IMPLEMENTING APEX LEARNING

A comparison of online-learning programs in three school districts

AN EDUCATION CASE STUDY

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EXECUTIVE SUMMARY

Since 1999, Apex Learning has provided online courses in math, science, English, social studies, world languages, fine arts, and health/physical education to more than 4,700[1] school districts across the United States. The adaptability of Apex Learning allows districts to implement the online courses in a variety of settings and programs according to the specific needs of their students and the different viewpoints of district leaders regarding where and how learning should occur.

This study examines the various ways that three districts—Auburn School District (Auburn) in Auburn, Wash., Volusia County Schools (Volusia) in Volusia County, Fla., and Wichita Public Schools (Wichita) in Wichita, Kan.—are using Apex Learning to help students who were not being served well by the traditional school system, or who, in many cases, had already left the system. There are strong similarities in many of their online-learning programs, but also some key differences.

Similarities in programs

Auburn, Volusia, and Wichita had initially used server-based computer courses for their dropout-prevention-and-recovery and credit-recovery programs before making the switch to Apex Learning for cost and convenience reasons as well as rigor. All three used some form of blended learning—where students took the online courses in brick-and-mortar environments supervised by adults who were on hand to help students with problems as they confronted them. And all three were able to graduate students each year who they otherwise would not have were it not for these programs.

Differences in programs

Auburn's online-learning programs cost more money than the district's traditional schools because of class-size limits and access to district funding sources that Volusia and Wichita do not possess. Volusia and Wichita's online-learning programs, however, cost significantly less than their district's traditional schools. Although all three districts run a variety of online-learning programs, all three have set very different policies, parameters, and processes around their programs. For

[1] There are a number of districts that only use Apex Learning for a single or few Apex Learning Virtual School enrollments as needed (e.g., online courses for individual students) that do not renew a contract year-to-year. As a result, this number is much larger than the annual number of districts contracting with Apex Learning.

example, explicit policies in Auburn prohibit virtual-school teachers from communicating with their students via means other than phone and e-mail, whereas Volusia encourages virtual teachers to work with their students using primarily virtual classrooms and instant messenger programs. In addition, although Auburn's online-learning programs receive far more per-pupil funding than Volusia's and Wichita's, the bureaucratic requirements to receive those funds in some cases are far more onerous and focused on input metrics around time rather than simple enrollment on various "count days" on given days in certain months, as is the case in Volusia and Wichita. And all three staff their online-learning programs in different ways and put different requirements in place for students—as some programs expect students to work on only one course at a time whereas others expect students to work on several.

Student performance

Comparing the results of the online-learning programs and finding out which approaches were the most successful was impossible because of a lack of data in all three districts—even to the point of making it difficult to know without a concerted manual effort how many unique students an online-learning program had served over the course of a given time period in some cases.

IMPLEMENTING APEX LEARNING

A comparison of online-learning programs in three school districts

Since 1999, Apex Learning has provided online courses in math, science, English, social studies, world languages, fine arts, and health/physical education to more than 4,700[1] school districts across the United States. The for-profit company provides a uniform suite of online courses, but the districts differ in their approach to implementing it in some significant ways. This study examines the various ways that three districts—Auburn School District in Auburn, Wash., Volusia County Schools in Volusia County, Fla., and Wichita Public Schools in Wichita, Kan.—are using Apex Learning to help at-risk students and dropouts earn credits toward high school diplomas.

I. APEX LEARNING: PAST TO PRESENT

Apex Learning was founded in 1997 by Microsoft co-founder Paul Allen on the premise that online courses, which had already proven effective for teaching college students, could be used to teach students in grades K through 12. The company began as a provider of online Advanced Placement (AP) courses for accelerated students who did not have access to AP courses because either their high schools did not offer them or their class schedules could not accommodate them. These early courses were delivered through distance-learning programs, where the students and Apex Learning teacher were separated geographically.

