

Virtual Schools: Assessing Progress and Accountability

Final Report of Study Findings

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Contents

	Page
Executive Summary	1
Findings.....	1
Recommendations.....	3
Overview.....	5
About This Study	5
Methodology.....	6
Key Background and Definitions.....	7
Online and Blended Learning: Alternatives for Students	7
Overview of Virtual Schooling in the United States	8
Overview of Accountability for Student Performance in Virtual Schools	10
Other Key Definitions: Inputs, Outputs, and Outcomes.....	11
Study Findings	12
Background Findings (The State of Virtual School Accountability).....	12
Types of Accountability Measures	14
Capacity to Collect and Analyze Student Data.....	16
Consequences of Meeting, Exceeding, or Failing to Meet Performance Targets.....	18
The Role of Teachers and Other Adults in Virtual School Accountability	19
Additional Challenges and Opportunities Presented by Virtual School Accountability	20
Recommendations.....	23
Recommendation 1: Focus Accountability for <i>All</i> Schools, Including Virtual Schools, on Outcomes	23
Recommendation 2: Address Accountability Challenges Related to Unique Student Populations.....	25
Recommendation 3: Improve Data Collection and Oversight Systems to Fit the Delivery Method and Capacity of Virtual Schools.....	27
Recommendation 4: Better Link Accountability to Providers, Teachers, and Other Adults....	29
Recommendation 5: Ramp Up Consequences Attached to Performance	31
Conclusion	34
References.....	35
Acknowledgments.....	41

Executive Summary

Virtual schools present significant challenges for states and charter school authorizers that aim to hold all schools accountable for their impacts on student learning outcomes. However, although these schools' methods of delivering educational services are unique, the accountability issues they present are not.

This report catalogues findings and recommendations from a 2012–13 National Charter School Resource Center study of methods for assessing progress and accountability in virtual schools. The study focuses on accountability in full-time schools that provide most (often all) instruction online (“fully online schools”), most of which are charter schools. The findings and recommendations in this report draw on extensive research, interviews with field leaders, and discussions from a technical working group meeting held in March 2013 in Washington, D.C., at which researchers presented and attendees discussed a summary of interim findings.

Findings

This study's findings related to current practice and challenges of virtual school accountability address six topics:

Background Findings (The State of Virtual School Accountability)

- The accountability issues identified in this research are not unique to virtual schools; each one is also a concern for brick-and-mortar schools.
- Accountability for fully online schools resides with a variety of entities and varies from state to state, but authorizers and state accountability systems typically require virtual schools and brick-and-mortar schools to meet identical standards.
- Supplemental program providers face little formal accountability, with accountability usually flowing to each student's school of record.
- Virtual schools have been held to strict media and public scrutiny, which has generated concerns about academic performance, financial health, and organizational compliance.

Types of Accountability Measures for Virtual Schools

- Input measures—such as those related to course-content approval, provider accreditation, teacher certification, and seat time—play a significant role in quality assurance for some virtual schools.
- Outcomes-based measures also are common, but many states and authorizers focus predominantly on student proficiency instead of multiple measures of student learning.
- Some states that measure growth in addition to proficiency do not adequately measure *individual* student growth for significant sets of students, including students who switch schools midyear, those who start or finish a course off the normal academic calendar, or those who are far below or far above grade level for their age-cohort.

- Competency-based alternatives to traditional systems for measuring and holding schools accountable for student performance are receiving increased attention.

Capacity to Collect and Analyze Student Data

- Digital tools available to virtual schools allow them to gather large amounts of student data relative to traditional schools and open the door to frequent formative assessments rather than just point-in-time assessments such as end-of-grade tests.
- Portability of data across schools, districts, and platforms is critical for understanding the growth students are making, but existing state data systems may not be up to the task.

Consequences of Meeting, Exceeding, or Failing to Meet Performance Targets

- Consequences linked to accountability measures are limited for virtual and traditional schools.
- Closing low-performing schools can be difficult and is no less so with virtual schools, particularly because many virtual schools serve relatively large numbers of students statewide.

The Role of Teachers and Other Adults in Virtual School Accountability

- Many teacher preparation programs do not purport to prepare candidates to teach online, and these programs are not held accountable or recognized for the outcomes their successful teaching candidates achieve.
- Fully online schools have the unique capacity to enable excellent teachers to reach more students, including students in hard-to-staff urban and rural schools, but evaluation systems do not capture the impact or potential of increased reach.
- The role of teachers and other adults in delivering online course content, which is crucial for student success, is not well defined or differentiated from their role in brick-and-mortar settings.

Additional Challenges and Opportunities Presented by Virtual School Accountability

- Virtual schools' lack of physical school buildings presents challenges for current charter authorizer monitoring practices, such as site visits.
- Certain types of students—such as highly mobile and overage, undercredited students—present special accountability challenges for all schools. Limited research suggests that virtual schools may enroll higher percentages of specific, challenging student populations.
- Because they may use more flexible student schedules and their students typically take courses outside traditional school buildings, virtual schools show the need to create new student enrollment, attendance, and engagement tracking systems.
- State-mandated assessment schedules challenge open enrollment and flexible scheduling mechanisms found in virtual school settings.

Recommendations

The findings informed recommendations in the following five categories. Some of these recommendations are specific to charter authorizers, state departments of education, operators, or providers and partners; others relate to accountability for fully online schools in general.

1. Focus accountability for *all* schools, including virtual schools, on outcomes.

- Follow leading states and authorizers in scrutinizing performance based on the best available data on proficiency, growth, and college and career readiness (including graduation rates) using multiple measures.¹
- Apply the same standards for fully online, charter, and district schools.
- Use Elementary and Secondary Education Act reauthorization discussions to focus on outcomes, increased frequency of measurement, and student progress based on competencies.

2. Address accountability challenges related to unique student populations.

- Use or create individual student-growth measures to carefully track growth during a given period regardless of the student's starting level of performance. Use on-demand assessments to enable pre-post assessments of students whenever they start and finish a new course or enroll in or leave a new school.
- Create fluid student-count procedures that follow students through school changes, to respond to challenges related to attendance and enrollment tracking, so that accountability and funding can properly follow students.
- Develop rigorous but sensible accountability systems to avoid penalizing schools that enroll high numbers of overage, undercredited students.

3. Improve data collection and oversight systems to fit the delivery method and capacity of virtual schools.

- Use input-based measures and survey data to target areas for improvement and identify gaps in service.
- Develop authorizer practices that allow the same level of on-demand scrutiny of fully online schools that is possible through site visits and audits of traditional schools.
- As authorizer practices related to virtual schools become more widespread, share lessons learned so inexperienced authorizers can benefit from emerging practices.
- Scrutinize board membership in fully online charter schools, educate board members, and hold boards accountable for management of vendor relationships.
- Upgrade state data systems to meet accountability challenges, and require or encourage shareable data from private providers.

¹ See the Council of Chief State School Officers' *Roadmap for Next-Generation State Accountability Systems* (2011) and the National Association of Charter School Authorizers' *Core Performance Framework and Guidance: Academic, Financial, and Organizational Frameworks for Charter School Accountability* (2013) for guidance on developing accountability policies and practices that best utilize these measures.

4. Improve accountability links to providers, teachers, and other adults.

- Require all virtual schools to disclose external partners, and link these partners to student learning data.
- Develop new measures of effectiveness to capitalize on available data, including accounting for the “reach” of excellent teachers and teaching.
- Tie student data to teacher preparation programs to hold them accountable as well.
- Consider threshold activity requirements for interaction between adults and students in virtual schools.

5. Ramp up consequences attached to performance (positive and negative).

- Make growth of fully online school enrollments contingent on performance.
- Close persistently low-performing fully online schools.
- Consider tying a portion of fully online schools’ funding to their performance.
- Encourage serving the most disadvantaged students well in any performance-based funding system by ensuring that schools are rewarded for achieving high levels of growth for students who start out behind or face other disadvantages.

For each category of recommendations, the report lists actions that state and federal policymakers, authorizers, providers, and partners can take now, as well as longer term changes.

Fully online schools can and should point the way to the next generation of accountability systems. The issues raised in this report often suggest imperfections in existing accountability systems for *all* types of schools. However, unlike most traditional schools, fully online schools may offer the technological capacity to address the imperfections. In addition, because many fully online schools are charter schools, they may be well positioned to take advantage of autonomies granted to charters to pioneer new practices with implications for accountability systems.

Overview

The U.S. Department of Education, through the National Charter School Resource Center at the American Institutes for Research, engaged Public Impact to study methods for assessing progress and accountability in virtual schools.²

About This Study

This study focuses on accountability in fully online schools. Most fully online schools are charter schools, but many of the project's findings and discussion items also will apply to other categories of schools and programs using online learning, such as state-run virtual schools; supplemental online programs, which provide individual online courses; district consortium programs; and full-time blended schools, including blended charter schools (Staker & Horn, 2012; Watson, Murin, Vashaw, Gemin, & Rapp, 2012).³

The study addresses authorizer practice and broader state accountability policy, both of which shape the virtual school accountability landscape.

