

# POLICY *brief*

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## A Custom Education for Every Child: The Promise of Online Learning and Education Savings Accounts

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### EXECUTIVE SUMMARY

Picture a typical public school classroom: Rows of students facing a blackboard, with a teacher lecturing. It's the same scene in 2011 as it was in 1911 – and, in a world of laptop computers, smartphones and iPads, it's wildly out of date and ineffective. But that is changing.

Today, the breadth of digital learning programs extends from full-time online virtual schools to occasional online instruction that supplements a student's traditional coursework. The benefits include improved academic achievement and a better overall learning experience for students. The growth of online learning solutions changes the discussion of choice in education – the conversation moves from choosing a school to choosing individual services that specifically meet a student's needs.

Combined with Education Savings Accounts, these advances in online learning create the foundation for unparalleled customization in a child's education, providing experiences that better challenge students and prepare them for the real world.

In 2011, Arizona became the first state in the nation to give special-needs students and their families a way to customize and improve their education, and do it all for less than the cost of a typical public school program. Arizona's new Education Savings Accounts give K-12 special-needs students 90 percent of a student's formula-based funding amount. Parents can use these funds for a variety of educational services tailored to their child's needs, including tutoring services, online programs, and private school tuition.<sup>1</sup> Special-education students who attended a public school in the prior year are eligible, and families must agree to not enroll their child in public school.

This program is already changing the lives of Arizona families. For Prescott mother Tonya Reiner, the new program has enabled her to enroll her two sons in private school. She told the *Tucson Citizen* that her sons' needs were not being met in their local public school, but that "they're now in a placement that meets their needs and has a trained staff to meet their needs."<sup>2</sup> Ms. Reiner believes the education savings account program "provides parents the opportunities to make the choice that will be beneficial to their child and their child's needs."

Arizona's Education Savings Accounts program is a fundamental shift in the way that government administers public education funding. Instead of geography determining a child's education, the savings accounts give families control over how their children's share of school funding is used. As Arizona works to ensure that all children have access to a world-class education, policymakers should consider expanding Arizona's education accounts program so that all families can benefit from cutting-edge education services while saving the state money.

Since Milton Friedman proposed the first modern school voucher program in 1955, the debate about school choice has focused on whether to allow parents to choose their children's school. Today, new technologies and the changing landscape of American education are bound to create a new discussion. Rather than simply choosing between schools, the discussion about choice in education is moving toward how to give parents the flexibility to customize their children's education.

Given this changing landscape, education accounts provide a vehicle to match students' needs to available education services. This paper examines how expanding access to online or virtual learning programs through state-funded Education Savings Accounts could enable Arizona families to truly customize their children's education.

## **The Promise of Virtual Learning**

Picture the typical public school classroom. You probably envision rows of about 20 students, sitting at desks that face a blackboard. A teacher stands in front of the class. Instruction is delivered the old-fashioned way, with the teacher delivering her lecture and students trying to absorb the lesson. It's a ubiquitous American scene—one that is as familiar to today's students as it was to their great-grandparents.

Public education is one of the few areas of American life that has resisted the dramatic changes that have been driven by innovations in technology. In this world of smart phones, computers, laptops, Internet, and global communication, most American students still attend the traditional, neighborhood public school.

But this is quickly changing. Some of the brightest minds are betting that the way American children experience education will be vastly different in less than a decade. Consider a few examples of how innovative instructional models are harnessing the power of technology to fundamentally transform the way that children learn:

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**Carpe Diem Academy:** In 2011, *U.S. News & World Report* listed Carpe Diem Academy in Yuma, Arizona, as one of the best high schools in the nation.<sup>3</sup> The public charter school serves approximately 280 students in grades 6 through 12 and uses computer-based learning to provide approximately half of all coursework instruction.<sup>4</sup> Through a rotating class system, students switch from spending an hour learning at a computer (with a teacher in the classroom to provide supplemental instruction) to then spending an hour in a traditional classroom. Carpe Diem hires only one master teacher for each subject and relies on computer programs and teaching assistants to support the main instructor. The school serves a primarily low-income student population, yet in 2010, Carpe Diem earned the highest math and reading test scores on the AIMS (Arizona's Instrument to Measure Standards) test in Yuma County and was in the top 10 percent of all charter schools statewide.<sup>5</sup>