The company soon realized that only a small percentage of high school students enroll in AP courses.[2] Targeting such a specialized market segment would limit opportunities for growth. In 2004, Cheryl Vedoe, the newly hired CEO and former vice president of education marketing at Apple Computer, oversaw a shift in focus toward creating online courses in core subjects, including math, science, English, and social studies. While continuing to offer online AP courses, Apex Learning launched two different levels of some core courses—honors and literacy

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[2] In 2008, fewer than three percent of high school students in the United States took an AP exam.

advantage[3]—as well as separate basic courses in math and English to help students who were not prepared for grade-level academic challenges. Under Vedoe's leadership, Apex Learning's course list expanded significantly. By 2010, the company was offering more than 90 courses (see **Appendix A** for Apex Learning's course catalog for the 2010–11 school year). In addition to distance-learning programs, Apex Learning's online courses could be used in blended-learning programs—where students take online courses in a classroom setting under the supervision of a certified teacher. During the 2009–10 school year, blended-learning programs comprised more than 90 percent of Apex Learning's enrollments.[4]

In recent years, Apex Learning has established itself as a leading provider of online courses for high school students.[5] During the 2009–10 school year, it served 300,000 students in more than 1.3 million enrollments and provided online courses to 1,200[6]—or 10 percent—of the 12,000 school districts nationwide that contain high schools.[7]

The majority of districts contracting with Apex Learning today use the online courses primarily in programs designed to help students who are struggling—or have struggled—to succeed in the traditional school system. Kimberly,[8] 17, a high school senior who had previously failed algebra, takes Apex Learning's Algebra I course in a credit-recovery lab at her high school in Volusia County, Fla., to make

APEX LEARNING FAST FACTS

- Served 300,000 students in more than 1.3 million enrollments during 2009–10 school year
- Offers more than 90 courses
- Shifted focus from AP to core courses in 2004

[3] During the 2009–10 school year, Apex Learning began offering literacy advantage courses to assist students who were reading below proficient so that they could master required content in math, science, English, and social studies and earn credits toward high school diplomas while simultaneously developing literacy skills.

[4] An enrollment is defined as any instance of a student taking a half-credit course; one student, therefore, can be responsible for several enrollments.

[5] An increasing number of districts have begun turning to online course providers such as Apex Learning to supply online courses to schools and programs that target non-consumption. Districts acquire Apex Learning as either low-end or new-market disruptions. Low-end disruptions occur when districts, which had previously used server-based curricula in computer-based learning programs, willingly sacrifice product functionality and/or performance—in terms of raw computing power used to deliver enhanced graphics in this case—for online courses that are less costly, less complex, and more convenient than the previous server-based courses. New-market disruptions occur when districts, which do not already have online learning programs in place, acquire the online courses to expand offerings that would otherwise be unavailable.

[6] This number does not include districts that use Apex Learning for fewer than 10 enrollments.

[7] The Sloan Consortium's *A 2008 Follow-up of the Survey of U.S. Public School District Administrators* reported that 70 percent of the responding public school districts had one or more students enrolled in a fully online course.

[8] Names have been changed to protect the students' identities.

up the lost credit so she can graduate on time. Chris, 48, a former dropout who returned to school at the recommendation of a job interviewer, works on the same online course in a dropout-prevention-and-recovery center at a local mall in Wichita, Kan., to finish his high school diploma so he can become more marketable in the workforce. Maria, 19, a teen mother who had left the traditional school system upon learning she was pregnant during her junior year of high school, also works on Apex Learning's Algebra I course from her bedroom at her home in Auburn, Wash., while her child is sleeping. Mike, 16, a high school sophomore who is serving time for car theft, takes the same algebra course at the juvenile justice facility in Volusia County, Fla., where he is incarcerated.

