



VIRTUAL SCHOOLS IN THE U.S. 2023

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EXECUTIVE SUMMARY

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May 2023

Over the past two and a half decades, digital technologies and virtual education have moved quickly to the top of the K–12 public education reform agenda. Proponents, including business leaders, school reform organizations, foundations, and for-profit and nonprofit service providers, argue that virtual technology will revolutionize teaching and learning, dramatically reduce the cost, and expand the availability of high-quality education. If this sounds too good to be true, it could be because it's not true.

By 1999, politicians, educators, policymakers, corporate executives, and community leaders had already become vocal advocates of computer/internet technology in the schools. Software and hardware companies claimed only to be responding to the market's demands for their products. In fact, they had and continue to have a guiding hand in developing the school market and in creating the policy environment in which digital technologies in education can flourish. In a 1999 paper discussing the link between emerging digital technologies and commercialism, Molnar noted that although digital technologies represented an opportunity to positively transform the processes of teaching and learning, the role and relative emphasis that should be given to electronic technologies in school reform was far from settled.¹ He concluded that while commercialized programs promising free hardware and/or software and/or internet access would appeal to many schools, the question being ignored was whether and under what circumstances commercialized programs are likely to do more harm than good.

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Twenty-five years later, this question has yet to be seriously addressed, even as the data collected by digital technologies has become a major corporate profit center. A mountain of flamboyant marketing claims, along with pervasive conventional wisdom, assert that schools will be improved by using digital technologies, and that the widespread availability of virtual schooling will bring opportunities to learn and academic success to communities and students who might otherwise be left behind. At the same time, there is a dearth of research that supports either the claims or the conventional wisdom.

Virtual education now takes many forms and serves many purposes. Formats include full-time online K–12 schools as well as single courses that allow students to explore a subject not available in their brick-and-mortar schools. Virtual education is also sometimes used by students to make up credits for a required course they had earlier failed (i.e., for credit recovery). Some virtual education programs require students and teachers to be online at the same time (synchronous education); others allow students and teachers to visit online courses at their own convenience (asynchronous education). Others combine online work with in-person classroom instruction (blended instruction). Providers include public entities, nonprofit organizations, and for-profit companies.

While there may not be much research support for digital education, there is a lot of money to be made from it. The technology industry has been chasing this money for years.² As far back as 2004, Bracey detailed the financial and political interests promoting Knowledge Universe and its K–12 division, an early leader in the virtual school industry.³ Writing in 2009, Glass recommended that because of the potential impact of private investment, virtual schools should be subject to new regulations and audits, as well as credible assessments, accreditation requirements, and audits. He pointed out that:

Private commercial interests, whether non-profit or profit-making, have recognized a huge potential market in virtual schooling.... Private virtual education providers are vigorously lobbying state legislatures to gain entry into the business of public education. This relationship between state and federal governments and private corporations is only mentioned to illustrate the close connections that are beginning to have significant effects on public education policy.⁴

In 2011, Glass and Welner repeated these recommendations and added a call for new fiscal and instructional regulations appropriate to virtual schools (for example, to authenticate the work done by virtual school students).⁵ Justin Bathon reviewed state virtual school legislation and offered model legislative language to address the issues identified by Glass, Welner, and others.⁶

In 2012, after documenting the poor performance of K12 Inc.'s virtual schools, Miron and Urschel recommended slowing or putting a moratorium on the growth of full-time virtual schools, revising their performance and accountability, and revising the related funding formulas and financial oversight. They also offered 16 questions about virtual schools that they argued should be taken up by researchers.⁷

As the issue of virtual school funding grew in importance, in 2013 Baker and Bathon recom-

mended that:

- [Online education and virtual school] alternatives should be funded based on the instructional units provided to students to advance their progress toward program completion. Using brick-and-mortar rates as the basis for funding online offerings is inappropriate; the scope of services provided by OE/VS alternatives varies so greatly that an offering is rarely, if ever, equivalent to that provided in a traditional setting offering a full complement of services.
- Maximum subsidy rates for online instructional units should not exceed the costs of producing the same unit in the brick-and-mortar setting.
- States should consider determining the average costs for various units of traditional brick-and-mortar courses, particularly at the secondary level, to provide a base for calculating state subsidies for full-time online program as well as for calculating for school district subsidies for supplemental online courses.⁸

Since 2013, NEPC has published nine comprehensive reports on the performance of U.S. virtual schools, including this one.⁹ Six of the earlier reports also provided reviews of the research literature on virtual education and the policy landscape related to virtual schools. In this 10-year period, little has changed. Virtual schools in general perform poorly, state virtual school policies remain inadequate, and little if any research supports the claims being made for virtual education. And yet virtual schools continue to spread. No doubt this is in large part because: The policy environment remains, if not friendly, then indifferent; oversight is lax; and millions of dollars from profit-seeking investors promote the enterprise. Whatever the reasons for their continued spread may be, however, virtual schools are clearly not spreading based on research evidence. Despite their poor performance, the heavily financed flood of technological and business model innovations has far outpaced research on the impact of virtual teaching and learning.

