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Virtual Schools in the U.S. 2013:
Politics, Performance, Policy, and Research Evidence

Section I
Full-Time Virtual Schools:
Enrollment, Student Characteristics, and Performance

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Virtual full-time K-12 schools, also known as cyber schools or online schools, are schools that deliver all curriculum and instruction via the Internet and electronic communication, usually with students at home and teachers at a remote location, and usually with everyone participating at different times. Although increasing numbers of parents and students are choosing this option, little is known about virtual schooling in general, and very little about full-time virtual schools in particular. For example, information has not been available on such basic questions as the number of virtual elementary and secondary schools operating, the number of students enrolled in them, and the rate at which they have expanded. Moreover, despite a dearth of research evidence useful in shaping policy, many states have adopted legislation permitting full-time virtual schools or removing the

caps that once limited their growth.[1]

The little that is known comes primarily from the investigative efforts of journalists.[2] The following description, then, is a first research-based attempt to provide a comprehensive inventory and overview of full-time virtual schools in the U.S. It builds on an earlier NEPC study that analyzed the students and performance of one large provider, K12 Inc.[3] Here, that analysis is expanded to include all full-time virtual schools in the U.S. for which data are available for the 2011-12 academic year and to provide an estimate of their growth.

Also included is a portrait of the students enrolled in virtual schools, including details on grade level, ethnicity, gender, socioeconomic status, special education status, and English language learning status. Information on virtual school performance is included as well, with a comparison of aggregate performance ratings and national norms. Based on findings in these areas, recommendations follow.

Details for specific virtual schools appear in Appendices B-D, which can be downloaded from the NEPC website: http://nepc.colorado.edu/publication/virtual-schools-annual-2013.

Questions addressed include:

- How many full-time virtual schools operate in the U.S.? How many students do they enroll?
- What are the demographic characteristics of students enrolled in full-time virtual schools? Within individual states, how do demographic data differ for students enrolled in virtual schools and those enrolled in brick-and-mortar schools?
- How do full-time virtual schools perform in terms of student achievement relative to other public schools?

Data Sources and Selection Criteria

The findings presented below are based on publicly available data, collected, audited, and warehoused by public authorities.

The scope of the study is limited to full-time, public elementary and secondary virtual public schools serving U.S. students. This includes virtual schools operated by for-profit Education Management Organizations (EMOs) as well as virtual schools operated by states or districts. Private virtual schools are excluded. Also excluded are schools offering a combination of full-time virtual programs and blended programs, unless it was possible to separate data for the full-time virtual school component.

Schools were typically identified by the unique school ID code assigned by the National Center for Education Statistics (NCES). Relatively new schools (those opening in 2011 or more recently) were identified by the unique building or school ID codes assigned by the relevant state education agencies. Only schools reporting at least one student enrolled during the 2011-12 school year were included (see notes in the appendices for more details

regarding criteria for inclusion) These criteria helped identify and exclude smaller programs operated by districts or schools not intended to be full-time virtual schools.

The primary sources for total enrollment and school performance data were state-level datasets and school report cards for the 2011-12 school year. Data for grade level enrollment, race-ethnicity, and sex were obtained from NCES and represent the 2010-11 school year. The most recent year for which the data are available.

Aggregated data reflect weighted averages based on enrollment. That is, averages have been calculated so that the influence of any given school on the aggregated average is proportional to its enrollment. Comparisons were made to norms for all public schools in the United States.

Limitations

There are several general limitations that readers should keep in mind.

Incomplete demographic data. The tables in the appendices have several gaps that reflect missing data. Some states combine virtual school data with local district data in ways that make disaggregation impossible. For example, while data on student ethnic background and on free-and-reduced-price lunch status are rather complete, the special education data are not. This was particularly problematic in states where charter schools are not considered Local Education Authorities or districts, and thus did not have the legal responsibility to provide special education services. Also, some states combine charter school data with local district data, which makes it impossible to parse the numbers for only full-time virtual schools.

Comparison groups. National aggregate results for all public schools provide the base for comparisons in this report, which profiles virtual schools in 28 states. While comparisons of two inherently different forms of schooling, each representing different geographic datasets, have some obvious weaknesses, national aggregate data is what state and federal agencies typically use in their reports and comparisons. Following the agencies' lead is intended to allow reasonable comparison of this report with others. An additional consideration is that, because the 28 states represented are among the nation's largest and most densely populated, the national comparison is informative, if not perfect. It is perhaps also worth noting that the national data include data for full-time virtual schools, although it constitutes a relatively small subset.

Instability in virtual schools. Full-time virtual schools are rapidly evolving; currently, the number of such schools, their demographic composition, and their performance data could vary from the 2010-11 demographic data and the 2011-12 performance data presented here (the most recent available for each category). When the fluidity of the terrain is layered onto the scope of this first attempt at composing a national portrait, some errors of inclusion and exclusion appear likely. Documented corrections to the data in the appendices are welcome and can be submitted to the authors through the National Education Policy Center.

