



4-1-2012

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Recommended Citation

Mattox, Kari Ann (2012) "Utilizing Online Education in Florida to Meet Mandated Class Size Limitations," *Educational Considerations*: Vol. 39: No. 2. <https://doi.org/10.4148/0146-9282.1114>

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Utilizing Online Education in Florida to Meet Mandated Class Size Limitations

Kari Ann Mattox

Introduction

With the passage of a state constitutional amendment in 2002, Florida school districts faced the challenge of meeting class size mandates in core subjects, such as mathematics, English, and science by the 2010-2011 school year, or face financial penalties.¹ Underpinning the amendment's goals was the argument that smaller classes are more effective because teachers have more time for one-to-one interaction with students which in turn leads to greater academic success. Although the state has appropriated more than \$20 billion since 2002 to assist school districts in compliance,² opponents have argued that the amendment is not funded adequately. As a result, some school districts have recently sought alternatives like online or virtual education to reduce class size in traditional brick-and-mortar schools.³

Instead of admonishing school districts for what would appear to be an evasion of the spirit of the class size amendment, the state permits and even promotes online education as a means to attain mandated class sizes and create greater public school choice. The purpose of this analysis is to look at the history, role, and use of online education in Florida in general and specifically with regard to its use in meeting the class size constitutional mandate.

Online Education in Florida

Florida led the way in the use and expansion of online education with the creation of the Florida Virtual School (FLVS) in 1997, the country's first statewide Internet-based public high school.⁴ In 2000, the Florida legislature established the FLVS as an independent education entity with its own board of trustees who had the authority to enter into agreements with distance learning providers and to establish rules, policies, procedures, and numerous other responsibilities.⁵

FLVS is an online educational program that uses the Internet to provide course instruction to K-12 students. As part of the Florida public school system, FLVS serves students in all 67 school districts in addition to students in 49 other states and 46 countries.⁶ Enrollment for FLVS is open to public, private, and home-schooled

students; and students outside of Florida can enroll on a tuition basis. FLVS offers more than 100 courses including core courses, electives, honors courses, and advanced placement courses, which are taught by over 1,200 staff members who hold a valid Florida teaching certificate and are certified in the subject matter they teach. When first opened in 1997, FLVS had 77 enrollments in five courses;⁷ in 2010-2011, FLVS served over 122,000 students within 259,928 course enrollments.⁸ Students may open enroll in courses at FLVS, which means they do not have to wait until the start of a new semester to begin course work.⁹ This feature allows students to catch up on academic requirements they may be lacking and to accelerate their studies, if they wish, to earn a high school diploma earlier.

FLVS is accredited by the Southern Associate of Colleges and Schools (SACS). When schools are accredited by SACS, school districts agree to accept credits from other SACS-accredited or regionally-accredited schools.¹⁰ Initially, FLVS was not a high school diploma-granting entity. School districts accepted credits earned by the student through FLVS which were then applied to the diploma requirements for the individual school district. However, beginning in the 2012-2013 school year, a diploma option will be available through the FLVS full-time (FT) program in collaboration with Connections Academy, a for-profit company.¹¹ (Prior to the creation of FLVS-FT, Connections Academy was a full-time K-8 program operated through the Florida Department of Education.) FLVS-FT will be available for all public school students (K-12) and home-schooled students, grades 6-12. Under this option, FLVS-FT will be the school district of record rather than the student's residential district.

