding, in her estimation, does not add up to making an impact:

I have 406 students who are “at-risk.” They give us $220 per kid, which is significantly less than English learners. But these students, a majority of them come from generational poverty. And the amount of obstacles that we have in order to get them here and make sure they’re reading on level and do parent trainings and have all those things. It's just so low in comparison. So I don't think that the at-risk funding is nearly enough because that's a total of only 89,000. That's not even enough for one teacher. And it's 406 students. So, what's the impact on that going to have? Pretty much nothing.

A third similarly held up the at-risk per-pupil funding level as illustrative of the disconnect. In her words, “They're saying it takes only $220 more to educate a student who's at risk than a typical student who's not at risk? I don't know how they came up with that as enough to even add any services.” She elaborated:

I would've actually flipped it simply because our students that are very at-risk and are coming from very high poverty environments, living in situations of chronic trauma like that, they need a significant amount of wraparound supports and social-emotional supports and services to even be able to engage. With our EL students, it's like an additional academic need, but our students that have intensive needs as far as social-emotional needs. We've got to cover that piece before we can even get to the academics. The fact that that is funded at a
lower level really perplexes me because I feel like the need typically is heavier there than it is with our EL students. Not all. I mean, there's crossover too, of course, but I would say the need for support and resources is actually heavier on the at-risk side.

In addition to concerns over modest funding amounts, respondents invited further consideration for (re)defining “at-risk” in a manner they saw as more consistent with the day-to-day challenges those students navigate. As one principal said, rather than “not graduating or not reading,” a more nuanced designation, and along with more targeted funding, can support schools with significant at-risk student populations. In her words:

I think probably my strongest feeling about the funding formula, in general, is the disparity between the EL and at-risk funding. I would say that if there was any point I wanted to make, that would be it. Because the need is very high and I think the pandemic exacerbated that….The higher the level of at-riskness, it almost exponentially multiplies the resources that you need. Because when you have different factors at play like transiency and chronic absenteeism and behavior and academics and kids living in chronic [trauma]. You put all of those things together, it needs to be weighted that much more. Because it takes resources from every angle just to mitigate the risk factors and then move on with typical education.

Right. So, to be able to mitigate all of that with wraparound services and mental health supports and additional curriculum resources and additional coaching for teachers that, because they're all brand new, I would just say that that volume of need is probably more than what would be identified.

When asked what further considerations should inform “at-risk,” she suggested a definition that considers how “generational poverty” is manifest in students’ lives. In her words:
I would say student transiency is a huge, huge indicator. That comes with generational poverty and food insecurity and a lot of other survival-type needs. That I would think would be a very high indicator of “at-riskness,” I guess, if that's a term. Obviously, there's always academics and taking a look at that. But when we see those indicators of consistent behavior issues, there's some deeper-rooted issues there….Chronic absenteeism is another one. I see a huge just trend when kids are chronically absent in elementary school that it is typically the result of parents who are overwhelmed by life. It's usually not because the kid is just disengaged. Kindergartners love school. It's not that hard yet. They're still kids. Yet, it's our highest rate of chronic absenteeism. There's probably a whole lot of other things that you could throw into that category, but it's more than just, “Income is limited, and I qualify for reduced lunch.”

As the participants’ remarks here convey, they strongly recommended that the state not only reassess the dollar amount tied to the at-risk student weight but also reconsider the parameters that qualify students for at-risk funding.

**Discussion**

In this evaluation, we aimed to uncover the impact and implementation of the change from targeted grant-funded programs to a WSF model in Nevada during the 2021-22 school year. We addressed this topic in two ways using both quantitative and qualitative approaches. First, in our impact analysis, we leveraged a panel data of student achievement, student characteristics, and school-level characteristics from 2017-18 through 2021-22 school years to measure how the change in funding models impacted student achievement. Second, we sought to understand what the implementation of the new funding model looked like in practice. To do this, we conducted in-depth interviews with 31 school and district administrators from across the state. The focus of the
interviews was participants’ perceptions of how WSF would impact school budgets and programs, how WSF might impact Nevada’s K-12 students, and how the weights for various subgroups were calculated, and recommendations for improving WSF going forward. Taken together, the findings from the quantitative and qualitative analyses paint a detailed and nuanced picture of WSF in the state.