Growth and Current Scope of Full-Time Virtual Schools

While many types of online learning are expanding, full-time virtual schools are gaining the most attention. They are not simply a means to supplement and expand the courses available in traditional brick-and-mortar schools. Instead, they are being used to expand school choice, concurrently advancing privatization, entrepreneurism and private financial investment. With key providers lobbying legislatures vigorously and national organizations promoting school choice, virtual schooling now has a firm foothold: 30 states and the District of Columbia allow full-time virtual schools to operate,[4] and even more states allow, or in some cases require, one or more courses to be delivered online to public school students.

Research for this report identified 311 full-time virtual schools operating during the 2011-2012 academic year, enrolling nearly 200,000 students (see appendices C or D for a list of identified schools). Frequently, these schools are organized as charter schools and operated by private EMOs. Although this is the case for only 41% of full-time virtual schools, they account for 67% of all enrolled students. Among the schools in this inventory, 64% are charter schools and 36% are operated by districts or—in a few instances—by state agencies.

Figure 1.1 illustrates the estimated enrollment growth in full-time virtual schools over the last 12 years. Estimates for past years are based on two sources, NEPC's annual Profiles of EMOs reports and the Keeping Pace reports prepared by Evergreen Education Group (a consulting firm that prepares an annual review of policy and practice for online learning).[5] While the International Association for K-12 Online Learning suggests that as many as 250,000 are enrolled in full-time virtual schools in 2011-12, this inventory indicates that total enrollment is still below 200,000. (See Appendix B for student enrollment by state.)

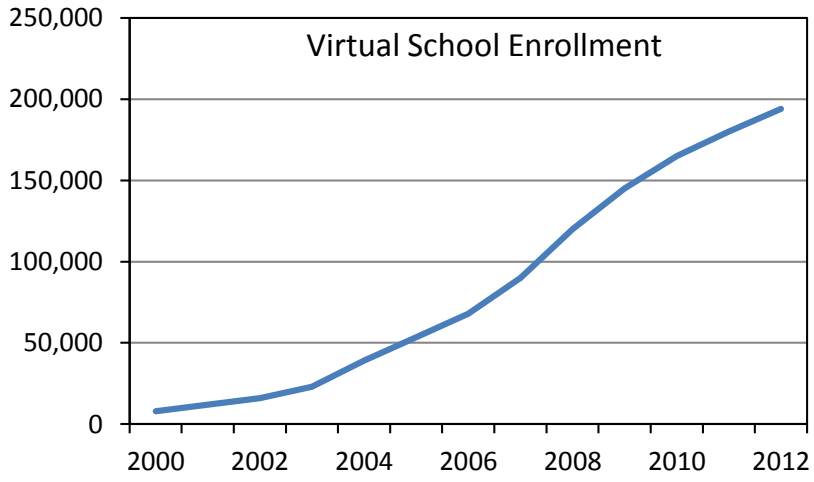

Figure 1.1. Estimated Enrollment Trends in Full-Time Virtual Schools

In contrast to original estimates of enrollments in full-time virtual schools that appear high, earlier estimates of the number of full-time virtual schools appear low. That is because scores of relatively small district-run virtual schools have been identified.

Although virtual schools still account for a relatively small portion of the overall school choice options in the U.S., they now constitute one of the fastest-growing forms of school

choice.[6] It is important to note that virtual schools, as a category of school choice, overlap with both homeschooling and charter schools. Most virtual schools are organized as charter schools, although an increasing number of district and state education agencies are now starting full-time virtual schools.

Private for-profit EMOs have played an important role in expanding the number of virtual schools, operating 95 on behalf of charter school and district school boards (see Table 1.1). K12 Inc. is by far the largest EMO in this sector.[7] In 2011-12, K12 Inc. alone operated 58 full-time virtual schools enrolling close to 77,000 students. Connections Academies is the second largest for-profit operator, with 21 schools and more than 27,000 students in 2010-11. Note that only those schools where the provider has full control and responsibility for

> *The virtual schools operated by the for-profit EMOs are very large, with an average enrollment of about 1,400 students.*

the virtual school and its educational program are included in this inventory. The role of some large for-profit EMOs in public schools is actually larger than illustrated here, because many districts contract with them to provide online curriculum or other support services.

Table 1.1. Numbers of Virtual Schools and Students in 2011-12

	Schools	Students	Percent of all Enrollment	Average Enrollment Per School
For-profit EMO	95	133,128	66.7%	1,401
Nonprofit EMO	9	2,156	1.1%	240
Independent	207	64,309	32.2%	311
Total	**311**	**199,593**	100%	642

A number of other EMOs have emerged to operate full-time virtual schools, such as Insight Schools and Kaplan Virtual Education, but these two for-profit companies are now owned by K12 Inc. The largest nonprofit EMO, Learning Matters Educational Group, operates four full-time virtual schools. Some EMOs that formerly operated only brick-and-mortar schools are now expanding to include full-time virtual schools. These include Mosaica Inc., Edison Schools Inc., Leona Group LLC., and White Hat Management, LLC. Given the relatively lucrative circumstances under which full-time virtual schools can operate,[8] it is likely that more for-profit EMOs will be expanding their business to include full-time virtual schools.