**Khan Academy:** Khan Academy does not have a playground, a cafeteria, or any of the traditional things usually associated with a school. But it is quickly becoming one of the most popular learning sites in the world. The Khan Academy website was created by Salman Khan, a Harvard MBA and former hedge-fund manager who, as a hobby, began uploading video tutorials to YouTube to tutor his cousins. Soon, thousands of people were watching Khan's videos. He created the Khan Academy site that now offers 1,600 tutorials and, on average, attracts roughly 70,000 viewers per day. Khan Academy attracted worldwide media attention after Bill Gates announced that Salman Khan was his "favorite teacher" and that he encouraged his children to watch Khan's mini-lectures when they were stumped on a lesson. Since launching the site in 2006, more than 18 million viewers have visited the Khan Academy website. The academy is now partnering with schools that are using his lectures to "flip" the traditional instructional process. The schools assign his lectures as homework; then, when students return to school, they complete practice lessons based on what they learned from watching the videos, and the teacher provides individualized instruction and coaching.

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**Florida Virtual School:** Launched in 1997, the Florida Virtual School (FLVS) is the nation's largest statewide virtual school. FLVS's motto is "any time, any place, any path, any pace."<sup>6</sup> During the 2009-2010 school year, 97,000 students took courses from FLVS.<sup>7</sup> The school's mission is to supplement a student's traditional education by offering expanded curriculum options. The school currently offers more than 100 courses taught by 1,200 staff members located in Florida and beyond. All Florida students, including homeschoolers and private school students, are eligible to attend.

FLVS is designed to provide students with a flexible and customized learning experience, while maintaining regular interaction with teachers.<sup>8</sup> Though instruction occurs online (and students have little in-person interaction with teachers), teachers are required to regularly engage students and facilitate interactions. Teachers are also required to be on-call from 8:00 a.m. to 8:00 p.m. on weekdays and weekends to provide feedback to students working at their own pace. While no control-group study has been conducted evaluating FLVS, a comparison of average test scores on Advanced Placement exams found that FLVS students outperformed the Florida average.<sup>9</sup>

## **An Overview of Digital Learning**

Carpe Diem Academy, Khan Academy, and the Florida Virtual School are just three examples of the innovative educational models that are using digital learning to improve the way that children learn. Across the country, a growing number of states, school districts, and schools are enacting digital learning programs. According to the International Association for K-12 Online Learning (iNACOL), approximately 1.5 million American students participate in online or virtual learning programs, and that population could grow dramatically in coming years.<sup>10</sup> Harvard University professors Clayton M. Christensen and Michael Horn, authors of *Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns*, predict that 50 percent of all courses for students in grades 9 through 12 will be taken online by the end of the decade.<sup>11</sup>

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iNACOL reported that, as of October 2010, students in 48 states and Washington, D.C., could take advantage of supplemental or full-time online learning programs.<sup>12</sup> Thirty-eight states have virtual schools or state online learning initiatives.<sup>13</sup> Twenty-seven states and Washington, D.C., offer full-time online schools serving students statewide, and 20 states provide both supplemental and full-time virtual learning options to students statewide.<sup>14</sup> In addition to these statewide programs, a majority of school districts now have one or more students participating in some form of online learning.<sup>15</sup>

Online learning is also proliferating across the world. iNACOL reports that other countries are also implementing online learning programs and, in some cases, are far surpassing the options that are currently available in the United States.<sup>16</sup> In Singapore, for example, 100 percent of all secondary schools use online learning and all teachers are trained to teach online. Turkey's new online learning initiative aims to serve 15 million children within three years. India is planning a national online learning system to help ensure universal access to education by the end of the decade. China is similarly creating a national online learning curriculum that aims to dramatically increase the number of children who receive a formal education.<sup>17</sup>

According to *Keeping Pace with K-12 Online Learning*, Arizona provides all school districts and charter schools the opportunity to participate in online learning through the Arizona Online Instruction (AOI) program.<sup>18</sup> As of fiscal year 2010, approximately 30,000 Arizona students were participating in online learning programs. To provide an online learning option through the AOI program, public schools apply to the state board of education and charter schools apply to the state charter board. As of fall 2010, 29 public schools were approved to provide online learning through the AOI program, seven charter schools had previously been approved, and nine virtual charter school applications were being considered.<sup>19</sup> Online learning programs through the AOI program are largely supplementary to classroom efforts.<sup>20</sup>

