



Research Report

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Analysis of West Virginia's State School Aid Funding Formula

Recommendations to Enhance Adequacy, Fairness, and
Efficiency of State Funding for Education

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About This Report

This report, prepared for the West Virginia House of Delegates, is intended to provide an independent, holistic assessment of West Virginia’s state school aid funding formula and to identify opportunities for improvements in the state’s funding strategy. We reference a combination of prior research on funding issues, benchmarks and examples from funding formulas nationwide, and analysis of state and national data sets to inform our recommendations.

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Summary

A substantial body of research has established that there is a clear causal relationship between school spending levels and student outcomes. It follows that how West Virginia distributes its funding to schools and students matters as well.

To promote improved learning in West Virginia's PK-12 schools, the West Virginia House of Delegates sponsored RAND to conduct an independent review of the design and adequacy of West Virginia's state school aid funding formula. Informed by prior research, benchmarks from other states, and analyses of spending data in West Virginia and nationwide, we offer recommendations for how the formula and funding-related policies could be enhanced.

Key Findings and Recommendations

- Based on an assessment of the adequacy of current spending levels relative to student needs, we recommend that West Virginia continue to increase overall funding levels for public education, while simultaneously working to improve system effectiveness.
- Compared to other states, West Virginia under-allocates resources to districts that serve students who cost more to educate. We recommend distributing more funding to districts with larger proportions of low-income, special education, and English learner students. Implementing weights similar to the median weights used by other states would boost funding in 28 districts and cost the state around \$37M to hold other districts harmless.
- In the context of anticipated reductions in force, we recommend phasing out funding allocations that reward retention of higher-cost staff. Simultaneously, districts should be empowered to make personnel decisions based more on performance than seniority.
- To remove unhelpful incentives, we recommend basing transportation funding on key cost drivers—such as ridership, mileage, transit time, and fleet condition—instead of individual districts' prior-year transportation spending.
- Directing Hope Scholarship funds toward families who would enroll in private schools regardless of the scholarship is inefficient. To reduce this, we recommend canceling the planned program eligibility expansion and considering income-based eligibility criteria.

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Chapter 1. Introduction

The scope of our work is informed by conversations with and questions from members of the House of Delegates and other state educational leaders who expressed interest in updating the formula to help improve student outcomes. Based on their input and on our holistic review of the state's funding strategy, the report focuses on four questions:

1. What is the **adequacy** of West Virginia's per-pupil funding levels in PK-12 education, relative to the needs of its students and in comparison to spending levels in other states?
2. To what extent is the **distribution** of funds to districts commensurate with the educational challenges and costs that districts face?
3. What are the implications of the **design** of the current funding formula for districts' **incentives** around effective use of resources?
4. What are the implications of the Hope scholarship program and a planned expansion in program eligibility for the **efficiency** of state education spending in West Virginia?

In Chapters 2 through 5 of this report, we summarize our analyses and recommendations related to each of these questions. **A complete summary of all report recommendations is provided in Chapter 6.**

Throughout, we reference more detailed information provided in three supplemental appendixes. Appendix A includes additional information from our review of research literature and of other state funding formulas. In Appendix B, we provide details about the methods and supplemental findings from our analysis of current spending distributions in West Virginia. Finally, in Appendix C, we include scenario analyses that illustrate the expected impacts across West Virginia's school districts of the types of distributional changes to the funding formula that we recommend. These appendixes can be found in the technical annex available at www.rand.org/t/RRA4161-1.

Our recommendations are informed by desk research and quantitative analyses, including review of relevant research literature in several topic areas, a review of state funding formulas nationwide, and statistical analyses of school spending distributions nationwide and in West Virginia in particular. Our work was facilitated by detailed records provided by the West Virginia Department of Education (WVDE) about state school aid funding formula allocations and calculations, and conversations with staff at WVDE familiar with the funding formula. We also received data and helpful context from state treasury officials associated with the Hope Scholarship program.

One limitation of our work is our limited direct engagement with stakeholders most familiar with the historical context around school funding in West Virginia. This poses some challenge for our interpretation of the original intent of funding statutes that determine current allocations.

A Brief Orientation to West Virginia's State School Aid Formula

West Virginia determines the amount of state aid allocated to districts to fund public schools through a multi-step process known as the Public School Support program (also referred to as the state school aid formula) (WVDE, 2024). The formula estimates a "basic foundation allowance" for each district. This is a baseline funding amount that is the sum of estimated costs of various inputs to schooling including personnel salaries, employee benefits, transportation costs, general operating costs, and other specific allowances described in statute as intended to support areas ranging from instructional program improvement, to technology funding, to educator induction, and more. Most input costs are pegged directly or indirectly to the number of students enrolled.

While funding amounts are justified based on the estimated costs of each input, almost all funds are provided as a single block grant and districts are not required to allocate resources linked to the estimated costs of each input. The formula also includes an adjustment in funding for districts that are smaller than 1,400 students to account for worse economies of scale, and adjusts funding levels for all districts based on enrollment density (i.e. number of students per square mile).

Districts' foundation allowances are compared to an estimation of the "local share" that each county is assumed to be able to contribute based on its local property tax base. The difference between the foundation allowance and the local share for each district determines the actual amount of state aid allocated by the formula.

In practice, counties can and do provide more local funding than their local share calculation assumes, and the formula does not penalize counties from funding schools at higher levels.

Subsequent to the calculation of allocated state aid, additional allowances are provided to districts, sometimes automatically and sometimes as a grant for which districts must apply. These include allowances linked to enrollment increases, for the education of children with "high acuity" special needs, for alternative education programs, for Limited English Proficiency programs, and more.

In a separate appropriation, the state allocates funding to the Hope scholarship program board, which oversees the provision of scholarships to eligible families with children not enrolled in public schools. Scholarships are typically spent on private schooling, educational services, or supplies.

Chapter 2. Overall Adequacy of West Virginia's School Funding Levels

Overview: *West Virginia's student population has significantly higher poverty rates, a larger proportion of students in special education, and lower academic performance than the national averages, while total per-pupil spending has been close to the national average. In light of research evidence about the likely benefits of increased funding, we recommend that the state continue to increase its level of funding for PK-12 education. Simultaneously, improvement trends of some other states similar to West Virginia indicate that West Virginia has the potential to improve the overall effectiveness of its educational system.*

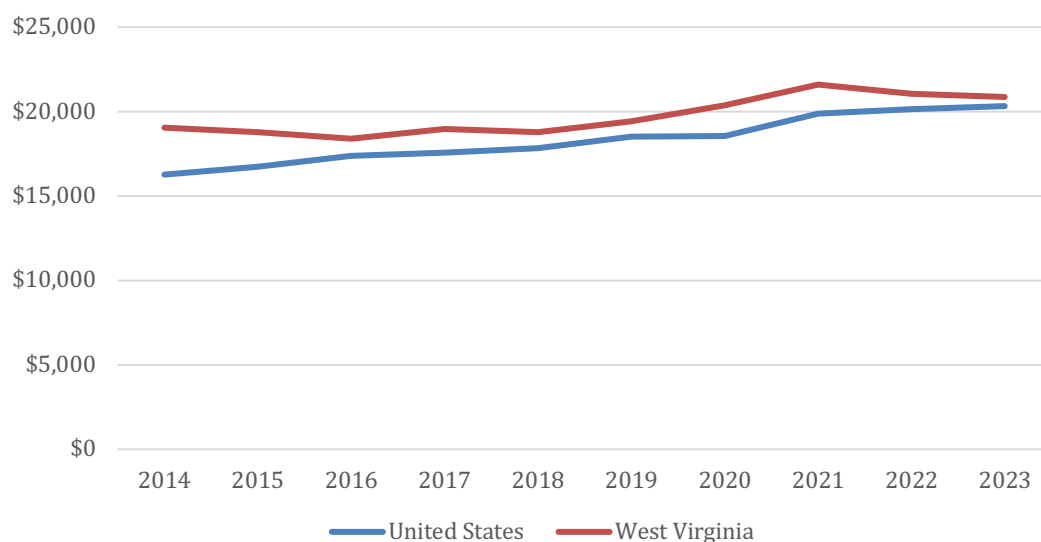
Current spending levels relative to student needs

To gauge the adequacy of school spending levels in West Virginia, we consider its investments in education relative to the rest of the nation, as well as key characteristics of its students that relate to the educational disadvantages they face. While each state's context and challenges are unique, these indicators provide a reference point for the degree of educational need in the state.