AUBURN, WASH., FAST FACTS

- 40,314 residents
- 44.3 percent of children are eligible for free or reduced-price lunch
- Apex Learning serves 388 students in 1,380 enrollments

II. DIFFERENT IMPLEMENTATIONS OF APEX LEARNING

The adaptability of Apex Learning allows districts to implement online learning in a variety of settings and programs according to the specific needs of their students and the different viewpoints of district leaders regarding where and how learning should occur. This study will examine three districts with distinct characteristics and challenges that have implemented Apex Learning. The districts are Auburn School District in Auburn, Wash., Volusia County Schools in Volusia County, Fla., and Wichita Public Schools in Wichita, Kan. Their methods reflect the variety of ways that districts are using online learning to help students who were not being served well by the traditional school system or who, in many cases, had already left the system.

Auburn School District in Auburn, Wash.

Auburn School District (Auburn), located 30 miles outside Seattle, is a large suburban district that covers more than 62 square miles and serves roughly 14,600 students. Of the roughly 40,000 residents in the City of Auburn, over 10 percent live below the federal poverty threshold and nearly 45 percent of children are eligible for free or reduced-price lunch (see **Appendix B** for district demographics).

The district began contracting with Apex Learning during the 2005–06 school year to provide online courses to students enrolled in its full-time virtual-school

program, which is housed under the auspices of West Auburn Senior High School (West Auburn), the district's alternative high school.[9] Auburn has since expanded its use of Apex Learning to include day and learning-center programs at the alternative high school, as well as credit-recovery and unit-recovery programs at each of its three traditional high schools. During the 2009–10 school year, Auburn's programs served 388 students in 1,380 Apex Learning enrollments.

Students must complete the online courses with a grade of 70 percent or higher to earn original credits toward a high school diploma.

Dropout prevention and recovery

On the surface, West Auburn looks like a typical high school: the campus includes 11 classrooms, three computer labs, two rooms for woodshop and crafts, a library, a gym, a cafeteria, and an athletic field for baseball and soccer. Yet what differentiates this school from many others is the mode of learning that the school facilitates.

West Auburn offers three full-time programs: a day program, a virtual school, and a learning center.[10] All use Apex Learning in varying capacities to help students between the ages of 14 and 21[11] who either are not succeeding in the traditional high school setting or have dropped out and wish to return to earn the credits necessary to receive a high school diploma (see **Figure 1** for student demographics). During the 2009–10 school year, 168 of West Auburn's 247 students took at least one online course to complete a total of 243 Apex Learning enrollments.

Students enrolled at West Auburn complete the same graduation requirements as students at the district's traditional high schools, with the chief difference being that some of the courses are offered online. To earn original credits toward a high school diploma, students enrolled in an online course must complete the course with a grade of 70 percent or higher. Once students have satisfied the district's graduation requirements, they receive a standard high school diploma from West Auburn.[12]

Although West Auburn operates the day program, virtual school, and learning center as three distinct programs, it allows students to enroll concurrently in

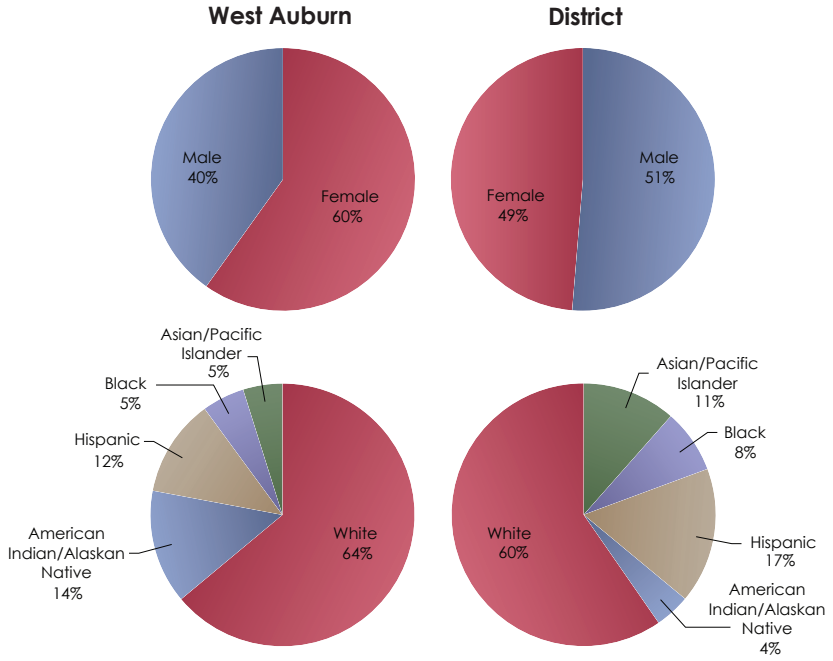
[9] An alternative high school is an educational establishment with a nontraditional curriculum, in this case to serve students who were not succeeding in a traditional high school.