Impact Evaluation

The results from our quantitative analysis measuring the impact of the switch to WSF on student achievement suggest that the new funding model holds some promise for bolstering students’ performance on the SBAC in ELA and math. Using an interrupted time series model, we first estimate the average change in achievement for students in schools funded by Zoom, Victory, and SB 178 grants after the move to WSF, as well as for students in “never funded” schools that did not receive funding from the grant programs. We find moderate evidence to suggest that WSF had a meaningful impact on student achievement. The results show that WSF is associated with a positive, statistically significant increase in average student achievement in both ELA and math for students in SB 178 schools and in math for students in Victory schools. We find no significant changes in average student achievement following the implementation of WSF for students in Zoom and “never funded” Schools, as well as in ELA for students in Victory schools. Prior to the state’s transition to WSF, average student achievement was positive and significant for student achievement in ELA and math in Zoom schools and SB 178. We find no significant changes in achievement for Victory and “never funded” schools in the years before WSF.

Because the additional funding provided through WSF and its predecessors was designed to support FRL and EL students, we also conducted analyses on the FRL and EL subgroups across Zoom, Victory, SB 178, and “never funded” schools. We find only slight evidence to suggest that
the change in funding models meaningfully impacted student achievement for FRL and EL students. When looking specifically at the average change in student achievement for FRL and EL students at these schools, we find that only FRL students at “never funded” schools showed positive, significant increases in student achievement after the change to WSF. Before the change in funding models, student achievement in math at SB 178 schools and in ELA at “never funded” schools were positive and significant.

To account for the variation in types of school districts in Nevada, we also ran an ITS model to compare the differences in average student achievement between rural and urban districts. The results showed that there was a negative, statistically significant relationship between the change to WSF and achievement in among schools in rural school districts, including those that had previously received Zoom, Victory, or SB 178 schools.

Taken altogether, the findings from our ITS models suggest that additional funding in schools that serve EL and FRL students may be loosely connected to an increase in average student achievement, particularly in math. However, some of the findings raise additional questions about the efficacy and equity of WSF compared to grant programs. Importantly, we found that average student achievement for students in rural grant-funded schools decreased after the switch to WSF. This finding indicates that there may be substantial differences in how rural school districts and urban school districts are able to adapt and accommodate the changes in budgets associated with WSF. Furthermore, across all students at Zoom schools, the positive, significant increase in average student achievement in ELA and math prior to WSF goes away once WSF is implemented. In fact, we observe a negative, although not statistically significant, impact on achievement for students in Zoom schools in 2021-22.
The above points highlight one limitation of the ITS models—and the quantitative analyses as a whole. Data showing the specific dollar amounts each child and each school received over time was not available for use in the panel. This information could have shown whether schools that had received additional funding through the grants program received a different amount of funding through WSF. Importantly, as previously mentioned, the ITS results should not be interpreted causally since the impact of WSF cannot be disentangled from confounding factors, such as the COVID-19 pandemic and the influx of ESSR money that also potentially influenced student achievement.

To allow for causal inferences about the impact of WSF on student achievement in Nevada, we then use an event study model. This model compares a subset of “never funded” schools, which received funding for the first time in 2021-22 under WSF, to a matched counterfactual comparison group of schools that were “always funded” under the grant programs. The findings from this portion of the quantitative analysis provides stronger evidence that WSF holds promise for raising student achievement. Our analyses show that students in “never funded” schools performed 0.15 SD higher in ELA and 0.90 SD higher in math on the SBAC than the students at the comparison schools. Both effects were statistically significant. The results suggest that broadening the number of schools that receive funding to support FRL and EL student populations has a positive impact on the achievement in schools that were not eligible for additional funding under the targeted grant programs.

From a policy standpoint, the event study results provide early evidence that the WSF model is working to improve student academic achievement and equity across the state, particularly at schools that did not previously qualify for Zoom, Victory, and SB 178 funding. These findings are consistent with the literature on the purpose and desired outcomes for WSF models (Levin et al., 2013; Levin et al., 2019; Roza et al., 2020). Importantly, our event study models also present a causal
relationship between WSF and student achievement; prior research has not fully been able to do achieve this finding (Lee & Fuller, 2022; Roza et al., 2020; Tuchman et al., 2022).