As the data in Table 1.1 indicate, the virtual schools operated by the for-profit EMOs are very large, with an average enrollment of about 1,400 students. Full-time virtual schools operated by nonprofit EMOs and non-EMO virtual schools enroll on average 240 and 311 students, respectively.

Student Characteristics

To provide context for school performance data comparisons discussed later in this report, following is an analysis of student demographics.

Race-Ethnicity

Aggregate data from the full-time virtual schools look rather different from national averages in terms of student ethnicity. Three-quarters of the students in virtual schools are white-non-Hispanic, compared with the national mean of 54% (see Figure 1.2). The proportion of Black and Hispanic students served by virtual schools is noticeably lower than the national average. Only 10.3% of the virtual school enrollment is Black while 16.5% of all public school students are Black. An even greater discrepancy is found among Hispanic students, who comprise only 11% of the virtual school students but 23.7% of all public school students. Because virtual schools have a large presence in states with large Hispanic populations, such as Arizona, California, and Florida, this finding is surprising. It appears that virtual schools are less attractive to Hispanics, or perhaps that virtual schools are doing less outreach or marketing to this population.[9] This may also be due to evidence that suggests lower success rates for minority populations in online schooling.[10]

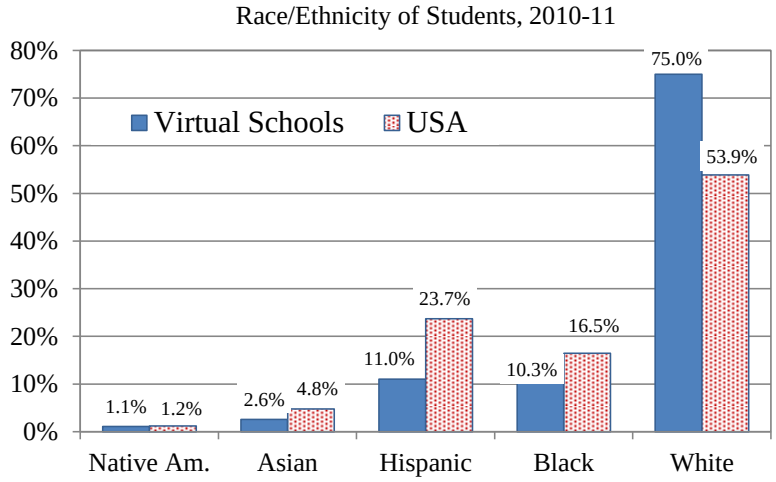

Figure 1.2. Race/Ethnicity of Students in Virtual Schools Compared with National Averages, 2010-11

Sex

While the population in the nation's public schools is nearly evenly split

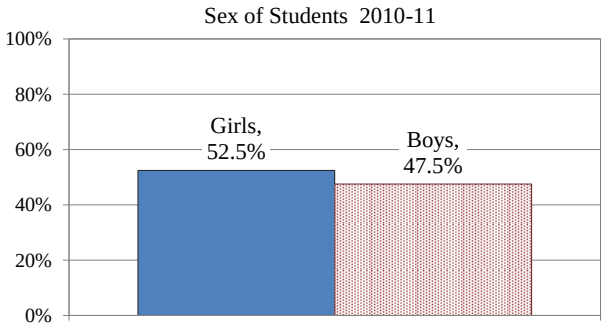

Figure 1.3. Sex of Students in Virtual Schools, 2010-11

between girls and boys, the population of students in virtual charter schools overall skews slightly in favor of girls (52.5% girls and 47.5% boys.) Virtual schools catering to students in elementary and middle school tend to be more evenly split between boys and girls, but high schools are likely to have a larger proportion of boys. Charter schools and for-profit EMO-operated schools tend to have slightly more girls than boys enrolled.

Free and Reduced-Price Lunch, Special Education, and English Language Learner Status

As illustrated in Figure 1.4, the proportion of students qualifying for free or reduced-price lunch (FRL) in virtual schools is 10 percentage points lower than the average for all public schools: 35.1% compared with 45.4%. Of those schools reporting data, 13% (36 schools) enrolled a higher percentage of FRL students than the national average, while 87% (250 schools) of reporting schools indicated a lower percentage. In general, then, virtual schools serve a lower percentage of economically disadvantaged students than other public schools.