[10] West Auburn also offers a Virginia Cross Native Education Center (VCNEC) program, which provides Native American students with traditional academic curriculum and allows them to participate in Native American carvings, drum making, beadwork, painting, Native language, and physical education classes. This program, however, does not use Apex Learning.

[11] Per WAC 392-121-106(3), students must be under 21 years of age as of August 31 to enroll at West Auburn.

[12] Auburn requires sudents to complete 22.5 course credits to graduate.

Figure 1 *Demographics of students in Auburn's dropout-prevention-and-recovery program vs. the district, 2008–09 school year*



Source: Auburn School District

courses from the different programs based on individual needs and preferences. The programs' location inside a traditional school building, which is large enough to house multiple programs under one roof, makes it is possible for students to blend courses from the different programs and try out several different modes of learning. West Auburn uses Apex Learning differently in each program to accommodate the different preferences and learning paces of its students.

Day program

The day program, which can accommodate up to 150 students at a time, provides a comprehensive curriculum in math, science, English, social studies, health/physical education, family and consumer science education, business education, jewelry/crafts/carving, and introduction to woodshop. The program follows a traditional

school calendar and a roughly typical school schedule with students attending up to six one-hour classes a day on Mondays through Thursdays.[13]

Auburn operates three programs that use Apex Learning:

1. Dropout prevention and recovery
2. Credit recovery
3. Unit recovery

Although the curriculum consists primarily of traditional classroom learning, the program began incorporating Apex Learning into some of its traditional math and English classes in 2007 to help students improve their scores in math and reading on the standards-based Washington Assessment of Student Learning (WASL), which students must pass in order to graduate from a public school in Washington.[14] The program currently offers six math labs and three reading labs that use Apex Learning. Each lab is taught by one of four day-program teachers who are certified in either math or English. Each teacher has 12 computers in his or her classroom for students to use during the labs.

During a typical math lab, all students work on the online courses at their own pace and level on Mondays and Wednesdays, but break away into two different groups on Tuesdays and Thursdays depending on the math course in which they are enrolled. Students in courses below geometry receive traditional classroom instruction from the teacher, while students enrolled in courses in geometry or higher continue working independently online. This arrangement allows teachers to spend the bulk of their time encouraging struggling students and providing them with individualized help on an as-needed basis, while simultaneously permitting more advanced students to move ahead faster.

Virtual school

Started in the fall of 2005, the virtual-school program, which can accommodate up to 48 students at a time, provides significantly more flexibility and independent learning than the day program. Students take online courses from home or in the school's computer labs with minimal in-person teacher supervision. West Auburn does not provide students with personal computers to use, but it encourages students who do not own computers to work at any of the school's three computer

[13] The day program is a five-day a week program with Friday being a day for student intervention in specific course work, or to make up absences during the week.

