

## K–12 Virtual Schools

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Over the last several years, opportunities for students to receive some portion of their education online have become much more widespread in K–12 public schools. Researchers estimate that more than one million K–12 students in the U.S. were engaged in some form of virtual education in the 2007–08 school year, representing nearly a 50 percent increase over the previous two school years.<sup>1</sup> The International Association for K–12 Online Learning (iNACOL) estimates that by the close of 2010 “at least some” students in 48 of the 50 states and Washington, D.C., could access supplemental or full-time online educational opportunities.

The 2011 edition of an annual survey of states, *Keeping Pace with K–12 Online Learning*, found that although many states have developed or allowed a variety of online learning opportunities, “in many states, students still have few options.”<sup>2</sup> In 2011, the news in Tennessee for virtual education was mixed: a new Tennessee law expanded LEAs’ ability to develop K–12 virtual schools, but the state also experienced federal funding decreases that effectively shut down its state-led virtual education initiative, e4TN (effective, engaging e-learning environment for Tennessee).<sup>3</sup> The e4TN program, which began in 2006, had an estimated 5,000 course enrollments for school year 2010–11, a substantial increase from previous years.<sup>4</sup>

This legislative brief presents a rough timeline of the rise of online learning options in Tennessee and across the country. (Items representing activities outside Tennessee are displayed in italic type.)

### 1994

*The Utah Electronic High School was founded.<sup>5</sup>*

### 1997

*The Florida Virtual School was founded.<sup>6</sup>*

### 2002–03

*Nationwide, an estimated 330,000 K-12 students were enrolled in distance education, with a presence in one-third of the nation’s school districts.<sup>7</sup>*

### 2002

The Tennessee General Assembly enacted legislation prohibiting cyber-based (or virtual) charter schools in the state.<sup>8</sup> (As of 2012, the prohibition continues.)

### 2004

Bristol City Schools began an online e-learning program in 2004, associated with its Tennessee High School.<sup>9</sup> The Hamilton County Department of Education started its virtual education program.<sup>10</sup>

### 2004

*The U.S. Department of Education released its National Education Technology Plan, which included a recommendation to support e-learning and virtual schools. Recommendations for states, districts, and schools were to: “provide every student access to e-learning; enable every teacher to participate in e-learning training; encourage the use of e-learning options to meet No Child Left Behind requirements for highly qualified teachers, supplemental services, and parental choice; explore creative ways to fund e-learning opportunities; and develop quality measures and accreditation standards for e-learning that mirror those required for course credit.”<sup>11</sup>*

## **2004**

*The Southern Regional Education Board (SREB) began the SCORE (Sharable Content Object Repositories for Education) initiative “to help SREB states improve teaching and learning and achieve cost savings through the use of shared digital learning content. Through SREB-SCORE, participating SREB state educational agencies, schools, colleges and universities will work together over the long term to create quality digital learning content and share it through connected state repositories (databases). When fully implemented, SREB-SCORE will provide teachers and faculty across the SREB region with convenient access to digital learning content that they can customize, share and use to enhance the quality of their courses.”<sup>12</sup>*

*Tennessee is a member of SREB.*

## **2004**

*Learning Point Associates, funded by the Institute for Education Sciences, reported on a meta-analysis to gauge the effectiveness of K–12 online learning. Results from the meta-analysis, which employed a rigorous methodology, suggested that “distance education is as effective as classroom instruction.” Authors indicate that results from some other studies showed student outcomes in online learning that exceeded those in conventional classrooms, but the studies did not collect complete data to prove the outcomes and could not be included in the meta-analysis.<sup>13</sup>*

## **2005**

*An estimated one in 100 U.S. K–12 public school students had taken at least one online course by 2005.<sup>14</sup> About half of all states had either “a statewide program with developed policies and practices or state-level policies that govern online programs across the state.”<sup>15</sup>*

## **2005**

*Salman Khan began developing online tutorials for a family member who needed help in high school math. In a few years, his efforts developed into Khan Academy, a website offering 2,700 instructional videos, as well as practice exercises, at no cost to users. Some teachers reportedly use the online videos to supplement their classroom teaching or encourage students to access the videos outside the classroom when they need help.<sup>16</sup>*

