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Section III

Key Policy Issues in Virtual Schools: Finance and Governance, Instructional Quality, and Teacher Quality

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Executive Summary

This section draws from a comprehensive analysis of all proposed and enacted virtual school legislation in 50 states during the 2021 and 2022 legislative sessions, building on earlier NEPC reports detailing nine years of activity in the 2012-2020 sessions. We focus on whether legislatures have been moving closer to or further from core recommendations advanced in this NEPC series and whether this or other relevant research is informing legislative action.

Our analysis revealed a continued decrease in activity, although bills attempting to increase oversight continue to be proposed. We found little evidence to indicate that emerging research is informing legislative action. This section also analyzes bills specific to state responses to the COVID-19 health emergency in the 2021 and 2022 legislative sessions.

Based on this review and analysis, it is recommended that policymakers:

- Develop new funding formulas based on the actual costs of operating virtual schools.

- Develop new accountability structures for virtual schools, calculate the revenue needed to support them, and provide adequate funding.
- Establish geographic boundaries and manageable enrollment zones for virtual schools by implementing state-centered funding and accountability systems.
- Develop guidelines and governance mechanisms to ensure that virtual schools do not prioritize profit over student performance.
- Require high-quality curricula, aligned with applicable state and district standards, and monitor changes to digital content.
- Assess the contributions of various providers to student achievement, and close virtual schools and programs that do not contribute to student growth.
- Implement a nationwide longitudinal study across multiple providers and with interim checkpoints to assess the quality of the learning experience from the student perspective.
- Delineate the definitions of adequate quantity of instruction to ensure subject mastery.
- Define certification training and relevant teacher licensure requirements specific to teaching responsibilities in virtual schools, and require research-based professional development to promote effective and equitable online teaching.
- Address retention issues by developing guidelines for appropriate student-teacher ratios and attending to other working conditions (for example, student attendance and engagement) that may affect teachers' decisions about where to work.
- Work with emerging research to develop valid and comprehensive teacher evaluation rubrics and accountability systems specific to online teaching that reflect important elements of virtual teaching like differentiated instruction, student engagement, and equitable support of all learners.
- Identify and maintain data on teachers and instructional staff that will allow education leaders and policymakers to monitor staffing patterns and assess the quality and professional development needs of teachers in virtual schools.
- Examine the work and responsibilities of virtual school administrators and ensure that those hired for these roles are prepared with the knowledge and skills to be effective, particularly with respect to evaluating teachers and promoting best practices.

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Introduction

As evidenced in the NEPC series of policy reports on virtual schools, policymakers continue to struggle to reconcile funding structures, governance and accountability systems, instructional quality, and staffing demands developed for traditional brick-and-mortar schools with the unique organizational models and instructional methods associated with virtual schooling. State legislatures continue to respond to inherent challenges, partly by proposing bills intended to increase oversight; however, only 25% of proposed bills were enacted in 2021 and 2022.[1] In addition, little evidence suggests hat emerging research is informing legislative actions.

Below we revisit critical policy issues introduced in our earlier reports, specifically:

- Finance and governance
- Instructional quality
- Teacher quality

Beginning with the 2013 NEPC report, we defined these areas and began surveying emerging research relative to them; then, in the 2014 report, we shifted our focus to legislative activities, characterizing how states were addressing evolving virtual school models. The last five reports have analyzed legislation, examining all proposed and enacted virtual school legislation in 50 states from 2012 through 2020. Early analysis of 2012 and 2013 bills served as a

baseline allowing us to identify and track more recent trends, up to and including the comprehensive analysis of all virtual school legislation introduced in 2021 and 2022, presented here.

We also include analysis specific to bills responding to the COVID-19 crisis in the 2021 and 2022 legislative sessions, building on similar bills that were first introduced in 2020 during the early stages of the COVID-19 pandemic. In addition, we draw on our research, recent policy reports, and popular press accounts. To provide context, we reintroduce and update critical policy issues, relevant assumptions, and unanswered empirical questions. To conclude each subsection, we advance policy recommendations and offer thoughts on the next steps for researchers and policymakers.

Overview

Our nationwide, comprehensive analysis of all 2021 and 2022 proposed and enacted virtual school legislation drew on the FiscalNote Bill Tracking Database. Keywords searched were: cyber, virtual, online, technology, non-classroom-based, distance learning, digital learning, and blended learning.[2] Our analysis sought bills targeting new, revised, or revoked programs specific to K–12 virtual education. This analysis provides a richer understanding of how legislators are promoting, revising, and curbing evolving virtual school models compared to previous years. In addition, analysis of nine earlier legislative sessions allowed us to track whether legislative trends are moving closer to or further from our earlier recommendations.

We found that in 2021, 44 bills were proposed in 19 states: 13 were enacted, 27 failed, and four were pending (See Appendix III-A for a comprehensive listing and summaries of relevant bills.) In 2022, 55 bills were considered in 27 states: 12 were enacted, 36 failed, and seven are pending. In total, 30% of bills proposed in 2021 and 22% proposed in 2022 were enacted. (See Appendix III-B for a comprehensive listing and summaries of relevant bills.) The raw number of bills introduced remains consistently low since the 2018 legislative session, when we assessed a significant drop and only 42 bills were introduced. In comparison, during the 2012–2017 legislative sessions, an average of over 110 bills were introduced each year.[3] However, as detailed momentarily, the focus on specific themes has remained constant since 2012.

In 2021, 19 states considered legislation, and 10 enacted at least one bill. Much of the activity occurred within a relatively small number of states: Pennsylvania (8), Oklahoma (6), and Texas (6). In 2022, 27 states considered legislation and 11 states enacted at least one bill. Again, very few states accounted for most activity: Florida (7), Wisconsin (6), Oklahoma (4) and Missouri (4). Consistent with findings in earlier reports, Pennsylvania and Oklahoma continue to see significant activity.

Typically, proposed legislation ranged from narrow to sweeping. Two trends were significant and continuing from previous years, and one trend that was previously noted as newly emerging experienced a substantive decrease in legislative activity. As in the past, many bills targeted funding issues, including costing-out virtual school models, proposals to reduce funding, and proposals to curb profiteering. Also, like in prior years, in the 2021 and 2022

legislative sessions a body of substantive legislation indicated an interest in topics generally related to governance: pilot programs, task forces, oversight commissions, and state boards to study and oversee virtual schools. Some bills, not surprisingly, couple both governance and finance, as when a task force might have been proposed to investigate a particular funding issue. A third trend specific to moratoriums or closures of virtual schools that we noted as newly emerging in the 2019 and 2020 legislative sessions is that they experienced a sharp decrease. Moratorium bills had increased significantly in the 2019 and 2020 legislative sessions, when eight bills were introduced, but in 2021 and 2022, zero moratorium bills were proposed. Another notable area where interest has been fading recently is in bills related to cybersecurity and student data privacy issues: Only one was introduced in 2021.[4]

The COVID-19 pandemic has had a significant impact on legislation related to full-time virtual schools. Compared to bills in the 2020 legislative session that addressed the issues of instructional and teacher quality in the context of a health emergency and nationwide school closures, new bills in 2021 and 2022 focused primarily on interventions for addressing students' learning loss during the COVID-19 pandemic.

Appendix III-A and III-B highlight the main themes covered by select bills. The following subsections analyze the substance of select bills, with a focus on states exhibiting significant legislative activity and bills that address three critical policy areas—finance and governance, instructional quality, and teacher quality. Each subsection concludes with an assessment of how legislative developments during the past 11 years have moved policy closer to or further from addressing the critical policy issues outlined in our recommendations.

Finance and Governance

Despite increased attempts to identify funding, governance, and accountability mechanisms to strengthen oversight of virtual schools, policymakers and practitioners continue to face challenges in these areas. Legislatures continue to advance bills proposing task forces and boards to oversee implementation challenges, although there is limited evidence concerning how and whether such attempts have been informed by the findings and recommendations of past task forces, state studies, and empirical research. There is, however, substantive evidence that state audits and legal challenges have prompted continued efforts to improve accountability and governance structures and to address profiteering.