[14] In spring 2011, Washington is moving to end-of-course exams, called High School Proficiency Exams (HSPEs), that will serve as the state's exit exams in math, reading, writing and science instead of the WASL. The HSPE is shorter to take than the WASL and will be moved online over the next few years. Reading, math, and science will take just one day each instead of two with the WASL. For now, writing will still take two days.

labs, which each contain roughly 15 to 30 computers,[15] or, if the student wishes to work off-site, to use a computer at the local public library. Students generally take only one course at a time so they can focus on mastering the material rather than balancing too many courses at once.[16] Even though students have the freedom to set their own schedules, the program requires them to spend a minimum of 25 hours a week working on their online courses and to complete at least one online course every six to seven weeks.

Additionally, the program requires students to attend a one-hour class period on Mondays through Thursdays at West Auburn to meet face-to-face with their teachers. The virtual-school program employs four teachers—a math teacher, a science teacher, an English teacher, and a social studies teacher—who also teach in the day program. Each virtual-school teacher teaches four traditional classes and one virtual class a day, as opposed to teaching five traditional classes a day like other day-program teachers. During these class periods, teachers review their students' progress, answer questions about the course content, and help students set study goals for the upcoming week. Each teacher's classroom has 12 desktop computers for students to use during the required class period. If students have additional questions about the course content outside of class, they may contact their teachers by phone or e-mail—the district prohibits teachers from using any other forms of communication (such as virtual classrooms or instant messenger programs) to communicate with their students outside of class to prevent inappropriate relationships from forming between teachers and students.

Teachers monitor their students' progress throughout the week using Apex Learning's instructional management and reporting capabilities, which provide teachers with real-time data about when students last logged in to their courses, how much time students have spent working on their courses, and what grades students are receiving on assessments and assignments, among others. Such data helps teachers identify specific areas where students are struggling so they can provide their students with the individualized and focused assistance they need.

Explicit policies in Auburn prohibit teachers from communicating with their students via means other than phone and e-mail.

[15] West Auburn has three computer labs, one that contains 30 computers and two that each contains 15 computers. Additionally, most general classrooms at West Auburn have mini-labs with five to 10 computers.

[16] Students receiving a grade of 90 percent or higher in a virtual course may enroll in up to four virtual courses at one time.

Learning center

The learning-center program, which can accommodate up to 48 students at a time, combines elements of the day program and the virtual school in a structure that provides students with traditional schooling paired with the flexibility of online learning. Although the program started in 1993, it did not begin using Apex Learning until the 2005–06 school year.

West Auburn has two learning centers located inside the school building. Each learning center is staffed by a full-time teacher and can accommodate up to 12 students at one time studying math, science, English, social studies, and elective courses—which is different from the other two programs that separate students by subject. To allow students to work around their employment and family schedules, the program offers students a choice of enrollment in one of four sessions—a morning session (from 9:04 to 11:08 a.m.), two afternoon sessions (from 12:46 to 2:50 p.m. and from 3:00 to 5:00 p.m.), or an evening session (from 6:00 to 8:00 p.m.)—that meet Mondays through Thursdays. Students generally take only one course at a time and must complete at least one online course every five weeks. Although the learning-center program offers students significantly more flexibility than the day program, it expects students to devote a minimum of eight hours a week to doing online coursework at the learning center and 17 hours a week from home. Students can make up absences by attending any of the other three sessions in which they are not enrolled.

Time requirements for West Auburn's online-learning programs:

- Day program: four hours per week in class (in addition to six other classes)
- Virtual school: four hours per week in class; 21 hours per week outside of class
- Learning center: eight hours per week in class; 17 hours a week outside of class

Credit recovery

Auburn also uses Apex Learning in its traditional schools to enable high school students who have failed one or more courses to recover the lost credits so they can graduate on time. Each of the district's three traditional high schools has its own credit-recovery lab located inside the school building where students can go during a daytime class period for which they are registered to retake the courses they have failed. The labs are also open after school and during lunch. Each lab consists of a room lined with rows of computers and an office space with a desk for a teacher. Each lab is staffed by a full-time teacher and can accommodate up to 30 students at one time taking math, science, English, and social studies courses.