Study authors identified six priority goals to guide the research:

- Examine best practices for assessing quality of fully online schools and ensure that rigorous accountability measures are in place for them.
- Analyze input measures used in evaluating fully online schools.
- Evaluate current outcomes-based evaluation efforts for fully online schools.
- Assess types of data needed to assess quality.
- Identify approaches to address challenges that are unique to, or more prevalent for, fully online schools, such as high student mobility and the difficulties of defining and tracking attendance.
- Pinpoint any implications of the findings for discussions of Elementary and Secondary Education Act (ESEA) reauthorization or future iterations of the ESEA waiver process.

Research, interviews, and discussions at a technical working group meeting led to the findings and recommendations in this report.

² School accountability typically focuses on one or more of the following: student academic performance, school financial health, or organizational compliance. Although all three are important, this report focuses solely on student academic performance.

³ The Innosight Institute defines *blended learning* as “a formal education program in which a student learns at least in part through online delivery of content and instruction with some element of student control over time, place, path, and/or pace, and at least in part at a supervised brick-and-mortar location away from home” (Staker & Horn, 2012, p. 3).

Methodology

This study's researchers reviewed reports, issue and policy briefs, white papers, and news articles about virtual schools and virtual school accountability. They also interviewed field leaders with expertise in running and overseeing virtual schools, as well as leading national thinkers on accountability in online and blended learning.

To date, little has been written regarding accountability for virtual schools. Researchers drew on two publications notable for providing information about fully online schools and related accountability issues nationally: *Keeping Pace With K–12 Online and Blended Learning: An Annual Review of Policy and Practice* (Watson et al., 2012 and 2013) published each fall by the Evergreen Education Group, and a fall 2012 report from the International Association for K–12 Online Learning (iNACOL) titled *Measuring Quality From Inputs to Outcomes: Creating Student Learning Performance Metrics and Quality Assurance for Online Schools* (Patrick, Edwards, Wicks, & Watson, 2012), which discusses the need for outcomes-driven quality assurance for online schools and related challenges to policymakers. Researchers spoke with the authors of these publications in the initial stages of this study. Researchers also reviewed recent related publications from Digital Learning Now! (2013) and the National Education Policy Center (Molnar, 2013).

iNACOL's *Measuring Quality* (Patrick et al., 2012), in particular, lays the foundation for a conversation about holding virtual schools accountable for student learning and program quality. The iNACOL report spotlights the need for "systems of assessment" to better measure student learning outcomes and growth trajectories as well as the inadequacy of current state systems to meet this end. The authors suggest that there are two types of risks in applying today's inadequate accountability systems within the context of new and rapidly evolving online schools: "that online learning will become ubiquitous, but not transformative" or that states will restrict the establishment or expansion of online options based on today's inadequate accountability measures, which are not comprehensive enough to capture student proficiency and growth in online schools (Patrick et al., 2012, p. 5).

This report builds and expands on the commendable work presented in *Measuring Quality* by exploring current accountability practices among virtual schools and developing additional recommendations for charter authorizers, state departments of education, operators, providers and partners, and fully online schools in general.

The researchers presented a summary of interim findings on March 18, 2013, at a technical working group meeting at the U.S. Department of Education in Washington, D.C., attended by representatives of fully online schools, charter school authorizers, state-run virtual schools, state and local education agencies (LEAs), online content providers, researchers, advocates, and other partner organizations that work closely with or on behalf of virtual schools (see Acknowledgments for a list of attendees). Feedback from panel and small-group discussions at this meeting provided further research, reports of on-the-ground experience, and opinion that informed this final report.

Key Background and Definitions

Online and Blended Learning: Alternatives for Students

Online learning is education in which both content and instruction are delivered primarily through the Internet. The following terms describe the main online learning alternatives for students:⁴

- **Fully online schools.** In fully online schools, students take their entire course load online. In some cases, students may be able to receive support at drop-in centers or other physical locations, but they are not required to attend classes in physical school buildings. Many fully online schools draw students from multiple districts, often reaching across an entire state. Some are organized as charter schools, but districts are increasingly offering their own online alternatives. Although it is most common for districts to offer individual online courses, some have created fully online programs. The nation’s largest state-run virtual school, Florida Virtual School (FLVS), recently began offering a fully online program in addition to individual courses. In some states, fully online schools are referred to by other terms, such as *virtual schools*, *cyberschools* (Pennsylvania), or *eCommunity schools* (Ohio).
- **Supplemental online programs.** In many states and districts, students may enroll in individual online courses to supplement or serve as part of a full-time program in a traditional school. Students may take these online courses at home or in designated spaces within physical school buildings (such as computer labs). Four states now require students to complete an online course before graduating (Watson et al., 2013).⁵ Many online courses are offered through state virtual schools (or “state-run virtual schools”). These schools are created under state law and often are administered by state education agencies (SEAs), although some are operated through nonprofit organizations or designated governmental entities other than SEAs.
- **Blended-learning models.** Schools may offer “blended learning,” which combines online and face-to-face instruction mixed throughout the school day. In some blended-learning models, students move between online and face-to-face course elements according to fixed rotations or on customized, fluid schedules. They may spend anywhere from very little to most of their time online, depending on the student and the model. Online supplemental programs are sometimes included within the panoply of blended alternatives; in the *self-blend model* (nearly synonymous with supplemental online programs), students blend one or more courses taken entirely online with other courses taken offline, often in traditional classroom settings (Staker & Horn, 2012).

This report focuses on accountability in fully online schools, also referred to here as *virtual schools*.

⁴ Term definitions are drawn from Watson et al. (2012).

⁵ North Carolina is expected to implement a graduation requirement effective for students graduating in 2020, and Arkansas is piloting its requirement during the 2013–14 academic year (Watson, et al., 2013).

Overview of Virtual Schooling in the United States

The first virtual providers began offering courses to schools in the mid- to late 1990s. The Virtual High School Global Consortium (now The VHS Collaborative) opened in 1996. FLVS, the nation's largest and oldest statewide online public high school, officially began in 1997. Within a few years, the state Legislature gave FLVS a mandate to serve all Florida students, with priority given to those in rural areas or high-minority or low-performing schools, as well as graduating seniors (Mackey & Horn, 2009). Fully online charter schools were not far behind these pioneering programs—SusQ-Cyber Charter School in Pennsylvania and Cyber Village Academy in Minnesota were two of the first to begin operations after receiving charters in 1998.

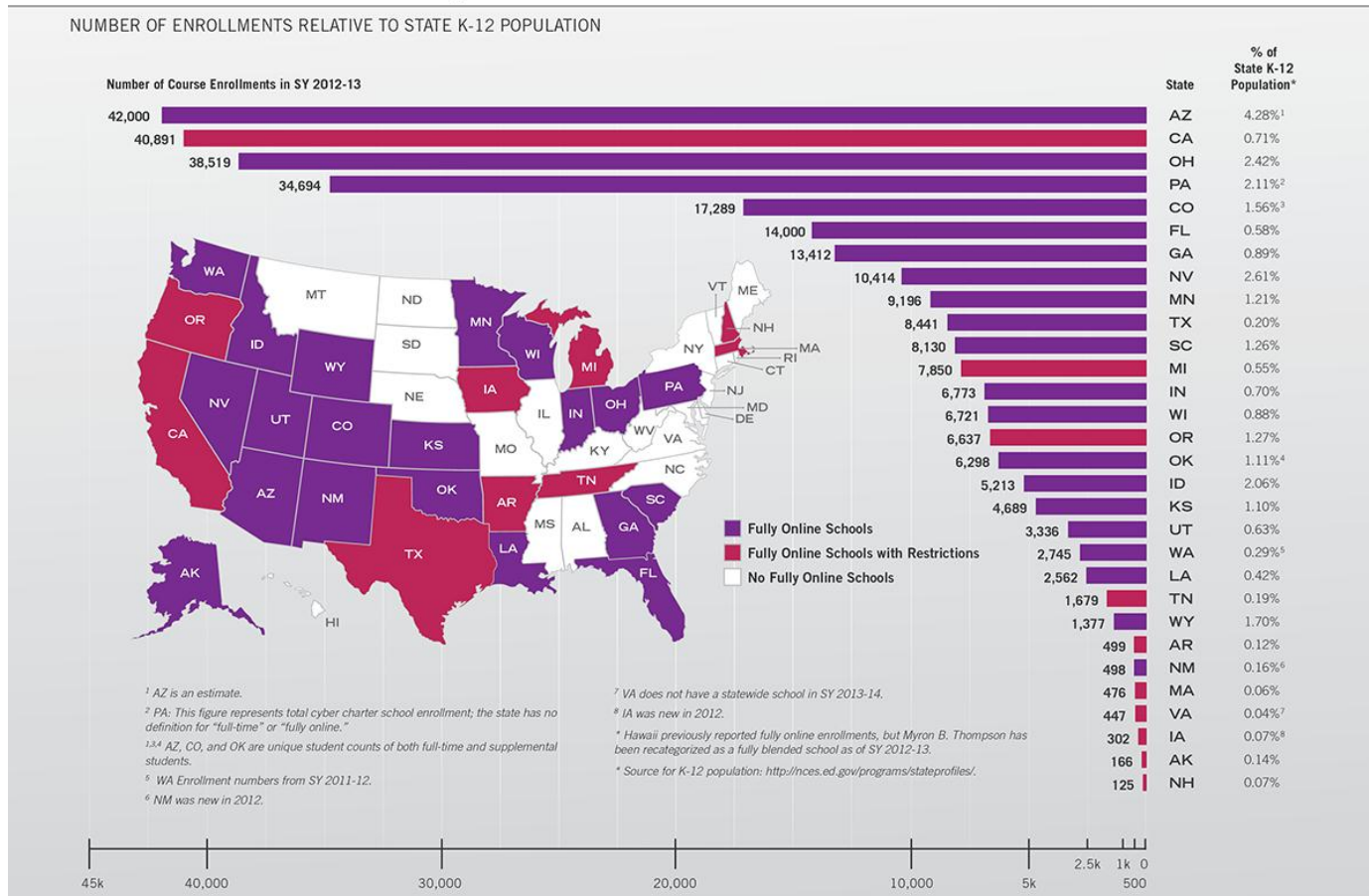
In the 2012–13 school year, fully online schools operated in 30 states and the District of Columbia, serving an estimated 310,000 students (see Figure 1). More than half of these students attended schools operated by private, for-profit education management organizations (EMOs), such as K12, Connections Academy, and Advanced Academics, which typically contract with school districts and charter school boards to provide management and logistical support in areas such as software, course content, and teacher professional development (Watson et al., 2013). Schools also may manage operations themselves but contract with EMOs solely for curriculum, much like a district would contract with a curriculum provider (P. Baxter, personal communication, June 11, 2013). In interviews conducted with authorizers of fully online schools in seven states, researchers found that most schools not affiliated with EMOs were located in a single state: Pennsylvania (Watson & Rapp, 2011).