Linking Funding to Actual Costs of Virtual Schools

To date, and despite many attempts to enact legislation addressing funding issues, no state has implemented a comprehensive formula that ties funding allocation directly to virtual schools' actual costs and operating expenditures. Policy debates persist, both because of cost differences between virtual and brick-and-mortar schools and because of other policy considerations. Developing a comprehensive formula would involve gathering sound and complete data on virtual schools' costs and expenditures related to governance, program offerings, types of students served, operational costs, student-teacher ratios, and other fac-

tors. As in previous reports, our exhaustive search on this topic has not found an empirical study that accounts for the true cost differentials of brick-and-mortar and virtual schools.[5] However, new evidence shows states attempting to develop a more methodical funding approach through directives for task forces and state studies to provide policymakers with reliable data to guide their decisions. Proponents of more finely tuned funding include charter school advocates, who have called for legislatures to align per-pupil funding with the actual costs of educating virtual school students.[6]

As in past years, and as new task forces and oversight committees have begun studying cost differentials, legislation has been introduced—and in some instances, enacted—to revise virtual school funding. Policymakers' sustained attention to virtual school funding makes clear that funding is a key concern. However, compared to previous years, there has been a decrease in calls for costing-out studies or similar interventions. For example, in past years, the Pennsylvania legislature has consistently been a frontrunner in attempts to calibrate funding formulas as virtual charter schools have grown. In addition to past support from the governor, who has repeatedly called for changes in funding formulas for all charter schools,[7] the Pennsylvania Auditor General has also recommended developing new systems to increase accountability for virtual charters and to eliminate incentives for profiteering.[8] Yet, in the 2021 and 2022 legislative sessions, Pennsylvania introduced only one bill (PA HB 1688, 2021) calling for costing-out the operations of cyber charter schools and determining the actual cost of educating students. The Pennsylvania legislature had also previously advanced several bills calling for moratoriums on new cyber charter schools; however, zero moratorium bills were proposed in 2021 or 2022.[9]

This decrease in bills calling for oversight of cyber charter schools in Pennsylvania is coupled with a recent decision by newly elected Auditor General Timothy DeFoor to close the school audit bureau.[10] DeFoor's rationale for the closure cited how the responsibility to audit schools is that of the Pennsylvania Department of Education.[11] The Children First Pennsylvania Charter Performance Center, a group that advocates for quality public education, levied a strong protest to DeFoor's decision, citing the mismanagement of public revenues and profiteering by cyber charter schools in Pennsylvania. The group outlined how DeFoor's predecessor had revealed in two previous audits the unusually large year-end funding reserves many cyber charter schools had amassed. They explain how in 2021, Pennsylvania Cyber Charter School reported over $63 million in reserves, and Reach Cyber Charter School reported over $31 million.[12] As has consistently been the case in recent Pennsylvania legislative sessions, all bills related to funding or governing issues in cyber charter schools have failed.

Costing-out was also of interest in other states, including Arizona and Kansas, during 2021 and 2022. In Arizona (AZ HB 2426, 2022), the legislature proposed that the State Auditor General "conduct and complete a cost study of Arizona online instruction in this state."[13] The comprehensive study would have examined administration, technology, personnel, and curriculum costs, the percentage of online courses taught by humans, how much is spent on each online course, the average online class size, how much money Arizona generates for online students, and how money follows online students to their school of attendance. The bill failed to pass. In Kansas, one bill (KS HB 2134, 2021) proposed a study of statewide virtual school programs in other states that would examine "the aggregate cost incurred by each

state in administering a virtual school program, and the cost incurred by individual school districts or schools."[14] The study would also account for the cost of resources necessary for the implementation of virtual school programs, including personnel, equipment, software, and facilities, in addition to measuring student performance in each virtual program. The bill was enacted.

While interest in adjusting funding based on real costs continues, little evidence suggests that policymakers are drawing on either the results from their own state studies or on evidence emerging from other research. Absent a wider empirical accounting of real costs, legislative proposals seem likely to continue to be fueled more by political motivation than by reliable evidence.

Identifying Accountability Structures

Governance accountability structures should ensure that all virtual school expenses and practices directly benefit students. Concerns include monitoring costs and quality of staff, materials, and instructional programs—including technological infrastructure, digital learning materials, paraprofessional services, and third-party curriculum. Oversight of other areas, such as student attendance and learning transcripts, allows monitors to evaluate instructional time and outcomes. The new trend in proposed bills linking per-pupil funding to student performance persists in 2021 and 2022, with the addition of termination of virtual school contracts when specific standards of student enrollment and school performance are not met.

For example, a bill in Texas (TX SB 15, 2021) proposed that a school district may not count a virtual student in their average daily attendance (ADA) if the student:

> 1. did not achieve satisfactory performance or higher or the equivalent in the preceding school year; 2. had a number of unexcused absences that exceeds 10 percent of the number of instructional days in the preceding school year; or 3. did not earn a grade of C or higher or the equivalent in each of the foundation curriculum courses taken virtually or remotely.[15]

The same bill also included a requirement that schools earn an overall performance rating of C or higher as a condition for operating a remote learning program. The bill passed.

A bill enacted in Florida (FL SB 2524, 2022), will require that virtual school providers receive both a statewide and school-level performance grade based on the academic assessment scores of the students they serve. If a provider received two consecutive grades of "D" or "F," their contract would be terminated. A similar bill in West Virginia (WV HB 2576, 2022) would have required an annual evaluation that includes assessing student performance and fiscal and operational viability. The bill failed.

In contrast to the bills outlined above that propose to increase the accountability of virtual schools, a bill enacted in Georgia (GA HB 2115, 2022) repealed the requirement for audit reports on virtual charter schools. Specifically, the Georgia Department of Audits and Controls would previously prepare an audit every four years, in the period before a charter was

due for reauthorization. The audit included academic performance, financial data, and governance data. The new law eliminates this important accountability audit.

Delineating Enrollment Boundaries and Funding Responsibilities

Monitoring which virtual schools provide education services, and to which students, requires addressing capacity issues and delineating enrollment zones. Careful enrollment audits are also necessary to ensure that a student's resident district is forwarding appropriate local and state per-pupil allocations to a virtual school. Several bills in this analysis address these issues.

A new legislative trend that we identified in 2019 and 2020 was efforts to adjust virtual schools' enrollments or limit their growth. Legislatures have sought to cap or limit enrollment to address issues specific to both accountability and cost. Interestingly, in the 2021 and 2022 legislative sessions, an opposite trend emerged, where six bills called for lifting enrollment caps and expanding access to virtual schools, and only one bill called for limiting virtual school enrollment. Four enacted bills will lift the statutory cap on the number of virtual schools or virtual school enrollment in Wisconsin (WI SB 828, 2022), North Carolina (NC HB 196, 2021; NC HB 103, 2022), and Florida (FL HB 5003, 2022). In North Carolina, the two enacted bills will lift the statutory limit on enrollment in two pilot-program virtual charter schools (NC HB 196, 2021) and extend the pilot program through the 2024-25 academic year (NC HB 103, 2022). In Florida (FL HB 5003, 2022), conditional approval for virtual school providers will be extended from one to two years. And in Wisconsin (WI SB 828, 2022), providers will be allowed to extend their pilot for an online early learning pilot program for children from low-income households who reside in school districts other than those included in the original pilot program. Three similar bills, in Maine (ME SP 168, 2021; ME HP 310, 2021) and Alabama (AL HB 506), proposed lifting enrollment caps in virtual schools; all three bills failed. The only bill that proposed a limitation on virtual school enrollment was in Maryland (MD HB 805, 2022), which would have restricted a virtual school from enrolling more than 1% of school-age children in any county. The bill failed.

In addition to the substantive number of bills that proposed lifting enrollment caps, seven bills called for creating new virtual school programs, including pilot programs and statewide acts.[16] This sharp increase in bills calling for expanding virtual school operations may be related to the COVID-19 health emergency, where state efforts to codify virtual school operations as all students transitioned to full-time remote learning were necessary. However, without engaging in further analysis of local conditions that motivated these policy changes, it is difficult to claim a causal effect.