Spending levels on education in West Virginia are close to the national average, when accounting for regional variation in wages. As shown in Figure 1, in 2022-23, the most recent year in which national comparative data are available, real wage-adjusted per pupil spending on education in West Virginia (counting state, local, and federal resources combined) was three percent higher than the national average. As shown in Figure 2, Federal resources have been elevated in recent years due to COVID-19 relief, accounting for 19% of total spending in West Virginia in 2023 relative to 13% nationwide, but these supplemental resources will soon lapse. During this same period, state spending declined in real terms. Moreover, the state's higher-than-average reliance on federal resources presents an added funding risk given recent uncertainty around federal distributions of resources to support schools (Stadler and Abbott, 2025).

In 2023-24, real state and local educational spending per pupil increased by nearly 14 percent over 2022-23 levels in West Virginia, driven in part by growth in educator pay and funds to support additional service personnel (West Virginia Legislature, 2023). This increase helped to reverse declines in the real (inflation-adjusted) value of per-pupil spending that had occurred over the prior few years in the context of inflationary pressures. However, we lack a reference point for how this compares to national spending during this period.

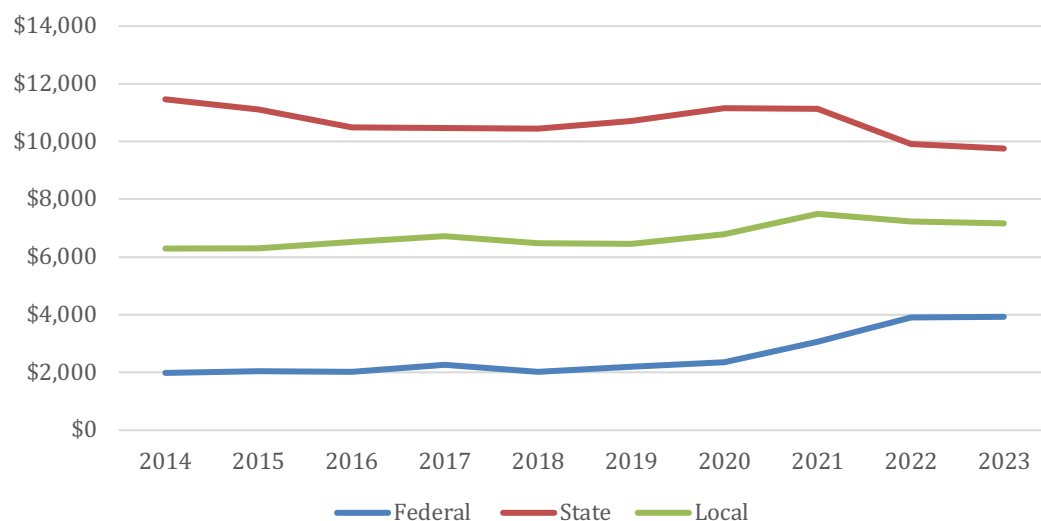
Figure 1. Total Adjusted Real Per Pupil Spending in West Virginia, Relative to the Nation Overall, 2013-2014 through 2022-2023



SOURCE: Features data from the U.S. Census Bureau, Annual Survey of School System Finances; the National Center for Education Statistics, Education Demographic and Geographic Estimates, Comparable Wage Index for Teachers; and the U.S. Bureau of Labor Statistics, Consumer Price Index.

NOTE: Total spending includes state, local, and federal sources, and adjusts for the Comparable Wage Index (CWI) across states and for the Consumer Price Index over time to display figures in December 2022 dollars.

Figure 2. Share of Adjusted Real Per Pupil Education Spending in West Virginia by Source, 2013-2014 through 2022-2023



SOURCE: Features data from the U.S. Census Bureau, Annual Survey of School System Finances; the National Center for Education Statistics, Education Demographic and Geographic Estimates, Comparable Wage Index for Teachers; and the U.S. Bureau of Labor Statistics, Consumer Price Index.

NOTE: Spending is from West Virginia and adjusts for the Comparable Wage Index (CWI) and for the Consumer Price Index over time to display figures in December 2022 dollars.

While total spending levels are somewhat above the national average, West Virginia schools educate large proportions of students in key groups that have been shown in previous research to be associated with higher costs and academic disadvantage (Jimenez-Castellanos and Topper, 2012; Duncombe and Yinger, 2004; Imazeki, 2008). As shown in Table 1, West Virginia ranks 5th nationally across U.S. states in terms of the proportion of its students classified as eligible for special education services under the Individuals with Disabilities Education Act (IDEA), and ranks 47th nationally in the proportion of students who have a parent with a college degree (NCES, 2024; Ruggles et al, 2025). West Virginia ranks 8th out of 50 states in terms of the proportion of families with children ages 5-17 living in poverty (U.S. Census Bureau, 2024).¹ Substantial declines in student enrollment in recent years have also contributed to rising fixed costs of delivering education in many counties in the state. However, the state does have the lowest rate nationally of students who are English language learners, a group that has been shown to require additional educational resources to educate (NCES, 2024).

Table 1. Student Characteristics and 2024 NAEP Academic Performance in West Virginia

	Percent special education students	Percent of parents with a college degree	Percent families in poverty	Percent English learners	NAEP 8th grade reading % proficient	NAEP 8th grade math % proficient
West Virginia	19	36	18	1	21%	18%
National	15	42	15	11	29%	27%
Relative Rank	5 th	47 th	8 th	50 th	48 th	48 th

SOURCES: Special education and English learner proportions are from the 2022-23 school year as reported by NCES. Parent education levels are calculated from census microdata, using average of annual estimates between 2019 and 2023 given variability in annual estimates. Achievement scores are from the 2024 NAEP exam. NOTE: Relative ranks shown are across the 50 U.S. states. In terms of raw NAEP scores, West Virginia

Academic achievement scores from the 2024 National Assessment of Education Progress (NAEP) indicate very poor outcomes for West Virginia students. Just 21 percent of West Virginia students scored proficient or higher in 8th grade reading, and 18 percent in 8th grade math. Relative to the nation as a whole, the state ranks 48th out of 50 states in reading and 48th in math scores on the 8th grade exams. West Virginia ranks similarly poorly with respect to 4th grade exam NAEP scores (NCES, 2024). In summary, these results indicate that the state's education system is struggling to provide adequate educational services for its students.

¹ Because different states calculate student free or reduced price lunch eligibility in different ways, we refer here to family poverty levels as a more comparable metric for assessing relative poverty rates among school-aged children across states.

Anticipated benefits of additional investment in education

Although there has long been debate about whether money matters for schools, there is now consensus based on rigorous research that it does. A large body of high-quality research examining the effects of school funding levels show a clear relationship between sustained (i.e., for four years or more) changes in funding levels and student outcomes over both the short- and long-term (Jackson and Mackevicius, 2024; Baker and Knight, 2025). On average across rigorous causal studies from diverse contexts and policy reforms, a sustained \$1,000 increase in per-pupil spending yields sustained increases in test scores by 0.03 standard deviations (i.e. raising the median student from the 50th percentile nationally to the 51st), high-school graduation by around 2 percentage points, and college-going by 2.8 percentage points (Jackson and Mackevicius, 2024). Moreover, this meta-analysis indicates that sustained spending increases can be expected to improve test scores in over 92 percent of studied cases and educational attainment outcomes in over 97 percent of cases, with improved probabilities of impact when funds are allocated to higher-poverty settings.² The documented effects of funding increases appear to flow through a wide range of potential uses of funding, including wages (which can indirectly affect teacher quality and retention), staffing ratios, capital investments, and a variety of other instructional supports. However, investments in capital (e.g., school infrastructure) tend to take longer to yield positive impacts. Effects of funding increases are smaller when resources are provided to more economically advantaged student populations.

Overall, this prior research shows that sustained increases in education spending are a reliable and beneficial investment across a range of contexts. On the flip side, decreases in funding levels (regardless of the cause) can be reliably expected to harm student achievement and attainment.

Recommendations around adequacy of overall spending levels

In light of the factors we have reviewed, including the research evidence on spending impacts, the high degree of disadvantage facing West Virginia's student population, expected declines in federal COVID-19 era supports, and the current low level of academic performance state-wide, we recommend that the state continue to increase its investments via the state school aid formula to more adequately address student needs. Increasing total education spending could also be used to facilitate the types of distributional changes in formula allocations which we recommend in Chapter 2. For example, it could allow the state to hold all districts "harmless" in the face of those changes.