Many districts also offer fully online programs within existing schools, but the numbers of fully online district programs and students are not readily available (Watson et al., 2013).

Figure 1. States With Multi-district Fully Online Schools and the Number of Course Enrollments in Those Schools⁶

2013

States with Multi-district Fully Online Schools



Source: Watson et al., 2013, p. 23. Reprinted with permission from *Keeping Pace With K-12 Online and Blended Learning: An Annual Review of Policy and Practice*.

⁶ Numbers are displayed only for states tracking and reporting these data.

In addition to the fully online schools across the country, 27 state-run virtual schools, which typically only offer supplemental online options, account for approximately 742,000 course enrollments (2012–13 data). Over half of these enrollments (410,962 in 2012–13) are at FLVS. The next two largest state virtual schools are in North Carolina, with 94,716 course enrollments, and Alabama, with 51,910 course enrollments. The other 24 state virtual schools range from 135 to 25,877 course enrollments. While several state virtual schools are growing, with a 17 percent increase in enrollments in Alabama, Georgia, Montana, Vermont, and Virginia in 2012–13, enrollment has declined in others, and several state virtual schools have recently found themselves underfunded or defunded (Watson et al., 2013). Moreover, the rise in other types of online programs—primarily district online and blended programs but also fully online schools, district consortia, and supplemental options offered by private providers—has led to declines in some state virtual schools’ enrollments (Watson et al., 2012).

Funding for fully online schools varies. Some online schools are funded through per-pupil allocations tied to student enrollment, just like traditional schools. In some states, the amounts received are based on charter school funding, which is typically lower than funding for district schools. In others, funding is based on a specific level or calculation for fully online schools, which also is typically lower than funding for brick-and-mortar district schools. Still others are funded through appropriations, fees, or grants (Watson et al., 2012). Funding for supplemental programs is handled differently. Course-level funding in supplemental online programs is relatively new. Several states (including Utah, Louisiana, Michigan, and Florida) provide performance-based funding at the course-level—in which a provider gets paid when students successfully complete a course (Tucker, 2007; Watson et al., 2013).

Overview of Accountability for Student Performance in Virtual Schools

School accountability is “the process of evaluating school performance on the basis of student performance measures” (Figlio & Loeb, 2011, p. 384). This process is common to all schools—virtual and traditional brick-and-mortar—and poses significant challenges in both contexts.

Fully online *charter* schools are held accountable by their authorizers for student learning outcomes; they typically must adhere to most of the same reporting and oversight requirements as brick-and-mortar charter schools. *District-run* virtual programs (full and part time) typically comply with the same academic accountability measures in place for brick-and-mortar district schools. *State-run* virtual schools—most of which primarily or exclusively enroll students in individual courses rather than full-time programs—also are accountable to the state, often through agencies or separate nonprofit organizations empowered or formed under state law to run or oversee the schools.

States differ in their accountability systems for fully online schools. In Pennsylvania, for example, the state department of education authorizes all fully online charter schools and oversees them pursuant to the state’s charter laws and separate regulations specific to fully online charter schools (Pennsylvania Department of Education, 2006). Fully online district programs, in contrast, are governed by Pennsylvania’s district accountability structures but not separate regulations (Watson et al., 2012). In Minnesota, all fully online programs (district and charter) must be approved by the Minnesota Department of Education (Minnesota Department of

Education, n.d.). In the 2011–12 school year, all providers of fully online programs in Minnesota began to undergo a three-year review process to have this state approval renewed (Watson et al., 2012). This process is separate from and in addition to existing accountability and renewal processes through charter authorizers. As this variety of accountability structures shows, there is no one-size-fits-all approach to virtual school accountability.

As noted previously, many fully online schools function by contracting with EMOs and other external partners that provide content, online teachers, and learning management systems. Although authorizers and states have the authority to hold charter schools, districts, or state virtual schools themselves accountable for student performance and to intervene in and even close those schools that fail to meet established standards, they generally cannot hold these external partners accountable directly. Providers are accountable only through market mechanisms—if a school is forced to close or chooses another provider, the original provider loses business.

Other Key Definitions: Inputs, Outputs, and Outcomes

In this study, we often refer to *inputs* and *outcomes*, and occasionally to *outputs*, using the definitions from iNACOL’s *Measuring Quality* report (Patrick et al., 2012; see box, “Definitions of Inputs, Outputs, and Outcomes From iNACOL’s *Measuring Quality* Report”).

Definitions of Inputs, Outputs, and Outcomes From iNACOL’s *Measuring Quality* Report

“**Inputs** are the essential elements that comprise the development and delivery of a course or school, such as textbooks, instructional materials, teaching, and technology. Quality assurance based on inputs often takes the form of standards or qualifications that apply to inputs. Examples in K–12 education include state content standards, textbook adoption processes, and teacher certifications.”

“**Outputs** are defined by the Innosight Institute as the end result of a process, such as course completion. In an online course they also may include data showing student interaction with the course content or teacher. Outputs are sometimes used as proxies for outcomes, but are not outcomes themselves.”

“**Outcomes** measure the knowledge, skills, and abilities that students have attained from an educational experience. They measure the effectiveness of the learning process, are more longitudinal than outputs, and measure more than just academic achievement at a point in time. Ideally they are based on a common assessment, not one that is specific to the school or course.”

Source: Patrick et al., 2012, p. 26.

Study Findings

The findings from the research for this study address six topics:

- Background findings (the state of virtual school accountability)
- Types of accountability measures
- Capacity to collect and analyze student data
- Consequences of meeting, exceeding, or failing to meet performance targets
- The role of teachers and other adults in virtual school accountability
- Additional challenges and opportunities presented by virtual school accountability

Two themes running through these findings are the inadequacies of state data and accountability systems in general and the insufficiency of state policies and authorizing practices to respond to the specific challenges and opportunities of virtual schools and virtual school accountability.

Background Findings (The State of Virtual School Accountability)

School accountability issues are not unique to virtual schools. Each of the issues presented in the literature or by experts as a challenge to accountability in the virtual school context also is a concern for brick-and-mortar schools. Some issues, such as student mobility, may be more prevalent in virtual schools. Others, such as monitoring attendance and student participation, present greater challenges and opportunities for virtual schools. The lack of a physical school building complicates efforts to monitor student activity, but the digital tools available in a virtual school context have the potential to enhance the ability to track student engagement. Most of the concerns observers have with virtual school accountability would be best addressed by improving wider systems of school accountability.

Accountability for fully online schools resides with a variety of entities and varies from state to state. As noted earlier, accountability for fully online charter schools, as with any charter school, resides with the authorizer; state accountability requirements also apply to these schools to the extent specified in state charter laws. Fully online programs run by districts or state virtual schools are typically treated as any other district program. In a few states, additional requirements apply to fully online charter schools or all fully online schools. The Texas Education Code, for example, includes specific policies for the state’s virtual school network, including provider district and school eligibility rules, online course requirements, and qualifications for online course instructors. In Pennsylvania, state charter laws apply but there also are separate regulations specific to fully online schools. In Minnesota, the state department of education has to approve all fully online programs (district and charter), and starting last year, all fully online programs in the state undergo a three-year review process. In contrast, no policies in New Hampshire govern online courses specifically—state rules simply govern what policies LEAs must set (Watson et al., 2012).

Authorizers and state accountability systems typically require virtual schools and brick-and-mortar schools to meet identical standards. States typically subject fully online schools to

the same inputs- and outcomes-based measures applicable to all schools. These schools report results of state assessments and adequate yearly progress (Watson et al., 2012). In Colorado, the Colorado Charter Schools Institute developed a framework that holds all of the schools it authorizes, virtual or not, to the same proficiency requirements as other public schools in the state. State accountability systems typically require district-run virtual schools to adhere to district accountability just as brick-and-mortar schools do.