## **2006**

*The Tennessee Department of Education (TDOE) began the e4TN (“effective, engaging e-learning environment for Tennessee”) project to create and make online courses aligned to Tennessee standards available to students across the state. TDOE funded the initiative through a federal education technology grant (Enhancing Education Through Technology, Title II-D), awarding a five-year grant (about \$9.8 million total) to Hamilton County Schools to develop, evaluate, and implement online courses; the department also awarded \$100,000 each in the first year and \$50,000 each in the following four years to seven other local education agencies to test and deliver the online courses.<sup>17</sup> Staff for e4TN included computer programmers, graphic designers, and education personnel who developed online courses aligned to Tennessee standards. Hamilton County was selected to lead the effort principally because the district had experience, having started its own virtual education program in 2004.<sup>18</sup>*

## **2006**

*Both houses of the Tennessee General Assembly concurred in Senate Joint Resolution 800, which declared legislative support for the development of a comprehensive K–12 e-learning program in Tennessee. The original resolution specifically referred to e4TN but was amended to include other virtual school programs.<sup>19</sup>*

## **2006**

*Michigan became the first state to require high school students to take an online class or participate in some form of online instruction, as part of several changes to its graduation requirements.<sup>20</sup>*

## **2007**

*Researchers estimated that more than one million students in the U.S. were engaged in some form of virtual education in the 2007–08 school year, representing nearly a 50 percent increase over the previous two school years.<sup>21</sup>*

## **2008**

*The Tennessee General Assembly passed Public Chapter 1096, authorizing LEAs to use funds generated through the state’s Basic Education Program (BEP) funding formula to operate virtual education programs. The legislation authorized the State Board of Education*

to adopt rules and regulations and develop policies and guidelines for virtual programs.<sup>22</sup>

## **2008**

The State Board of Education adopted the “Policy on Distance Learning and eLearning” (Policy 3.208). The policy encourages districts to permit students to use distance learning and e-learning for a variety of reasons, including health related issues, credit recovery, alternative learning settings, or when nontraditional instructional delivery is appropriate.<sup>23</sup>

## **2008**

Putnam County Schools opened its virtual education program, called the VITAL (Virtual Instruction to Accentuate Learning) program, initially using online courses developed through the e4TN initiative. About 140 Putnam County students enrolled in the spring and summer courses.<sup>24</sup>

## **2008**

The Tennessee State Board of Education asked the Bristol Tennessee City School system to work with the Niswonger Foundation to develop eLearning models across the state similar to those it created in 2004. The partnership has provided online courses to other school districts in Tennessee and has consulted with several other districts to help develop virtual learning options, including accessing online courses that Bristol City Schools has developed.<sup>25</sup>

## **2009**

By 2009, the e4TN initiative had trained 220 teachers across Tennessee in online learning. Teachers were trained under the direction of Hamilton County, which served as the “host membership pilot.”<sup>26</sup> All teachers trained were existing employees of Tennessee LEAs. All teachers taught online courses part-time, in addition to their regular classroom work. The e4TN initiative also had created and produced 27 one-credit courses and two half-credit courses aligned with Tennessee standards, covering a wide range of subjects, including algebra, biology, chemistry, economics, English, foreign languages, history, government, and physics, as well as professional development courses for teachers.<sup>27</sup>

## **2009**

Putnam County Schools adopted a requirement that all high school students complete one online class prior to graduation.<sup>28</sup>

## **2009**

e4TN was awarded a 21<sup>st</sup> Century Award for Best Practices in Distance Learning by The United States Distance Learning Association (USDLA), a nonprofit formed in 1987 to promote “the development and application of distance learning for education and training.”<sup>29</sup>

## **2009**

*In May 2009, results from a collaborative evaluation research study by Interactive Educational Systems Design, Inc., and the Center for Research in Educational Policy (CREP) at the University of Memphis were published. The study, which focused on the social skills of students attending four full-time, online schools, found (1) that students were “highly engaged in activities outside the school day” and frequent engagement correlated positively to students’ social skills, (2) that problem behaviors of students attending the schools studied were “either significantly lower or not significantly different” from national norms, and (3) that “parents’ perceptions of their families experiences with full-time, online public schools were overwhelmingly positive—including the impact of online public schools on a variety of academic, personal, and interpersonal outcomes.”<sup>30</sup>*

## **2010**

The Tennessee Department of Education renamed its e4TN virtual education initiative “e4000TN.” The new name was meant to reflect the goal of reaching 4,000 additional students. Supported by American Recovery and Reinvestment Act (ARRA) funds, TDOE awarded 60 Tennessee LEAs \$20,000 each for equipment and staff to support online learning and a voucher for \$10,000 in courses. Courses were created through the original e4TN project. Three branches were awarded \$475,000 each to help coordinate the program and provide professional development: Tipton County Schools (west Tennessee), Wilson County Schools (middle Tennessee), and Hamilton County Schools (east Tennessee). The e4000TN base is located in Wilson County (one of the original beta-test pilot districts under

e4TN), which maintains much of the fiscal coordination of the program. Hamilton County continues to house some of the programming and personnel who manage e4000TN.<sup>31</sup>