We recognize that the state's current overall funding levels represent an above average degree of "effort" relative to its tax base. For example, West Virginia's state and local spending

² Study authors analyze risk of potential publication bias and find that their results are robust to it.

as a percent of statewide GDP ranked 15th among states as of 2021-22 (Education Law Center, 2024). Even so, additional investment is justified given the high level of student need, the well-documented long-term returns to educational investments on students’ health and livelihoods (Psacharopoulos and Patrinos, 2018), and, in the near-term, the potential for improvements in school quality to help mitigate outmigration from the state and specific communities (Marré and Rupasingha, 2020).

Rigorous studies have provided varying estimates of the extent to which local counties might reduce investments in education in response to an increase in state aid (aka “crowd out”). Some research suggests that state reforms to funding distributions of the type we recommend lead to little or no crowd out effect on local funding (Lafortune, Rothstein, and Schanzenbach, 2018). However, other research has documented instances of partial crowd-out, in which local funding decreases and partially offsets the increase in state funds (Baicker and Gordon, 2006). Potential crowd out effects could be mitigated by tying any increases in state aid to individual counties to maintenance of effort by those counties.

Educational system performance and potential for improvement

Some other state school systems that serve similarly challenged students have been able to achieve superior results in recent years. In Table 2 we highlight three states that have exceeded national average test score trajectories over the past decade. While these states’ school systems do not face all of the same challenges as West Virginia’s system, they showcase the potential to improve state-wide performance in spite of significant challenges and resource limitations.

Table 2. Spending, Student Characteristics, and Academic Performance in West Virginia Relative to States with Superior Performance and Improvement Trajectories

	Total adjusted expenditures per enrolled student	Special education students	Parents with a college degree	Families living in poverty	NAEP 4th grade reading % proficient	NAEP 4th grade math % proficient	NAEP 8th grade reading % proficient	NAEP 8th grade math % proficient
West Virginia	\$20,858	19%	36%	18%	25%	31%	21%	18%
Mississippi	\$17,440	16%	37%	24%	32%	38%	23%	22%
Tennessee	\$16,018	13%	38%	18%	32%	42%	31%	31%
Louisiana	\$20,463	13%	42%	24%	32%	35%	27%	21%

SOURCES: Total adjusted expenditures per enrolled student are 2022-23 data from the U.S. Census Bureau, Annual Survey of School System Finances, adjusted for regional cost variation using the National Center for Education Statistics, Education Demographic and Geographic Estimates, Comparable Wage Index for Teachers. Special education and English learner proportions are from the 2022-23 school year as reported by NCES. Parent education levels calculated from census microdata, using average of annual estimates between 2019 and 2023. Achievement scores are from the 2024 NAEP exam.

NOTE: States shown were selected based on having substantially higher absolute performance on NAEP than West Virginia and superior improvement trends relative to the nation since 2015. Total expenditures include state, local, and federal and are shown here adjusted for regional wage differences using the Comparable Wage Index.

Mississippi, Louisiana and Tennessee have all seen relative improvements in academic outcomes over the past decade, spurred by a range of evidence-based state-wide reform efforts (Hovanetz, 2025). Each of these states has also been active in updating school funding formulas to make progress over time around fairness in funding distributions (Education Commission of the States, 2024, Tennessee Department of Education, 2025, BESE Admin, 2025).

Once ranking near the bottom nationally in reading outcomes, Mississippi's large-scale literacy instructional reforms linked to the science of reading have helped to improve teaching at scale and improve outcomes (Spencer, 2024). These reforms were complemented by an enhanced system of school accountability and a realignment of state exams to match national standards.

In Tennessee, improvements appear to have stemmed from similar large-scale development of teachers' instructional practices, higher academic standards, and aligned curriculum and assessments. Enhanced accountability systems for both schools and teachers were coupled with structured local autonomy to allow districts to adapt policies within a coherent state framework (Matheny, 2023).

In Louisiana, reforms to adopt higher academic standards, to enhance curriculum, assessment, and standards-alignment, and to strengthen teacher preparation and development, appear to have increased the quality and alignment of teachers' instruction (Kaufman et al., 2018). A range of accountability reforms implemented by the state might have also contributed to gains, with overall (though not uniformly) positive effects related to closing and replacing struggling schools (Churchill, 2024). However a rigorous study of other aspects of the state's school-level accountability reforms found no significant effects, underscoring the uncertainty inherent in any system-wide reform effort (Dee and Ross, 2019).

Collectively, these examples provide a sense of the scale of evidence-based reforms that may be required to enhance teaching and learning statewide—not just updated school funding formulas.³

An examination of the full range of potential school system improvement strategies that may be most beneficial for West Virginia is out of scope for this report. Even so, we highlight these three states to point to the potential value of combining increased spending with evidence-based reforms to improve students' academic performance overall.

In the remainder of this report, we return to our focus on updating the state school aid funding formula to help improve the efficiency and fairness of the state's educational investments.

³ A few states do include improvement incentives as part of their state funding systems, though these tend to be limited in scope. We provide an overview of this topic in Appendix A.

Chapter 3. Distribution of Funds to Districts

Overview: *Compared to other states, West Virginia under-allocates funding to districts that serve greater proportions of students who have greater needs and who require additional resources to educate. We recommend modifying West Virginia’s state school aid funding formula to redistribute more resources to districts that serve more students who are from low-income families, who are special education students, or who are English learners. The state should implement funding weights for these groups that are within the range of additional costs identified in prior research, and within the norms set by other states’ formula weights.*

The case for redistribution according to costs of educating to proficiency

Extensive research has demonstrated how student demographic characteristics, in particular family income levels, special education status, and English learner status, are associated with increased costs to schools of providing an adequate education (Baker, Weber, and Srikanth, 2021; Duncombe, William, and Yinger, 2005; Chambers, et al, 2002). High concentrations of low-poverty students have also been shown to amplify barriers to student success, due to factors including larger gaps in resources, challenges in recruiting effective teachers, and negative peer effects (Sirin, 2005; Chetty, Hendren, and Katz, 2016; Reardon and Owens, 2014; and Clotfelter, Ladd, and Vigdor, 2006). In terms of specific inputs with cost implications, students from lower-income families often require additional educational support such as small group instruction, extended learning time, or targeted interventions. Special education students might require these as well as specialized personnel, more customized behavioral or academic interventions, specialized transportation, facility modifications, or additional therapies. English learners may require specially trained staff, push-in or pull-out services, and supplemental curriculum and instructional materials, among other supports.

Research-based estimates of the additional costs required to educate students with greater needs come from a range of methodologies, including professional judgement panels that assess costs of necessary inputs, descriptive analysis of observed spending levels for different student populations, and empirical cost-function analyses that estimate the costs of raising students’ achievement to an adequate level based on current district performance. We reviewed a range of such studies that include specific recommended amounts of additional funding adequate for serving these student populations, and detail findings from this literature in Appendix Table A1.

All cost analyses we reviewed identified incremental costs of adequately educating low income, English learner and special education students that exceed the supplemental resources currently provided by the West Virginia state school aid formula for these student groups. That said, research-based recommendations for the amount of incremental funding required for each

type of student vary as a function of the methods used to estimate funding needs, state contexts in which the analyses were done, and choice of acceptable outcome goals. Our review of this literature found that recommended weights for students (i.e., the amount of additional funds needed to adequately fund their education) from low-income families ranged between 0.3 and 3 (i.e., from between 30 percent more to 300 percent more funding), recommended weights for English learners ranged from 0.2 to 2 (20 percent more to 200 percent more), and recommended weights for special education students varied (both by study context and by disability severity) from 0.5 to 4.2 (50 percent more to 420 percent more).

The varied estimates from this literature unfortunately do not offer clear guidance as to the specific formula weights that would be most appropriate for addressing education cost disparities in West Virginia. Deriving precise recommendations around state-specific weights could involve either (a) additional analysis based on professional assessments of the costs of key supplemental inputs needed to support students in each category, or (b) a statistical cost-function analyses of current spending patterns, outcomes, and outcome goals specific to the state.

In what follows, we first summarize the way in which West Virginia currently distributes its resources to students in each of the three student groups. Then, to provide a reference point for the typical use of formula weights for these groups, we analyze the prevalence and extent of weight adjustments used in state formulas nationwide.

West Virginia's current funding distribution patterns

Currently, West Virginia's state school aid funding formula includes little consideration of the cost implications for districts serving higher-cost student categories:

- The formula does not provide any additional resources related to low-income student status.
- Additional resources for special education students are limited to a supplemental grant program that districts must apply for that is aimed at students with the most "high acuity" needs.⁴
- Additional grant funding to serve the state's approximately 2,000 English learner students is very limited, amounting to just \$96,000 statewide annually in recent years.