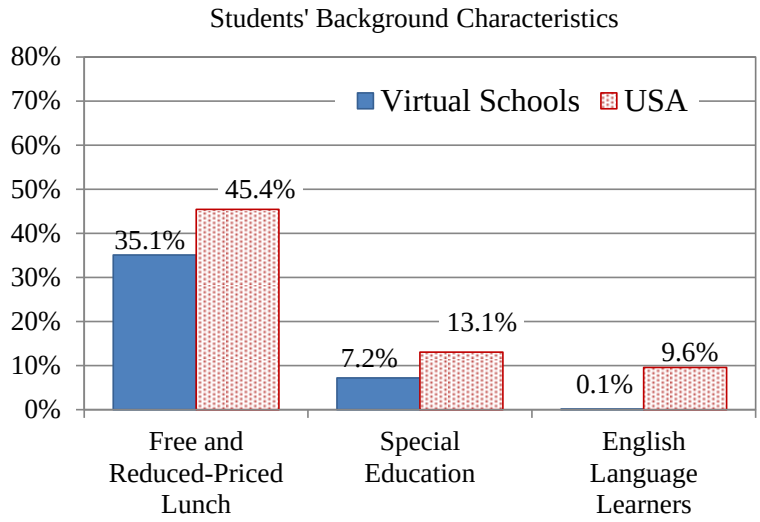

Figure 1.4. Students Qualifying for Free and Reduced-Priced Lunch, Classified as Special Education, or Classified as English Language

Figure 1.4 also illustrates the representation of students classified as special education, indicating they have a disability as well as a recorded Individualized Education Plan (IEP). Overall, the proportion of students with disabilities in the virtual schools is around half of the national average, or 7.2% compared with 13.1 %. Only 92 schools reported special education data.[11] Of these schools, 11.5% (10 schools) have a higher proportion of students with disabilities than the national average, while 88.5% (82 schools) had a lower than average proportion of students with disabilities.

Given that charter schools overall usually have a substantially lower proportion of students with disabilities compared with district schools or state averages,[12] one might expect an even greater difference in virtual school enrollments because it seems more difficult to deliver special education support via the Internet. However, the populations of students with disabilities served by virtual schools and traditional public schools likely differ substantively in terms of the nature and severity of students' disabilities. Past research has established that traditional public schools typically have a higher proportion of students

with moderate or severe disabilities while charter schools have more students with mild disabilities that are less costly to accommodate.[13]

English language learners represent a growing proportion of students in the nation's schools, especially in the states served by virtual schools. However, only 0.1% of full-time virtual school students are classified as English language learners (ELLs). This is a strikingly large difference from the 9.6% national average (see Figure 1.4). None of the virtual schools had higher proportions of ELLs than the national average, and the ELL student enrollment of most virtual schools with data available was less than 1%.

Specific demographic data for each of the full-time virtual schools can be found in Appendix C. Appendix C also reports the number of schools considered to calculate the weighted means.

Enrollment by Grade Level

Figure 1.5 depicts the enrollment distribution of students in virtual schools by grade level, compared with national averages. A disproportionate number of students are in high school, where the enrollment drops off sharply after ninth grade. Given the comparatively