Total TAPBI / AOI Student Enrollments by Fiscal Year						
Entity Name	2005	2006	2007	2008	2009	2010
Arizona Connections Academy	201	402	668	928	1,123	1,714
Arizona Virtual Academy	1,021	2,042	3,696	4,879	5,697	6,369
Havasonline		203	239	273	310	666
Hope High School Online	109	168	518	900	328	296
Humanities and Sciences Academy Arizona	589	1,176	962	445	170	112
Marana Distance Learning	46	97	76	75	99	202
Mesa Distance Learning Program	1,544	1,495	1,283	2,263	2,061	1,492
Peoria eCampus	40	160	391	358	468	478
Pinnacle Virtual High School	4,069	4,082	5,674	8,576	6,472	5,206
Primavera - Online	2,040	3,934	7,296	9,652	10,699	11,223
Sequoia Choice School Arizona Distance Learning School	1,149	1,313	2,361	2,204	1,662	1,796
TAPBI		71	234	162	352	457
Technology Assisted Project Based Instruction Program			459	314	238	131
TUSD - Distance Learning Program	6	46	256	542	397	196
<b>Grand Total</b>	<b>10,814</b>	<b>15,189</b>	<b>24,113</b>	<b>31,571</b>	<b>30,076</b>	<b>30,338</b>
<b>Growth</b>		<b>40.46%</b>	<b>58.75%</b>	<b>30.93%</b>	<b>-4.74%</b>	<b>0.87%</b>

*As of fiscal year 2010, approximately 30,000 Arizona students were participating in online learning programs.*

**Table 12: Total TAPBI / AOI student enrollments by fiscal year**

Source: John Watson, Butch Gemin, Jennifer Ryan, and Matthew Weeks, *Keeping Pace with K-12 Online Learning: An Annual Review of State-Level Policy and Practice*, Evergreen Education Group, November 2009.

**Table 1—How Does Digital Learning Work in Practice?  
Addressing Some Frequently Asked Questions**

*Some online learning programs are called hybrid or “blended-learning” programs that use technology to provide a significant amount of instruction within the traditional school setting.*

<p><b>What is the scope of digital learning programs?</b></p>	<p>Digital learning programs can be either comprehensive or supplemental to a child’s education. Some students attend full-time online or virtual schools. These students learn almost entirely online and do not attend traditional brick-and-mortar schools. Supplemental programs offer students the chance to take individual courses in an online setting to complement their traditional coursework. For example, a high school student who wants to take a class not offered at his or her school could enroll in an online learning program in that subject. Some online learning programs are called hybrid or “blended-learning” programs that use technology to provide a significant amount of instruction within the traditional school setting. In a blended-learning program, a student may, for example, spend three hours per day learning by sitting at a computer (with a teacher supervising the children and providing instruction when needed) and the other three hours in a traditional classroom with traditional teacher instruction.</p>
<p><b>Do children learn on their own time and at their own pace? Or do they learn online while interacting with live teachers?</b></p>	<p>Students can receive online learning instruction from teachers in multiple ways. In general, in distance-based virtual learning programs, students can participate in online learning through either synchronous or asynchronous instruction. In the former, students receive instruction and interact with their teacher in real time. In asynchronous instruction, students learn at their own pace and on their own schedule, while teachers provide regular feedback by grading their assignments and answering questions. In both settings, online learning programs generally require regular communication between students and teachers via email, phone, instant messaging, and video conferencing. In blended-learning programs, students learn using a computer while a teacher serves as a coach or advisor, physically present in the room and monitoring the students’ progress.</p>
<p><b>Do children still go to school when they participate in digital learning? Or do they learn from home from their computer?</b></p>	<p>The answer depends on the type of program and the family’s preferences. Online learning programs can be based entirely at home, partially at home, or in a traditional brick-and-mortar school, as in the case of a blended learning school setting. Similarly, online learning programs vary in their geographic reach—ranging from school-based programs that are unique to an individual school to statewide (or even national or global learning programs) that allow students across wide distances to learn in the same setting. The potential vast reach of online learning programs raises interesting jurisdictional questions. Traditionally, American public schools are governed primarily by localities or school districts and secondarily by state governments; online learning programs have the potential to supersede these traditional jurisdictional lines.</p>