As shown in Table 3, the end result is that West Virginia's calculation of per-pupil funding needs is quite similar for districts with relatively higher (i.e., 80th percentile) and lower (i.e., 20th percentile) proportions of either low income or special education students, after adjusting for other factors predictive of cost differences such as district size and density.

⁴ In 2025, this was limited to students that cost over \$46,839 annually to educate (WVDE, IDEA Finance Update, 2025) or roughly triple the average per pupil expenditure.

Table 3. Adjusted Per-Pupil State Formula Funding Allowance, by Poverty Rate and by Share of Special Education Students, 2025-2026

Student Subgroup	Low share of student population (20th percentile)	High share of student population (80th percentile)	Percentage Difference (High vs. Low)
Students living in poverty	\$8,741	\$8,862	+1%
Special education students	\$8,801	\$8,815	0%

SOURCE: Features analyses of data from the West Virginia Department of Education, the U.S. Census Bureau, and the U.S. Department of Education. Funding allowances are from the 2025-26 West Virginia state school aid formula. NOTE: Outcome variable is the natural log of the Total Basic Allowance per pupil in West Virginia for school year 2024-25. Dollar amounts are back-transformed predictions from a regression model that includes poverty rate, special education student share, the Comparable Wage Index, binary variables for deciles of district size (by enrollment), and binary variables for deciles of district density (enrollment per square mile). Models are weighted by district enrollment. Excludes funding for capital outlays and debt service. High-poverty and special education share represents the 80th percentile for the proportion of each student type across districts statewide, while low-poverty and special education share represents the 20th percentile for the proportions across districts.

When accounting for all sources of funding (i.e., local, state, and federal) combined, we find that West Virginia’s total funding allocations are less responsive to the needs of these higher cost student groups than is typical nationwide. In Table 4, we summarize our analysis of the difference in total adjusted per pupil spending for higher- and lower-poverty districts and higher- and lower-proportion special education districts in West Virginia, relative to other states where comparable data were available. Total adjusted per-pupil spending for higher-poverty districts in the state (i.e., those at the 80th percentile statewide in share of low-income students) is just 3 percent higher than for lower-poverty districts (i.e., those at the 20th percentile statewide), which ranks West Virginia 34th out of 45 states that could be included in our comparative analysis. Total adjusted spending in districts with higher proportions of special education students was 4 percent lower than in districts with lower proportions of special education students, which ranks West Virginia 42nd out of the 45 states in terms of distributing funding to help districts adequately address these students’ needs.

Due to the scarcity and uneven distribution of English learner students in West Virginia, we were unable to complete a similar analysis for that group. Complete methodological details and additional results from our comparative analyses are provided in Appendix B.

Table 4. Adjusted Per-Pupil Combined State, Federal, and Local Funding Levels by Poverty Rate and by Share of Special Education Students, 2021-2022

Student Subgroup	Low share of student population (20th percentile)	High share of student population (80th percentile)	Percentage Difference (High vs. Low)	Rank Among 45 States (1 = most advantages high share districts)
Students living in poverty	\$19,170	\$19,695	+3%	34
Special education students	\$19,630	\$18,878	-4%	42

NOTE: Dollar amounts are back-transformed predictions from a regression model that includes poverty rate, special education student share, the Comparable Wage Index, binary variables for deciles of district size (by enrollment), and binary variables for deciles of district density (enrollment per square mile). Models are weighted by district enrollment. Excludes funding for capital outlays and debt service. High-poverty and special education share represents the 80th percentile for the proportion of each student type across districts in each state, while low-poverty and special education share represents the 20th percentile for the proportions across districts in each state. Five states are excluded either because they are just one district (Hawaii) or because they lacked data for one or more factors in the model (Colorado, Maine, Vermont, and Wyoming).

SOURCE: Features analyses of data from the U.S. Census Bureau and the U.S. Department of Education.

Overview of other states' approaches to formula weights

A large majority of states provide extra funds to districts serving larger proportions of each of three student groups: low-income, special education, and English learners. In Table 5, we summarize the frequency with which state funding formulas include weights for each of these three student characteristics, as well as the range of such weights, according to data compiled by the Education Commission of the States (ECS) and state education agency reports (ECS, 2023). These extra state funds are in addition to the federal funds such as Title I that target disadvantaged student populations.

The following are a few illustrative examples of weights from the three states we highlighted in Chapter 2:

- Mississippi's recently reformed (2024) funding formula provides a 30% weight for low-income students, with 10% more for concentrated poverty; a 20% weight for English learners; and tiered weights ranging from 60 to 130% for special education students.
- Tennessee's recently reformed (2022) funding formula provides a 25% weight for low-income students with 5% more for concentrated poverty; English learner weights tiered by ability levels from 20 to 70%, and tiered special education weights from 15 to 150%.
- Louisiana's funding formula provides a 22% weight for low-income students, 22% for English learners, and 150% per student with an individualized education plan (IEP).

In Appendix A, we provide a more complete review with additional examples of funding weight strategies employed nationwide.

Because school funding levels nationwide are driven primarily by local resources, the inclusion of weights in state-level funding rarely achieves total funding levels for disadvantaged students that are as favorable as the research literature recommends. Regardless, state formula

adjustments provide a valuable counterweight to status quo trends in resource distribution, which otherwise tend to favor more advantaged districts and students. As discussed in Chapter 2, improvements in fairness of formula distributions have been shown to improve outcomes in communities serving more disadvantaged student populations (Lafortune, Rothstein, and Schanzenbach, 2018).

Table 5. Distribution of Weighting Approaches and Weights Across 50 States, by Student Category

Student Group	Number of states that provide additional funding	Typical Approaches to Weighting	Typical Per-Pupil Weight Ranges
Low-income	43 states. Most typically awarded per-student and linked to FRPL status (33 states). Some use Direct Certification (8) or both.	35 states include a per-pupil weight; at least 18 include weights that consider community concentration or intensity of need	Most range from 0.20 to 0.35, with a median weight of approximately 0.25; Concentration-based weights vary widely in approach but typically start to apply for districts with >50 to 70% low-income students
English Learners	49 states provide additional funding for all English learner students	34 states use a single weight per ELL student; 12 use tiered weights; 3 reimburse for specialized staff or program costs	Most range from 0.15 to 0.40, with a median weight of approximately 0.25.
Special education	35 states provide additional funding for all students with an IEP, while 15 limit to specific categories or partially fund students with “mild” disabilities	Many states (21) use tiered systems based on severity, though some (7) use a universal flat rate per student and some (7) reimburse IEP-related costs, wholly or partially. Some (8) use census-based formulas.	Tiered weights range widely. Lower tiers cluster between 0.5 to 1.2, and upper tiers between 2.5 to 4.0. Flat universal rates typically range from 1 to 1.5, with a median of 1.2.

SOURCES: ECS, 2024, and review of individual state funding formula documentation.

NOTE: FRPL = free or reduced-price lunch. IEP = individual education plan. Summaries of typical weight ranges are approximations, and many aid formula criteria are complex and involve multi-faceted calculations that help to inform the adequacy of the per-pupil weights they use. Some states’ funding weights for these and other categories of students overlap or are combined into a single high-needs category for purposes of allocating additional resources. See Appendix A for additional details from our scan of state formulas.

Recommendations and scenario analyses

Based on our findings on current funding distributions in West Virginia and prior research on district costs of serving higher proportions of these student groups, we recommend adjusting the state funding formula’s calculation of each district’s “total basic program allowance” to account for the proportion of students certified as low-income and those classified as English learners in a given school year. We also recommend adjusting for the proportion of students with an IEP, either in their entirety or at least for those with moderate disabilities and associated cost implications. We recommend increased per-pupil funding weights that are in the range of those recommended by research about the cost implications of serving these students subgroups, and at

least equivalent to norms set by other states' funding formulas.⁵ The state should also collect data on districts' distribution of funds to schools to help ensure that funding is distributed commensurate with the student populations at each school.

As the heterogeneity in formula weights for these groups across states suggests, arriving at specific weights is a nuanced task which demands consideration of the implications for communities impacted by distributional changes, and additional data on the cost implications of various categories of special needs students served in West Virginia's schools. We do not yet have access to complete data sufficient to analyze educational costs and outcome functions specific to West Virginia's special education students, and have not yet engaged with stakeholders to recommend a specific set of weights. Instead, we provide here and in Appendix C a few scenarios intended to help policymakers assess the general implications of an adjustment to current school aid formula distributions in line with our recommendation. If the legislature opts to proceed with a change in formula distributions of this type, additional analyses may be warranted to identify weights tailored to West Virginia's context.