## 2010

The U.S. Department of Education published “Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies.” One of the purposes of the study was to determine how the effectiveness of online learning compares with face-to-face instruction. The meta-analysis found that few rigorous studies had been undertaken that contrast online and face-to-face learning conditions for K–12 students. Because of this, the authors were able to identify only five studies conducted with K–12 students that met the meta-analysis criteria—results are partially derived from studies for older students in other settings, such as medical training and higher education. The study’s authors thus suggest caution in interpreting results from the analysis. The authors found that “students in online learning conditions performed modestly better than those receiving face-to-face instruction.” Analysts found that the results were more positive for classes that blended elements of online and face-to-face instruction (often referred to as hybrid learning), but noted that the “blended conditions often included additional learning time and instructional elements not received by students in control conditions,” suggesting that results may have been affected by these conditions rather than the instructional delivery medium.<sup>32</sup>

## 2010

The U.S. Department of Education released a new National Education Technology Plan, which includes goals and recommendations for the federal government, states, districts, schools, and other education stakeholders concerning virtual learning.<sup>33</sup>

- Use technology to provide all learners with online access to effective teaching and better learning opportunities and options especially in places where they are not otherwise available.
- Provide preservice and in-service educators with professional learning experiences powered by technology to increase their digital literacy and enable them to create compelling assignments

for students that improve learning, assessment, and instructional practices.

- Develop a teaching force skilled in online instruction.
- Ensure students and educators have broadband access to the Internet and adequate wireless connectivity both in and out of school.
- Ensure that every student and educator has at least one Internet access device and appropriate software and resources for research, communication, multimedia content creation, and collaboration for use in and out of school.
- Support the development and use of open educational resources to promote innovative and creative opportunities for all learners and accelerate the development and adoption of new open technology-based learning tools and courses.

## 2010

According to one national estimate, more than 150,000 K–12 students were enrolled in full-time online schools in school year 2009–10. Three states (Arizona, Ohio, and Pennsylvania) operated multi-district, full-time virtual schools with more than 24,000 students enrolled in each state.<sup>34</sup>

## 2010

Metropolitan Nashville Public Schools (MNPS) established a virtual education program as part of Middle College High for the 2010–11 school year.<sup>35</sup>

## 2010

Memphis City Schools’ Board of Education implemented a rule to require that students take one online class in order to graduate.<sup>36</sup>

## 2010

The USDLA awarded Barbara Hallums in the Wilson County School District a Silver Award for Best Practices for Excellence in Distance Learning Teaching. Dr. Timothy Webb, then-Commissioner of the Tennessee Department of Education, was awarded for Outstanding Leadership by an Individual in the Field of Distance Learning.<sup>37</sup>

## **2010**

The Niswonger Foundation, in partnership with 15 school districts in northeast Tennessee, was awarded a five-year \$21 million Investing in Innovation (i3) grant by the U.S. Department of Education. The partnership, entitled the Northeast Tennessee College and Career Ready Consortium, serves 26,100 high school students in the 29 high schools within these districts: Bristol City, Carter County, Cocke County, Elizabethton City, Greene County, Greeneville City, Hamblen County, Hancock County, Hawkins County, Johnson City, Johnson County, Kingsport City, Sullivan County, Unicoi County, and Washington County. The goals of the consortium are (1) to ensure that all students, particularly those from underrepresented populations, graduate from high school prepared for college or a career, and (2) to improve the likelihood that students successfully complete college. Strategies for fulfilling the goals include increasing the number of rigorous distance and online learning courses offered at each high school.<sup>38</sup>

## **2010 and 2011**

Under the state's First to the Top efforts, Battelle for Kids developed a series of online courses about value-added and formative instruction. The courses were made available in 2010 to K–12 Tennessee public school educators and in 2011 to all public and private higher education institutions and alternative providers that prepare teachers and school leaders. All courses are available at no cost to educators.<sup>39</sup>

## **2010 and 2011**

*Several states adopted noteworthy legislation affecting the delivery of virtual learning for K–12 students, including Maine, Mississippi, Ohio, Tennessee, Utah, and Virginia.*<sup>40</sup>