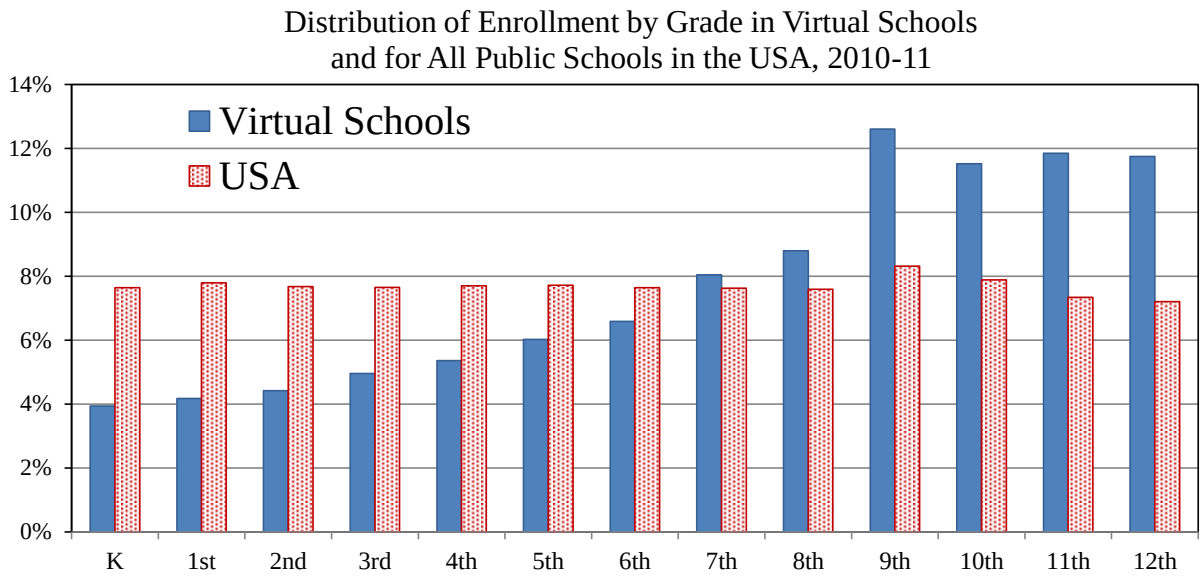

Figure 1.5. Enrollment by Grade Level for Virtual Schools and for U.S., 2010-11

equal size of age cohorts in the nation's population, an even distribution of students across each grade is evident for the whole country, although there is a gradual drop off from grades 9 to 12. Note that in the national population there is a slight increase at grade 9,

which is due to some students not obtaining enough credits to be classified as 10th graders. Starting in grade 10, however, the enrollment per grade decreases slightly by grade, reflecting the nation's dropout problem.

Charter virtual schools and EMO-operated virtual schools tend to serve more students at elementary and middle school grades, while district operated virtual schools focus more on the high school grades. This may reflect a tendency for charter schools to cater more to home schooled students while districts that develop virtual school programs design them for older students who may require supplemental or alternative programs. The extra costs involved with upper-secondary schools may be another factor that explains why charter virtual schools less often cater to students in high school grades.

The drop in virtual school enrollments in the high school grades is likely a result of students transferring to brick-and-mortar schools as well as students dropping out of school. Another contributing factor may be that some newer virtual schools have not yet

fully expanded to include all grades. Also, a portion of the virtual schools cater specifically to students that drop out of brick-and-mortar schools, which can also help to explain the larger numbers of students enrolled in the high school grades. Many of these are operated by districts.

Whereas Figure 1.5 depicts the percentage of total enrollment by grade, Figure 1.6 illustrates the actual number of students virtual schools serve at each grade level.[14] An increase appears up until grade 9, and then a noticeable decrease appears between grades

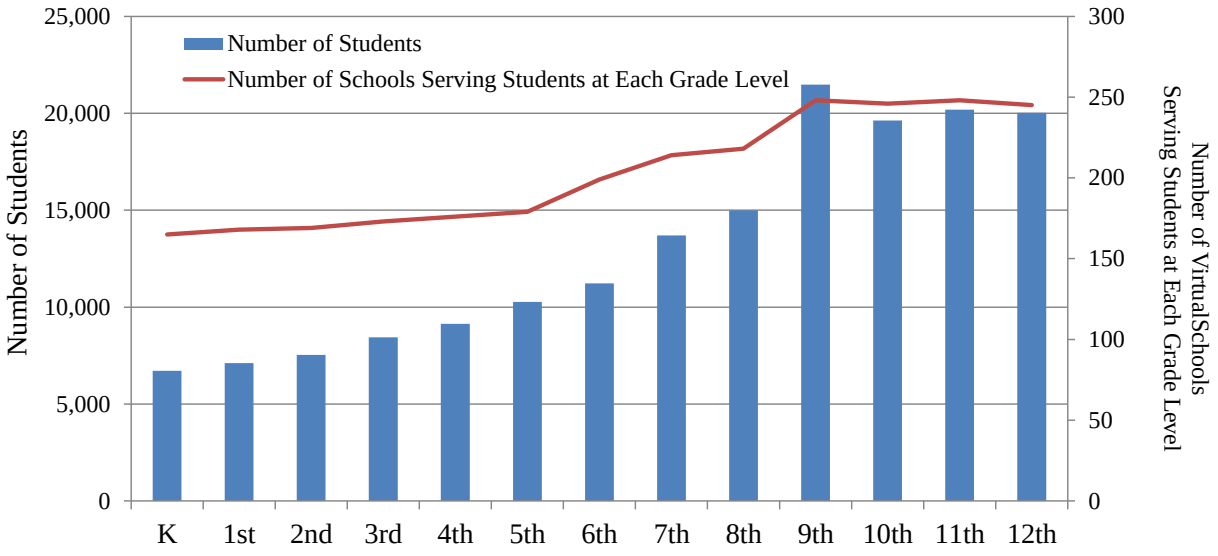

Figure 1.6. Number of Virtual School Students Per Grade Level and Number of Schools that Offer Instruction at Each of the Grade Levels

9-12. The number of schools serving high school students is relatively consistent, however, decreasing only slightly in the upper grades. This indicates that a large portion of virtual schools have classes in grades 9 to 12, but the grade cohort drops after the ninth grade. As noted earlier, this could be a result of some schools not having fully implemented their

enrollment plans across all high school grades. Nevertheless, based on the low graduation rates in virtual schools—discussed below—decreasing high school enrollment is also explained by a relatively large proportion of students who drop out.