<b>Can children of all ages participate?</b>	Online learning programs can serve students of all ages and backgrounds. However, most full-time online learning programs focus on serving older students and high schoolers. A 2008 survey of school district administrators reported that an estimated 64 percent of students participating in full-time online learning programs were in high school, compared with 21 percent in elementary school and 15 percent in middle school (grades 6-8). <sup>21</sup> But online learning programs can be tailored to serve specific student populations of all ages.
<b>What are some of the reasons that schools offer digital or online learning programs? Are these programs designed to serve all kinds of students?</b>	Besides serving students of all ages, online learning programs can be tailored to students of all levels, from excelling students seeking advanced coursework to students who are at-risk of dropping out and use online learning programs for credit recovery. This diversity was evident in a 2008 survey of school district administrators in which the administrators gave the following reasons for offering online learning in their school system: "Offering courses not otherwise available at the school"; "Meeting the needs of specific groups of students"; "Offering Advanced Placement or college-level courses"; and "Permitting students who failed a course to take it again." <sup>22</sup>

## The Benefits of Online Learning

**Improving Academic Achievement:** The existing empirical evidence suggests that students can benefit academically from digital learning. In 2009, the U.S. Department of Education published a meta-analysis of evidence-based studies of online-learning programs. The meta-analysis included a review of 44 studies evaluating post-secondary students and seven studies of K-12 students. The Department of Education report concluded that "students who took all or part of their class online performed better, on average, than those taking the same course through traditional face-to-face instruction."<sup>23</sup> These findings should be interpreted with some caution, particularly since most of the studies evaluated higher-education programs. Nonetheless, policymakers should have confidence in creating new online learning options given that the initial empirical evidence suggests that these programs can benefit students academically.

**Providing a Better Experience for Students:** Online learning offers many potential practical benefits to students. These include the chance to learn in a more flexible, customized setting. They also include the chance to learn from better teachers, study subjects not otherwise offered in their school, or to take courses they may have missed or for which they need to recover credits. The opportunity to learn online may also provide a lifeline for students who face safety or social challenges at school, allowing them to learn from home without the worries that otherwise might affect their regular school experience. A chemistry teacher recently recounted a story about an online student who was working on a lesson about the Manhattan Project. At the end of the year, the student, who had cerebral palsy, told the teacher:

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*I've never had such an amazing experience in class because when I normally go into a face-to-face class kids just stay on the other side of the room and they don't talk to me. Nobody knew that I had a disability in this class. Everybody was interacting with me all of the time; my teacher interacted with me all of the time. It was completely different [than a traditional classroom].<sup>24</sup>*

Online learning also holds the potential to change the basic structure of how students proceed to higher levels—shifting the focus from “seat-time” to a competency or mastery-based approach. Customized, online learning programs can allow students to proceed to higher levels as they master subjects, potentially learning far more than they otherwise would have had they been required to learn at the same pace as their classmates. Similarly, customized learning programs can allow for real-time monitoring and tracking of a student’s progress, ensuring that students who are not mastering subjects repeat lessons or coursework, and receive additional instruction if necessary.

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Besides these important practical benefits, online learning has the potential to change education in perhaps the most important way of all from a student’s perspective—by making it a fun and fulfilling experience. The authors of *Disrupting Class* make this point in an interesting white paper, “Rethinking Student Motivation: Why Understanding the Job Is Crucial for Improving Education.”<sup>25</sup> They argue that, unlike adults, children are motivated by different goals than simply learning—they want to feel successful and have fun with their friends. The authors suggest that digital learning is a promising model for accomplishing the important goal of helping children feel successful:

*[B]y the very nature of software, achievement can be integrated with the delivery of content in ways that help students feel successful while they learn, every day. Often this comes in the form of reviews or examinations that are built into the software, which require students to demonstrate mastery before they can move to the next body of material. Feedback can be delivered frequently and in bite-sized pieces, as necessary, to help each student feel successful.<sup>26</sup>*