FLVS began offering a full-time program in 2011 (Florida Virtual School, 2011). Beginning in the 2012–13 school year, Florida requires FLVS to be held accountable under the state’s A–F accountability system, which also applies to all of the state’s district schools; for accountability purposes, FLVS functions as its own district for its full-time students (P. Birtolo, personal communication, January 29, 2013).

Supplemental program providers face little formal accountability. Accountability in supplemental programs typically flows through each student’s school of record, although state virtual schools or state departments of education also may try to track student performance in online courses separately. Although this study does not focus on these programs, several sources commented that state systems hold each student’s school of record accountable for student performance, but they do not hold external course providers directly accountable (many supplemental programs involve partnerships with EMOs or other private entities). If students, families, or school leaders are dissatisfied with a private provider’s performance, they can raise their concerns with the provider or take their business elsewhere, but there is no direct link between states or authorizers and private providers for accountability purposes. Some states, such as Louisiana, Utah, and Georgia, are beginning to address this by approving providers based on quality indicators that include student outcomes (J. Bailey, personal communication, May 28, 2013).

Virtual schools have been held to strict media and public scrutiny, which has generated concerns about academic performance, financial health, and organizational compliance. News coverage in the past several years has included stories from respected news outlets that have been highly critical of performance at fully online schools and online providers, noting rejected proposals for virtual schools, poor test scores, below-average learning growth, and “abysmal” graduation rates (Simon, 2012). Coverage also has criticized online schools regarding financial and governance concerns, such as an editorial about a federal investigation into a Pennsylvania school (“Focus on Pa Cyber,” 2012) and a report discussing a Florida investigation into one virtual school provider accused of violating state law by hiring uncertified teachers. The report went on to note performance concerns about the provider (Aaronson & O’Connor, 2012).

State officials also have criticized virtual schools, from a scathing state auditor’s report saying the Pennsylvania funding formula overpays online schools by \$105 million per year (Pennsylvania Department of the Auditor General, 2012) to the Tennessee Education Commissioner publicly describing the Tennessee Virtual Academy’s 2011–12 student performance as “demonstrably poor” after the state reported it fell into the bottom 11 percent of schools for student gains (Sher, 2012). In Minnesota, the legislative auditor found that full-time online students’ mathematics performance lagged behind that of students in traditional schools,

and that full-time online students were more likely to drop out of school (Minnesota Office of the Legislative Auditor, 2011).

Virtual school supporters respond by citing evidence that online learning can work, although most also acknowledge that some online schools and programs are not fulfilling expectations (Watson et al., 2011, 2012). Some observers argue that the critiques noted previously have shown only part of the picture. For example, they suggest that existing accountability measures fail to adequately account for all aspects of student performance and that some of these failures may be amplified for virtual schools—such as growth made by credit-recovery students because virtual schools may have larger populations of these students.

Types of Accountability Measures

Inputs play a significant role in quality assurance for virtual schools. States and charter authorizers consider inputs when determining whether to authorize or initiate a new fully online program and when tracking program performance over time. Commonly used inputs include the following:

- **Course-content approval.** State and charter authorizers may require that course content meets curriculum standards. Authorizers may examine proposed curricula before approving a new virtual charter.
- **Provider accreditation.** Providers may be required to receive accreditation from the state in which they operate or from an outside accreditation agency. The Minnesota Department of Education, for example, reviews all full-time online providers through a written provider application (which ascertains business and communication standards, staffing and teacher/student support practices, and evaluation/assessment methods) and a site visit. FLVS notes on its website that it is accredited by the Commission on International and Trans-Regional Accreditation and the Southern Association of Colleges and Schools.
- **Teacher certification.** Most states require that teachers in virtual schools be certified according to state certification rules.
- **Teacher training.** In some states and districts, current teachers in virtual schools must attend staff development activities for online course delivery. Some are moving toward requirements specific to virtual instruction: Connecticut and Maryland online teachers are required to receive training for delivering online instruction; Hawaii, Idaho, and Oregon have online teacher training programs available; and in California, a consortium of private and public agencies has funded the Leading Edge Certification alliance, which offers training for online and blended classroom teachers (Watson et al., 2012). Although data are sparse, preservice training programs may be moving toward instituting requirements specific to learning how to teach online. For example, effective in 2014, all postsecondary teacher preparation programs in Minnesota must include training for online course delivery.
- **Seat time.** Students often must spend a certain length of time in a course before they may earn credit. In South Carolina, parents must verify the number of hours each online charter student spent on coursework each year (Evergreen Education Group, 2012).

Virtual schools offer significant capacity to track outputs. Virtual schools may be able to track, collect, and report information on student engagement with digital course content or with online instructors at a far more granular level than is possible in traditional brick-and-mortar schools. It may be possible for virtual schools to track the number of minutes (or seconds) a student engages in a task, the number of keystrokes a student or teacher makes when participating in an online discussion or completing an online activity, and other data on the frequency and depth of interactions with teachers and peers, all of which may inform accountability and instruction.

Outcomes-based measures also are common, but many states and authorizers focus predominantly on student proficiency instead of multiple measures of student learning. Building Charter School Quality,⁷ a four-year project funded by the U.S. Department of Education’s Charter Schools Program, recommends that student outcomes be measured by three core performance metrics:

- **Individual student growth**—Individual student learning based on multiple assessments over time, typically during one school year
- **Proficiency (or “status”)**—Student performance at a point in time, typically measured using end-of-course tests, state-mandated assessments, or national or international tests
- **College and career readiness**—Individual student graduation rates and student readiness for college or job or career training without need for remediation (National Consensus Panel on Charter School Academic Quality, 2008)

These metrics have undergirded many major national frameworks, including those created by the National Association of Charter School Authorizers (2013) and iNACOL (Patrick et al., 2012). Existing state accountability systems vary in their use of these recommended metrics. Most states focus on measures of student proficiency, and more than half of the states have begun using or are transitioning to using student-growth measures in their accountability systems. All states also track graduation rates for high schools. Some states have added other outcomes-based measures to proficiency and growth calculations. For example, Colorado also measures gaps in performance among student subgroups and other postsecondary and workforce readiness indicators (e.g., ACT scores) (Colorado Department of Education, n.d.). This finding is not specific to fully online schools but reflects the significant extent to which accountability for fully online schools is the same as for traditional brick-and-mortar schools. Some charter schools use internal assessments to supplement state accountability systems; these assessments may include such considerations as qualitative student competencies (e.g., persistence and responsibility). Although these internal assessments may be useful to authorizers, their states do not recognize them for external accountability purposes.

⁷ This effort—the full name of which was Building Charter School Quality: Strengthening Performance Management among Schools, Authorizers, State Charter Support Organizations, and Funders—was spearheaded by the following organizations: Colorado League of Charter Schools, the Center for Research on Education Outcomes at Stanford University, the National Alliance for Public Charter Schools, and the National Association of Charter School Authorizers.

Some states that measure growth in addition to proficiency do not adequately measure individual student growth. An increasing number of states are developing or refining accountability systems to measure and account for student learning growth. However, when states do measure *individual* growth, they may compare a student’s score on one age-specific, end-of-year test with his or her score on the previous year’s age-specific test, which does not always fully show how much a student has progressed if the student is ahead of or behind his or her age-peers. In addition, for a student who switches schools midyear, these tests fail to show how much he or she grew at each school. The models that states use to hold schools accountable for growth also may fail to fully capture individual student growth. For example, some states calculate growth by comparing two years of data for a school’s entire grade level, even though different students may be included from one year to the next. And some states’ growth measures may not adequately track individual growth, especially for students who start out far behind or who are more advanced than their age-based peers (Patrick et al., 2012).

Competency-based alternatives to traditional systems for measuring and holding schools accountable for student performance are receiving increased attention. In competency-based systems, students do not proceed through courses based on traditional school calendars and daily schedules; rather, they move to subsequent levels in a course as they demonstrate proficiency on learning objectives. Students are promoted based on content mastery rather than time spent in a course. These systems have been put forth as strong fits with the flexible schedules of students in virtual schools (Digital Learning Now!, 2013; Patrick & Sturgis, 2013). New Hampshire, for example, has been shifting to a competency-based system for all schools (brick-and-mortar and virtual) since 2005 (Alliance for Excellent Education, 2013). A February 2013 report by CompetencyWorks, an initiative from iNACOL on competency education, noted that 36 states have opened the door to competency-based alternatives by waiving seat-time requirements, issuing waivers and credit flexibility, redesigning systems around student learning, or creating proficiency-based diplomas and other “gateways” (e.g., third-grade reading requirements) (Patrick & Sturgis, 2013).

Capacity to Collect and Analyze Student Data

Virtual schools gather large amounts of student data relative to traditional schools. Traditional schools tend to collect and report mostly the data required for accountability purposes. Digital tools provide virtual schools with the ability to collect and examine granular student data, such as performance on individual items or in specific content areas, and such details as the amount of time a student spends on a learning module or the time it takes a student to reach proficiency in a given area. Virtual schools also are well positioned to capitalize on recent advances in information technology that have made it possible to create “intelligent information systems” that capture student progression toward competencies (Glowa, 2013, p. 9), which may point toward new ways of measuring student performance that demand new accountability systems and policies.