The high schools permit students to work on their online courses outside the credit-recovery labs, and many students choose to continue their coursework at home in the evenings. To prevent cheating, the district requires students to take all unit and course exams in the credit-recovery labs. Each lab establishes its own rules

regarding the administration of these exams depending on teachers' preferences. One lab allows students to take the exams only on Fridays, whereas other labs permit students to take them as needed. Because students work on their online courses at their own pace, students who recover their lost credits and are on track to graduate before the end of the semester are transferred to a physical education class for the remainder of the time.

Each of Auburn's three traditional high schools also allows 11th and 12th grade students to take online courses for credit recovery during the summer. The summer program meets from 8 a.m. to noon on Mondays through Thursdays at one of the credit-recovery labs in the district. It operates much like the credit-recovery program run during the academic year with one noticeable difference. Students who need to recover credits may take online courses for free during the school year, but in the summer they must pay a fee of $100 for the first course and $75 for any additional courses. The money pays for the summer school teachers' salaries. Any extra money goes toward paying for the online courses.

Unit recovery

Auburn also uses Apex Learning in its traditional schools to enable current high school students who have failed a unit assessment to retake the unit before they fail an entire course and need to enroll in the credit-recovery program. In some instances where only a few students have failed a unit assessment, the teacher pulls individual students out of the classroom and places them in a credit-recovery lab to retake the unit. Once a student has successfully completed the unit with a score of 70 percent or higher, the teacher brings him or her back into the classroom with the other students. In other instances where an entire class has failed a unit assessment, all the students retake the unit on laptops in the classroom. With Apex Learning, teachers can provide preemptive remediation to current high school students as soon as they begin struggling with a concept rather than waiting until they have failed the course to help them. Only a few teachers at Auburn's traditional high schools are currently participating in unit recovery, which means that there is still a significant need for the credit-recovery program.

During the 2009–10 school year, Auburn's three traditional high schools helped 214 students complete 686 Apex Learning enrollments for credit and unit recovery.

Funding

Auburn pays for West Auburn using state, district, and federal funding, as well as money from outside grants and donations. The district receives per-pupil funds from Washington's Office of Superintendent of Public Instruction (OSPI) in the amount of approximately $5,000 per year for every full-time equivalent (FTE) student enrolled at West Auburn.[17] It also receives some Learning Assistance Program (LAP) funding from the state in the amount of approximately $1,000 per year for every student enrolled at West Auburn who scores below grade level on state and district assessments.[18]

With written student-learning plans, the state funds the virtual-school and learning-center programs based on *time* rather than on completion or mastery of courses.

The state determines FTE enrollment for the day program based on a monthly headcount taken on the fourth school day of September and the first school day of October through May; it determines FTE enrollment for the virtual-school and learning-center programs, however, based upon the district's estimated average weekly hours of learning activity, as identified in the written student-learning plans that virtual-school and learning-center teachers must create for each of their students on a weekly basis.[19] The state requires that written student-learning plans specify, among other things, a beginning and ending date for the online course in which the student is enrolled, an estimate of the number of hours per week that the student will spend working on the online course, a description of the student's specific learning goals and performance objectives in the course, and a description of the timelines and methods for evaluating student progress toward the learning goals and objectives specified in the learning plan.[20] In essence, the state funds the virtual-school and learning-center programs based on time rather than on completion or mastery of courses.

The funding structure based on time has created problems for the district. First, teachers complain that it creates unnecessary paperwork that prevents them from devoting more time to teaching. Second, the district might receive less money than

[17] Auburn's students must receive a minimum of 900 hours of instruction (25 hours per week) to be counted as one FTE. If a student is enrolled for fewer than the minimum hours, then the district receives a portion of an FTE, which is determined by dividing the hours enrolled by the minimum hours.

[18] See WAC 392-162, http://apps.leg.wa.gov/WAC/default.aspx?cite=392-162, and Chapter 28A.165 RCW, http://apps.leg.wa.gov/RCW/default.aspx?cite=28A.165.