As in previous years, legislative proposals on enrollment boundaries and limits persisted in 2021 and 2022. Delineating enrollment zones has proven challenging for students' resident districts, which must send tuition payments to virtual schools that may be geographically distant, complicating verification of student enrollment. However, consistent with the trend identified in the subsection above, where legislatures advanced more permissive regulations lifting enrollment caps and expanding access to virtual schools, we also see an increase in

bills advancing more permissive enrollment boundaries.

Previous efforts by state legislatures to address enrollment boundaries and limits have consistently failed. For example, in Texas (TX SB 27, 2021), a proposed bill would have restricted a district or charter school from counting a student on their average daily attendance if they do not reside in the district or the geographic area served by the charter school. And in Oklahoma (OK SB 630, 2021), a proposed bill would have allowed a student's resident school district to deny a transfer if the resident district already offers a full-time virtual education program equal in scope and content to the virtual charter school to which a transfer is being sought. Both bills failed. In Florida (FL SB 2524, 2022), an enacted bill will limit the proportion of full-time equivalent virtual students residing outside of a school district that already provides virtual instruction to no more than 50% of the total enrolled full-time equivalent virtual students residing inside the school district that provides the virtual instruction.

In contrast to bills that have attempted to define stricter enrollment boundaries, four proposed bills sought to expand or erase enrollment boundaries, allowing non-resident students to attend a virtual school in a district where they do not reside, in Nevada (NV AB 329, 2021), Oregon (OR HB 4119, 2022), Texas (TX SB 15, 2021), and Wisconsin (WI SB 109, 2021). The bills in Texas and Wisconsin were enacted.

Lastly, in Pennsylvania (PA HB 1074, 2021), a proposed bill aimed to limit cyber charter schools from drawing enrollment from all districts in the state. It would have required students to pay a full tuition charge if they chose to enroll in a cyber charter outside their district of residence, if their resident district already offered a full-time cyber education program. The bill failed.

The bills to slow or control the scaling-up of virtual schools and limit enrollment boundaries are examples of attempts by policymakers that are consistent with our reports' recommendations. However, the newly emerging trends to lift enrollment caps, expand access to virtual schools by eliminating enrollment boundaries, and develop new state-level virtual programs may challenge the ability of policymakers to hold virtual schools accountable. In past reports, we found that studies of virtual school accountability structures done via task forces or commissions to inform policy were becoming more common. Charged with identifying best practices for governance and delivery of online instruction, such publicly funded study groups may yield important information for policymakers and practitioners. We recommend that states continue engaging in these types of studies before further expanding virtual school options.

Limiting Profiteering by Education Management Organizations

In 2021 and 2022, legislators in several states have continued to respond to the complicated accountability issues and public controversies related to for-profit education management organizations (EMOs). These organizations provide various products and services to virtual schools—including software and curriculum, instructional delivery, school management, and governance. As outlined in Section I of this report, virtual schools that have contracts

with for-profit EMOs operated 32% of all virtual schools and served 52% of full-time virtual school student population. Stride, Inc. (formerly K12 Inc.)[17] continues to be the largest of the for-profit virtual school providers, operating 78 schools and serving 134,525 students in 2021-2022—amounting to 23% of the estimated 578,659 full-time virtual school students in the U.S. Stride, Inc. profits in 2021 were a net $161 million, and total revenues were $1.54 billion.[18] Profits in 2022 were a net $188 million and total revenues were $1.69 billion,[19] compared to a 2020 net profit of $56.1 million and total revenues of $1.04 billion.[20]

Slack accountability and the perverse motivation of for-profit virtual school operators to capitalize on minimal state oversight have encouraged widespread profiteering and continually prompted calls for action. As a result, audits conducted by state legislative analyst offices and auditor generals, either mandated by law or prompted by public calls for accountability, have triggered legal and policy challenges for both policymakers and law enforcement. In recent years, profiteering in California, Ohio, and Pennsylvania has been an especially contentious issue for legislatures.[21] For example, ongoing audits by Pennsylvania's Auditor General have resulted in several school closures and criminal convictions of former virtual school operators—but past legislative efforts to curb damaging practices have consistently failed.[22]

As discussed above, the recent closure of the school audit bureau within the Office of the Auditor General in Pennsylvania may further limit policymakers' attempts to hold cyber charter schools accountable. Past proposals in multiple states have routinely failed, indicating the intransigence of the problem, although earlier, California did enact a bill including restrictions on for-profit EMOs operating virtual charters,[23] and Ohio did enact one with new procedures for determining full-time equivalency, defining student attendance, and defining learning engagement.[24] In 2021 and 2022, two similar bills were proposed that would have restricted for-profit management organizations from applying for or renewing a virtual charter school application (Oklahoma, OK SB 665, 2021) and prohibiting districts from contracting with a for-profit provider to operate a virtual school (Maryland, MD HB 1163, 2022). Both bills failed.

Several states tried to improve monitoring in other areas of virtual school operations. Some proposed bills spelled out minimum requirements for what "counts" as attendance and engagement, collectively known as "seat time" or login records used to calculate per-pupil revenue disbursements. Three bills (Ohio, OH HB 110, 2021; West Virginia, WV HB 2576, 2022; Oklahoma, OK HB 3645, 2022) proposed a minimum number of contact or instructional hours equivalent to state requirements for students in brick-and-mortar classrooms that virtual students must fulfill to count as full-time under average daily attendance guidelines. Only the bill in Ohio was enacted. In Michigan (MI SB 845, 2022), a proposed bill provided extensive guidance on defining activities that constitute "participation" by a virtual school student. The requirements define participation on "pupil membership count days," which includes: attendance at a live lesson with a teacher; documentation of login for the lesson with a teacher; documentation of email dialogue between the student and teacher; documentation of work completed with teacher or coach during the lesson; and additional two-way interaction three weeks after the pupil membership count day.[25] The bill was enacted.

While these three bills provide needed additional guidance, they do not close the gaps asso-

ciated with over-reporting full-time enrollment and under-defining learning engagement, the practices that have fueled profiteering by virtual school providers in many states.

Another persistent trend specific to issues of profiteering is a concern for governance structures and conflicts of interest. As in previous years, the Pennsylvania legislature proposed the most comprehensive bill in this area. The bill (PA SB 1, 2022) was an attempt to expand the requirement for public audits of charter and cyber charter schools' boards of trustees, including:

1. An enrollment test to verify the accuracy of student enrollment and reporting to the Commonwealth.
2. Full review of expense reimbursements for members of the board of trustees and administrators, including the sampling of each reimbursement.
3. Review of internal controls, including review of receipts and disbursements.
4. Review of annual Federal and State tax filings, including the Internal Revenue Service Form 990, Return of Organization Exempt from Income Tax, and each related schedule and appendix for the charter school entity and charter school foundation, if applicable.
5. Review of the financial statements of any charter school foundation.
6. Review of the selection and acceptance process of each contract publicly bid.
7. Review of each board policy and procedure with regard to internal controls, code of ethics, conflicts of interest, whistle-blower protections, complaints from parents or the public, compliance with 65 Pa.C.S. Ch. 7 (relating to open meetings), finances, budgeting, audits, public bidding, and bonding.[26]

The bill also prohibits a charter school administrator from receiving compensation from another charter school or a company that provides management or other services to another charter school. And finally, in attempts to curb nepotism within school administration, the bill describes:

> An individual may not serve as a voting member of the board of trustees of the charter school or regional charter school if the individual or a family member receives compensation from or is employed by or is a member of the local board of school directors who participated in the initial review, approval, oversight, evaluation or renewal process of the charter school or regional charter school chartered by that board. An administrator of a charter school entity or family member of the administrator may not serve as a voting member of the board of trustees of the charter school entity that employs the administrator.[27]

Consistent with previous legislative attempts to hold cyber charter schools accountable in Pennsylvania, the bill failed.