Additionally, the switch was done in a way that did not negatively impact the achievement of students at Zoom, Victory, and SB 178 schools. However, the switch to WSF funding may be negatively impacting students in rural school districts relative to students in urban school districts. This is an area for concern going forward.

**Implementation Evaluation**

While our quantitative results suggest that there may be some promise from WSF for improving student achievement, we also sought to understand how the change in funding models impacted districts and schools from the perspective of the administrators responsible for its implementation. Understanding the firsthand experiences of those tasked with implementing WSF can assist the state in shaping the policy moving forward. Our data collection and analyses focused on three areas: (1) how implementation has been progressing thus far at the district and school levels, (2) participants’ perceptions of the new funding plan’s impact on school budgets, programs, and students, and (3) the participants’ reflections on funding weights and common-sense recommendations for improving the plan for the future modifications.

Our analyses revealed that the shift from Zoom, Victory, and SB 178 grant programming to the WSF model was not yet fully realized at the district and school level. Participants described how they were currently relying on federal funding (e.g., Title I and ESSR) and the state’s hold harmless policy to temporarily stave off what one participant called “the funding cliff.” Many participants expressed anxiety around how their budgets will change once these resources are no longer available in the coming 2023-24 school year.
To more deeply understand how participants felt about the new funding model, we organized their reflections on how WSF will impact budgets, programming, and students in their districts and schools into three categories: receptive, reluctant, and resistant. We observed that participants who were receptive to the transition to WSF felt it offered two benefits over prior funding programs in the state. First, WSF would offer site-based school administrators more autonomy over their budgets. Participants felt this was important because it allowed principals to leverage their intimate knowledge of their students’ needs and make strategic decisions about how best to support them. Second, WSF would more equitably distribute funding across all schools serving EL and at-risk students since funding would be tied to individual students. Under the Zoom, Victory, and SB178 grant programs, funding was targeted at specific schools with high concentrations of FRL and EL students.

Enthusiasm for the program was weaker among participants whose responses were coded as reluctant. These participants explained that while WSF had potential to be a “fairer” way to allocate resources across schools, they also theorized that the amount of funding would not be large enough to have substantial impact on student outcomes. Additionally, one principal shared the documentation and paperwork required to track how WSF funds were spent had created additional work for her and offered few tangible benefits to her school.

Participants who were resistant to the state’s shift to a WSF model expressed concerns about how the new formula would actually reduce funding levels at the highest need schools and would disrupt ongoing progress that Zoom, Victory, and SB 178 schools were experiencing. Specific programs and instructional supports, such as reading centers, additional teachers hired to reduce class sizes, and expanded Pre-K classes would likely be eliminated in the coming school year according to participants. With the loss of these resources, participants felt that it would be increasingly difficult—if not impossible—to maintain the academic growth at the highest need
schools. In rural schools and districts, participants overwhelmingly feared how the change in funding mechanisms would impact their budgets. Given the limited resources in these school districts, participants were concerned that they would not be able to compensate for the loss of funding from previous programs in the same way that schools in urban districts could. Rural school districts, participants stated, were constantly being asked to do more with less. Rather than improve equity across the state, they felt WSF would actually exacerbate existing inequities between rural and urban schools. In fact, their concerns were aligned with the quantitative results from our ITS models, which showed that average student achievement in rural schools that had received Zoom, Victory, and SB 178 funds actually decreased in the 2021-22 school year.

To ensure the evaluation and exploration of administrators’ experiences were productive, participants were also asked to share their ideas for improving WSF for the future. Two common themes emerged across the interviews regardless of participants’ positions on the funding formula and school locale. First, participants posited that the at-risk student weight would not be sufficient to provide any specific resources or support to bolster student achievement. As a recommendation, participants stated that a larger dollar amount be allocated to the at-risk student weight to better address the myriad of social-emotional and academic needs of students experiencing poverty. Relatedly, participants also shared that the state’s current definition for what students qualified for at-risk funding did not account for the complex factors that contribute to students’ risk, such as generational poverty and chronic trauma. Participants recommended that the criteria for which students qualified for the at-risk weight be expanded to include more students whose personal situations may impact their achievement in school.