In addition, all Florida school districts offer a full-time online education option for their students through the District Virtual Instructional Program (VIP).¹² Eligibility for school district VIP programs is limited to students in grades K-12 living in the district's attendance area under specific criteria. Further, according to state statute:

To be eligible, students must show that they (a) were enrolled in and attended a public school in Florida the prior year and were reported for funding during the preceding October and February, (b) are dependent children of a member of the military who was transferred within the last 12 months to Florida pursuant to the parent's permanent change of station orders, (c) were enrolled during the prior school year in a school district online instruction program or a state-level K-8 online school program under Section 1002.415, F.S., or (d) have a sibling who is currently enrolled in a district online instruction program and that sibling was enrolled in such program at the end of the prior school year.¹³

School districts are allowed to deliver the VIP in several ways: "... contract with FLVS to provide instruction, establish a franchise of FLVS, contract with online learning providers approved by the Florida Department of Education (FLDOE), enter into an agreement with another school district for the services, enter into a multidistrict agreement, contract with community colleges, enter into an agreement with a virtual charter school, or operate their own programs."¹⁴

As of fall 2010, thirty-nine school districts operated franchises of FLVS, offering FLVS courses to public, private and home-schooled middle and high school students (grades 6-12).¹⁵ School districts

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operated the franchises, and district teachers provided the instruction, while FLVS provided curriculum, learning resources, and tools, in addition to professional development and mentoring for district teachers and administrators. However, with FLVS-PT's new stature as a school district of record, it remains to be seen how school districts that continue to offer the FLVS-FT program through VIP will be affected.

State Funding for Online Education in Florida

From 1997 to 2003, FLVS was funded through a legislative appropriation.¹⁶ In 1997, FLVS received an appropriation of \$1.3 million.¹⁷ In the next year, the appropriation increased to \$4.3 million, and funding multiplied over the next several years as FLVS became the first online school funded by state public education FTE (full-time equivalent) moneys.¹⁸ However, since 2003-2004, its funding source has been the Florida Education Finance Program (FEFP),¹⁹ and funding is based on the successful completion of courses, either passed or credits earned.²⁰ Each half-credit course that a student successfully completes generates 0.0834 unweighted FTE, while a student taking six courses per semester generates a 1.0 FTE, i.e., full-time funding.²¹ This approach contrasts with more traditional funding of brick-and-mortar schools with face-to-face instruction where districts receive state aid based upon full-time equivalent (FTE) students or "seat time," as defined by statute.²²

In the 2009-2010 school year, FLVS received approximately \$101.3 million in funding, based upon \$469 per student per semester course.²³ Although FLVS is a public school, it does not receive funding for some services that a school district receives through the FEFP, such as Exceptional Student Education and Supplemental Academic Instruction aid.²⁴ Therefore, some students with disabilities or English language learners may not find FLVS their best education choice.²⁵ Also, as a virtual school, FLVS does not receive state transportation or capital outlay funding. However, it does receive state aid for instructional materials, teacher training, class size reduction, and costs associated with student withdrawals.

Like FLVS, the VIP program is also funded through the FEFP,²⁶ and funding is based upon successful completion of courses or credits.²⁷ For elementary students (K-5), funding is based upon by promotion to the next grade; and, in middle school (grades 6-8), funding is tied to course completion with a passing grade. In high school (grades 9-12), funding is linked to the number of credits earned.²⁸ Since funding is based upon successful completion a grade level, courses, or credits rather than FTE, school districts receive funding throughout the year for VIP programs.

Accountability

FLVS courses are designed to meet Florida's Sunshine State Standards,²⁹ and FLVS courses have the same course numbers and descriptions as courses offered in traditional public schools in Florida.³⁰ Successful completion of an FLVS course confirms mastery of the standards that are tested on the Florida Comprehensive Assessment Test (FCAT).³¹ The Florida Department of Education provides the following information on the FCAT:

The FCAT began in 1998 as part of Florida's overall plan to increase student achievement by implementing higher standards. The FCAT, administered to students in Grades 3-11, consists of criterion-referenced tests (CRT) in mathematics, reading, science, and writing, which measure student progress toward meeting the Sunshine

State Standards (SSS) benchmarks. During the 2010-11 school year, Florida began the transition from the FCAT to the FCAT 2.0 and Florida End-of-Course Assessments to assess the understanding of the Next Generation Sunshine State Standards adopted in 2007.³²

FLVS teachers, who guide the lessons, evaluate student work, and provide constructive feedback and grades for the students as well as communicate with students and parents by telephone,³³ hold Florida teaching certificates and are certified in the subjects they teach.³⁴ Many also hold national certification through the National Board of Professional Teaching Standards.³⁵ Teachers in VIP programs also meet Florida teaching requirements.