The financial or material inducements offered by virtual schools in attempts to increase en-

rollment have also been a source of profiteering. In Kansas (KS HB 2649, 2022), a proposed bill would have expressly prohibited virtual schools from offering financial incentives for a student to enroll in a virtual school. And in Pennsylvania (PA SB 1, 2022), a proposed bill would have prohibited efforts by cyber charter schools to increase enrollments with paid advertising and prohibited calling "the cost of tuition or other services, including transportation, computers, Internet or other electronic devices" free expenses.[28] Instead, cyber charters would be required to explicitly describe how the costs are paid for with taxpayer dollars. Both bills failed.

Legislative proposals have yet to resolve the need for accountability structures that effectively eliminate profiteering. Yet, a few efforts have succeeded. The proposals advanced in many of the bills outlined above are consistent with our recommendation calling for a policy or other actions by public officials to ensure that for-profit virtual schools do not prioritize profit over student performance.

COVID-19

Under the heading on enrollment above, we highlighted two new trends in proposed bills related to full-time virtual schools that advanced more permissive regulations lifting enrollment caps, expanding access to virtual schools through new programs, and proposing more permissive enrollment boundaries. We explained how the increase in these types of bills might be related to expanding virtual school access during the COVID-19 health emergency. A similar trend is apparent in bills that focus on virtual learning but are not explicitly aligned with full-time virtual schools. Five proposed bills called for either new virtual school programs, the expansion of existing programs, or elimination of statutory geographic boundaries and enrollment caps that limit more expansive virtual schooling.[29]

Another legislative trend, which we will highlight in the subsections below, is the numerous proposed bills that called for the mitigation of learning loss by students during the COVID-19 pandemic. In total, eight proposed bills allocated funding for studying and developing interventions to address learning loss.[30]

Recommendations to Ensure Effective Funding and Governance Mechanisms

While some state legislators have made efforts to address the important finance and governance challenges of operating virtual schools, a need remains for additional research to identify funding and governance practices that will increase accountability, identify cost-effective best practices, and eliminate profiteering. Given the evidence detailed above, we reiterate our recommendations from previous reports. Specifically, we recommend that policymakers and educational leaders:

- Develop new funding formulas based on the actual costs of operating virtual schools.
- Develop new accountability structures for virtual schools, calculate the revenue need-

ed to support them, and provide adequate funding.

- Establish geographic boundaries and manageable enrollment zones for virtual schools by implementing state-centered funding and accountability systems.
- Develop guidelines and governance mechanisms to ensure virtual schools do not prioritize profit over student performance.

Ensuring Instructional Program Quality

Since the onset of the COVID-19 pandemic in 2020 and the abrupt switch to remote and online learning for many, there has been a notable increase in the number of virtual schools and virtual school students. As outlined in Section I of this report, virtual school enrollment increased by 174% from 2019-20 (pre-pandemic) to 2021-22. Across 2021-22, while most students and schools returned to brick-and-mortar settings and resumed traditional face-to-face instructional methods, more families have opted into continuing online learning,[31] making the connection more critical than ever between instructional quality of virtual education and requisite policies that govern quality. While education has yet to realize the full impact of the pandemic on instruction, it is clear that the substantial increase in K–12 full-time virtual students calls for a closer look at instructional quality practice and policy nationwide.

The increase in virtual school enrollment in recent years should communicate to state policymakers that virtual instructional quality and the means by which student achievement is assessed across virtual schools should be a renewed priority. In many states, virtual charter schools experienced more enrollment growth than brick-and-mortar charter schools.[32] In some cases, virtual schools—especially in the case of the Florida Virtual School, as this report has discussed at length in the past—offer more than 190 flexible course options for full-time K–12 students. While the proportion of full-time virtual school students is still small in comparison to brick-and-mortar school students, hundreds of school districts established virtual schools in the 2020-21 school year, turning what was meant to be a temporary instructional solution during the pandemic into districts possibly responding to some families' desire to continue online instruction permanently.[33]

It is critical to ensure that the increasing number of virtual students are engaging in high-quality curriculum and that their virtual schools are being held to the same performance standards of education as their brick-and-mortar school counterparts. Further, compounded by early reports of learning loss experienced by many students during the pandemic disruption,[34] assessing achievement and the quality of instruction holds even more importance. Improving methods to meaningfully monitor virtual school performance and student achievement will ensure that remote academies and digital learning alliances, for example, have the capacity to serve every student.

The virtual learning experience, and instructional quality specifically, can vary significantly.[35] The varied approaches to virtual school instruction can make oversight even more difficult from a policymaking standpoint. Previous versions of this report have revealed mini-

mal legislative activity on instructional quality and other state oversight of virtual schools. The risk of increasing the scope of virtual education so quickly without sufficient legislative oversight could exacerbate concerns about the lack of high-quality instruction in full-time virtual programs. Some virtual schools' instruction has resulted in poor results for many students, and without the proper instructional oversight and student performance monitoring, the online challenges that contributed to learning loss during the pandemic could persist.[36]

As enrollments rise, the very small number of legislative bills seeking to improve instructional quality that were introduced or passed during 2021 and 2022 reflect a missed opportunity for policymakers to focus on virtual instruction. In this report, six bills were tracked related to full-time virtual school instructional quality across six states, resulting in only two enacted laws. One failed bill, introduced in response to the pandemic, sought to improve instructional quality and combat learning loss by offering virtual learning programs. Compared to 2019 and 2020, 10 bills were filed to ensure instructional quality, with only one enacted across five states. The decline in bills filed on this topic, while virtual student enrollment is climbing and states are still addressing learning loss, is deepening the legislative gap between virtual school growth and instructional quality.

Quantity and Quality of Instruction

The variation in the quality of K–12 virtual programs, including the design and delivery of the virtual instruction, could be a contributing factor to explaining how evaluations of student performance often result in mixed findings.[37] The quality of instruction in a virtual school, similarly to the quality of instruction in brick-and-mortar schools, is one of the most predictive factors in a program's success and how meaningful the virtual learning experience will be for its students.

The National Standards for Quality (NSQ) Online Learning, once affiliated with iNACOL, now collaborates with the Virtual Learning Leadership Alliance, Quality Matters, and the Digital Learning Collaborative. The purpose of providing oversight is to provide a multi-perspective approach to ensuring that virtual learning standards are current and relevant.[38] NSQ has identified critical standards to guide the high-quality delivery of virtual instruction, including curriculum and course design and instruction, fundamental contributors to ensuring full-time virtual students receive quality instruction. Some select standards that are important to note for this discussion around virtual school instructional quality are:

NSQ Standard: Instruction[39]

- The program adopts clear expectations for curriculum design and teaching practices that align with its stated vision, mission, principles, or values.
- Instruction is guided by evidence-based practices.
- Instruction is inherently inclusive for all learners.
- The program implements strategies to ensure the academic integrity of course assign-

ments and assessments in order to increase student accountability.

NSQ Standard: Curriculum and Course Design[40]

- Courses included in the program integrate quality instructional materials to enable and enrich student learning.
- Courses included in the program contain content that aligns with appropriate learning standards and includes provisions for both intervention and accelerated learning opportunities.
- Courses included in the program provide a variety of activities that include options for in-depth learning through authentic problem-solving and experience.
- Courses offered through the program are designed using research-based design principles, such as Universal Design for Learning (UDL), that improve access to learning for all participants.