As shown in Table 6, we analyze the distributional impacts of three formula weight scenarios. First, in scenario 1, we select weights within the range of estimates from the research we reviewed and close to the median of weights implemented by other states nationwide. We note, however, that these are on the lower end of the range of research-recommended weights. In scenario 2, we select weights twice as large as scenario 1. The weights used in scenario 2 are still well within the wide range of research-recommended formula adjustments and are also within the range of states' varied formulas weights. Finally, in scenario 3, we used the same median weights as for scenario 1, but assume total state aid is increased by 5 percent.

For each scenario, we calculate the amount of additional state aid that would be needed to hold all districts "harmless" relative to current levels of per-pupil state aid provided. Holding districts harmless in this way would essentially ensure that in the near-term every district's per-pupil state aid level remains at least as high as it has been in the recent past. The estimated cost of holding districts harmless in this way may gradually decrease over time if total per-pupil state aid allocations keep pace with inflation.

In both scenarios 1 and 2, when holding total funding levels constant, roughly half of districts in the state gain some state aid or are not affected and the other half lose some state aid from this redistribution. In both scenarios, districts that stand to gain more aid tend to have lower achievement levels (0.83 grade levels below the national average versus 0.65 below) than those that stand to lose. The districts gaining funds also have more lower income students (57.2

⁵ Mechanically, in the current formula, such an adjustment could be made by adjusting the effective enrollment in each district, which is the basis for most other cost estimates. Each district's enrollment could be modified based on the proportion of students in each weighted group, and then all districts' enrollments could be reduced by a single flat percentage that retains the same total enrollment statewide. In this way, weights could be applied to shift funding distributions while maintaining the same total funding levels overall statewide.

percent versus 46.1 percent)⁶ and more special education students (21.1 percent versus 19.1 percent), though they have similar proportions of English learners (0.2 percent versus 0.3 percent). If additional resources were allocated to hold all districts harmless, then roughly half of the districts in the state would see increased funding levels as shown in Table 6, while the other half would see no initial change.⁷

Table 6. Summary of Inputs and Outputs from Scenario Analyses of Distributional Changes in School Aid Formula Allocations, Relative to the Status Quo

Inputs and Outputs	Scenario 1: Median national weights	Scenario 2: Doubled weights	Scenario 3: Median national weights and +5% total funding
SCENARIO INPUTS			
Base low-income student weight	25%	50%	25%
Low-income concentration adjustment ($\geq 50\%$ low-income)	+10% per low-income student	+20% per low-income student	+10% per low-income student
English learner student weight	25%	50%	25%
Special education student weight (average across tiers)	80%	160%	80%
Additional state aid that would be required to hold all districts harmless	+2.6% (~\$37M)	+4.3% (~\$60M)	+0.7% (~10M), on top of assumed +5% (~\$70M) increased spending
DISTRICTS THAT GAIN FUNDS			
# of districts receiving same or more state aid, after local share adjustment	28	28	41
Largest per-pupil increase in foundation allowance	+10%	+15%	+14%
DISTRICTS THAT COULD LOSE FUNDS (if not held harmless)			
# of districts receiving less state aid, after local share adjustment	27	27	14
Largest per-pupil decrease in foundation allowance	-7%	-11%	-3%

SOURCE: Estimates of district specific grade levels below U.S. average are from the Stanford Education Data Archive (SEDA), and are based on math and English test results in grades 3 through 8. Adjustments to formula allowances are based on and use as a reference point the 2025-2026 state aid funding formula amounts and distributions to districts, after accounting for estimated local share funding.

NOTE: We assume that districts that currently receive no state aid due to their high local share adjustments will continue to not receive state aid (i.e. no change).

⁶ We use WVDE's definition of low socioeconomic status (SES) as our measure of low-income students in the scenario analyses. This includes students who are directly certified as eligible for free or reduced-price meals.

⁷ Note that while our scenario analyses summarize implications for each district's school aid formula allowance, impacts on total district funding levels will be more modest when local and federal resources are taken into account.

In scenario 3, 41 districts would see the same or improved funding levels, while 14 would experience reduced funding, albeit to a lesser degree than in scenarios 1 or 2. In addition to the assumed increase of \$70 million in total state aid in scenario 3, it would cost another \$10 million to hold these 14 districts harmless.

It is noteworthy that even though scenario 2 doubles the size of the formula weights relative to scenario 1, the distributional effects are not close to twice as large. This is because most districts in the state are fairly homogenous. Almost all include sizeable proportions of low-income and special education students, and no districts include large proportions of English learners. As a result, even ambitious changes in the funding formula weights have comparatively modest impacts on realized aid allotments.

Note that in these scenarios we apply a single special education per-pupil funding weight that is applied equally to all students eligible for special education services. This is assumed to be in addition to resources currently distributed to districts serving students with severe disabilities. We use this single per-pupil weight because we have not yet requested or received data on the full range and distribution of student special education categories in each district to model a tiered approach. Regardless of our use of this simplifying assumption for scenario analyses, most states' formulas differentiate tiered special education weights according to disability severity or type. We recommend West Virginia should ultimately use a tiered approach as well.

More details about our methodology as well as breakdowns of expected impacts for each individual district in West Virginia under each scenario are provided in Appendix C.

Considerations around special education classification

Research has shown that changes to special education funding incentives can influence classification rates, particularly for students on the margins of special education classification, for mild disability classifications, and in the context of large financial incentives that do not differentiate between classification types (Dhuey and Lipscomb, 2011; Kwak, 2010; Cullen and Berry, 2003; Battisti, Friesen, and Hickey, 2012). At the same time, changes in funding formula incentives do not consistently influence classification rates, and the extent to which any changes represent misclassification versus differences in effort around accurate classification of students is not always clear (Powers and Uhing, 2023; Parrish et al., 2003; Dhuey and Lipscomb, 2011). For example, if IEPs introduce costs to schools associated with specialized instruction and sufficient compensatory funding is not currently provided, schools could have a disincentive to accurately identify student needs. Given that correctly targeted special education services are generally shown to improve student outcomes, selecting an appropriate level of funding tied to accurate student classification is important (Hanushek, Rivkin, and Kane, 2002; Schwartz, Hopkins, and Steifel, 2021).

Partly in response to concerns about misclassification, some states (7) do not differentiate amounts of special education funding linked to district-specific special education enrollment (e.g., LAO, 2023). Many states (21), however, leverage severity-based weights, which can help

to reduce marginal incentives around classification into mild special education categories (e.g., Connecticut School Finance Project, 2024, Owens, 2024). Funding tier groupings could also take into consideration which special education categories are more and less prone to potential misclassification.

Tightening accountability around special education classifications might also be beneficial, including clarifying eligibility criteria and standardizing processes for classification to include tiered “Response to Intervention” screening, improving training of educators around classification processes, and monitoring classification rates and auditing in high-incidence categories (U.S. Department of Education, 2011; Horowitz, Raw, and Whittaker, 2017; U.S. Government Accountability Office, 2019; Westmoreland, 2025). These monitoring and accountability approaches could leverage data already being collected for the purpose of determining if there exist any “disproportionate representation” among racial or ethnic groups in special education based on “inappropriate identification” (Echevarria, Powers, and Elliott, 2004; U.S. Department of Education, 2007; U.S. Department of Education, 2008). States are required to describe their approaches to determining whether disproportionate representation stems from inappropriate identification in their annual IDEA state performance plans, and these plans could provide a reference point for additional monitoring steps to consider (U.S. Department of Education, undated).⁸

Other potential weighting factors

State funding formulas nationwide weight funding using a wide range of student and community characteristics. While we have analyzed and made recommendations related to three metrics that have been most frequently shown in research to be related to costs for schools (economic disadvantage, English learner status, and SPED status), the legislature may also want to consider additional factors. Economic disadvantage itself is measured in a variety of ways across states, though in our analyses to-date we have used the state’s current determination of low socio-economic status (which is based on direct certification of students as eligible for free or reduced price lunch) as the best proxy characteristic available to us. Some states include in their formulas other characteristics that likely relate to schooling costs, including homelessness, foster youth, students from single-parent homes, low parental educational attainment, or

⁸ The Department of Education collects and makes available State Performance Plans and Annual Performance Reports on its Individuals with Disabilities Education Act website at <https://sites.ed.gov/idea/spp-apr-letters>. The IDEA Part B reports include a discussion of indicators related to “disproportionate representation” (Indicator 9) and “disproportionate representation in specific disability categories” (Indicator 10). These reports offer examples of how states assess whether inappropriate identification is occurring. For example, Connecticut reported conducting a desk audit of district responses on 52 indicators related to regulatory requirements and identification policies, procedures, and practices; Minnesota developed a “policies and procedures” review for districts with disproportionate representation to complete in a web-based platform that could trigger ongoing monitoring and corrective action; and Massachusetts requires districts with disproportionate representation to submit for state review policies, practices, and procedures around eligibility determinations as well as “descriptions of tiered systems of support” and “information regarding any training or support the LEA provides staff” among other materials.

community income and unemployment metrics. In West Virginia in particular, recent legislation related to student discipline and alternative placement options may also differentially affect costs across districts (West Virginia Legislature, 2025). In Appendix A, we include additional analysis and discussion of how well the three characteristics we have recommended correlate with other factors that may also be related to the costs facing districts in West Virginia.