**Improving Opportunities for Teachers:** Online learning programs can be structured to yield significant benefits for teachers, creating a more flexible and potentially rewarding career. As Terry Moe and John Chubb write in their book *Liberating Learning*, online learning can allow teachers to “be freed from their tradition-bound classroom roles, employed in more differentiated paths and productive ways, and offered new career paths.”<sup>27</sup> In important ways, online

learning has the potential to significantly improve teacher quality, which research shows is a critical influence on student's achievement. For example, schools that harness technology and virtual learning programs to supplement or replace some traditional instruction can reduce the number of teachers who are needed and pay higher salaries to the remaining, presumably most effective, teachers. Moreover, because of the potential flexibility of an online learning setting or higher pay, online learning programs can attract new, highly talented teachers into the workforce who might otherwise not choose teaching.

**Improving Efficiency and Lowering Government Costs:** Increasing the use of information technology to support or provide instruction can significantly improve efficiency and decrease public education costs. Moe and Chubb also examine the fiscal benefits of online learning and find that “schools can be operated at lower cost, relying more on technology (which is relatively cheap) and less on labor (which is relatively expensive).”<sup>28</sup> Moe and Chubb provide a general estimate for the efficiencies that could be realized by replacing some traditional instruction with technologies like online learning: “If elementary students spend but one hour a day learning electronically, certified staff could be reduced by a sixth. At the middle school level, two hours a day with computers would reduce staff requirements by a third. High schools, with three hours of usage, could reduce staff by up to a half.”<sup>29</sup> These savings, Moe and Chubb explain, could be used to improve teacher effectiveness by raising salaries or providing additional training for the smaller instructional workforce.

Aside from these theoretical estimates of the potential efficiencies created by online learning, there are already real-world examples of how online learning reduces costs. A fiscal analysis of the Florida Virtual School, a model statewide virtual school program, found that the school receives \$1,048 less in government funding per student than a traditional school. Importantly, this savings does not include the additional costs for school facilities and maintenance had the child enrolled in a brick-and-mortar public schools.<sup>30</sup>

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**Table 2—Additional Examples of Innovative Digital Learning Programs**

<p><b>Pennsylvania Cyber Charter School</b></p>	<p>In November 2010, the number of students attending the Pennsylvania Cyber Charter School (PA Cyber) reached 10,000.<sup>31</sup> A decade earlier, the school opened in Midland, PA, a steel town that had closed its high school years ago, and served just 50 students. PA Cyber now serves K-12 students from across the state. A public charter school, PA Cyber does not charge tuition, and students receive free technology supplies (including a computer and high-speed Internet access). Students can take both synchronous and asynchronous classes, learning from a teacher in real-time or at their own pace. The teacher-to-student ratio at PA Cyber is 1 to 30. However, students are required to maintain regular communication with teachers and an assigned academic advisor.</p> <p>By reducing the traditional labor costs that most schools face, PA Cyber has been able to invest more resources into developing its technology-based curriculum. The school now offers more than 250 courses. Each course is audited for instructional quality by a University of Pittsburgh affiliate.<sup>32</sup> PA Cyber is achieving positive results in terms of academic achievement of the students it serves. The school boasts that PA Cyber students who took the SAT and ACT tests scored higher than their peers in Pennsylvania and across the nation.<sup>33</sup> For example, in 2007, the SAT average of PA Cyber students was 97 points above the state average.<sup>34</sup> The school has also met federal and state benchmarks on the Pennsylvania state exam.<sup>35</sup></p>
<p><b>Alpine (Utah) Online School</b></p>	<p>The Alpine Online School is an example of a full-time online school that caters primarily to homeschooling families.<sup>36</sup> The Alpine school district uses a \$2,500 per-student subsidy from the state of Utah to fund the online school. Alpine Online School purchases instructional content from K12.com. Alpine schoolteachers oversee a child’s progress on the K12.com coursework, maintaining regular communication with the student and her parents. The school is responding to students’ unique needs, adding coursework to meet demands (recently expanding to include Saxon math and language instruction from Rosetta Stone) and allowing some students to participate in a blended-learning model by allowing them to enroll in traditional schools part time while continuing their online studies.<sup>37</sup> Alpine shows an innovative way that online learning options can be used to benefit homeschooling families and open new and affordable options for families that would like to have their children learn from home.</p>
<p><b>Rocketship Education (California)</b></p>	<p>Rocketship Education is an education management company that manages charter schools in San Jose, California. Rocketship schools employ Teach for America teachers. Like Carpe Diem Academy, the Rocketship schools use a rotational system, with students receiving blocks of traditional teacher-based instruction, supplemented by blocks of instruction in a learning lab where the students receive computer-based instruction. The blended-learning approach allows the schools to hire fewer teachers and dedicate those resources to improving teacher instruction.<sup>38</sup> Also like Carpe Diem, Rocketship schools are attracting attention for their ability to achieve superior academic results at a lower cost.<sup>39</sup> The schools’ student population is composed almost entirely of low-income and students with limited English proficiency. Rocketship’s schools are among the highest-performing low-income elementary schools in the state.<sup>40</sup> Rocketship is now attracting significant philanthropic support to open new schools around the country.<sup>41</sup></p>