Virtual school instruction curriculum and coursework can be delivered asynchronously or synchronously, accessible in real time and usually delivered by a virtual schoolteacher.[41] While approximately 70% of virtual charter schools deliver instruction completely asynchronously, 9% still require in-person check-ins with a certified teacher. Aligned with the NSQ standards, asynchronous learning in virtual schools can accommodate students who desire to work on course content at their own pace and is a good fit for families with multiple virtual learners in one household, sharing technology and coordinating schedules.[42] Although this method of delivering content can meet the needs of some students, online environments that fail to offer any synchronous interaction with instructors can result in lower performance, where completely asynchronous instruction can struggle with fostering learning.[43]

Some virtual schools can offer courses to students that may not be available to under-resourced brick-and-mortar schools, which often face challenges with teacher recruitment that limit course access, especially for advanced and remedial offerings. For example, career and technical courses, elective courses in specialized fields, and other courses that cater to the individual learning needs of students are available online through district virtual schools.[44] The Rural Virtual Academy Charter School Inc. (RVA) in Wisconsin, for example, has grown its course offerings to more than 6,500, more than double its repertoire in 2018-19.[45] Importantly, RVA has fostered a partnership with the Wisconsin eSchool Network and is part of a consortium of school districts that vet and purchase quality digital content with the Wisconsin Department of Public Instruction and must match curriculum with the Wisconsin State Academic Standards. This partnership—established to secure both the quantity of courses available and quality instruction aligned to state standards that impact both virtual and brick-and-mortar school students—is an ideal statewide collaboration.

Our analysis of the 2021 and 2022 virtual school legislation related to instructional quality revealed only three bills speaking to the quality of instruction. In 2021, an Alaska bill (AK SB 42) would have required the state department of education to review the curriculum of a virtual education course before it is included in a database making it available to students in

grades 6 through 12, contingent on an approval process that would require the curriculum to be aligned with the state standards. Despite failing, this bill is an important indicator that oversight of instructional quality in virtual instruction is a concern of some Alaska legislators. In 2022, Maryland also attempted, but failed, at passing legislation (MD HB 1163) that would have required their state department of education to establish virtual school standards that included reporting program quality metrics, the tracking and use of student data, and data reporting requirements. Lastly, Idaho enacted a bill (ID H 788, 2022) that required the Idaho Digital Learning Academy to provide remedial and advanced coursework opportunities to virtual students, including dual credit courses.

Assessing Achievement

The two types of instructional quality bills that this report analyzed—quantity and quality of instruction, and assessing achievement—are closely linked. As noted earlier in this report, full-time virtual school academic performance overall continues to be negative. As reported in Section I of this report (See Tables 6 and 7), in 2021-22, only 41.2% of full-time virtual schools earned acceptable performance ratings, and graduation rates for all virtual school students were more than 21% points below the national average. Without high-quality instruction, full-time virtual students will not receive the support necessary to accelerate their learning and overall performance of virtual schools will continue to lag behind.

Like curricula in brick-and-mortar schools, online curricula should be aligned with a designated set of standards to ensure that students' online learning experiences provide the information and skills policymakers deem essential. In fact, a 2015 report asserted that "All states have included specific language to require that online school curricula align with state standards and assessments. This may be in response to the fact that many online charter providers operate across many states with different learning standards."[46] The emphasis on alignment with a designated set of standards is also reflected in the National Standards for Quality (NSQ) Online Learning for Assessment and Learner Performance, outlined by the following standards:[47]

- The program uses multiple methods to assess the degree to which stated learning goals are met.
- Formative assessments that provide data for targeted remediation or intervention when needed are included.
- Assessments are aligned with learning objectives.
- The program provides standards for timely, effective feedback as an integral role of assessment.

The independent curriculum pacing and mastery-based instructional methods of virtual instruction may provide full-time virtual students with options in their learning and the opportunity to pursue remedial and advanced coursework. However, the inherent flexibility of online education and the need for consistent performance evaluations may complicate the process of creating reliable assessments. Many virtual schools, including the Florida Virtual

School, provide students with multiple opportunities to demonstrate mastery of content before moving on to the next course.[48] Assessment of student achievement can become more complicated with mastery-based systems, and documenting student proficiency becomes a primary concern.

A closer look at statewide longitudinal data systems and methods for assessing virtual school accountability would create shared oversight and mechanisms for monitoring instructional quality. In Tennessee, virtual schools are evaluated by the district that establishes them, with the intent to examine how the virtual school demonstrates an increase in student achievement in accordance with state academic standards.[49] The Tennessee Department of Education, for example, practices a virtual school monitoring framework that outlines monitoring requirements and how to designate virtual schools by performance. Annually, a virtual school's evaluation must include the accountability and viability of the school, demonstrated by several components, including academic performance.[50] An oversight system contributing to virtual school monitoring strengthens reflection on virtual school practices and allows school districts to keep student achievement front of mind.

In 2022, only three bills addressed assessing student achievement in virtual schools. In Florida, full-time K–12 virtual school students are already required to participate in the state assessments, but a bill that failed to pass (FL HB 1193) also sought to require participation in a coordinated screening and progress-monitoring system to be delivered at least three times annually. West Virginia also failed to pass a bill (WV HB 2576) that would have amended its existing Virtual Public Schools Act to add annual evaluations of virtual schools. New evaluation metrics would have included the extent to which the virtual school increases student achievement related to state academic standards and a minimum requirement of 900 hours of learning opportunities or demonstrated mastery of content. Missouri, however, successfully passed legislation (MO HB 1552) that shifted responsibility from their state department of education to virtual school programs to monitor student success and to provide the host school district with progress reports on academic and other relevant aspects of student engagement.

COVID-19

When the pandemic entered schools in 2020, the phrase "emergency remote teaching" was coined to describe the swift shift in modality, even though the term "online learning" was being used to describe the instruction offered to students learning from home.[51] The different phases of education in response to COVID-19 began with a "rapid transition to remote learning and teaching"; we have now potentially entered the last phase, "emerging new normal," in which the levels of online learning adoption—likely to be higher than before the pandemic—are still unfolding.[52]

What has become clearer since the transition to online learning from the pandemic has been the lack of understanding of virtual instruction practices experienced by students who learned remotely during COVID-19 and for those still learning online today.[53] More than half of K–12 public school teachers reported that their students suffered significant academic

and social-emotional learning loss, especially among Black and Hispanic students and students with disabilities.[54] For many students, returning to a brick-and-mortar school setting was critical, as the emergency remote learning settings were not yet equipped to deliver quality virtual instruction.

After the pandemic dust had somewhat settled, only one bill was introduced in 2022—in Rhode Island (RI HB 7284, pending at the time of this analysis)—that proposed appropriating $250 million from federal Elementary and Secondary School Emergency Relief (ESSER) funds to create an online system of supplemental courses aimed to address academic deficiencies in student performance after the COVID-19 pandemic. Importantly, the legislation specifies that the funds should be used to purchase high-quality curricula from virtual learning programs and offer testing and diagnostic resources to identify areas needed for targeted remediation. To provide further support to families recovering from the pandemic, this bill would require the state department of education to prepare individuals to support parents as their students register for online courses to address remediation, with access to summer learning programs and certified teacher mentorship. This bill would support all Rhode Island students, including those enrolled in brick-and-mortar schools.

Recommendations to Ensure Instructional Quality

The legislative activity focused on the instructional quality delivered by virtual schools has not matched the growth in virtual school enrollment. We continue to see less legislative activity, as evident from our analysis of 2021 and 2022 legislation. Similar to the last NEPC Virtual Schools report in 2021, little progress has been made across states to ensure instructional quality. Based on the preceding analysis, we reiterate our recommendations from the previous reports. Specifically, we recommend that policymakers and educational leaders:

- Require high-quality curricula, aligned with applicable state and district standards, and monitor changes to digital content.
- Assess the contributions of various providers to student achievement, and close virtual schools and programs that do not contribute to student growth.
- Implement a nationwide longitudinal study across multiple providers and with interim data checkpoints to assess the quality of the learning experience from the student perspective.
- Delineate the definitions of adequate quantity of instruction to ensure subject mastery.

Ensuring High-Quality Teachers

As in any K–12 educational setting, high-quality teachers are fundamental to student learning. But what constitutes quality teaching in a virtual setting and how that differs from brick-and-mortar schools are open questions. Recent evidence suggests that virtual schools' marketing materials often portray high-quality educational experiences and educators in

recruiting students.[55] Some virtual schools have adopted strategies aimed at using technology to expand student access to high-quality instructors. For example, the New York charter school network Success Academy developed virtual classrooms organized around particular teachers' strengths: "The best lecturer in a grade level or subject would deliver online lessons to a large group of students, while other teachers . . . worked one-on-one with students who needed help."[56] However, strategies like this one that focus solely on specific content delivery methods fail to recognize teaching as a holistic activity that includes a range of interpersonal interactions between teachers and students. To the extent that quality teaching is dependent on teacher-student relationships, narrowing the teacher role in virtual schools to simply delivering content is concerning and runs counter to established definitions of what constitutes teacher quality.