Much like the quantitative results, we found a mixed bag of evidence about WSF in the implementation evaluation. We caution that our sample represents only a small fraction of administrators across the state and is neither representative of the demographics nor perceptions of
all administrators in Nevada. Nevertheless, the qualitative analyses provide guidance about how implementation has gone thus far and how it can be improved moving forward. We found that participants had genuine concerns about how full implementation of the PCFP will impact school budgets. While site-based administrators will have more autonomy over their budgets with the WSF model, they may also be faced with difficult decisions about what programs or services will need to be cut when the size of their budgets in 2023-24 is likely reduced.

Regarding the implications of WSF for improving equity, the qualitative evidence presented a more complicated picture than we found with the quantitative analyses. Since the funding to support EL and FRL (at-risk) students would now be spread across more schools, some participants acknowledged that this was a step toward improving equity. On the other hand, some participants, especially administrators in rural areas, felt that the redistribution of funds would reduce the ability of schools to provide needed support to disadvantaged students. They felt that WSF would actually decrease equity by limiting the resources provided to schools that serve large numbers of EL and FRL students. Ultimately, because there has only been one year of WSF and since full implementation has not happened yet, it is unclear yet whether the WSF will increase inequity or will work as designed to increase equity.

Limitations and Future Directions

Despite some positive gains in student achievement and a greater focus on equity and school leaders’ autonomy, there are several limitations to our impact and implementation evaluation. First, the quantitative data only contains one school year post-intervention, which prevents us from knowing several important factors that policymakers should consider when determining the future of WSF. Although we observe a positive and statistically significant increase in achievement for “ever funded” students in the event study model, we cannot observe how this trend would continue
into the future. On the one hand, it is possible that the new influx of money invigorated “never funded” schools into a fever pitch of academic growth that cannot be sustained over time. If that were the case, we may observe a leveling from achievement in these schools over time. While the qualitative data can show how WSP impacted the culture and operations of “never funded” schools, the inability to look at more than one post-intervention year prevents a deeper understanding of the funding model’s impact.

A second and somewhat related limitation is that our evaluation relied on SBAC scores for third through eighth grade students in Nevada public schools. However, the WSF model is applied across all grade levels. Its impact cannot be observed in students whose grade levels fall outside this testing window in this evaluation. In the future, we may get a faint picture of how the change in funding model impacts the younger and older students. If we had additional years of post-intervention data, we could see, for example, how K-2 students in 2021-22 who received additional funding support through WSF performed on the SBAC in third grade and onward.

Third, in our qualitative analyses, interview participants represented only a small portion of administrators across the state. Their perspectives, while valuable for identifying key concerns about implementation of WSF, are not demographically or ideologically representative of all administrators in the state. Moreover, participation in an interview was voluntary. In such cases, there is always the potential for bias, since only administrators who held particularly strong views about the PCFP may have responded to our invitation to interview. Given the pressing need for this evaluation to provide guidance during the current 2023 legislative biennium, our goal in qualitative data collection was to gather a variety of perspectives that can inform an understanding of how WSF is currently perceived and being implemented in schools and districts across the state. Future studies may be able to gather a more representative sample of interview participants to reduce possible bias.
Fourth, much like the quantitative results are limited in being able to forecast future student achievement under WSF, the qualitative results also only capture one year of data. As the interviews showed, participants still had several questions and concerns about how WSF will work in the future and how school budgets, programs, and student outcomes will be impacted. This evaluation can be used to improve the process moving forward, especially using participants’ recommendations, but it cannot predict how WSF will be implemented in the future. Future qualitative inquiries can capture how school and district administrators perceive any modifications made to the PCFP.

Finally, a major caveat for both the qualitative and quantitative analyses emerged from the interview data. Specifically, participants shared that schools had not yet fully implemented WSF as prescribed. Rather, they were relying on other sources, such as federal funding and the state’s hold harmless clause to offset any potential changes in their budgets. Since evaluating individual school budgets was beyond the scope of this evaluation, we cannot determine the extent to which these stop-gap measures may have confounded the data. Quantitatively, this means that there may be some other unobserved confounding factors influencing changes in student achievement. Qualitatively, this means that we don’t necessarily have a complete picture of the process by which administrators implemented the new funding model since that experience is still yet to come.