Using Online Learning to Meet Class Size Mandates

Despite Florida's well-developed and recognized online education system, it had not been widely used until recently when it became attractive to some school districts as a means to meet state class size mandates in core courses. The constitutional amendment required full implementation beginning in 2010 with the following maximum class sizes in core courses: 18 students in pre-kindergarten through grade 3; 22 students in grades 4 through 8; and 25 students in grades 9 through 12. The case of the Miami-Dade County Schools described in this section presents the approach of one school district to meet these mandates through online learning.

As background, the Miami-Dade County Public School system is large and diverse. According to the district website, "Miami-Dade County Public Schools is the fourth largest school district in the United States, comprised of 392 schools, 345,000 students and over 40,000 employees... [T]he school district stretches over 2,000 square miles ...ranging from rural and suburban to urban cities and municipalities...[D]istrict students speak 56 different languages and represent 160 countries."³⁶ In the fall of 2010, the Miami-Dade County Schools enrolled over 7,000 students in online classrooms dubbed "e-learning labs" in order to meet requirements of Florida's class size mandate.³⁷ Because the state places no limits on class sizes for virtual courses, the school district could move unlimited numbers of students to e-learning labs to reduce the size of face-to-face classes. However, there was a backlash. Despite most schools holding orientations for e-learning labs, many parents and students asserted that they had not been informed.³⁸ Also, a controversial feature of the e-learning labs was their use of on-site "facilitators" rather than certified teachers to guide students and ensure they were making progress.³⁹ Although a certified teacher in the course content was available online, the effectiveness of the e-learning labs was questioned by some, particularly since there was no face-to-face interaction with a teacher to supplement the computer lab experience.⁴⁰ The president of the United Teachers of Dade County challenged the use of e-learning labs, arguing that they constituted "cheap education."⁴¹ She also argued that online education was not the right fit for all students because it required a certain amount of maturity, and many students would simply stop and give up if a teacher is not present and readily available for assistance.⁴² Even advocates of online learning, like Michael G. Moore, professor of education at Pennsylvania State University, tend to agree, stating that a "blended learning concept" which combines face-to-face interaction with online learning has benefits and can be just as effective as complete face-to-face classroom instruction particularly when

coupled with proper curriculum design and teacher instruction within the classroom. Moore noted also that much of the success of online learning stems from the maturity and sophistication of the student and his or her ability to remain on task.⁴³

In 2011, the Miami Dade Schools contracted with an outside organization to evaluate and suggest improvements to the e-learning lab concept, which the contractor referred to as “online learning labs,” as well as to develop a guide for other schools and districts interested in this approach.⁴⁴ The results captured many of the early concerns expressed by parents and students, and suggested limiting the size of labs to 30 to 40 students. However, the report was generally supportive of the use of facilitators and the lack of face-to-face instruction, both major concerns of parents.⁴⁵

The Miami-Dade County Public School system is currently in its second year of using e-learning labs, and the district has expanded enrollment in them to approximately 10,000 students.⁴⁶ The Florida Department of Education now maintains a web site to tout this approach, renamed “virtual learning labs” (VLLs), and repackaged as “blended learning,” using the Miami-Dade approach as an exemplar. It is important to note that there is no single authoritative definition of “blended learning.” In general, it is used to describe an approach that contains both traditional face-to-face instruction and online education. The only face-to-face component of e-learning labs was the presence of a facilitator, which would seem to stretch the boundaries of how blended learning is generally defined. However, in all fairness, the two other examples of blended learning on the FLDOE web site include face-to-face instruction, e.g., an AP (Advanced Placement) Learning Lab in Palm Beach County and a World Languages Learning Lab in Holmes County.⁴⁷

Discussion and Conclusions

Prior to the enactment of the class size reduction amendment in 2002, Florida had a well-established statewide online education system that dated back to 1997. As such, when some school districts experienced difficulty in meeting the class size mandates due to financial constraints, it is not surprising that they might turn to online education as a solution, in large part because there were no stated limits on the size of virtual classes. As such, a school district’s “overflow” of students in face-to-face classes could be diverted to online courses. Furthermore, school districts had a strong incentive to do so because the state levied fines for noncompliance with the class size mandate.