We continue to have limited evidence on how to identify quality teachers in virtual contexts, how to recruit and retain them, how to evaluate their effectiveness, and how to provide ongoing support to them to promote best practices. In all these areas, practice continues to outpace the available empirical evidence. Several recent reports provide frameworks that define elements of quality virtual teaching.[57] While existing research on virtual education focuses more on quality *teaching* than on quality *teachers*, the expectation of high-quality teaching has clear implications for the knowledge, skills, and abilities of quality virtual teachers. Three themes regarding teacher quality in virtual schools are worth noting: differentiated instruction, student-teacher relationships and peer engagement, and teacher professional development and planning time.[58]

First, research on quality virtual teaching emphasizes the potential of virtual schools to provide diverse and differentiated instruction that requires teachers to monitor learner progress and provide a variety of supports, to communicate with school staff about special accommodations for students, and to use quantitative and qualitative indicators to identify learners who need extra support.[59] However, a recent study of virtual teachers' "differentiation practices"—that is, their practices of making decisions that are responsive to the varying needs of students—found that virtual teachers, particularly new virtual teachers, often struggle to differentiate curricula and teaching strategies, and rarely use assessments to inform their instruction.[60] Further, differentiated instruction and other best practices may be undermined by the business model of larger for-profit virtual schools that hinges on creating economies of scale with lower-wage teachers all delivering standard content.

A second theme in the literature on high-quality virtual school teachers emphasizes their ability to engage with their students and build community by leveraging technologies to facilitate collaboration among learners, develop community among diverse learners, and meet the needs of all learners regardless of their background or ability.[61] However, one recent study found that virtual teachers provide limited student-student and teacher-student interactions and that fewer interactions were generally associated with lower math achievement, credits earned, and GPA.[62] And a Government Accountability Office (GAO) report released in January 2022 found that virtual charter schools "often rely on parents to act as instructors."[63] Research has indicated that virtual charter school instruction is mainly asynchronous and has limited student engagement, limited teacher contact time, and high student-teacher ratios.[64] As noted in Section I of this report (See Table 5), the student-teacher ratio in virtual charter schools across the U.S. was approximately 65% higher than for brick-

and-mortar public schools in the 2021-22 school year; the virtual ratio was 24.4:1 while the brick-and-mortar school ratio was 14.8:1.

A third theme related to quality virtual school teachers is their preparation and ongoing professional development. Similar to research on brick-and-mortar school teachers, recent reports and studies on virtual schools emphasize the importance of teachers meeting professional standards, holding appropriate credentials in the field in which they teach, and engaging in their work as "reflective practitioners."[65] The research also highlights the need for virtual school teachers to continue to pursue knowledge and skills regarding online teaching.[66]

As previous versions of this report have indicated, there remains little empirical research about quality virtual teachers. This subsection of the report examines developments and evidence from media outlets, policy reports, and empirical research regarding teacher recruitment, training, evaluation, and retention in virtual schools. This subsection also reviews 2021 and 2022 legislative activity in each area.

Consistent with our previous reports, our analysis of 2021 and 2022 legislative activity on virtual teacher recruitment, training, evaluation, and retention reveals similar trends. First, legislative activity related to teacher recruitment and training remains modest—only 6 states considered bills directly addressing these issues, and only 4 of the 12 proposed bills were successful. Two successful bills hold virtual teachers to similar certification standards as brick-and-mortar teachers, and the other two focus on professional development for virtual school teachers. Second, we found an increase in legislative activity with respect to factors that may increase virtual teacher satisfaction, retention, and success. While proposed legislation to control class size in virtual schools was not successful, five bills addressing student attendance and engagement were enacted by state legislatures.

Recruiting and Training Qualified Teachers

A number of virtual teaching organizations across the country assert that they have not faced the same shortages of teachers that brick-and-mortar schools are experiencing. One recent news article reported that virtual schools have been "inundated with applications'" and are "attracting more candidates than they can hire" while "many brick-and-mortar districts seek to fill vacancies."[67] For example, Lowcountry Connections Academy, a virtual school in South Carolina, reported receiving more than a thousand applications for four new teacher openings.[68] Likewise, Virtual Arkansas has not forecasted a pending shortage of online teachers. On the contrary, a spokesperson indicated a dramatic increase in prospective teachers interested in job opportunities: "In our program, we routinely see several dozen applicants for each position we post which gives us an opportunity to hire very highly qualified educators."[69] By these accounts, many teachers may be choosing the online context, particularly given their training and experience during the pandemic and the flexibility that remote teaching allows. However, as described below, dissatisfaction with large class sizes, heavy workload, low pay, and limited student engagement may result in retention issues in virtual schools.

The Michigan Virtual Learning Research Institute surveyed representatives of the Virtual Learning Leadership Alliance's member organizations and identified several challenges to recruiting teachers to online learning programs, including positions that are only part-time, non-competitive compensation packages and retirement plans, and specialized teaching areas that are difficult to fill. Survey respondents also indicated that perceptions that online teaching is less rigorous than face-to-face teaching were a barrier to recruitment. In response to these challenges, the report offered several recommendations for recruitment, including providing permanent, full-time positions for online teachers and exploring compensation packages—including retirement planning—that are more comparable to those offered to in-person teachers.[70] However, these recommendations may be difficult to reconcile with the business model of for-profit virtual schools.

Empirical evidence on how best to prepare and train virtual school teachers continues to be limited. In addition to uneven state requirements related to certification and licensure, many virtual schools prepare teachers through orientation programs that provide information and instruction about "online teaching in general as well as instruction on the specific learning management system (LMS), state requirements, instructional approach and expectations, policies, and procedures of the virtual program."[71] Many programs assign new online teachers a mentor, who is an experienced online teacher, to provide additional support in their first semester or year of online teaching. Yet, the dramatic increase in teachers being hired in the past two years has created a great deal of stress on the orientation processes in many virtual schools.[72]

Another report from the Michigan Virtual Learning Research Institute, which included survey data from more than 1,800 virtual educators representing 17 schools or learning programs, provided information on the strategies that virtual school administrators employ to support teachers.[73] Interestingly, teachers who responded to the survey rated their undergraduate coursework—including but not limited to coursework in education—as the least common source of professional learning to develop virtual teaching skills, which is consistent with calls for university-based teacher preparation programs to change with the evolving modalities of teaching[74] by providing opportunities for prospective teachers to gain experience teaching in both virtual and face-to-face settings.[75]

While the most common source of professional learning for virtual teachers was the mandatory training provided by their schools, teachers also reported learning through peer mentoring, attending conferences, and participating in courses or webinars provided by educational organizations. Virtual teachers also indicated that their administrators supported them by providing opportunities for professional development, observing and offering feedback on their teaching, providing time in their schedule for planning and development, and communicating clear expectations for them and their work. Despite these supports, virtual teachers identified challenges that they face, which included motivating and engaging students in an online setting, dealing with technological challenges (e.g., internet outages, mastering new learning management systems), and managing work-life balance.[76]

Research has identified a number of training areas that are needed to better support the work of virtual teachers, such as engaging virtual learners, differentiating instruction to meet the needs of all students, and equitably supporting diverse groups of students, includ-

ing special education students, English Language Learners (ELLs), and students of color.[77] A report from Montgomery Public Schools' Office of Legislative Oversight notes:

> While virtual education can cut across geographical boundaries and allow students to access courses they otherwise would not be able to, virtual education can magnify inequities in resources, such as access to a dedicated space to do schoolwork, access to caregivers who can provide guidance during virtual learning sessions, and a strong connection to the internet and appropriate devices.[78]

However, virtual schools have historically enrolled fewer students from racial and ethnic minority groups, fewer ELLs, and fewer low-income students than other schools.[79] Furthermore, a recent study suggests that virtual teachers often bring bias into virtual classrooms.[80] This is an important area for professional development, because teachers could "play a key role in mitigating the inequity in online education."[81] While teacher training may help address inequities in virtual school instruction, the proportionally lower enrollment rates of ELLs and low-income students in virtual schools is a much broader issue that likely involves the high parental demands of virtual education and the motives of for-profit companies to minimize costs.