Specific data points can be used to make adjustments to a student’s instruction throughout a course (formative assessment) rather than just using end-of-grade tests after the fact to determine whether a student met a target (summative assessment). Virtual schools may administer precourse assessments to establish baseline measures of proficiency, engage interim testing to

gauge student progress throughout a course, and target interventions accordingly. Some schools might use this data to develop personalized learning plans for every student. The collection and analysis of large quantities of data also can be done in traditional schools, but digital tools available to virtual schools may make the collection and analysis easier and more immediately useful to teachers and students.

Without appropriate transparency and use, the large amounts of data made available through virtual schools will not necessarily improve accountability for these schools. Some data elements that are hallmarks of traditional systems—such as seat time and instructional minutes—may be less relevant (or relevant in different ways) in the virtual-school context. In addition, some of the ways data are typically collected, such as student enrollment counts based on students’ physical presence in school on one “count day,” need to be reconsidered for virtual schools (National Forum on Education Statistics, 2006). Further, if systems that allow for more frequent assessment rely on schools’ and other providers’ own assessments of student learning, states and authorizers will need safeguards in place to ensure the validity of the assessments and accurate reporting.

Portability of data is critical, but state data systems may not be up to the task. To understand students’ abilities and learning needs, for purposes of accountability or instruction, schools need to know about students’ academic backgrounds and proficiency in course content prior to beginning a course. For example, a student starting Algebra I who is proficient in mathematics at only the fifth-grade level will need remediation, but a school and teacher cannot adequately know that student’s abilities and learning needs without relevant data. Even when this information is collected, there are challenges with “ownership” of student data; it may not be readily available to a new school after a student transfers in because of document request delays, or there may be concerns about privacy of student records, or different data systems may not have the components necessary to share the student information with one another. In addition, most state data systems were initially designed to track school-level accountability data, not to capture granular, individual student-level data that can describe a student’s learning trajectory.

As states continue to hold schools accountable for student outcomes, many of them are turning their attention to helping schools understand where students start. Consolidated statewide repositories, such as the Florida Department of Education’s K–20 Education Data Warehouse, offer one promising option for facilitating the movement of student data from school to school. The warehouse was developed as a means of providing data on student cohorts over time to education officials and the general public. Nonprofit organization inBloom, formerly the Shared Learning Collaborative, aims to integrate data from a variety of sources and in different formats, to give a fuller view of a student’s history in order to help schools and providers assess and address students’ learning needs (inBloom, 2013). Utah passed legislation in May 2013 that creates for each student a “student achievement backpack”⁸ that contains historical student

⁸ This legislation is based on Digital Learning Now!’s recommendation that states create a portable, secure student data “backpack” that follows students. “Backpacks” would include traditional transcript data—such as demographic information, state testing data, and supplementary student supports—as well as information that provides a more complete picture of historical student achievement. For example, a “backpack” could contain a grade book of standards-based performance data and a portfolio of personal bests, thus better capturing the student’s progression at any moment in time. This enhanced data would provide a context for attendance and behavior patterns, supplementary support services, grades, learning gains, and proficiency scores (J. Bailey, personal communication, May 28, 2013).

achievement data and follows students when they change schools (Utah S.B. 82, 2013). Some states, such as New Jersey, have begun creating online “instructional improvement systems” for their LEAs to access and contribute to curriculum for the Common Core State Standards, as well as assessments, student-level data reports, and professional development resources (New Jersey Department of Education, n.d.).

Consequences of Meeting, Exceeding, or Failing to Meet Performance Targets

Consequences linked to accountability measures are limited for virtual schools, just as they are for traditional schools. Because of community resistance, daunting legal processes, and logistical challenges for enrolled students, charter school authorizers are sometimes unwilling to close low-performing virtual or traditional schools (Wechtenhiser, Wade, & Lin, 2010). Closures of charter schools up for renewal fell for two consecutive years, with only 6.2 percent shut down in 2010–11 (Cavanagh, 2012). Also, many state-sponsored turnaround efforts aimed at addressing chronic low performance have been criticized as too weak to create dramatic improvements (Shea & Lie, 2010; Stuit, 2010).

Managing closures of low-performing schools is no less challenging with virtual schools. Although many fully online charter schools are still new enough that their authorizers have not yet had to confront the potential of closure, early performance results at some fully online schools indicate the day is coming when they will. If anything, the challenges of overseeing virtual schools—such as the lack of a physical building in which to observe classroom practice, lack of familiarity with the delivery model and operational details, or the more frequent enrollment and withdrawal of students in some virtual schools—may make it more difficult to mount and sustain cases for closure. In addition, large, statewide virtual schools have a broader base of support that can leverage political pressure against closure across the state, especially if closing a virtual school would mean removing the virtual option for all current students.

Some supplemental online programs are funded in part based on performance. Some states have begun tying funding of supplemental online programs to outputs, such as course completion, or to student-performance outcomes. In theory, linking funding to student growth or proficiency is a cutting-edge accountability measure: Schools only get paid when students make progress or master content. For example, funding for each FLVS course only comes when students complete and pass a course (Mackey & Horn, 2009). In Utah, supplemental providers get 50 percent of student funding at enrollment and the remainder upon course completion (Utah S.B. 65, 2011).

These states’ systems have come under scrutiny, however, because funding is not tied to students’ performance on independent, external exams such as state standardized tests. Instead, course providers determine whether students have passed their courses. This situation raises the concern that tying funding to course passage creates the perverse incentive for providers to assign passing grades to students who have not fully mastered the content. At FLVS, leaders reject this charge, pointing to internal quality assessment efforts and input-based measures that the school also must meet (Quillen, 2013). An alternative proposed in California for supplemental programs would have the state provide 50 percent of per-pupil funding based on student enrollment in a course for a specified number of days, 25 percent when the student

receives credit for successful completion of a course, and the final 25 percent when the student passes an external evaluation (D. Haglund, personal communication, May 21, 2013).

The Role of Teachers and Other Adults in Virtual School Accountability

Teacher preparation programs are not adequately held accountable for preparing candidates to teach online. In general, teacher preparation programs are not held accountable for outputs such as job placement and retention rates, graduate satisfaction, or the student outcomes achieved by successful teaching candidates, including online teachers (Coggshall, Bivona, & Reschly, 2012). This lack of accountability holds true for programs preparing teachers for traditional and online instruction alike. Recent research highlights the need for preservice field experience for online environments (Kennedy & Archambault, 2012), but several experts interviewed for this report suggested that existing traditional and alternative teacher preparation programs do a poor job preparing new teachers to teach specifically in online environments, although some expressed optimism that the *National Standards for Quality Online Teaching* (iNACOL, 2011) would help.

Accountability systems do not capture online teachers' ability to reach more students with excellence. Online schools and programs offer unique potential to allow excellent teachers to reach students in hard-to-staff urban and rural schools, as well as to reach more students overall in all schools, within reasonable limits (Hassel & Hassel, 2010). However, accountability systems do not give schools (virtual and traditional) credit for teachers' increased impact when they achieve excellent results with more students.

Requirements for adult involvement in virtual course delivery are not clear. Expert interviewees highlighted the potential importance of one set of inputs to strong student learning outcomes: the strength of students' onboarding into online programs and courses. Initial data collected by providers suggests that specific amounts and types of contacts between adults and virtual school students, particularly new students, may have strong links to student retention and success. Conversely, teachers who fail to track new students and intervene if they are struggling may have detrimental effects on student learning (B. Dreyer, personal communication, February 12, 2013; B. Setser, personal communication, February 8, 2013). Even beyond the startup phase, teacher engagement is crucial to online student success. Many sources highlight the benefit of online learning in increasing student control of learning, but not all students will handle this autonomy equally well and, for most, the role of adults will remain critically important to the outcomes they achieve. Students who are unsupported may be more likely to falter, struggling with academics or dropping out.

For some students engaged in online learning, parents will play crucial roles in managing and directing student learning. But parents unaccustomed to online instruction may have little understanding of the challenges it presents, how to understand the metrics the school uses, or what their roles will be in guiding their children. In a 2012 report to the Legislature, Michigan Virtual University, which includes the Michigan Virtual School, identified assisting students, parents, and schools in choosing high-quality options for online and blended learning—in part by communicating quality outcomes—as one of the “unmet educational needs” (p. 7).

Additional Challenges and Opportunities Presented by Virtual School Accountability

Virtual schools' lack of physical school buildings challenges current charter-authorizer monitoring practices. Many authorizers use site visits to help evaluate the schools they charter. Site visits allow authorizers to gather more detailed information about day-to-day school operations and provide schools with more detailed feedback. This information may help authorizers make better decisions about remedial action for struggling schools as well as highlight practices in high-performing schools that are working well. For virtual schools, without a site to visit, authorizers need to adapt their oversight practices, likely by better harnessing the rich student data that virtual schools can uniquely collect (Ableidinger & Hassel, 2012a, 2012b). For example, FLVS modified its accreditation process such that observers did virtual classroom “walk-throughs” instead of physical site visits (S. Arnott, comments at technical working group meeting, March 18, 2013). David Haglund, principal of Riverside Virtual School, believes he has a better view of school activities than he would at a traditional school because he can easily log in to a course to view ongoing student discourse in discussion boards and monitor student work samples, including teacher feedback (D. Haglund, comments at technical working group meeting, March 18, 2013).