Distribution of resources based on district size and sparsity

Small school districts and districts serving sparsely populated communities can face substantially higher educational costs per student due to worse economies of scale, difficulties recruiting and retaining staff, and higher costs of basic services. For example, estimates from a recent cost-function analysis in Vermont suggest that rural sparsity of <36 people per square mile is associated with a 23 percent increase in costs, while average school enrollments of less than 100 students are associated with a 26 percent increase in costs (Kolbe et al., 2021). As such, many state formulas adjust per pupil funding weights for very small and sparse districts.

In 2008-09 West Virginia amended its funding formula to provide additional resources to districts with fewer than 1,400 students, with the sparsest districts in this category (Pocahontas and Pendleton) receiving funding as if their enrollment was around 1,400 students, regardless of actual district size (West Virginia Legislature, 2008). As shown in Table 7, as of the 2010-11 school year, shortly after this provision was enacted, we estimate that the maximum benefit of this provision to districts was approximately a 31 percent increase in per-student funding.

Since then and amidst continued declines in enrollment, the effective adjustment has grown substantially. As of the 2024-25 school year, three of the smallest and sparsest districts are now receiving effective funding adjustments exceeding 50 percent. As enrollment continues to decline, the effect of this provision will continue to increase for the smallest and sparsest districts in the state. This could exceed the intent of the original provision, and for a few districts represents an unusually large adjustment compared to typical state formula adjustments for sparsity and district size.

Table 7. Proportional Impacts of Small District Enrollment Adjustments in West Virginia on Per-Student Funding, by District, in 2025-26 Versus 2010-11

District	Population per sq mile	Most recent Enrollment	Most recent Impact	Enrollment 2010-11	Impact as of 2010-11
Pendleton	9	851	+64%	1,065	+31%
Gilmer	22	720	+58%	943	+29%
Pocahontas	8	893	+55%	1,183	+18%
Calhoun	22	789	+40%	1,122	+13%
Tucker	16	918	+35%	1,053	+22%

District	Population per sq mile	Most recent Enrollment	Most recent Impact	Enrollment 2010-11	Impact as of 2010-11
Webster	15	1,048	+28%	1,534	n/a
Wirt	22	862	+27%	1,010	+17%
Ritchie	19	1,130	+20%	1,578	n/a
Summers	33	1,133	+17%	1,551	n/a
Doddridge	24	1,203	+15%	1,169	+18%
Pleasants	59	1,043	+15%	1,278	+10%
Tyler	32	1,184	+14%	1,419	n/a

SOURCE: Features analyses of data from the West Virginia Department of Education, the U.S. Census Bureau, and the U.S. Department of Education.

NOTE: Population per square mile estimates are from the 2020 Decennial Census. We estimate impacts of the provision in 2010-11 based on current ratios of sparsity across districts and their observed implications for 2025-2026 allocation determinations (which are based on 2024-2025 enrollment levels).

We recommend that the legislature consider updating this provision to include a cap on the maximum scale of per-student funding increases per district. Such a cap could be set around 50% (in line with research-based estimates about the underlying costs facing very small and sparse rural districts) or at the recent maximum adjustment of 64%, if the goal is to hold all districts harmless. Alternatively, other modifications of the provision could be made to address these dynamics.

Chapter 4. School Aid Formula Design and Associated Incentives

Overview: *We are agnostic as to whether to make a wholesale shift to the design of the state school aid formula. However, we recommend two targeted updates to the formula to better align district incentives around resource use. First, we recommend phasing out the link between funding allocations and staff salary bands, which creates incentives to overlook staff costs in personnel decisions. Strategic personnel management is particularly important for West Virginia given anticipated workforce reductions and the opportunity to maximize the benefits of recent teacher pay increases. Second, we recommend removing references to individual districts' prior-year spending in transportation funding allocations. Instead, allocations should be based on key cost drivers—such as ridership, mileage, travel time, and fleet condition—that preserve incentives for districts to reduce costs where feasible.*

General funding formula design considerations

A growing majority of states' school funding formulas (35) are structured around the concept of providing a foundation level of funding per student, with overall funding levels not explicitly tied to the costs of inputs (ECS, 2024). In contrast, West Virginia's funding model includes many discrete funding allocation steps, each associated with actual or estimated costs of specific inputs related to the delivery of educational services. However, although West Virginia's state school aid formula refers to many inputs, the majority of the funding allocation steps are linked, directly or indirectly, to student enrollment levels. Moreover, almost all funds contribute towards a single block grant of funding, allowing districts to use funds flexibly within broad guidelines such as minimum staff-to-student ratios. As such, for the most part West Virginia's approach is similar to a student-based foundation funding models in its ultimate effect.

An advantage of retaining references to specific inputs is that it could help to monitor whether funding levels are adequate to provide key inputs. Potential downsides of the input-based formula relate to the degree of complexity involved in calculating total funding levels, as well as the difficulty of keeping multiple different cost justifications up to date. For example, allocations for substitute teachers, for 21st century technology, or for instructional improvement activities are specific appropriations for which the amount provided does not clearly correspond to an identified benchmark cost or usage rate.

Going further than the current formula and mandating levels of district expenditure in specific areas could enforce investments by districts, but would impose an oversight burden for both the state and districts and require more frequent formula updates. Given these tradeoffs, proscriptive earmarks are typically best suited to areas that are a high priority for the legislature

and where there is evidence that districts would not otherwise make adequate investments on their own initiative.

We are agnostic as to the value of changing the entire formula to eliminate references to inputs and instead use a student-based foundation. Following in the footsteps of other states in this way might reduce some complexity. It could also be helpful as a rebranding or reorientation towards a statewide focus on using school resources to improve student outcomes “through any means necessary” rather than via pre-determined inputs. However, shifting the conceptual basis for the formula would not lead to a major change to the level or distribution of resources provided to districts, since the bulk of current distributions are already tied to student enrollment numbers.

While we are agnostic as to whether the entire school state aid formula should be overhauled, we identify in our review two key areas where the costs of inputs are estimated in a way that provides unhelpful incentives. In the remainder of this chapter, we dive deeper into these specific issues and provide recommendations for how the legislature could address them.

Allocations linked to staff characteristics and associated salary costs

West Virginia’s current funding formula allocates funding to districts based in part on the salary costs of current staff, with consideration of factors including educators’ years of experience and educational attainment. While this approach has the advantage of compensating districts for the type of staff they currently employ, it also reduces incentives for districts to consider cost efficiency tradeoffs when making personnel management decisions.

An alternative approach would be to provide funds for staff based on a per pupil funding amount for districts without pegging funding amounts to the salary bands of current staff. Districts could still receive additional funds for factors outside of their control such as local labor market conditions that may make it more costly to recruit and retain qualified staff. They could also receive supplemental funds for any strategic initiatives the state is explicitly seeking to incentivize or subsidize. For example, a state incentive might be appropriate for hiring and retaining teachers with certifications in math or special education if districts would otherwise be reluctant to pay the higher salary costs associated with hiring these “high need” teacher groups.

Personnel management incentives for districts are especially important for West Virginia’s school system in light of two related factors. First, declining enrollments will likely lead to reductions in force statewide in the near-term. The National Center for Education Statistics has forecasted that West Virginia’s total enrollment in public schools will continue to decline by approximately 13% between Fall 2022 and Fall 2031 (NCES, 2022). Second, West Virginia’s recent investments in improving teacher wages are more likely to help improve teacher effectiveness if schools practice strategic personnel management. Higher wages can expand the pool of job applicants and teachers’ willingness to stay in teaching, but school personnel management decisions will determine if that translates into retaining the most effective teachers.