Our analysis of 2021 and 2022 legislation on virtual schools identified a number of bills related to virtual teacher recruitment and training. Seven of these bills, including only two that passed, focused on teacher certification and licensure requirements. An enacted 2022 Michigan bill (MI SB 845) requires teachers of record in virtual schools to be certified for the grade level or to be "working under a valid substitute permit, authorization, or approval issued by the department." An enacted North Carolina bill (NC HB 103, 2022) requires virtual school employees to meet the same licensure requirements required for in-person employees of the local district. A 2022 Texas bill (TX HB 681) that was pending at the time of this analysis would allow teacher candidates to satisfy certification requirements through internships that allow them to teach courses through local remote learning programs or state virtual schools. A failed Florida bill (FL SB 980, 2022) would have removed a requirement that all instructional staff in Florida virtual instruction programs be Florida-certified teachers. A Maryland bill that failed (MD HB 1163, 2022) would have required virtual schools to develop plans for staff recruitment and would have required virtual school teachers and staff to meet similar certification requirements to all other public school teachers.

We identified five additional bills related to virtual teacher professional development. Several of these bills included requirements for teacher training on virtual instruction; only one passed. A bill that was enacted in Texas in 2021 (TX SB 15) stipulated that teachers could not teach a virtual course in a full-time virtual learning program unless they had completed a professional development course on virtual instruction; the bill further specifies that districts cannot require teachers to provide hybrid instruction or coerce teachers to teach in a full-time virtual learning program. An unsuccessful 2021 bill in Alaska (AK SB 42) aimed to require training on virtual instruction methods and differences between virtual and classroom-based instruction for teachers of students in grades 6 through 12. Two contrasting 2022 bills in Maryland failed—one (MD HB 1163) would have required virtual instruction training in teacher preparation programs as well as ongoing training and professional development, while the other (MD HB 805) would have exempted virtual schools from several

state policies, including those related to professional development. A bill enacted in Michigan in 2021 (MI HB 4411) stipulated that the Michigan Virtual University would operate the Michigan Virtual Learning Research Institute, which they charged with supporting and accelerating "innovation in education" and providing leadership for Michigan's system of virtual learning education.

Evaluating and Retaining Effective Teachers

The evaluation of virtual school teachers continues to be an issue needing greater research and policy attention. As documented in our previous reports, conventional teacher evaluation systems do not translate well to virtual settings because of factors like asynchronous instruction, limited face-to-face time, and student self-pacing. Existing research indicates that teacher evaluation occurs in virtual schools—mostly through master teacher and administrator observation—but offers little guidance on best practices for evaluating and supporting virtual school teachers.[82]

Retaining high-quality teachers in virtual schools is also an important consideration. Teachers who are more satisfied with their work are more likely to remain in their jobs. As a result, in past reports, much of our attention focused on factors that research identified related to teacher satisfaction in virtual schools. Research has identified a number of factors related to virtual school teacher satisfaction, including schedule flexibility, time to engage with individual students, class size, workload, and conditions required for teachers to positively affect student performance.[83] Given these findings, it is not surprising that studies have identified student attendance, perseverance, and engagement as concerns in teacher satisfaction and retention.[84] Research has also identified compensation and professional development opportunities focused on "teacher growth and leadership" as important.[85]

Compensation is also a relevant factor in teacher retention. The majority of virtual teachers are part-time and their compensation is based on student enrollment, generally ranging from $130 to over $200 per student per class, depending on experience and type of course. Full-time virtual teacher compensation is typically structured like the pay scales of brick-and-mortar schools in their state.[86]

A recent study examined levels of job satisfaction and turnover intention of teachers in online schools. Using data from the 2015-2016 National Teacher and Principal Survey, including an adjusted sample of 28,150 teachers in 5,440 schools, the authors found that, relative to teachers in regular brick-and-mortar schools, online teachers have higher levels of job satisfaction. More specifically, online teachers report satisfaction levels about one-fifth of a standard deviation higher than teachers in brick-and-mortar schools. In the authors' words, "Working within OS [online schools] appears to offer teachers, overall, greater benefits than experienced by those teachers working in TPS [brick-and-mortar public schools]," yet, online teachers do not significantly differ from other teachers in their intent to leave teaching or move to a different school.[87] However, since teachers sort themselves into virtual and brick-and-mortar schools based on their own preferences, these findings do not necessarily suggest that teachers in brick-and-mortar schools would be more satisfied if they taught

online.

Our analysis of 2021 and 2022 legislation on virtual schools identified just a handful of bills related to the evaluation of virtual teachers and a number of bills with the potential to impact teacher retention indirectly through factors related to teacher satisfaction, but many of these bills failed.

Three bills (two that were successful) included requirements that virtual schools evaluate their staff. A bill enacted in Michigan in 2021 (MI HB 4411) required the development of virtual teacher evaluation systems and criteria by which virtual school and course providers would be evaluated to ensure "quality education." A 2022 North Carolina bill (NC HB 103) that passed requires virtual school employees to meet the same evaluation requirements required for in-person employees of the local district. A 2022 Maryland bill (MD HB 1163) that failed would have required virtual schools to develop plans for staff evaluation.

Similar to our 2019 and 2020 legislative analysis, our examination of 2021 and 2022 legislative activity revealed a number of bills addressing factors related to virtual teacher satisfaction that may affect retention. Ten bills focused on creating new requirements related to student attendance. These include two that passed (TX SB 15, 2021; MO HB 1552, 2022), seven that failed (MD HB 805, 2022; MD HB 848, 2022; PA HB 154, 2021; TX SB 27, 2021; TX SB 3265, 2021; TX SB 1389, 2021; OK HB 3645, 2022), and one pending (MI SB 664, 2021).

Another set of bills, including three that passed, focused on student engagement in virtual schooling environments. A successful 2021 Vermont bill (VT HB 439) appropriated funds to address factors related to remote learning, including supporting student engagement. A 2022 Michigan bill (MI SB 845) that passed created a participation requirement for students enrolled in virtual schools. A successful 2022 Missouri bill (MO HB 1552) gave virtual schools the responsibility to monitor individual students' success and engagement in the learning program. A 2021 North Carolina bill (NC HB 644) that was pending at the time this report was written would require school boards seeking to offer virtual schooling options to submit a plan to the State Board of Education specifying the minimum amount of time each student must spend in synchronous instruction with a licensed teacher to complete a course. A 2021 Texas bill (TX SB 27), which failed, would have required virtual learning programs to develop and adopt engagement policies that outlined factors including students' academic and behavioral expectations and intervention strategies.

Three bills focused on class size in virtual schools all failed. A 2021 Tennessee bill that failed (TN SB 703) would have allowed virtual schools to increase their maximum class sizes by up to 30%. A 2022 Maryland bill (MD HB 805) that failed would have exempted virtual schools from state policies related to class size. A 2022 Arizona bill (AZ HB 2426) would have commissioned a study of several aspects of online instruction in Arizona, including average class sizes.

COVID-19

The COVID-19 pandemic has had a profound impact on K–12 education, and teachers in

particular. The pandemic abruptly forced many classroom teachers into a new paradigm of remote teaching. Exposure to and experience with new instructional technologies has created more options for some teachers who prefer greater flexibility, more part-time opportunities, and in some cases, a more limited scope of responsibilities focused on content delivery. While this is attractive to some educators, this narrowing of the teacher role is concerning, given what we know about high-quality teaching and the importance of teacher-student interactions.