The case of the Miami-Dade County Public Schools is illustrative of the economies of scale e-learning labs offered. The two major financial issues associated with class size reduction are personnel costs and capital costs. Class size reduction requires additional teachers and additional classrooms. The hiring of professional personnel is a major financial investment for any school district. Also, unless the school district has excess capacity, i.e., empty classrooms, it must acquire more either through the lease/purchase of temporary/portable structures or through construction. In contrast, the set-up of e-learning labs is generally less costly in terms of both personnel and capital costs. In addition, in the Miami-Dade example, the school district further reduced personnel and capital costs; that is, not only was the size (in terms of numbers of students) of an e-learning lab much larger than what the state permitted for face-to-face classrooms, but also labs were staffed by facilitators—a less

expensive alternative than certified teachers. To be fair, it should be noted that certified teachers in the relevant content areas were accessible online. However, an important caveat is that online teachers usually had many more virtual students than would have been allowed in a face-to-face classroom. If a school already had a computer lab, costs associated with its conversion to an e-learning lab might be minimal.⁴⁸ Even if a traditional classroom had to be fitted as an e-learning lab, it is likely the labor and equipment costs would be far below new construction or the lease/purchase of temporary classrooms.

Although the state permitted this type of end run around class size mandates, and even promoted it, Miami-Dade’s first year experience with e-learning labs was not all smooth sailing. Some parents rebelled against their children being placed in e-learning labs without notification, much less permission. Also, there was push back against the facilitator model because it lacked face-to-face interaction with teachers in the subject area. Relatedly, some parents and classroom teachers objected to the lack of screening of students prior to their placement in e-learning labs, asserting that not all students do well in an online learning environment. In response, the school district contracted with an outside organization to conduct an evaluation of the first year experience and has addressed some of the concerns.⁴⁹ However, the facilitator model remains intact.

Florida’s class size mandate, while well-intentioned, may be a cautionary tale to other states. Looking to small class size research,⁵⁰ a number of states have sought to lower class size in the hopes of improving student achievement. However, across-the-board class size reduction requires a significant, long-term financial investment by the state in order to ensure that school districts have adequate financial resources for added personnel and capital costs. That can prove to be challenging during difficult economic times, and, if insufficient state funding results, unintended consequences are likely.

While online learning has exploded in popularity in higher education, it is less prevalent and less studied in elementary and secondary education.⁵¹ Parents of school-aged children generally have less experience with it, and hence they may be less supportive of its substitution for traditional face-to-face instruction. They may also be concerned that an online course is not as comprehensive or rigorous unless, like Florida, their state holds online education providers accountable by requiring that online courses meet all of the same academic standards as those offered face-to-face. Regardless of parental doubts, part-time or full-time online learning is now a reality in 48 of the 50 states, including Washington, D.C.⁵²

In addition, in Florida, online education is viewed by state policymakers as an important venue for public school choice either through the state virtual school, the school district of residence, or a virtual charter school. Florida policymakers’ focus on online education was further reinforced by the 2011 passage of the Digital Learning Now Act, which requires all students to have at least one online course for high school graduation.⁵³

Undoubtedly, online learning has a number of potential positive impacts, such as providing students with access to expanded curricular offerings, including acceleration opportunities as well as credit recovery. In particular, smaller school districts may have insufficient students or resources to offer face-to-face classes in

multiple foreign languages or advanced sciences and mathematics. In general, online education offers greater flexibility that may appeal to students and their families for a number of reasons. Online coursework may be a viable option for students with medical or behavioral issues who have difficulty in traditional classroom settings. Others advocate online learning, at least in high schools, as a means to prepare students for postsecondary education where online courses have become common, or as a means to be more comfortable with technology in the workplace. Nonetheless, student equity concerns, often referred to as the “digital divide,” remain; that is, students from poor and low income families may be less likely to have access to a home computer and Internet access that is essential for full-time virtual study, an important adjunct to approaches like Miami-Dade’s e-learning labs.⁵⁴