Research on best practices in managing teacher reductions in force highlights the benefits to students of considering factors such as teacher skillsets and performance in those decisions, rather than traditional “last in first out” policies that prioritize retaining the most senior tenured staff above all other considerations (Kraft, 2015; Goldhaber et al., 2016; Boyd et al., 2011). Strategic staff management can also help to ensure that a balanced mix of effective teachers are retained rather than incentivizing the retention of only the most expensive veteran staff in a manner that would ultimately drive average salary costs higher statewide.⁹

The current funding formula approach of compensating districts based on the salary bands of current staff makes some sense in the context of West Virginia’s limits on the amount of autonomy districts have in personnel management, with policies that heavily prioritize seniority in any reductions of force (West Virginia Legislature, §18A-4-7a, undated; Thomsen, 2014). If districts ultimately lack meaningful control over these staffing decisions, then continuing to compensate them based on legacy personnel costs might be fair. However, if districts were afforded more control over personnel management decisions, then updating the funding allocations to be neutral with respect to staff characteristics would allow districts to realize cost-efficiency gains should they opt to retain a more balanced mix of more and less veteran staff.

Overall, we recommend that legislators should allow for more strategic personnel management, balancing considerations of educator seniority alongside other key factors when making reductions in force. Connected with this, we recommend updating the funding formula to avoid pegging funds allocated to individual districts based on the characteristics of the personnel that currently work at their schools, excepting any staff characteristics the state is explicitly seeking to subsidize or promote.

Considerations around updating formula allowances for school staff

The primary goal of our recommendation around modifying staff-related allocations is not to change the total amount of funds each district receives, but to change the incentives around the use of those funds. Unless the state is explicitly seeking to subsidize district hiring and retention of more veteran staff or staff with more advanced degrees statewide, eliminating links to current staff characteristics would improve personnel management incentives for all districts. However, there are multiple ways this could be accomplished.

One option for eliminating current incentives around staff-related funding would be to eliminate the link to changes in staff characteristics moving forward and simply peg districts’ relative per-pupil funding levels for staffing to the most recent prior distributions. Future changes in statewide funding levels related to staffing could still be implemented as needed (e.g. adjustments for inflation or minimum salary increases). This would be sufficient to ensure that,

⁹ The benefits from strategic personnel management are partially contingent on the capacity of current staff evaluation and certification tracking systems to differentiate staff performance and key skills. We have not yet examined these systems in depth.

moving forward, districts no longer have an incentive to disregard staff salary costs in their local personnel decisions. However, recent staff characteristics provide a rather arbitrary basis for funding distributions over the long term. Alternative options would require more unpacking of the implications and goals underlying the current formula distributions.

Currently, the state school aid formula incorporates numerous factors when allocating resources to compensate districts for personnel costs. These include experience levels, degree classifications, pay grades, additional pay linked to specific characteristics such as teachers certified to teach math or special education, college credit hours earned by service personnel, and more. Separate from these “basic” costs linked to current staff, the formula also includes a smaller amount (i.e. ~6% of total staffing resources) of district-specific “salary supplement” funding amounts related to historical disparities in salary equity state-wide (West Virginia Legislature §18A-4-5, undated).

Not counting the “salary supplement” allocations, we find that districts’ “basic” per-student staff-related funding allocations vary, resulting in as much as 4.5 percent lower allowance for the district with the smallest per-student allocations to 9 percent higher allowance for the district with the largest per-student allocation. We describe the size of those differences relative to the statewide average “basic” staff-related per-student allocation in Table 8.¹⁰

Districts that receive smaller per-student staff-related allocations tend to be somewhat less densely populated and to serve a lower-income student population. This may reflect some underlying differences in the types of teachers that tend to be recruited or retained across different counties. If these staff allocations were to be equalized, some compensatory formula adjustments might be warranted to reflect any underlying cost drivers (e.g. local labor market factors) outside of districts’ control. Regardless, in the next section we analyze the implications of simply equalizing “basic” per-student staff-related funding across districts.

¹⁰ Our calculations include all “basic” allocations for professional educators, service, and support personnel, while backing out formula adjustments for district population density and size.

Table 8. Characteristics of districts with above and below average “basic” per-student funding allowances for staff.

District category	Number of districts	Median (and maximum) difference in per-student “basic” staff allocation	Median district enrollment (2024-25)	Median density (people/sq. mile)	% Low-income students	% Special education students	Achievement relative to U.S. average
Below-average staff funding	31	-1% (-4.5%)	4,175	78	55%	21%	-0.76
Above-average staff funding	24	+1% (+9%)	4,798	117	50%	20%	-0.59

SOURCE: Per student difference in funding is the difference in per-student basic staff allocations relative to the statewide average basic staff allocations. Estimates of districts’ grade levels below U.S. average are based on math and English test results in grades 3 through 8.

SOURCE: Features analyses of data from the West Virginia Department of Education, the U.S. Census Bureau, the Stanford Education Data Archive (SEDA), and the U.S. Department of Education.

Scenario analysis around equalizing staff-related funding

We estimate that if “basic” per-student formula funding allocations for professional educators and support personnel were to be immediately equalized across districts, it would cost the state around \$7M annually (0.5% of total state aid) to hold all districts harmless initially, while 29 districts would see additional resources (at most, about a 3% higher foundation allowance). We discuss this scenario in more detail in Appendix C and show potential impacts on individual districts in Table C.4.

Combining this change to the state school aid formula with the type of distributional changes recommended in Chapter 3 would result in net changes to district state aid allocations that are partially offsetting. As a result, the total cost to the state to hold all districts harmless when both implementing median funding weights for student characteristics (aka Scenario 1) and equalizing “basic” per pupil allocations for staff are around \$39M, just \$2M more than the costs to hold districts harmless under Scenario 1 alone. In this combined scenario, the largest district-level increase in funding relative to the status quo is around 11 percent, while the largest decrease (if not held harmless) would be around 10 percent, as shown in Table C.5.

We note that we have not yet evaluated the goals and distributions underlying the state’s “supplemental salary” allocations for staffing. These supplemental allocations are not evenly distributed to districts but instead are district-specific and linked to historical differences in salaries provided to their staff. However, additional analyses (and insight from legislators around the original intent) may be warranted to assess whether an update to supplemental allocations is needed to better reflect current disparities in district needs. It may also be appropriate to adjust the size of the supplements if equalization of “basic” staff-related allocations were to alter districts’ need for the supplements.

Allocations linked to prior spending on transportation

A second area where we believe the current funding formula may be providing unhelpful incentives to districts is with respect to transportation costs. Currently, allowances for transportation explicitly reference prior-year spending on transportation as a key benchmark when determining allocations to districts. While the formula includes some guardrails against excessive spending, this approach reduces incentives for districts to reduce their transportation costs over time, where feasible.

It is important to ensure that districts receive adequate funding to address their transportation needs, but we believe this can be accomplished (as many states do) by pegging funding to underlying cost drivers, rather than spending levels in the prior school year (ECS, 2021; Zamarripa, Dammu, and O’Keefe, 2024). Factors such as ridership, mileage covered by routes, time spent in transit (in case of variation in terrain and navigability), additional costs for special needs rider accommodation, and upkeep costs associated with the age and condition of vehicles, could all be considered in an updated formula.

We lack sufficient data of these types to recommend a specific alternative transportation formula at this time, but the aforementioned factors should allow for estimation of costs facing districts that are in line with their true levels of need. Such a formula could be designed to align closely with recent prior spending levels, as these provide valuable information about the costs facing districts. But by removing explicit references to prior-year transportation spending levels, the new formula would incentivize districts to use the resources they are allocated to address their underlying transportation needs in the most cost-effective way possible.