*A fiscal analysis of the Florida Virtual School, a model statewide virtual school program, found that the school receives \$1,048 less in government funding per student than a traditional school.*

<p><b>Wichita Public Schools' Learning Centers</b></p>	<p>In 1999, the Wichita, Kansas, school district created a Learning Center program that aimed to use computer-based instruction to help students recover credits in order to earn their high school degrees.<sup>42</sup> The Learning Centers serve students primarily from ages 18 to 21 but allow even significantly older students to enroll. The Learning Centers use a blended-learning approach, relying primarily on digital instruction that is supported by teacher supervision. Students can take classes at their own pace and schedule. As of 2009, the program was serving 946 students and had a waiting list of 300.<sup>43</sup> The Wichita School District reports that its high school graduation rate has climbed by 8 percentage points since the program began in 1999.<sup>44</sup></p>
<p><b>K12.com</b></p>	<p>Launched in 1999, K12.com has become a leading provider of virtual learning programs. The for-profit company partners with states and school districts to operate free online schools or learning programs. In addition, it offers private online learning programs, including an accredited K12.com International Academy as well as per-course offerings to provide supplementary instruction. K12.com's high school program offers 130 courses, including many electives. The company also provides a K-8 or elementary education program, including an advanced learner option, allowing students to learn at their own pace in a customized program. Access to an individual course costs as little as \$22 per month, or \$94 per month for a full six-course schedule. However, the annual cost of a full-year, teacher-supported course is \$450 for grades K-8 and \$750 for grades 9-12.<sup>45</sup></p>

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### **Education Savings Accounts: Giving Families the Flexibility to Customize Their Children's Education**

To date, efforts to expand access to digital learning programs have focused on reforming the existing K-12 education system to facilitate more online learning. These programs have included the creation of statewide virtual schools, allowing cyber charter schools, and using blended learning to incorporate digital learning into traditional public or charter schools' instructional models. Policymakers interested in incorporating digital learning into the traditional K-12 public education system should consult Digital Learning Now!'s "10 Elements of High Quality Digital Learning" for reform ideas and policy principles for successfully expanding access to digital learning.<sup>46</sup> The "10 elements" include recommendations for policies to ensure that all students have access to digital learning opportunities and that children can participate in a learning program that is customized to their learning styles and pace.<sup>47</sup>

But, the dramatic way that digital learning is reshaping American education should force policymakers to rethink how public education is funded and delivered. The proliferation of innovative online learning models will dramatically change the learning opportunities available to families and allow children to

receive a customized education designed to meet their specific needs. Providing families with state-funded Education Savings Accounts to purchase the best possible education for their children will enable this customization.

## **Background on K-12 Education Savings Accounts**

For decades, federal policymakers have viewed Education Savings Accounts as a promising strategy to enable families to save for their children's education expenses. The federal government has created multiple Education Savings Account vehicles for families, including so-called 529 college savings plans and Coverdell Education Savings Accounts (which allow families to save money tax-free for K-12 or higher-education expenses).<sup>48</sup> Many American families now take advantage of these savings options to save and pay for their children's education expenses.