In sum, in Florida, what began as a state initiative to reduce the size of face-to-face classes to optimize student achievement consistent with education research findings morphed into an expansion of online learning due to insufficient state funding. To comply with the state mandate, school districts took advantage of a loophole in state law that places no limits on the size of virtual classes. At the same time, the state backed away from its commitment to smaller class size not only by permitting the use of online education to evade the intent of the 2002 constitutional amendment, but also by encouraging it. In essence, what began as state-mandated class size reduction became an expansion of K-12 online learning accompanied by a shift in state policy to promote it as a strategy to evade compliance with the class size amendment and as a means to expand school choice. Legislators then took the additional step of mandating that every high school graduate must have taken at least one online course. Ironically, while there is a body of research supporting improved achievement with small class size, little systematic research of the impact of online education on K-12 student achievement exists.

The Florida experience with class size reduction described in this article is a case study in the law of unintended consequences, but it is not rare. Class size reduction is one of the most expensive of education reforms because it requires increased personnel and capital expenditures. It requires considerable start-up expenses, as well as a sustained financial investment of state resources, to maintain smaller class sizes. As the partisan make-up of legislatures and governors’ offices ebbs and flows, this commitment may waiver. When state economies suffer setbacks, as in the recent recession and its aftermath, budget cuts may ensue that affect the ability of school districts to implement and maintain smaller class sizes. In some states, this has led to modification of state laws to back away from class size reduction initiatives,⁵⁵ but in Florida, class size reduction is enshrined in the state constitution, and modification of a state constitution is generally far more difficult than modification of state legislation. Given Florida’s well-developed online education system with unlimited class size, the state was uniquely situated to avoid the arduous task of repealing or modifying a constitutional amendment by expanding online education as the Miami-Dade County Public School system did through creative approaches like e-learning labs, also referred to as online or virtual learning labs.

The central policy question is how does the expansion of online learning in Florida at the expense of reduction in the size of face-to-face classes affect student achievement? This is a policy question

that demands further study. The effectiveness of online education in terms of academic success for elementary and secondary students is largely unexplored while the research literature on class size reduction is not unanimous in its support.⁵⁶

Endnotes

¹ FL. CONST. art. IX, §1.

² Florida Department of Education, “Class Size Amendment,” <http://www.fldoe.org/classsize>.

³ For the purposes of this article, the terms online and virtual education are used interchangeably.

⁴ Florida Virtual School, “Quick Facts,” <http://www.flvs.net/areas/aboutus/Pages/QuickFactsaboutFLVS.aspx>.

⁵ Ibid.

⁶ Ibid.

⁷ Florida TaxWatch Center, *Final Report: A Comprehensive Assessment of Florida Online School* (Tallahassee, FL: Florida TaxWatch Center for Educational Performance and Accountability), 9, [http://www.inacol.org/research/docs/FLVS_Final_Final_Report\(10-15-07\).pdf](http://www.inacol.org/research/docs/FLVS_Final_Final_Report(10-15-07).pdf).

⁸ Florida Virtual School, “Quick Facts.”

⁹ Florida TaxWatch Center, *Final Report*, 5.

¹⁰ See, Florida Department of Education, “Florida Online School as School Choice Option,” Memorandum from Dr. Eric J. Smith to District School Superintendents and others, January 8, 2009, <http://info.fldoe.org/docushare/dsweb/Get/Document-5250/dps-2009-007.pdf>.

¹¹ Connections Academy, “Florida Virtual School Full Time Enrollment,” <http://www.connectionsacademy.com/florida-school/enroll.aspx>.