A recent study suggests that parents perceived that virtual schools offered higher-quality teaching and learning to their children during the pandemic than brick-and-mortar schools that were forced to move online temporarily. Specifically, the survey results of parents with children in these different schools indicate that "virtual schools dramatically outperformed brick-and-mortar schools when it comes to promoting active learning, communicating effectively, managing a classroom, and providing high-quality instruction."[88] These parent perceptions are not surprising: While virtual schools had systems in place for online teaching, learning, and communications, the onset of the pandemic caught most brick-and-mortar schools unprepared to pivot overnight to fully remote activities and resulted in an abrupt transition for teachers, parents, and students.

Although most students and teachers have returned to brick-and-mortar schools following the pandemic, many school districts organized mainly around brick-and-mortar settings are opening their own full-time virtual schools.[89] A recent report suggests that 73% of districts nationwide plan to expand virtual learning opportunities for students.[90] The extent to which these districts engage in evidence-based recruitment, training, evaluation, and retention practices for their online teachers is unclear; legislation to ensure that their virtual schools are staffed with high-quality educators is essential.

A range of approaches to staffing virtual schooling is being adopted across the country. Some districts allow their current teachers to teach in virtual schools, others create separate teaching and administrative staff for those schools, and others outsource virtual teaching to outside companies.[91] Districts also vary in terms of requirements specific to virtual teaching, although many are identifying teachers "who have thrived and love connecting with students through the technology platform."[92]

In the wake of the pandemic, only a few bills introduced in 2021 or 2022 directly related to the COVID-19 pandemic. A bill enacted in North Carolina in 2021 (NC SB 105) granted bonuses of $1,000 to public school teachers and instructional support personnel who participated in professional development related to mitigating COVID-19 in public schools, learning loss stemming from the COVID-19 pandemic, or virtual instruction as a result of the COVID-19 pandemic. A 2022 Maryland bill (MD HB 1163) that failed would have required mental health support to be provided to school personnel during prolonged school closure periods that led to a transition to virtual instruction.

Recommendations to Ensure Teacher Quality

High-quality teachers are an essential ingredient of effective K–12 education regardless

of instructional modality. However, more research is needed on the knowledge and skills teachers need to be effective in virtual settings, the supply and demand for online teachers, and the factors related to retaining quality virtual teachers. We agree with calls "to establish a national research agenda to study what works for whom in virtual settings" to guide educators, policymakers, and school system leaders in designing effective online learning options that yield better academic and social-emotional outcomes. "Without more research, policy decisions may be driven by personal or financial interest—or hunches—instead of data or best practices."[93] This is particularly true for policy on the preparation, professional development, evaluation, and retention of quality virtual teachers. Further, our legislative analysis demonstrates that little progress has been made over the past two years on issues related to teacher quality in virtual contexts. A handful of state legislatures introduced bills related to the certification and ongoing professional development of virtual teachers, and several considered, and in some cases enacted, new laws that may increase the satisfaction and retention of virtual teachers.

Given these findings, we reiterate several recommendations from previous reports. Specifically, we recommend that policymakers, educational leaders, and researchers work together to:

- Define certification training and relevant teacher licensure requirements specific to teaching responsibilities in virtual schools, and require research-based professional development to promote effective and equitable online teaching.
- Address retention issues by developing guidelines for appropriate student-teacher ratios and attending to other working conditions (for example, student attendance and engagement) that may affect teachers' decisions about where to work.
- Work with emerging research to develop valid and comprehensive teacher evaluation rubrics and accountability systems specific to online teaching that reflect important elements of virtual teaching like differentiated instruction, student engagement, and equitable support of all learners.
- Identify and maintain data on teachers and instructional staff that will allow education leaders and policymakers to monitor staffing patterns and assess the quality and professional development needs of teachers in virtual schools.
- Examine the work and responsibilities of virtual school administrators and ensure that those hired for these roles are prepared with the knowledge and skills to be effective, particularly with respect to evaluating and supporting teachers and promoting best practices.

Notes and References Section III

1 In our previous reports we reported that fewer than 26% of bills proposed in 2019 and 2020 were enacted, and fewer than 40% of bills proposed in 2017 and 2018 were enacted.

2 The keyword *blended learning* was added to the 2015 and 2016 legislative bill analysis, and was not used in previous searches of the StateNet® Bill Tracking Database. The authors thank Ben Erwin (Policy Researcher, Education Commission of the States) and the Education Commission of the States for their assistance in developing the database of virtual school-related bills for the 2021 and 2022 legislative sessions.

3 In 2020, 59 bills were considered in 23 states: nine were enacted, 42 failed, and eight were pending. In 2019, 58 bills were proposed in 23 states: 17 were enacted, and 41 failed. In 2018, 42 bills were considered in 23 states; 17 were enacted, 19 failed and six were pending. In 2017, 86 bills were considered in 34 states; 28 were enacted, 54 failed and 4 were pending. In 2016, 113 bills were considered in 37 states; 33 were enacted, 60 failed and 20 were pending. In 2015, 98 bills were considered in 28 states; 36 were enacted and 62 failed. In 2014, 131 bills were considered in 36 states; 38 were enacted, 62 failed, and 31 were pending. In 2013, 128 bills were considered in 25 states; 29 were enacted, 7 failed and 92 were pending. In 2012, 128 bills were considered in 31 states; 41 were enacted and 87 failed.

4 In the 2017 and 2018 legislative sessions a total of 16 bills related to cybersecurity and student data privacy were proposed (eight bills were enacted, seven bills failed, and one was pending). In the 2019 and 2020 legislative sessions we identified only one bill related to cybersecurity and student data privacy: OH HB 684. In the 2021 and 2022 legislative sessions we identified only one bill related to cybersecurity and student data privacy in North Carolina (NC HB 196).

5 As in previous reports, we again highlight the work of Baker and Bathon (2013), who developed a comprehensive methodology for estimating the actual costs of virtual schools. This research eclipses the limited recommendations made by other recent reports that have attempted to define a process for costing-out virtual schooling. Specifically, Baker and Bathon outline how costs in virtual schools vary widely compared to those in brick-and-mortar schools. For example, virtual schools have lower costs associated with teacher salaries and benefits, facilities and maintenance, transportation, food service, and other in-person services than their brick-and-mortar counterparts. However, virtual schools may have higher costs linked to acquiring, developing, and providing the digital instruction and materials necessary for full-time virtual instruction; they also need to acquire and maintain necessary technological infrastructure. See Baker, B.D. & Bathon, J. (2012). *Financing online education and virtual schooling: A guide for policymakers and advocates*. Boulder, CO: National Education Policy Center. Retrieved November 12, 2013, from http://nepc.colorado.edu/publication/financing-online-education

6 National Alliance for Public Charter Schools (2016, June). *A call to action to improve the quality of full-time virtual charter public schools*. Washington, DC.: National Alliance for Public Charter Schools. Retrieved December 2, 2018, from https://www.publiccharters.org/sites/default/files/migrated/wp-content/uploads/2016/06/Virtuals-FINAL-06202016-1.pdf

7 Hanna, Maddie (2020, February 4). Wolf pushing charter-school bill that would change funding, accountability rules. *The Philadelphia Inquirer*. Retrieved January 22, 2021, from https://www.inquirer.com/news/charter-school-reform-pennsylvania-tom-wolf-budget-20200203.html

8 In January 2020, the Auditor General declared that "The General Assembly should revisit Pennsylvania's charter school law—which I believe is the worst in the nation—to make sure our limited education funding is not being diverted to benefit private companies." His investigation into Lincoln Learning Solutions' two charter schools uncovered several questionable accounting practices, including: a 148% pay raise for the CFO between 2014 and 2018; over $622,000 in expenses for lobbying the state legislature during the same years;

and an unusually high reserve fund of $81.8 million.

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16 Mississippi (MS HB 781), 2022; New Jersey (NJ S 2320), 2022; West Virginia (WV HB 2576), 2022; Maryland (MD HB 848, 2022; Vermont (VT H 468), 2022; Alaska (AK SB 42), 2021; Ohio (OH HB 110), 2021. Only the bill in Ohio passed.

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