Certain types of students present special accountability challenges. Virtual schools may attract highly mobile student populations, students who are overage and undercredited and may turn to online schools as a last resort, students who have not succeeded for a variety of reasons in traditional school environments, and high-performing students who do not feel challenged at their current schools. Experts disagree about the degree of difference between virtual school student populations and those of brick-and-mortar schools. A 2012 Colorado study found that almost 14 percent of proficient 12th-graders in online schools end up dropping out, compared with 1.8 percent statewide (Heiney, Lefly, & Anderson, 2012). Minnesota found similar numbers, with 25 percent of full-time online 12th-grade students dropping out of school in 2009–10, compared with 3 percent statewide (Minnesota Office of the Legislative Auditor, 2011). In the Colorado study, ninth-grade students who enrolled in a fully online school for the first time were the least proficient of all subgroups and included the most students who had previously been enrolled in six or more schools.

One challenge facing fully online charter schools is that enrollment regulations intended to prevent charter schools from skimming the best students also require them to enroll students for whom online programs may present particular challenges that require more extensive supervision than online programs typically provide or greater self-discipline than some students possess. Counselors at online and traditional brick-and-mortar schools should be prepared to work with students and parents to determine whether online programs are well suited for each individual student and what supports are needed to give each student the best chance for success.

In addition, states that do not adequately track individual growth may fail to give schools enough credit for rapidly moving students who started out behind grade level toward proficiency. These accountability challenges affect all schools but may be more noteworthy for virtual schools if these types of students make up a greater proportion of the student population in virtual schools than in brick-and-mortar schools.

Virtual schools show the need for and capacity to address student enrollment tracking issues. In some states, schools track student attendance through a designated “count day,” when enrollment in a school is determined by a count of all students present in a school building on the specified day (e.g., October 1). The state and district then use this count to allocate per-pupil funding to each school, meaning even when a student leaves a school after the count day, the school keeps his or her funding for the year. Accountability also may be tied to a student’s school of record on the count day, regardless of where that student receives the bulk of his or her schooling for the year. Under the 2002 reauthorization of ESEA, all states hold schools accountable only for students who have been enrolled for a full academic year, which may create a perverse incentive for schools not to serve highly mobile students well if they do not count toward school accountability measures (Özek, 2012). Count days seem particularly unnecessary for virtual schools in light of their capacity to easily monitor student activity daily, even down to the keystroke. Also, virtual schools can capture data that go beyond attendance to show student engagement, such as content module completion and assignment submission (K. Johnson, personal communication, February 7, 2013).

Assessment timing does not fit well with the flexible student schedules that virtual schools make possible. Students in virtual schools may complete courses on a much more fluid basis than students in traditional schools. For example, a virtual school student may complete two courses in two months before moving on to more courses, which could then take four months to complete. But students in virtual schools are still given state assessments, which are administered on one day per year. Thus, students who complete Algebra I in January must wait until April to demonstrate proficiency. Or, although the flexible pacing available in virtual schools would allow students to start a course in November and reach mastery the following July, they would still be required to take the exam in April. Again, assessment timing is an issue for all schools, but the virtual school delivery model may exacerbate the concern because of the ease with which students can start and complete courses outside of the normal school schedule.

Additional thoughts on accountability appear in the following box: “Supplemental Online Programs: Accountability Considerations.”

Supplemental Online Programs: Accountability Considerations

Although this report focuses on fully online schools, many of the challenges faced in fully online schools also affect state virtual schools, providers, and individual districts and schools providing online education at the course level, which we have referred to throughout this report as “supplemental online programs.”

As student enrollment in individual online courses grows, states and districts will need to adjust accountability and funding systems to respond to these types of courses as well as the proliferation of fully online schools. Although schools of record should continue to be held accountable for student performance even in classes with external providers, reflecting their role in vetting and monitoring providers for quality, course-level accountability will need to accurately reflect responsibility for instruction in each course, with provider data transparently separated from district data. To assist schools and providers in delivering the best possible education, both should have access to data on a student’s previous academic performance. And to respond to the reality that many supplemental providers offer primarily courses that do not have existing state-administered, end-of-course exams, accountability systems will need to work with schools and providers to expand the universe of acceptable instruments for gauging growth or competency.

States are increasingly being asked to approve a portfolio of course providers. These approvals could use student outcomes as evidence of prior success, and states could require providers to report performance data each year, including completion rates, proficiency, growth, and other measures. These data should be disaggregated by subgroup to assess how the achievement gap is growing or shrinking under each provider. States also would need to ensure the validity of the providers’ own assessments and accuracy of reported data. Finally, states could enter into course reciprocity agreements to automatically approve or “fast-track” approval of a course that was approved in another state, similar to how teacher reciprocity agreements work (J. Bailey, personal communication, 2013).

This sidebar is just a brief snapshot of some of the main accountability issues related to supplemental online programs raised in expert interviews for this report or at the technical working group meeting, at which several representatives from state virtual schools, providers, and partners with significant experience related to supplemental online programs offered their considered opinions and analyses on this topic. For additional discussion of course-level outcomes-based quality assurance, see iNACOL’s *Measuring Quality* report (Patrick et al., 2012).

Recommendations

The following recommendations arise from the findings set out in the preceding section. Some are specific to charter authorizers, state departments of education, virtual school operators, or providers and partners, while others relate to accountability for fully online schools in general.

- 1. Focus accountability for *all* schools, including virtual schools, on outcomes.** Scrutinize performance based on the best available data on proficiency, growth, and college and career readiness (including graduation rates) using multiple measures.
- 2. Address accountability challenges related to unique student populations.** Move toward measures of student growth and on-demand assessments to facilitate personalized learning plans for all students, and especially those who are hardest to serve. Create fluid student-count procedures that follow students through school changes, so accountability and funding properly follow them. Address data portability to make it easier to meet the needs of transient students. Avoid penalizing schools that enroll high numbers of overage, undercredited students.
- 3. Improve data collection and oversight systems to fit the delivery method and capacity of virtual schools.** Use input-based measures to target areas for improvement. Develop authorizer practices that allow the same level of on-demand scrutiny of fully online schools as that of traditional schools. Upgrade state data systems to meet accountability challenges, and require shareable data from private providers.
- 4. Better link accountability to providers, teachers, and other adults.** Link new accountability structures to systems that measure teacher effectiveness. Tie student data to external providers and teacher preparation programs. Consider threshold involvement requirements for supervising adults in virtual schools and programs.
- 5. Ramp up consequences attached to performance.** Make the growth of fully online school enrollments contingent on performance, and close persistently low-performing fully online schools. Consider mastery-based funding for fully online schools; with any performance-based funding, encourage serving the most disadvantaged students well.

Recommendation 1: Focus Accountability for *All* Schools, Including Virtual Schools, on Outcomes

Although some inputs may improve outcomes, causal relationships between inputs and outcomes have been hard to prove; some inputs, such as seat-time rules, may actually impede progress. Schools and authorizers should continue to carefully use the inputs they consider likely to lead to strong student outcomes. But outcomes must be the standard for holding schools accountable and making such major decisions as closure and renewal.

Scrutinize fully online schools' performance based on the best available data on student learning outcomes. Existing outcomes-based measures are far from perfect, and authorizers, states, and operators all have roles to play in improving available measures. With current measures, authorizers and state departments should maintain a strict focus on how well all schools—including fully online schools—affect student learning. In states on the cutting edge of measuring student growth, measures that provide the best evidence of student learning might

come from state accountability systems. In states with underdeveloped measures, the best data on student learning outcomes may come from schools themselves. In such cases, authorizers should scrutinize the data carefully to guard against bias. States and authorizers should consider evaluating school performance based on comparison reference points, most often by measuring the performance of a school against schools that are similar in grade levels and starting average performance level. In this way, performance measures can be tailored to individual schools. Comparisons should be constructed, however, in a way that does not establish lower standards for schools simply because they serve a more disadvantaged population. Rather, standards would account for special circumstances, such as those presented by overage, undercredited students.

Evaluate student outcomes using multiple measures, with the same standards for fully online, charter, and district schools. States and authorizers should judge student outcomes using the core performance metrics of growth, proficiency (or status), and college and career readiness, with a special focus on traditionally low performing subgroups. These measures should be identical for fully online, charter, and traditional schools.

Use ESEA reauthorization discussions to focus on outcomes, increased frequency of measurement, and student progress based on competencies. In the coming months and years, education policymakers should frame ESEA reauthorization conversations in terms of next-generation accountability systems that move beyond proficiency measures as the norm in performance measurement. At a minimum, accountability measures should shift to account for the three core performance metrics of student growth, proficiency, and college and career readiness. To make student learning growth a stronger focus of accountability systems, officials will need to confront the challenges of increased frequency of measurement (discussed later in this section). This is an area in which virtual schools and the data they produce can demonstrate what may be possible for all schools. As the field continues to generate examples of competency-based education, in leading states such as New Hampshire and in districts and charter schools with the autonomy to institute competency-based systems, policymakers might consider leaving room for those systems to continue to evolve and improve.

Table 1 summarizes recommended action steps for this recommendation.

Table 1. Action Steps for Focusing on Outcomes

Actions to Take Now	Longer Term Changes
<ul style="list-style-type: none"> • Hold fully online schools to the same standards as charter and traditional schools. • Track student growth using the best available data throughout the year, not just end-of-course assessments. • Require public, easily understood reporting of all three metrics currently available: individual student growth, proficiency, and college and career readiness. 	<ul style="list-style-type: none"> • Make three core performance metrics—individual student growth, proficiency, and college and career readiness—the focus of ESEA reauthorization. • Build the next generation of accountability systems to support the growth of competency-based alternatives to traditional measures.