*Education Savings Accounts can be used as a vehicle to give families more control over how their children's share of taxpayer-funded education dollars is spent. Rather than providing funding to public schools to provide services for children, government funding for education could be provided directly to parents in the form of a state-managed education account.*

But Education Savings Accounts can also be used as a vehicle to give families more control over how their children's share of taxpayer-funded education dollars is spent.<sup>49</sup> Rather than providing funding to public schools to provide services for children, government funding for education could be provided directly to parents in the form of a state-managed education account. Families would be required to use those funds to provide their children an education, and the state would require compliance with oversight rules and regulations to ensure that funds are spent appropriately.

State-funded Education Savings Accounts give families control and real flexibility to provide their children with the best possible education. Unlike other traditional school choice policy vehicles, such as school vouchers or tax-credit funded scholarships, state-funded Education Savings Accounts allow families the flexibility to shop for and customize an educational experience for their children by purchasing multiple types of education services. In addition, state-funded Education Savings Accounts give families an incentive to economize and shop for the highest-quality services at the lowest possible price, since funds that are not used remain in the child's account and can be spent at a later time on education services.

In 2011, the state of Arizona enacted the nation's first system of state-funded Education Savings Accounts, giving parents the opportunity to customize their child's education. Specifically, Gov. Jan Brewer signed into law SB 1553, legislation that will require the state to deposit 90 percent of the state aid that would be spent on a child's education into an "Arizona Empowerment Account."<sup>50</sup> To be eligible, students must qualify for special-education services, and families must agree to not enroll their child in public school. Beginning in fall 2011, 17,000 children were eligible to participate in the program.

## The Benefits of State-Funded Education Savings Accounts in a Digital Learning Environment

Moving forward, policymakers should consider how Education Savings Accounts could be used to assist students interested in taking advantage of the new digital learning environment. Providing families with the opportunity to forgo enrolling in a traditional public school and instead receive a state-funded K-12 savings account would give them the best opportunity to benefit from the innovative learning options becoming available through digital learning.

**Customizing Education:** If Arizona families, for example, were given their child’s share of education funding—approximately \$9,641, according to the U.S. Department of Education, as of 2008—to spend on their behalf, families would be able to customize education to their child’s needs.<sup>51</sup> They could use their education account funding to purchase multiple types of educational services for their child, such as supplementary, home-based online learning courses, tuition costs for attending a full- or part-time blended learning school, or tutoring or enrichment classes at a private school. Funds saved during the traditional school year could be used for other educational purposes, such as attending an academic camp or enrichment program during summer vacation, or to continue online or tutoring courses. Additionally, unspent funds could be saved for future school years or to pay for college.

*Education Savings Accounts allow families the flexibility to shop for and customize an educational experience for their children by purchasing multiple types of education services. In addition, state-funded Education Savings Accounts give families an incentive to economize and shop for the highest-quality services at the lowest possible price.*

**Table 3—Examples of Ways that Parents Could Use a K-12 Education Savings Account**

Type of Instruction	Overview	Potential Cost
Private online K-12 programs	Many private K-12 online learning academies and programs offer enrollment in individual course or full-time programs.	National Connections Academy, a leading K-12 online learning provider, offers full-time enrollment with the following tuition rates: \$4,900 (grades K-5), \$5,500 (6-8), and \$6,000 (9-12). <sup>52</sup>
Blended learning/ hybrid schools	Carpe Diem Academy in Yuma is ranked among the best schools in Arizona. The blended-learning school is designed so that students receive both computer-based instruction and traditional instruction by a master teacher.	Thanks to their use of technology, blended-learning schools can operate at a significantly lower cost than traditional public schools. Per-pupil spending at Carpe Diem is estimated to be approximately \$6,500. <sup>53</sup>

*In 2011, the state of Arizona enacted the nation's first system of state-funded Education Savings Accounts, giving parents the opportunity to customize their child's education.*