- *Maine passed legislation requiring the Commissioner of Education to develop professional development and training for instruction in digital literacy, and to establish a clearinghouse on the use of online learning resources to be available to all schools. The clearinghouse is to provide information on the use of online learning resources, including best practices in the use of open educational resources and open-source textbooks for all grade levels.*

- *Mississippi's legislation authorizes its State Board of Education to select private providers, to be overseen by the State Department of Education, to administer, manage, or operate virtual school programs, and requires that a private provider be chosen through a competitive Request for Proposal process.*
- *Ohio's comprehensive legislation requires that all students have access to high-quality distance learning courses at any point in their educational career, authorizes students to customize their education using distance learning courses through a state-developed clearinghouse of distance learning courses, and allows students to earn an unlimited number of academic credits through distance learning courses, which may be taken at any time of the calendar year.*
- *Utah passed legislation that enables students to earn high school graduation credit by completing publicly-funded online courses, provides for payment of online courses, and provides accountability measures, including requiring a state board report on the performance of online course providers and a legislative audit review following the 2013–14 school year.*
- *Virginia's legislation requires the Superintendent of Public Instruction to develop, and the State Board of Education to approve, criteria for approving and monitoring multi-division providers of online courses and virtual school programs, and allows local school boards to enter into contracts with approved private or nonprofit organizations to provide such courses and programs.*

## **2010–11**

*Florida Virtual School, the nation's largest provider of online courses, served more than 122,000 students.*<sup>41</sup>

## **2011**

The Tennessee General Assembly passed Public Chapter 492, the "Virtual Public Schools Act," making significant revisions to the 2008 state law concerning virtual education programs. The 2011 law permits LEAs to establish full-time virtual schools, which are to be provided the same resources as any other public school

in the state.<sup>42</sup> It further permits LEAs to contract for services with nonprofit and for-profit entities in operating and managing virtual schools.<sup>43</sup> The law also allows any student eligible for enrollment in a Tennessee public school to enroll in a virtual school created under the act as a full-time or part-time student, allowing access to both homeschooled students and those enrolled in private schools.<sup>44</sup> The law is scheduled for repeal on June 30, 2015, unless extended.<sup>45</sup> (As originally proposed, the law would have removed the 2002-enacted prohibition against cyber-based public charter schools, but the provision was deleted. State law continues to prohibit the creation of cyber-based public charter schools.<sup>46</sup>)

## 2011

The State Board of Education revised Policy 3.208 on Distance Learning and e-Learning, originally adopted in 2008.<sup>47</sup> Revisions affect the approval process for some distance learning and e-learning courses. The original policy required the Tennessee Department of Education to analyze all distance or e-learning courses prior to consideration for approval by the State Board of Education. The intent was to ensure that approved courses were aligned with state standards and included appropriate course materials. The 2011 policy revisions shift the responsibility to LEAs to ensure that courses align with the state's approved curriculum standards. The revised policy permits LEAs to use distance learning and e-learning courses to complete courses already approved in SBE Policy 3.205 (Approved High School Courses), as long as LEA officials ensure that courses align with approved curriculum standards. LEAs must seek annual approval from the TDOE for courses not already approved and listed in SBE Rule 0520-01-03-.06 (which specifies courses required for graduation).<sup>48</sup> A submitted course may become permanent after three years if approved by the SBE.<sup>49</sup>

## 2011

Having already established a virtual program in Middle College High School in 2010, Metro Nashville Public Schools announced in July 2011 that it had been granted the authority to open the state's first full-time virtual school under the law passed by the General Assembly. MNPS began the 2011–12 school year with 15 full-time virtual school students and 173 students supplementing their coursework through their zoned

schools. Officials expect 51 full-time students beginning in the spring and about 200 students on a part-time or supplemental basis.<sup>50</sup> MNPS students have free access to most virtual courses offered; students residing outside Davidson County must pay tuition and other additional costs.<sup>51</sup>

## 2011

In July 2011, Union County Schools became the first LEA to contract with a for-profit company, K12, Inc., to run its virtual school. About 1,800 students from across the state have reportedly signed up to attend the full-time Tennessee Virtual Academy, which serves grades K–8. Union County receives about \$5,387 in state tax dollars for every student enrolled in the Tennessee Virtual Academy, and passes all but about four percent on to K12, Inc.<sup>52</sup>

Other districts that have received authorization from TDOE to establish virtual schools are Memphis City, Bristol City, Wilson County, and Putnam County. Hamilton County and Robertson County are pending authorization.<sup>53</sup>