Molnar and Boninger observed in the Executive Summary to the 2021 Virtual Schools report that the COVID-19 pandemic pushed virtual schooling to the forefront of the national educational landscape and had a lingering impact on schools generally.¹⁰ They noted that during the height of the pandemic, corporations, tech industry trade associations, philanthropists, and venture capitalists—all of whom had been promoting virtual education for over a decade¹¹—quickly positioned digital programs and platforms as the obvious solution for schools that had to close buildings to avoid transmitting the virus.¹² They also commented that the nation’s experience with virtual technologies during the pandemic put a spotlight on serious problems with the rosy pre-pandemic vision of a bright new virtual future¹³ Teachers, students, and parents struggled—with mixed success—to adjust to the virtual education technologies.¹⁴ Despite such problems, virtual schools are now promoted by many as the key to building a post-crisis “new normal” for the core education infrastructure in a radically altered school environment.¹⁵

As Molnar and Boninger further pointed out, proponents made the case that virtual schools can beneficially expand student choices while improving the efficiency of public education,¹⁶ but the research evidence tells a different story: Full-time virtual schools have yielded very

poor outcomes.¹⁷ Finally, Molnar and Boninger link the use of digital platforms and learning programs to significant threats to the integrity of schools' curriculum and instruction programs, student assessments, and data collection and recordkeeping practices.¹⁸ They point out that compared to the surface transparency of traditional textbooks, tests, and record books, much is hidden behind the proprietary curtain of virtual technologies.¹⁹

Purpose of This Report

Virtual Schools in the U.S. 2023 provides scholarly analyses of the characteristics and performance of full-time, publicly funded K–12 virtual schools; reviews the relevant available research related to virtual school practices; provides an overview of recent state legislative efforts to craft virtual school policy; and offers policy recommendations based on the available evidence. The report is organized into three sections:

Section I, *Full-Time Virtual Schools: Enrollment, Student Characteristics, and Performance*, documents the number of full-time virtual schools, their student characteristics, and their performance. Miron, Hagle, and Gulosino find that compared to brick-and-mortar schools, virtual schools' student academic performance continues to lag, class sizes are larger, and fewer students living in poverty and minority students are served.

Section II, *Assessing Virtual Schools After a Global Pandemic: A Reality of Unfulfilled Promises*, reviews the relevant available research literature related to full-time virtual schools. Bryan Mann finds that there is still surprisingly little known about the efficacy of online education or digital technologies generally, or about individual approaches specifically. Section II examines eight major claims made by virtual school proponents and finds little research evidence to support any of them.

Section III, *Key Policy Issues in Virtual Schools: Finance and Governance, Instructional Quality, and Teacher Quality*, provides a review of state legislative activity related to virtual schools. Huerta, Rice, Glover, and Bill find that despite continued legislative interest in virtual schools, little progress has been made to address well-known issues of finance, governance, instructional quality, and teacher quality. They note that there is scant evidence that legislation is guided by research.

Select Recommendations Arising From Section I

It is recommended that policymakers:

- Require federal and state education agencies to accurately identify and monitor full-time virtual schools, remedying gaps in information transparency on performance measures and accountability.
- Establish requirements for reduced student-to-teacher ratios and regular contact between teachers and online students.

- Slow or stop the growth of virtual schools until substantial academic and/or non-academic outcomes improve and benefits are comparable with brick-and-mortar public schools.

Select Recommendations Arising From Section II

It is recommended that state policymakers:

- Require Individualized Education Plans for all students in virtual schools, akin to those special education students receive. The plans should indicate if students need standardized or personalized programs and then deliver content according to these plans.
- Require virtual school graduation rates to align with statewide averages. If the virtual school fails to meet these benchmarks, assign it probationary status after a year and close after five years of probationary status.
- Require virtual schools to maintain a within-school-year student mobility threshold equal to the mobility rate of brick-and-mortar schools.

Select Recommendations Arising From Section III

It is recommended that policymakers:

- Develop new accountability structures for virtual schools, calculate the revenue needed to support them, and provide adequate funding.
- Require high-quality curricula, aligned with applicable state and district standards, and monitor changes to digital content.
- Delineate the definitions of adequate quantity of instruction to ensure subject mastery.
- 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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*This is a section of **Virtual Schools in the U.S. 2023**, a multipart brief published by The National Education Policy Center, and made possible in part by funding from the Great Lakes Center for Education Research and Practice.*

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