¹² Evergreen Education Group, “Keeping Pace with K-12 Online Learning: Data and Information,” <http://kpk12.com/states/florida>; and Florida Department of Education, “Florida Public Virtual Schools: District Virtual Instruction Programs,” <http://www.fldoe.org/schools/virtual-schools/districtVIP.asp>

¹³ FLA. STAT. §1002.45(5) (2010).

¹⁴ Evergreen Education Group, “Keeping Pace with K-12 Online Learning.”

¹⁵ Florida Department of Education, “Florida Public Online Schools: District Franchises of Florida Online School (FLVS),” <http://www.fldoe.org/schools/online-schools/district-franchises.asp>.

¹⁶ Florida TaxWatch Center, *Final Report*, 28.

¹⁷ Ibid., 27.

¹⁸ Ibid.

¹⁹ According to *2010-11 Funding for Florida School Districts*, a statistical report of the Florida Department of Education (<http://www.fldoe.org/fefp/pdf/fefpdist.pdf>): “The FEFP was established in 1973 by the Florida Legislature and is the state policy on equalized funding to guarantee to each student in the Florida public education system the availability of programs and services appropriate to his

or her educational needs that are substantially equal to those available to any similar student notwithstanding geographic differences and varying local economic factors. The FEFP is the main method for funding the operating costs of Florida school districts and is the basis for financing Florida's K-12 educational programs. A key feature of the FEFP is that it bases financial support for education upon the individual student participating in a particular educational program rather than upon the number of teachers or classrooms. FEFP funds are mainly determined by multiplying the number of full-time equivalent (FTE) students in each of the funded education programs by cost factors to obtain weighted FTE students. Weighted FTE students are then multiplied by a base student allocation and by a district cost differential in the major calculation to determine the base funding from state and local FEFP funds. Program cost factors are determined by the Legislature and represent fundamental cost differences among the FEFP programs. To provide equalization of educational opportunity, the FEFP formula recognizes: (1) varying local property tax bases; (2) varying education program costs; (3) varying costs of living; and (4) varying costs for equivalent educational programs due to sparsity and dispersion of the student population" (p. 1). Traditional public schools are funded according to the number of students enrolled (FTE). In addition to state revenues, property taxes per district are used.

²⁰ Florida Department of Education, "Florida Online School as School Choice Option."

²¹ Florida TaxWatch Center, *Final Report*, 7.

²² FLA. STAT. §1011.62 (2010).

²³ Evergreen Education Group, "Keeping Pace with K-12 Online Learning."

²⁴ Florida TaxWatch Center, *Final Report*, 7.

²⁵ *Ibid.*, 12.

²⁶ FLA. STAT. §1002.45 (2010).

²⁷ Evergreen Education Group, "Keeping Pace with K-12 Online Learning."

²⁸ Sally Roberts, "Online Education Reporting," PowerPoint presentation for the Florida Department of Education, slide 8, <http://www.fldoe.org/schools/online-schools/pdf/district-reporting-franchise.pdf>.

²⁹ According to Education.com: "The Sunshine State Standards were approved by the State Board of Education in 1996 to provide expectations for student achievement in Florida. The Standards approved in 1996 were written in seven subject areas: Language Arts, Mathematics, Science, Social Studies, Foreign Languages, the Arts, and Health and Physical Education. Each subject was then divided into four separate grade clusters (PreK-2, 3-5, 6-8, and 9-12)." See, State of Florida Academic Standards, "What are the Florida Academic Standards?" http://www.education.com/reference/article/Ref_State_Florida/?page=2.

³⁰ According to a January 8, 2009, Florida Department of Education memorandum, "Florida Online School as School Choice Option," from Dr. Eric J. Smith [boldface and italics in original]: "SBE Rule 6A-1.09441, FAC, requires that courses which are funded through the FEFP and courses for which students may earn credit toward high school graduation must be listed in the **Course Code**

Directory. The **Course Code Directory**, which is incorporated into the rule, also states that districts must use course numbers and official abbreviated titles as listed in this directory on permanent records and report cards. All FLVS courses are based on the state standards and are listed in the **Course Code Directory**" (p. 4).