School Performance Data

This section is an overview of key school performance indicators, including Adequate Yearly Progress (AYP) status, state ratings, and on-time graduation rates. Comparisons across these measures suggest that virtual schools are not performing as well as brick-and-mortar schools.

Adequate Yearly Progress and State Ratings Assigned to Virtual Schools

The 2011 and 2012 NEPC profiles of EMOs provided the AYP results and state performance ratings discussed here.[15] Although these are weak measures of school performance, they provide descriptive indicators that can be aggregated across states.

AYP is essentially intended to demonstrate whether or not a public school meets its respective state standards. However, it is a relatively crude indicator that covers academic as well as non-academic measures, such as school attendance and the percentage of students taking a state exam.

In the 2010-2011 school year, there was a 28 percentage point difference between full-time virtual schools meeting AYP and traditional brick-and-mortar district and charter schools that did: 23.6% compared with 52%, respectively.[16] Although the virtual school average was higher in the other two years illustrated, the gap in AYP between virtual and traditional schools has recently hovered around 22 percentage points, offering no evidence of an improvement trend. This suggests that the need for more time to meet goals may not be a sufficient explanation for the large difference.

In addition, AYP ratings were substantially lower for virtual schools managed by EMOs than for brick-and-mortar schools managed by EMOs: 29.6% compared with 51.1%.

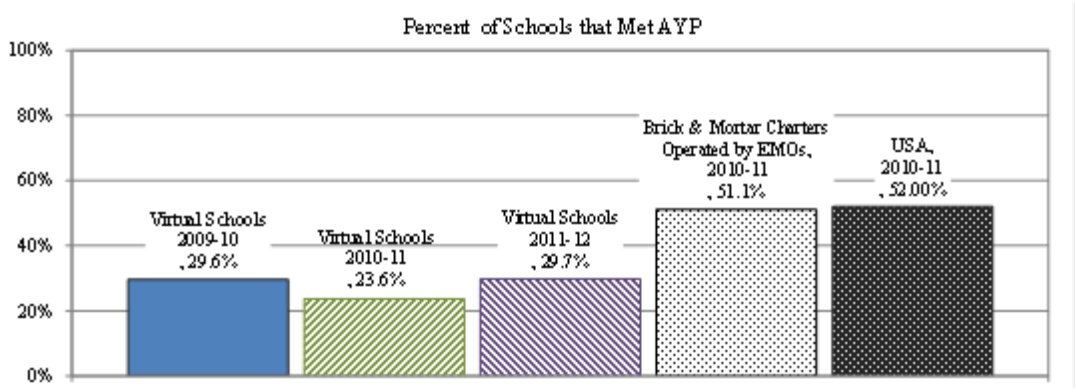

Figure 1.7. Percentage of Schools Meeting Adequate Yearly Progress, by School

One should be cautious in drawing conclusions from such an imperfect measure, and one should be cautious in interpreting differences among groups of schools. At the same time, it appears evident that extremely large differences, such as the 22 percentage point difference between full-time virtual schools and brick-and-mortar schools meeting AYP, warrants further attention. (See Figure 1.7).

Of course, there are variations among individual schools and companies represented in the virtual school cohorts discussed here. A few operators of full-time virtual schools have particularly dismal results. For example, only 5% of the virtual schools operated by White Hat Management met AYP in 2011-12, which is actually an improvement from the year before. In addition, while the performance of schools operated by the large for-profit EMOs is especially poor, some full-time virtual schools operated by smaller EMOs or by districts also have relatively weak performance levels.

AYP is structured to benefit more stable schools, and it is not designed to reward growth. Nevertheless, these measures are used to hold all public schools accountable, and they are used to determine whether corrective or punitive action needs to be taken for schools that do not meet their state standards. Given the rapid growth of full-time virtual schools, it will be critical to determine why so comparatively few virtual schools meet AYP standards — especially since they appear to enroll fewer students who make greater demands on schools, like English language learners.

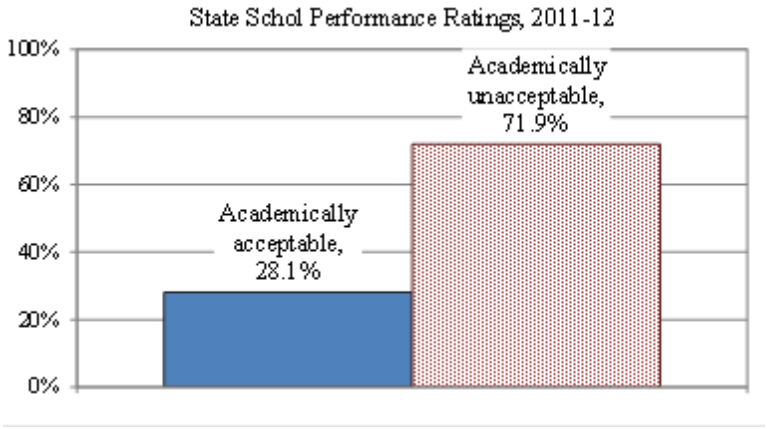

Figure 1.8. State School Performance Ratings of Full-Time Virtual Schools for 2011-12

To supplement AYP data, Figure 1.8 details 2011-2012 state ratings of virtual schools' academic performance. (State ratings for individual virtual schools appear in Appendix D). Ratings were available for 228 of the schools in the cohort for this report; the vast majority of those schools (71.9%) were rated academically unacceptable.