Recommendation 2: Address Accountability Challenges Related to Unique Student Populations

All input- and outcome-based measures are imperfect, and these imperfections may be amplified in fully online schools. For example, failing to adequately account for students who switch schools midyear may hurt fully online schools if these schools experience higher student mobility than comparable brick-and-mortar schools. At present, the extent of the difference in the numbers of highly mobile students in virtual schools and brick-and-mortar schools has not been adequately studied. A 2013 report on digital learning in Colorado suggests the difference may be significant (Heiney et al., 2012), but additional data are sparse, and experts disagree on the likely extent of the difference.⁹

Ensure that growth models are based on measures that carefully track individual student growth during a given period, and use on-demand assessments. To truly individualize tracking of student learning growth over time, schools must know where each student stands upon starting a course and finishing it, and entering a school and leaving it, regardless of whether she is far behind or far ahead. Some accountability systems instead assess growth based on two years of data for a school’s entire grade level and focus on administering age-specific point-in-time tests.

For growth-based measurement, states would ideally use or create on-demand assessments: tests that can be administered whenever a student enters or completes a course rather than on one specified date (or just a few dates) each year. This would enable students to prove subject mastery at any time and move ahead or prove they have mastered course standards. These assessments would enable authorizers and states to apportion growth (or lack thereof) across multiple schools for highly mobile students. They also would help schools—online and traditional—tailor instruction to meet student needs and better fit the more flexible student schedules that fully online schools provide.

Designing and implementing valid, independent assessments for students to take whenever they complete a course or switch schools presents enormous practical challenges. Nevertheless, states should continue to explore the viability of developing such summative assessments, as consortia of states have begun to do with the development of the new Common Core Assessments. Schools that present opportunities for students to engage in personalized, competency-based learning on fluid schedules and nontraditional calendars may give states an opportunity to test on-demand assessment systems before deploying them more widely.

Freedom from seat-time rules and other scheduling autonomies are often associated with charter schools, but policymakers could consider extending these freedoms to other types of schools. iNACOL’s CompetencyWorks initiative has described policy-change options that would facilitate the move toward competency-based education (Patrick & Sturgis, 2013). However, whether such changes are implemented in charter or traditional schools, they will need to be reconciled with accountability requirements of states, districts, and authorizers.

⁹ Although researchers have not reached consensus about the student populations at virtual schools, several studies have begun to explore this. See Shattuck, K. (2013).

Create fluid student-count procedures that follow highly mobile students from one school to the next, so accountability and funding properly follow them. Single “count days” and systems that exclude students from accountability measures if they did not attend schools for an entire academic year feel increasingly antiquated in light of current technologies, which make attendance and school enrollment easier to track and report. They also stand in the way of ascertaining academic progress of highly mobile students, who some sources indicate may enroll in virtual schools in disproportionately large numbers. More flexible student-count procedures also might help improve apportionment of funding to the multiple schools that mobile students attend during a year. Although virtual schools can more easily and robustly track and report attendance and related data on student engagement, some of their technologies also could help traditional schools to more accurately reflect reality, particularly for mobile students.

Create rigorous but sensible accountability systems for schools that enroll high numbers of overage, undercredited students. Schools, including virtual schools, should not be penalized for being the school of last resort for many students. As one example of an authorizer addressing this issue, in December 2012 the Indiana Charter School Board adopted an alternative accountability system for dropout recovery charter high schools (Indiana Charter School Board, 2012). Under this system, schools that meet alternative eligibility criteria capture student progress by reassigning overage, undercredited students to alternative graduation cohorts. The schools are then evaluated based on rigorous academic performance measures, including alternative cohort graduation rates. In all accountability discussions, care should be taken not to create disincentives to serve the most disadvantaged or most challenging students; indeed, states and authorizers should evaluate opportunities to do the opposite—create incentives to serve these students through flexible accountability measures and financial and other benefits related to serving these students well.

Table 2 summarizes recommended action steps for this recommendation.

Table 2. Action Steps for Fixing Flaws in Accountability Systems

Actions to Take Now	Longer Term Changes
<ul style="list-style-type: none"> • Develop models to adequately track individual student growth, including for students who start out far behind or who are more advanced than their age-based peers. • Create on-demand assessments for the courses taken most often. • Consider permitting pilots of competency-based systems in charter schools or other autonomous schools before extending them statewide. • Create alternatives to single count days for funding and accountability purposes at virtual schools and others that have the technological capacity. 	<ul style="list-style-type: none"> • Base accountability on valid, independent assessments for all courses and students, including those with special needs. • Require personalized learning plans for all students, based on data provided in part through past years’ performance and assessments when a student enters a school or begins a course. • Implement systems to track students when they leave a course or school and assess their learning growth. • Create fluid student-count procedures for all students in all schools. • Consider on-demand assessments for all grades and subjects. • Create rigorous but sensible alternative accountability criteria for schools serving high populations of overage, undercredited students. • Create incentives to serve the most challenging or most disadvantaged students, through flexible accountability measures and financial and other benefits related to serving these students well.

Recommendation 3: Improve Data Collection and Oversight Systems to Fit the Delivery Method and Capacity of Virtual Schools

Virtual schools produce large quantities of student data. However, as noted earlier in this report, state data systems may not be up to the task of using these data for accountability purposes or helping collect and use similar amounts and types of data from all schools. Authorizer practices, too, may need to be adapted to work well with the unique features of virtual schools.

Upgrade state data systems to meet accountability challenges, and require or encourage shareable data from private providers. Virtual schools present uncommon opportunities to collect and use large quantities of granular student data. State data systems should help, not hinder, their efforts, with both sides working together on a new generation of accountability systems and measures. State systems need the ability to track and report individual student performance and portability of student performance information from school to school. They also must safeguard student privacy when matching state assessment and course-completion data with information about students’ online programs, and when reporting data to schools, providers, and the public (Glowa, 2013). To work with data from authorizers and private providers, SEAs

should set ground rules for them to render data in formats shareable across platforms and schools, so that a “data backpack,” or shareable portfolio of data, can follow each student from school to school (Digital Learning Now!, 2013). One school might now use dozens of software programs to track student attendance, performance, services received, and other information. When establishing ground rules, states will need to balance the desire to encourage these multiple options with the importance of interoperability and the ability to monitor inputs, outputs, and outcomes in online and traditional schools.

Initiatives, organizations, and authorizer practices such as those listed in the Study Findings section (e.g., Florida’s statewide data repository, nonprofit organization inBloom, and states’ increasing use of instructional improvement systems) should be studied and, if successful, replicated or supported by other states and authorizers.

Use input-based measures and surveys to target areas for improvement and identify gaps in service. Even though outcomes should form the basis on which schools are held accountable, input-based measures and surveys can serve an important purpose. Fully online schools have the capacity to generate reams of data on student outcomes as well as data on inputs, outputs, and other indicators that may later prove to correlate with outcomes. Authorizers and state departments can analyze these data to get a more complete picture of a fully online school than is possible with outcomes-based measures alone and to structure interventions that help schools avoid the negative consequences of persistent low performance.

Develop authorizer practices that allow the same level of on-demand scrutiny of fully online schools and courses that is possible through site visits and audits of traditional schools. An authorizer’s inability to visit a school site should not prevent extensive, careful scrutiny of a fully online school’s operations, including individual course delivery. The authorizer should require transparency and access as conditions of initial approval and renewal, and should work with fully online schools to use available tools and data to improve monitoring and decrease the burden on teachers and school leaders.

As authorizer practices related to virtual schools become more widespread, share lessons learned so inexperienced authorizers can benefit from emerging practices. Most authorizers are still in the early stages of creating processes for application, oversight, and renewal (Watson & Rapp, 2011). Given the numerous, significant challenges faced by authorizers already chartering and monitoring these schools, it is imperative that states and authorizers, as well as advocates and other partner organizations, collect and disseminate promising practices as they emerge, so all authorizers can better understand and develop systems and practices to authorize virtual schools well.

Scrutinize board membership in fully online charter schools, educate board members, and hold boards accountable for management of vendor relationships. In fully online schools, private providers, which may have limited or no local or in-state presence, exert significant control over the day-to-day decisions that affect the quality of education students receive. Authorizers should look to charter boards as the arbiters of the relationship between the authorizer and any private providers involved in school operations. Authorizers should begin, before a charter is approved, by scrutinizing board membership to avoid conflicts of interest and ensure that board members will put students’ interests first, even if their decisions conflict with

the needs of external partners. Charter contracts should be written to require deep scrutiny of the performance of all external partners and the severing of relationships with any that do not deliver high-quality products and services. Charter support organizations should help recruit impartial board members for fully online schools and work with authorizers and operators to educate all board members on the challenges of governing fully online schools, particularly around relationships with external partners. Boards themselves should be held accountable for performance and for managing vendor relationships, and they should not be permitted to continue governing a fully online school if their governance proves ineffective (Lowe & Lin, 2006).

Table 3 summarizes recommended action steps for this recommendation.