³¹ Florida TaxWatch, *Final Report*, 5.

³² Florida Department of Education, "The Florida Comprehensive Assessment Test (FCAT)," <http://fcats.fldoe.org/fcat>.

³³ Florida Department of Education, "Florida Online School as School Choice Option."

³⁴ Evergreen Education Group, "Keeping Pace with K-12 Online Learning."

³⁵ Florida Department of Education, "Florida Online School as School Choice Option."

³⁶ See, <http://www.dadeschools.net>.

³⁷ Laura Herrera, "In Florida, Online Classrooms with No Teachers," *New York Times*, January 17, 2011, http://www.nytimes.com/2011/01/18/education/18classrooms.html?_r=4&emc=eta1 we.

³⁸ *Ibid.*

³⁹ *Ibid.*

⁴⁰ *Ibid.*

⁴¹ Cited in Trip Gabriel, "More Pupils Are Learning Online, Fueling Debate on Quality," *New York Times*, April 5, 2011, http://www.nytimes.com/2011/04/06/education/06online.html?pagewanted=1&_r=2&hp.

⁴² *Ibid.*

⁴³ Moore, cited in Herrera, "In Florida, Online Classrooms with No Teachers."

⁴⁴ Marianne Bakia, Kea Anderson, Eryn Heying, Kaeli Keating, and Jessica Mislavy, *Implementing Online Learning Labs in Schools and Districts: Lessons from Miami-Dade's First Year* (Menlo Park, CA: SRI International, November 2011).

⁴⁵ *Ibid.*, 3.

⁴⁶ Florida Virtual School, "Virtual Learning Lab," <http://www.flvs.net/educators/Pages/Virtual-Learning-Lab.aspx>.

⁴⁷ Florida Virtual School, "Models for Virtual Learning Labs across Florida," <http://www.flvs.net/educators/VLL/VLL%20Models.pdf>.

⁴⁸ For a discussion of functional requirements and associated costs for online learning labs, see Marianne Bakia, Kea Anderson, Eryn Heying, Kaeli Keating, and Jessica Mislavy, *Implementing Online Learning Labs in Schools and Districts: Lessons from Miami-Dade's First Year* (Menlo Park, CA: SRI International, November 2011).

⁴⁹ See, Bakia et al., *Implementing Online Learning Labs in Schools and Districts*.

⁵⁰ See, for example, C.M. Achilles, B.A. Nye, J.B. Zaharias, and B.D. Fulton, "The Lasting Benefits Study (LBS) in Grades 4 and 5 (1990-1991): A Legacy from Tennessee's Four-year (K-3) Class-size Study (1985-1989)," Project STAR, a paper presented at the North Carolina Association for Research in Education, Greensboro, North Carolina, January 14, 1993.

⁵¹ U.S. Department of Education, *Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies* (Washington, DC: Office of Planning, Evaluation, and Policy Development, 2010).

⁵² iNACOL (International Association for K-12 Online Learning), "Fast Facts about Online Learning," 1, accessed September 29, 2011, http://www.inacol.org/press/docs/nacol_fast_facts.pdf.

⁵³ FLA STAT §1002.321, (2011).

⁵⁴ Dave Breitenstein, "Online School in Session This Year in Florida," News-Press.com, September 7, 2011, <http://www.news-press.com/article/20110908/NEWS0104/110907051/0/LIFESTYLES/Online-school-session-year-Florida?odyssey=nav%7chead>.

⁵⁵ Grover J. Whitehurst and Matthew M. Chingos, *Class Size Research and What It Means for State Policy* (Washington, DC: Brown Center on Education Policy, Brookings Institute, 2011).

⁵⁶ See, for example, the Spring 2012 special issue (Vol. 40, no.1) of *Educational Considerations* on class size reduction research. <http://coe.ksu.edu/edconsiderations/current.html>.