State rating categories vary considerably. Some assign letter grades, for example, while others specify whether or not the school is in corrective action and at which point in the corrective process. Often, state ratings are based on a variety of measures, with some states including gains for students in the school for a year or more. Of the 228 full-time virtual schools that had been assigned a school rating by state education authorities, only 64 (28.1%) of these schools had ratings that clearly indicated satisfactory or acceptable status.

Graduation Rates

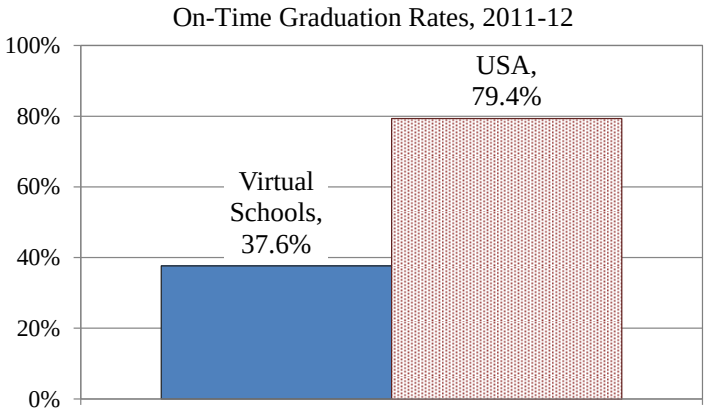

Figure 1.9. Mean Graduation Rates for Virtual Schools Relative to All Public Schools, 2011-12

Schools and states have been standardizing how they record and report graduation in recent years. The measure widely used today is "On-Time Graduation Rate," which refers to the percentage of all students who graduate from high school within four years after they started 9th grade. This analysis reported in Figure 1.9 spans 2008-09 to 2011-12. Only 122 virtual schools reported a score related to on-time graduation in 2011-12. This is surprisingly low, although some virtual schools have no graduation rate because they are not high schools, and others are relatively new schools.

Data presented here are based on the total number of students enrolled in the high school grades in each of the schools reporting a graduation rate. As Figure 1.9 illustrates, the on-time graduation rate for the full-time virtual schools was less than half the national average: 37.6% and 79.4%, respectively. This finding is especially poor, but it is in line with the findings on AYP and state school performance ratings. Despite the limited data, this is a significant outcome measure that contributes to an overall picture of school performance.

Discussion

As our inventory of full-time virtual schools shows, this form of schooling is growing rapidly, with growth largely dominated by for-profit EMOs, particularly K12 Inc. Although technology offers exciting possibilities, the consistently negative performance of full-time virtual schools makes it imperative to know more about these schools. The advocates of full-time virtual schools are several years ahead of policymakers and researchers, and new opportunities are being defined and developed largely by for-profit entities accountable to stockholders rather than to any public constituency. Given this picture, continued rapid expansion seems unwise. More research is needed; and to enable such research, state oversight agencies need to require more, and better refined, data.

Recommendations

Given the rapid growth of virtual schools, the populations they serve, and their relatively poor performance on widely used accountability measures, it is recommended that:

- Policymakers should slow or stop growth of virtual schools until the reasons for their relatively poor performance have been identified and addressed.

- Given that some for-profit companies now enroll over 10,000 students, policymakers should impose caps on student enrollment until evidence of satisfactory performance for a provider is available.
- State education agencies and the federal National Center for Education Statistics should clearly identify full-time virtual-schools in their datasets, distinguishing them other instructional models.
- State agencies should ensure that virtual schools fully report data related to the population of students they serve.
- State and federal policymakers should promote efforts to design new outcomes measures appropriate to the unique characteristics of full-time virtual schools.

Notes and References: Section I

1 In the state of Michigan, legislators recently decided to lift the cap on full-time virtual schools, even though the state was in the second year of a pilot study to see whether these schools work and what could be done to ensure that they work better.

2 Barth, P., Hull, J., & St. Andrie, R. (2012). *Searching for the reality of virtual schools*. Alexandria, VA. Center for Public Education, National School Boards Association. Retrieved May 18, 2012, from http://www.centerforpubliceducation.org/Main-Menu/Organizing-a-school/Searching-for-the-reality-of-virtual-schools-at-a-glance/Searching-for-the-reality-of-virtual-schools-full-report.pdf/.