Table 3. Action Steps for Improving Data Collection and Oversight

Actions to Take Now	Longer Term Changes
<ul style="list-style-type: none"> • Use authorizer approval and oversight authority where possible to encourage transparency and rendering of data in formats that are useful and manageable for the authorizer. • Analyze available data on inputs and survey results to determine gaps in service or contributors to low performance. • Require transparency and access to virtual schools for approval, monitoring, and renewal. 	<ul style="list-style-type: none"> • Require “data backpacks” with shareable portfolios of data on students that follow them from school to school. • Encourage creation of data warehouses with student information available to the public, with quick response times. • Use federal incentives to encourage states to improve data systems and work with operators to address interoperability.

Recommendation 4: Better Link Accountability to Providers, Teachers, and Other Adults

Accountability systems help states, districts, and authorizers make judgments about school performance. Increasingly, the data used to judge school performance also are being used to evaluate the contributions of teachers to student learning outcomes.

Evaluating school-level performance presumes that control for the decisions and actions that have the most significant impact on student learning outcomes rests within the school, with teachers and school leaders. But the connections between inputs and outcomes may be much more difficult to gauge in fully online schools, which may have a chartered entity and one or more providers responsible for key decisions. In supplemental online programs, responsibility ultimately may lie with a traditional brick-and-mortar school and its leaders and teachers as well as one or more external providers.

Today’s teacher evaluation systems also are built for traditional schools and classrooms, where a single lead classroom teacher is responsible for the education received by her students in the subject(s) she teaches during an academic year. Virtual schools may test the foundations of such

a system—if some teachers play important but indirect roles in coordinating or managing student progress, rather than delivering instruction themselves, or if multiple adults share responsibility for educating students in a given subject and grade level.

Require all virtual schools to disclose external partners, and link these partners to student learning data. To better enable school leaders, teachers, and parents to judge the efficacy of private providers, states and authorizers should require full accounting of the providers used by each school and which services they provide (and in which grades and subjects). This information should be made publicly available and linked to the extent possible with data on student outcomes.

Develop new measures of effectiveness to capitalize on available data, including accounting for the “reach” of excellent teachers and teaching. As states and authorizers pioneer the next generation of accountability systems, they should take care to establish mechanisms for linking the contributions of the variety of adults and providers involved in instruction with student learning outcomes. In doing so, system designers should consider opportunities to attempt to quantify teacher contributions and student outcomes in noncognitive areas, such as student self-confidence, persistence, curiosity, and self-control (Tough, 2012), and to use these measures for teacher evaluations and school-level accountability. They also should consider measures that look at both the outcomes achieved and the numbers of students reached by the teachers or digital tools providing instruction. For example, a teacher evaluation system might gauge a teacher’s impact by multiplying the student outcomes achieved by the number of students that teacher reached (Hassel & Hassel, 2011).

Tie student data to teacher preparation programs, to hold them accountable as well. School leaders, parents, and existing and prospective teachers need information about the success of teacher preparation programs, traditional and alternative, in producing teachers who improve student learning outcomes. This information is valuable for all schools, but such links also may show which programs are preparing their teachers to succeed in virtual schools. This information also should help programs improve their practices or help schools train existing teachers who are not well prepared to teach in virtual environments. Links to teacher preparation programs also will help create or expand accountability for the programs themselves.

Consider threshold activity requirements for adults in virtual schools. States and authorizers typically tread lightly on mandating specific instructional practices. At a minimum, states and authorizers might mandate the reporting of data on adult activity, such as frequency, timing, and type of teacher-student contacts, teacher responses to student questions or concerns, and teacher engagement with student data or on course discussion boards. Such data may be relatively easy for virtual schools to collect and provide, and they would help scrutinize virtual school “classroom” practice. If specific adult practices prove to positively affect student retention or outcomes, authorizers might mandate the practices as conditions of approval or renewal. Or, even without mandates, states or authorizers might help providers by disseminating publications on promising practices.

Table 4 summarizes recommended action steps for this recommendation.

Table 4. Action Steps for Linking Accountability Properly

Actions to Take Now	Longer Term Changes
<ul style="list-style-type: none"> • Require schools to document and disclose external partners. • Link data on student learning outcomes to teacher preparation programs, to formally hold state-funded programs accountable and evaluate privately funded programs. • Disseminate data and findings on adult practices linked to positive student outcomes. 	<ul style="list-style-type: none"> • Measure and report the number and percentage of each school’s students who have a highly effective teacher responsible for their learning. • Ensure adequate supports for online teachers while holding them accountable, such as assigning instructional leaders who assist and evaluate teachers.

Recommendation 5: Ramp Up Consequences Attached to Performance

The first four recommendations have focused largely on the measures and data used in accountability systems. But these measures and data are of limited utility if they are not used to generate improvements in school- and classroom-level practice or to determine who is allowed to operate and partner with schools, and on what terms. Consequences may involve rewarding high-quality programs and partners, as well as curtailing the ability of less effective programs to continue operating or expand their offerings without first demonstrating improvement.

Make growth of fully online school enrollments contingent on performance. Because fully online schools could accommodate both large enrollments and rapid growth, authorizers and states should demand strong evidence of student growth and content mastery before allowing a fully online school to serve significant numbers of students. Low-performing schools should be automatically prohibited from growing their enrollment totals until performance improves. Conversely, fully online schools that demonstrate the ability to serve students well should be encouraged to expand their offerings, capitalizing on their unique capacity to enroll many students and manage rapid growth.

For applicants partnering with providers with existing out-of-state operations, an authorizer also may condition charter approval on demonstration of successful performance in other states. However, the authorizer will need to take care in such cases to evaluate data fairly and accurately, taking into account the other states’ measures and standards. If authorizers examine internal data from providers in analyzing performance, they will need to scrutinize the data carefully to guard against bias. Authorizers also should use caution in generalizing from a provider’s performance in any individual state because many factors, including leadership and governance, vary from state to state and may affect outcomes.

Close persistently low-performing fully online schools. For the good of the students who attend them and to avoid “guilt by association” for the fully online schools that do reach or exceed performance targets, low-performing online schools should be closed. Especially with the field as young as it is, the reputation of online learning may be only as strong as its weakest link. Much has been written already about the great potential of online learning to help students succeed. Much also has been written about the potential for profiteering and the great harm that

students will suffer if online schools enroll large numbers of students and fail to provide them with a high-quality education.

States can help make the charter closure threat real by creating policies to prevent “authorizer shopping,” where a school closed by one authorizer (or facing the threat of closure) might turn to others whose standards might be lower. Such policies might include limiting the number of available authorizers, or prohibiting authorizers from granting charters to schools or operators that performed poorly under another authorizer. States and authorizers also can encourage the chartering of multiple virtual school alternatives. Resistance or backlash from families may lessen if students have other options, particularly if these options are higher performing.

Consider tying a portion of fully online schools’ funding to their performance. Some states have moved toward performance-based funding for supplemental online programs. Although such funding mechanisms are an imperfect fit for fully online schools, states should consider developing funding incentives for fully online schools as well.

In response to concerns about perverse incentives, states should begin developing a funding system, whether for fully online or supplemental programs, tying all or a portion of funding to independent, external assessments rather than awarding funds because a provider gives a student a passing grade. The proposed alternative funding mechanism in California, which would provide portions of funding upon three successive benchmarks for each course, offers a viable example. Proposed legislation in Arizona takes a slightly different approach: It would base a small portion of schools’ state funding on growth and achievement as recognized by the state’s A–F school grade system (Arizona S.B. 1444, 2013).

Encourage serving the most disadvantaged students well in any performance-based funding system. Rewarding schools financially based on course completion gives an advantage to schools with more advanced students. States should be wary of instituting performance-based funding measures that likely will result in significant drops in funding for schools with the neediest students, which will in turn lower the likelihood of great teachers and leaders agreeing to join or remain at those schools, creating a downward spiral. Instead, states should consider systems that reward success with the neediest students.

Table 5 summarizes recommended action steps for this recommendation.

Table 5. Action Steps for Ramping Up Accountability Consequences

Actions to Take Now	Longer Term Changes
<ul style="list-style-type: none"> • Condition growth on successfully serving smaller numbers of students well. • Close persistently low-performing fully online schools. • Carefully scrutinize performance of new charter applicants with external partners that have track records in other states, remaining mindful of crucial differences in such factors as governance and leadership that may exist at the provider’s schools in other states. • Prevent “authorizer shopping” by low-performing schools, by limiting the number of authorizers or prohibiting authorizers from granting charters to schools that performed poorly under another authorizer. 	<ul style="list-style-type: none"> • Focus on increasing the supply of high-quality virtual schools, providing ready alternatives if some multi-district fully online schools need to be closed because of persistent low performance. • Consider performance-based funding structures for fully online schools as well as supplemental programs. • Build incentives into performance-based funding mechanisms for serving high-need populations.

Conclusion

Fully online schools can and should point the way to the next generation of accountability systems. In many ways, existing accountability systems do not mesh well with fully online schools. These issues often point to imperfections in accountability systems for *all* types of schools. Unlike most traditional schools, fully online schools offer technological tools that can help address the imperfections. In areas such as monitoring attendance, collecting and using student performance and growth data, linking data to instruction and personalization, and making information about student learning transparent and readily available, fully online schools can be in the vanguard of developing new systems that more accurately capture what is happening in all schools. Because many fully online schools are charter schools, they may be well positioned to build on autonomies granted to charter schools to pioneer new practices in assessment, data collection and use, and resulting accountability for schools, teachers, boards, and providers.

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