Policy Recommendations

Leveraging the findings from the impact and implementation evaluations, we conclude with a series of recommendations for legislators and policymakers in Nevada to consider about the PCFP.

Allow Time for Full Implementation of the WSF Model

A limitation of this evaluation is that we were only able to analyze one year of the new funding model being used across the state. Additionally, interview data showed that full
implementation of the new funding model has not yet happened. Accordingly, we cannot confidently conclude the extent to which WSF can improve student outcomes for EL and at-risk students in Nevada. We recommend that another evaluation be conducted after several years of student achievement is available. This will also give schools and districts more time to adjust and reconfigure their budgets using WSF.

**Provide Resources and Reassurance to Worried Administrators**

While WSF models are designed to more equitably distribute fiscal resources across the state, interview data showed that many administrators are gravely concerned about how the new funding model will reduce schools’ capacities to provide programs and services aimed at improving student achievement for FRL and EL students, especially in schools that had previously benefited from Zoom, Victory, and SB 178 grant funding. Two strategies may be useful to address these concerns. First, state-level policymakers could offer to hold listening sessions during which school and district administrators can share and troubleshoot budgeting concerns that they are experiencing. Second, professional development sessions aimed at helping administrators better understand how their budgets will change and how they can strategically plan for this could help prepare them for full implementation of the WSF model.

**Offset Potential Programmatic Losses**

If many schools are forced to eliminate programs that were previously funded through grants, state leaders should consider ways to offset these losses. For example, community-based literacy programs could be used in neighborhoods that have high populations of EL students and families and where schools lost reading centers. Similarly, community-based mental health and counseling resources could be established in neighborhoods with high poverty rates to offset any loss of social-emotional services in high FRL schools. State leaders may also want to consider ways to infuse the
highest need schools with the funding needed to maintain the programs and services that had previously been successful. This could be done through a grant program in addition to the WSF model or through an extension of the hold harmless policy.

**Account for the Additional Challenges Rural Schools and Districts Face**

Because participants from rural schools and districts were overwhelmingly categorized as resistant to WSF, state leaders should acknowledge the specific needs and concerns of these administrators. Moreover, the results from our ITS model comparing the average change in student achievement between students enrolled in grant-funded rural and urban schools showed that there was a negative, statistically significant decrease in achievement for rural students. This finding suggests that WSF in its current form may not equitably support rural schools in the same way it does for urban schools. Policymakers should consider mechanisms for offsetting these differences. Future policies should also address the challenges that rural school districts face, such as greater difficulties in attracting educator talent and a lack of access to other outside resources in the face of budgetary constraints.

**Expand the Inclusion Criteria and Funding for At-Risk Students**

Both the qualitative and quantitative analyses showed that WSF had limited impacts on FRL students. In interviews, participants shared that the applied weight of $220 in additional money for at-risk students (formerly FRL students under Zoom, Victory, and SB 178 funding) did not allocate sufficient resources to meet the needs of students experiencing poverty. Even in schools with hundreds of at-risk students, one participant calculated that the funding would not even be enough to cover one additional teacher salary. Furthermore, participants recommended that the inclusion criteria for what constitutes an at-risk student be expanded to encompass the complex challenges students face, such as generational poverty and chronic trauma.
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Appendix

Principal Semi-Structured Interview Protocol

Thank you for taking time to meet with me today. As a reminder we will be recording today's session for the research team to use only. Do I have permission to record the interview? Do I have your permission to use this for research purposes?

This study is exploring perceptions of Nevada’s new K-12 education funding plan [i.e., the Pupil-Centered Funding Plan (PCFP)] and what, if any, modifications you would suggest to the funding process. Today, I would like to get a sense of your perceptions of the plan, including how it informed your planning and decision-making and any legislative recommendations. The interview will take approximately 60 minutes. This data will be used, in part, to inform legislative decision making. Any information that we use from the interview will be listed anonymously, neither your name nor the name of your school will be shared in the data. Also, you have the right to discontinue your interview at any time.