Traditional private schools	Attending a private school could remain an option for many families who want a traditional, structured learning program.	According to a 2005 survey by the Goldwater Institute, Arizona private school tuition was approximately half of the per-student spending in traditional public schools. <sup>54</sup>
After-school tutoring	Tutoring centers such as Kumon or Sylvan Learning offer families the opportunity to enroll their children in after-school or weekend classes to supplement traditional education.	While tutoring costs differ, some centers offer services that cost as little as \$100 to \$200 per month per course. Other tutoring programs can require an hourly rate, such as \$40 to \$50.
Summer enrichment programs	Many universities and other educational institutions, including museums and other nonprofits, offer summer enrichment programs.	Arizona State University offers a "Summer Enrichment Program" for high school students in a wide range of subjects, from a three-day advanced writing course (for \$50) to a three-day aviation course (\$205) to a four-week (\$1,000) video game creation course.
Academic adventure programs	Many academic adventure programs could provide students with a fulfilling learning experience outside of the home or classroom. For example, the National Park Service offers a summer camp program for high school students and a "Junior Ranger" program.	Outward Bound advanced wilderness courses for high school students can cost approximately \$1,500. <sup>55</sup> Other academic enrichment programs can cost significantly less. <sup>56</sup>

**Spurring Innovation and Driving Efficiency:** A state-funded Education Savings Account program gives families the maximum flexibility to customize and choose the best learning environment for their children. Since families are also allowed to save funds to pay for future education costs (including college tuition), a state-funded Education Savings Account program also gives families a strong incentive to shop for the best education possible at the lowest cost. This incentive will encourage education providers to provide the best learning experience at the lowest cost, increasing efficiency within K-12 education. This will also encourage schools to innovate by harnessing new and emerging low-cost or free instructional resources like Khan Academy. The result of this process of authentic consumer choice and innovation will result in a more efficient K-12 education system for students, families, and taxpayers.

**Who Would Benefit:** All children stand to benefit from a more customized education system. For some students, the chance to participate in an online learning program may yield a modest but important benefit, such as the opportunity to take a class that is not available at the traditional public school. For others, a system of state-funded Education Savings Accounts could fundamentally

change the way children experience education, creating a customized learning experience that includes a range of educational services, such as enrollment at a blended learning school, home-based instruction, and after-school or summer enrichment programs. Children of all academic, demographic, and socioeconomic backgrounds stand to benefit from online learning and a more customized educational experience.

## Recommendations

Policymakers should consider the following steps to encourage better, more customized education plans for students:

**Create New Online Learning Programs:** State policymakers and local schools should expand the supply of high-quality online learning options. Specifically, policymakers and school leaders should expand public and charter school participation in the Arizona Online Instruction (AOI) initiative by creating new virtual learning options, such as creating a statewide Arizona Virtual School (similar to the publicly funded Florida Virtual School). In addition, traditional public schools and charter schools should create more virtual learning options for their students.

**Expand Access to the Education Savings Accounts Program:** Arizona has taken an important stride in creating the Education Savings Accounts program for special-needs students. Arizona would do well to expand the program to include all Arizona students, so that families can customize their children's education and access the education services they need. Expanding the program would also encourage more efficiency and innovation in the education marketplace.

*Children of all academic, demographic, and socioeconomic backgrounds stand to benefit from online learning and a more customized educational experience.*

## Conclusion

Across the nation and world, online and digital learning programs are revolutionizing the way children learn. From innovative blended-learning schools like Carpe Diem Academy to pioneering statewide virtual schools, children are benefiting from a more customized, technology-based education. Over the next decade, participation in online learning programs is expected to grow dramatically, with as much as half of all high school instruction happening in a digital setting.

Arizona is beginning to provide some digital learning options, but it can do more. Only certain charter schools and public schools in certain districts currently offer virtual learning programs. Arizona policymakers and school leaders should

consider reforms that will help all students benefit from digital learning and a customized learning experience.

A system of state-funded Education Savings Accounts would give parents the flexibility to customize their children's education and use their share of school funding to access the best education, thus enabling their children to reach their potential. State-funded Education Savings Accounts will encourage families to shop for the best possible education and will spur education providers to lower costs and provide superior services. In 2011, Arizona became the first state in the nation to offer state-funded Education Savings Accounts. Arizona should expand access to this program to give more families the power to customize their children's education and become the nation's leader in the digital learning revolution.

## ENDNOTES

*Over the next decade, participation in online learning programs is expected to grow dramatically, with as much as half of all high school instruction happening in a digital setting.*

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