3 Miron, G. & Urschel, J.L. (2012). *Understanding and Improving Full-Time Virtual Schools: A Study of Student Characteristics, School Finance, and School Performance in Schools Operated by K12 Inc.* Boulder, CO: National Education Policy Center. Retrieved November 21, 2012 from http://nepc.colorado.edu/publication/understanding-improving-virtual/.

4 Watson, J., Murin, A., Vashaw, L., Gemin, B., & Rapp, C. (2011). *Keeping pace with K-12 online learning: A review of state-level policy and practice*. Evergreen, CO: Evergreen Education Group. Retrieved May 6, 2012, from http://kpk12.com/cms/wp-content/uploads/KeepingPace2011.pdf/.

5 Watson, J., Murin, A., Vashaw, L., Gemin, B., & Rapp, C. (2011). *Keeping pace with K-12 online learning: A review of state-level policy and practice*. Evergreen, CO: Evergreen Education Group. Retrieved May 6, 2012, from http://kpk12.com/cms/wp-content/uploads/KeepingPace2011.pdf/.

6 See Figure 1.8 in Miron and Welner (2012):

Miron, G. & Welner, K.G. (2012). Introduction. In G. Miron, K.G. Welner, P.H. Hinchey, & W.J. Mathis (Eds.), *Exploring the school choice universe: Evidence and Recommendations*. Charlotte, NC: Information Age Publishing.

7 In fact, K12 Inc. now enrolls more students than any other private EMO in the country, including those that operate brick-and-mortar charter schools.

Miron, G., Urschel, J.L., Yat Aguilar, M.A, & Dailey, B. (2012*). Profiles of for-profit and nonprofit education management organizations: Thirteenth annual report - 2010-2011*. Boulder, CO: National Education Policy Center. Retrieved May 17, 2012 from http://nepc.colorado.edu/publication/EMO-profiles-10-11/.

8 Miron, G. & Urschel, J.L. (2012). *Understanding and Improving Full-Time Virtual Schools: A Study of Student Characteristics, School Finance, and School Performance in Schools Operated by K12 Inc.* Boulder, CO: National Education Policy Center. Retrieved [November 21, 2012] from http://nepc.colorado.edu/publication/understanding-improving-virtual/.

9 A relatively small proportion of the students (i.e., 5,766 students) were categorized as mixed or multi-race.

10 See http://ccrc.tc.columbia.edu/publications/adaptability-to-online-learning.html/.

11 The data for Free and Reduced-Price Lunch and ELL are for 2010-11 school year. Because there were so little data on special education available for 2010-11, we relied on data from state sources for the 2011-12 school year. Ninety-two schools had data on special education in 2011-12.

12 Miron, G., Urschel, J. L., Mathis, W, J., & Tornquist, E. (2010). *Schools without Diversity: Education Management Organizations, Charter Schools and the Demographic Stratification of the American School System*. Boulder, CO: National Education Policy Center. Retrieved May 17, 2012, from http:// nepc.colorado.edu/publication/schools-without-diversity/;

Howe, K. R., & Welner, K. G. (2002). School choice and the pressure to perform: Déjà vu for children with disabilities? *Remedial and Special Education, 23*(4). 212-222.

13 Fiore, T. A., Harwell, L. M., Blackorby, J., & Finnigan, K.S. (2000). *Charter schools and students with disabilities: A national study* (Final Report). Washington, DC: U.S. Department of Education;

Miron, G., & Nelson, C. (2002). *What's public about charter schools? Lessons learned about choice and accountability*. Thousand Oaks, CA: Corwin Press, Inc.;

Miron, G., Nelson, C., & Risley, J. (2002). *Strengthening Pennsylvania's charter school reform: Findings from the statewide evaluation and discussion of relevant policy issues*. Harrisburg, PA: Pennsylvania Department of Education;

Estes, M. B. (2009). Charter schools and students with disabilities: How far have we come? *Remedial and Special Education, 30*(4).

14 Five of the virtual schools also had pre-K students and eight of the virtual schools had students classified as "ungraded," which are not depicted in this figure. In the national population, 0.2% of all students do not have a grade specified and are designated as "Ungraded."

15 Each of the annual Profiles of EMOs can be downloaded from the following website: http://nepc.colorado.edu/topics/732/.

16 Usher, A. (2011). *AYP Results for 2010-11*. Washington DC: Center for Education Policy. Retrieved December 16, 2011, from http://www.cep-dc.org/cfcontent_file.cfm?Attachment=Usher_Report_AYP2010-2011_121511.pdf/.

Appendices

Appendix B: Numbers of Full-time Virtual Schools and the Students They Serve by State

Appendix C: Demographic Characteristics of Students Enrolled in Full-Time Virtual Schools

Appendix D: State Performance Ratings, Adequate Yearly Progress Status, and Reasons for Not Meeting AYP

The Appendices are available for download as PDF files at

http://nepc.colorado.edu/publication/virtual-schools-annual-2013.

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