Chapter 5. Implications of Hope Scholarship Program Design and Eligibility Expansion

Overview: *Currently, most Hope Scholarship participants must have been enrolled in the public school system. A planned eligibility expansion in 2026–27 would remove this requirement. Evidence from other universal voucher programs suggests that such an expansion would inefficiently subsidize private school tuition for many families who would have chosen private schools regardless. We therefore recommend against the expansion, and recommend considering adding income eligibility criteria to focus resources towards families less able to afford private schooling. We also recommend limiting the rollover of unused scholarship funds, as indefinite rollover delays the use of substantial state resources for educational improvement. Finally, we recommend that the state continue to improve data collection around the characteristics and experiences of families who use scholarships.*

Hope Scholarship program current design and efficiency considerations

Through a supplemental appropriation, the state allocates resources to the Hope Scholarship program, which provides funding for educational expenses to participating students' families. Scholarship amounts are equivalent to the statewide average state aid allotted per pupil (after accounting for local share estimates). As of school year 2023-24 this amounted to approximately \$4,900 per student annually. Parents can also rollover unused funds from one year to the next, with more than \$3M (~11%) of funds rolled over in this way in school year 2023-24.¹¹ The program is intended to provide all taxpayers the opportunity to use state contributions toward their child's education if they opt not to participate in the public school system, and to promote competition with public schools to encourage sector-wide school improvement.

Currently, the program is only open to families with a rising Kindergarten-age child or a child who transferred out of regular attendance at a public elementary or secondary school (Hope Scholarship WV, 2025). As of the 2024-25 school year, the program served an estimated 10,542 students (18% of them rising Kindergarteners), relative to approximately 241,000 students enrolled in public schools of all kinds state-wide.

From an allocative efficiency standpoint (i.e., the use of state educational aid for the purpose of providing more or better educational services), scholarships to support students who would have otherwise attended public schools is a break-even spending proposition for the state, and could free up local resources that could be used to support students still in public schools. While there are other impacts such as contributing to declining overall enrollment in the public system

¹¹ According to records provided by the State Treasurer's Office.

and loss of associated federal resources, the overall arrangement is reasonably cost-efficient if it allows families to access alternative educational services they prefer.

The educational efficiency of state-provided scholarships is lower when considering students who would have attended private schools regardless of the presence or absence of the scholarship. For these families, scholarships are expected to largely substitute for spending they would have undertaken regardless (Fernandez and Rogerson, 2003). In other words, state educational dollars in this case are providing a financial boost to families already using private schools, but not a meaningful change in the education their children receive. In cases where scholarships largely substitute for families' existing spending, there is also reduced potential for the program to spur increased competition in the overall education sector.

Families who were always going to home-school their children and who use scholarships would likely see a mix of substitution effects and increased total education expenditures. There is limited data on typical home-school educational expenditures, but the most recent estimates suggest parents spend around \$1,300-\$1,600 dollars annually (Duvall 2025) on educational services and supplies. Thus, for this group, only a portion of the scholarship is expected to substitute for spending that would have occurred regardless.

Overall, the efficiency of the Hope program spending for promoting educational expenditures depends upon the mix of families who use the scholarships. In the short term, the program's current eligibility restrictions related to prior public school enrollment are preventing enrollment by most families already attending private schools. However, even with these rules in place, over time an increasing proportion of families that would have enrolled in a private school regardless of the scholarships will become eligible to enroll. Reducing their participation rate over the long-term would boost the cost efficiency of the program.

Given the strong relationship between family income levels and private school participation, we recommend considering income eligibility thresholds for participation in the program. This could reduce participation rates by wealthier families who are more likely to use private schools absent the scholarship (Murnane et al., 2018).¹² Many voucher programs nationwide include income-based eligibility thresholds in this way to help improve program targeting and efficiency (Erwin 2024). That said, we appreciate that there is a tradeoff between program goals related to universality of access and the cost efficiency of the program as an investment in the education sector. Regardless of whether new eligibility criteria are adopted, improved tracking of the income levels and educational experiences of families who use scholarships would be helpful to allow legislators to better understand who is benefitting from the program.

Unlimited rollover of funds by families is another area where the efficiency of the existing program could potentially be improved. While the current flexibility is generous to participants, setting aside substantial amounts of state education funding year over year that is unused –

¹² While we do not have data on the income levels of families with students enrolled in private schools in West Virginia, we do observe that private school attendance is higher in wealthier counties (U.S. Census Bureau, 2023).

potentially for several years in a row if families opt to accumulate funds – represents a missed opportunity to invest these funds towards West Virginia students’ education in a more timely way. As such, we recommend that unused funds should return to the state, or for caps to be placed on total rollover amounts allowed per participant.

Efficiency implications of Hope eligibility expansion

In school year 2026-27, the Hope program is expected to eliminate eligibility requirements requiring prior public school enrollment and attendance, becoming a universally available program. This will have important near-term implications for its cost efficiency. A sizeable pool of around 36,000 school-aged youth including a mix of current private school attendees (~38%) and home-schooled students (~62%) will be immediately eligible to participate with no significant barrier to entry (NCES, 2023; Johns Hopkins University School of Education, 2024).¹³ Hope participants from this newly eligible population could represent a sizeable new burden on state educational finances, e.g. ~\$105M annually if half of the newly eligible opt to take a scholarship. This would be a population that is much more likely to use the scholarship as a partial or full substitute for educational spending they would have undertaken regardless of the Hope program.

In addition, universal access to scholarships may spur increases in private school tuition costs, as private-school attending families state-wide become eligible to receive scholarships at the same time. Prior studies of universal voucher programs have found that this approach can lead to private schools charging higher tuition, reducing access to private options and the financial benefits to families that use scholarships to attend private schools (Fontana and Jennings, 2024; Hungerman and Rinz, 2016). Price impacts may be less likely if program expansion is gradual, leaving more time for private school supply to match growing demand.

Overall, the sudden expansion of the Hope program to become universally available without eligibility barriers may produce a substantial new cost burden to the state. The additional resources spent by expanding eligibility are likely to be less efficient—in terms of increasing the net educational services students receive—than the current version of the Hope program or the use of state resources directly towards the delivery of public educational services. Additionally, if private school tuition increases, many current scholarship recipients could also be negatively impacted. In light of these considerations, we recommend against the current planned expansion of eligibility for the Hope Scholarship program in school year 2026-27.

¹³ We estimate the pool of 36,000 new eligibles after program expansion based on publicly available estimates of the total number of West Virginia youth currently attending private schools or participating in home-schooling.

Chapter 6. Summary of Findings and Recommendations

- West Virginia's spending levels on education are close to national averages, but its students face well above average socio-economic and academic challenges. Research indicates a sustained increase in spending would very likely improve outcomes.
 - We recommend that the state increase funding through the school aid formula while simultaneously working to improve system effectiveness.
- Compared to other states, West Virginia under-allocates resources to districts that serve students who cost more to educate.
 - We recommend distributing additional funding to districts with larger proportions of low-income, special education, and English learner students. Associated weights should be at least as large as the median weights used by other states.
 - The state should collect data on district's distribution of funds to individual schools to help monitor alignment between resource levels and local needs.
- West Virginia appropriately allocates additional resources to very small and sparse districts. However, over time this allocation has grown unusually large for some districts.
 - We recommend updating the formula to cap the maximum proportional funding increase that districts can receive under this provision.
- The current formula provides additional resources to districts that have staff in more expensive salary bands. This provides an unhelpful incentive to disregard staff costs when making personnel management decisions.
 - We recommend that the state update the formula to decouple per-pupil funding allocations from current staff characteristics.
 - We recommend this change be paired with reforms to allow reductions in force to be based primarily on staff performance rather than on educator tenure.
- The current formula allocates transportation funding to districts tied to prior-year spending levels, reducing incentives for districts to cut costs.
 - We recommend transportation funding be tied instead to underlying cost drivers, such as ridership, mileage, time in transit, and condition of the fleet.
- It is inefficient to direct Hope Scholarship funds toward families who would choose private schools even without the scholarship, or to permit indefinite rollover of funds.
 - We recommend against expanding Hope program eligibility, as this will open participation to a substantial number of students already enrolled in private schools and could lead to tuition cost increases by private schools statewide.
 - We recommend considering income-based eligibility to help steer scholarships towards students who are otherwise less likely to attend private schools.
 - We recommend the program limit rollover of unused scholarship funds to allow state resources to be used in a more timely way to support educational goals.

- We recommend that the state continue to improve data collection around the characteristics and experiences of families who use scholarships.

Abbreviations

CWI	Comparable Wage Index
ECS	Education Commission of the States
ELL	English language learner
ESL	English as a second language
FRPL	Free or reduced-price lunch
GDP	Gross domestic product
IDEA	Individuals with Disabilities Education Act
IEP	Individualized education plan
K–12	Kindergarten through grade 12
NAEP	National Assessment of Educational Progress
SAIPE	Small Area Income and Poverty Estimates
SPED	Special education
WVDE	West Virginia Department of Education

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