Background/Warmup:

1. Tell me about your background in education?

2. How long have you been an administrator at your school?

Funding Formula:

3. What was your initial reaction to the PCFP?

4. What kinds of changes, if any, have you noticed in your budget since the implementation of the PCFP?

   a) What effect, if any, has the PCFP had on your spending priorities:

      i. School programming

      ii. People/staffing
5. How do you anticipate the PCFP might affect your budgeting and spending priorities in the next school year (2023-24) and beyond?

6. From your perspective, how do you think the funding plan has affected your students that previously received funding under Zoom, Victory, and SB178 programs (e.g., English learners, high-poverty students)?

   a) How has school programming for these students changed under the PCFP?

   b) (For Elementary School Principals ONLY) How has the shift to the PCFP changed the Read by Grade 3 program, if at all?

7. What do you think about how the funding plan is weighted—specifically, the amount of weight given to At-Risk students, English Learners, and Gifted and Talented students?

   a) What adjustments would you make, if any?

      i. (Potential follow-up:) In other words, which allocations might you decrease, increase and why?

8. Long-term, how do you think the new funding plan will affect your students?

9. What do you want legislators to know about your experience with the new funding plan?

   a) What, if any, specific modifications to the funding plan would you suggest going forward?

      i. (Potential follow-up:) You mentioned [fill in the blank, e.g., Q2: changes/effect/long-term implications]. Can you elaborate on that?

10. Is there anything else I did not ask that would be helpful for understanding your perceptions of Nevada’s new funding plan?

Thank you so much for your insights today, and for your continued commitment to improving education in Nevada.
**District Central Staff Semi-Structured Interview Protocol**

Thank you for taking time to meet with me today. As a reminder we will be recording today's session for the research team to use only. Do I have permission to record the interview? Do I have your permission to use this for research purposes?

This study is exploring perceptions of Nevada’s new K-12 education funding plan [i.e., the Pupil-Centered Funding Plan (PCFP)] and what, if any, modifications you would suggest to the funding process. Today, I would like to get a sense of your perceptions of the plan, including your experiences with implementation and takeaways to support legislative recommendations. The interview will take approximately 60 minutes. This data will be used, in part, to inform legislative decision-making. Any information that we use from the interview will be listed anonymously, neither your name nor the name of your school district will be shared in the data. Also, you have the right to discontinue your interview at any time.

**Background/Warmup:**
1. How long have you worked for _________________ School District?
2. What is your role at ___________ School District?

**Funding Formula:**
3. What was your initial reaction to the PCFP?
4. The PCFP was officially implemented in fiscal year 2021 for the 2021-22 school year. We want to understand your perspective on how the new plan has changed budgeting and implementation:
   a) What kinds of changes, if any, have you noticed in your budget since the implementation of the PCFP?
   b) What do you see as some of the potential benefits of PCFP?
c) What challenges have you faced in the implementation of the PCFP over the last two school years?

d) How do you think the PCFP will impact the school district going forward (long-term)?

5. From your perspective, how do you think the new funding plan has affected students that previously received funding under Zoom, Victory, and SB178 programs (e.g., English-learners and high-poverty students)?

   a) How has school programming for these students changed under the PCFP?
   b) What other programs or plans were previously (but no longer) funded? Talk about those changes?

6. What do you think about how the funding plan is weighted—specifically, the amount of weight given to At-Risk students, English Learners, and Gifted and Talented students?

   a) What adjustments would you make, if any?

      i. (Potential follow-up:) In other words, which allocations might you decrease, increase and why?

7. What do you want legislators to know about your experiences with the new funding plan?

   a) What, if any, specific modifications to the funding plan would you suggest going forward?

      i. (Potential follow-up:) You mentioned [fill in the blank, e.g., 2c & d/challenges, long-term implications]. Can you elaborate on that?

8. Is there anything else I did not ask that would be helpful for understanding your experience with the PCFP?

9. Can you recommend anyone else we should speak to in order to learn more about the implementation of PCFP?
Thank you so much for your insights today, and for your continued commitment to improving education in Nevada.