## 2011

The Putnam County School Board adopted a policy requiring students to complete the state-required personal finance course online. The Putnam County policy applies to students entering the 9<sup>th</sup> grade in 2010–11 and after.<sup>54</sup> (In 2008, the State Board of Education adopted the requirement as part of High School Policy 2.103 that Tennessee students take the one-half credit personal finance course to graduate.)<sup>55</sup>

## 2011

In a federal budget compromise, Congress halted funding for the Enhancing Education Through Technology (EETT) grant,<sup>56</sup> the means Tennessee used for funding its e4TN virtual education program.<sup>57</sup> According to TDOE officials, Title II-D funding (the source for the EETT grant) has been eliminated from the federal budget and no further funding is expected. Tennessee has not set aside any funding at the state level to continue funding the e4TN/e4000 program. TDOE staff indicates that some LEAs are able to use the courses for 2010–11 as long as they have the appropriate equipment and technology, but district officials in Putnam County Schools indicate they have

been unable to access the e4TN courses. Department officials indicate they plan to explore future opportunities for the state and districts.<sup>58</sup>

#### **2011**

*Full-time online education is an option for students in 30 states and Washington D.C.*<sup>59</sup> An estimated 275,000 students are enrolled full-time in online K–12 schools.<sup>60</sup>

#### **2011**

The USDLA awarded Barbara Hallums in the Wilson County School District a Gold Award for Best Practices for Excellence in Distance Learning Teaching.<sup>61</sup>

#### **2011**

*Idaho passed a rule requiring that all K–12 students take two online classes. Three other states—Alabama, Florida, and Michigan—require online learning for all students, but Idaho is the first to require two classes.*<sup>62</sup>

#### **2011**

*The U.S. Department of Education Office of Special Education and Rehabilitative Services released a request for proposal for the establishment of a Center on Online Learning and Students with Disabilities. The purpose of the center is to study: “(1) current and emerging trends and issues related to the participation of all children with disabilities in online learning from kindergarten through grade 12; (2) potential positive outcomes and negative consequences of online learning for children with disabilities; and (3) promising approaches for effectively including children with disabilities in online learning.*<sup>63</sup>

#### **2011**

*The Office of the Legislative Auditor in Minnesota released an evaluation of the state’s online learning system. In 2003, the Minnesota legislature adopted the Online Learning Option Act, which requires that online learning courses and programs be rigorous and meet or exceed state standards and that they must be taught by teachers licensed in Minnesota. The law permits any school district, intermediate school district, charter school, or consortium of school districts to establish a separate online school, with approval from the Minnesota Department of Education (MDE). As of 2011, MDE has approved 24 online schools to operate in*

*Minnesota. K–12 students may enroll in online learning courses or programs on either a full- or part-time basis. About 20,000 K–12 students in Minnesota took at least one online course during the 2010–11 school year. Between 2006–07 and 2009–10, “the number of students taking online courses full time more than tripled.” The legislative audit found that “since the 2006–07 school year, full-time online students have become less likely to finish the courses they start; when compared with students statewide, full-time online students were more likely to completely drop out of school.” The audit also found that full-time online students made less progress on the state’s standardized math tests than students in traditional schools; full-time online students made about the same progress as students in traditional schools on the state’s standardized reading tests in one of the two years reviewed, but made less progress in the other year. The audit further noted that the Minnesota Department of Education had not assigned a sufficient number of staff to administer its online learning responsibilities.*<sup>64</sup>

#### **2011**

*The Center for Research on Education Outcomes (CREDO) at Stanford University released a review of Pennsylvania’s charter schools, eight of which are virtual schools. “Performance at cyber charter schools was substantially lower than the performance at brick and mortar charters with 100% of cyber charters performing significantly worse than their traditional public school counterparts in both reading and math.” The performance results were not related to student demographics: most students in the virtual charter schools were white and not eligible for subsidized school meals.*<sup>65</sup>

#### **2011**

*As required by state law, the Colorado Department of Education released an analysis of the state’s online programs for the 2010–11 school year. Colorado has 22 multi district online schools and 12 single district programs. “Overall, results indicate achievement among online students consistently lags behind those of non-online students, even after controlling for grade levels and various student characteristics.”<sup>66</sup>*

## Endnotes

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- <sup>3</sup> Watson, et al., *Keeping Pace 2011*, p. 29.
- <sup>4</sup> Watson, et al., *Keeping Pace 2011*, pp. 31 and 149.
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