[19] See RCW 28A.150.262, http://apps.leg.wa.gov/rcw/default.aspx?cite=28A.150.262.

[20] See WAC 392-121-182, http://apps.leg.wa.gov/wac/default.aspx?cite=392-121-182.

Figure 2 *West Auburn's approximate costs, 2009–10 school year*

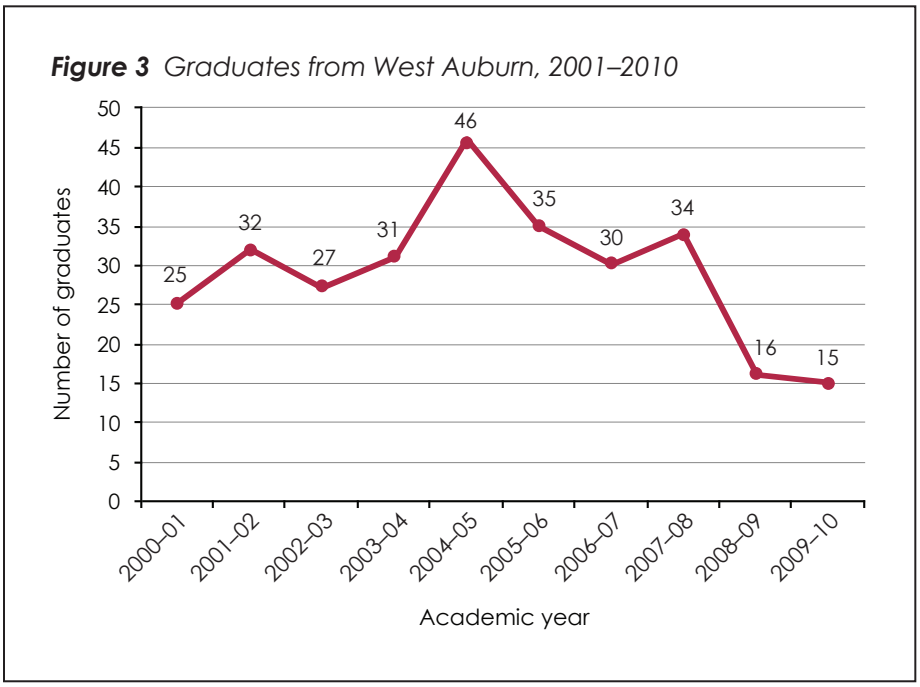
Item	Expense
Salaries and benefits[1]	$2,105,596
Supplies	$ 58,867
Contract services	$ 68,297
Travel	$ 925
Field trips	$ 217
Printing services	$ 2,376
Capital outlay	$ 0
District and school indirect costs[2]	$ 308,923
TOTAL	$2,545,201

[1] The salary data includes principal, counselor, teachers, aides, custodian, and food service.
[2] This number is an approximation because Auburn does not specifically break out each school's district and school indirect costs to pay for custodial and maintenance services and central administration. We derived this number by taking 14% of West Auburn's total school direct costs for the 2009–10 school year.

Source: Auburn School District

it should because the state determines FTE enrollment based upon the district's *estimated*—rather than *actual*—average weekly learning activity. This means that if a written student-learning plan estimates that a student will spend 20 hours working on a specified number of units but it actually takes the student 28 hours to complete the work, then the district will receive funding for only a portion of an FTE even though the student met the minimum FTE requirements—although it can work the other way as well of course. Third, if teachers fail to submit written student-learning plans on a weekly basis, then the district does not receive FTE funding for those students even if they are meeting FTE requirements.

In addition to state funding, West Auburn receives district funding from tax levies in the amount of approximately $3,400 per pupil each year to compensate for some of the school's increased expenditures as a result of its smaller class-size limits. According to a negotiated agreement between the Auburn Education Association (AEA) teachers union and the district that has been in effect since prior to 1994, class-size limits at West Auburn are 25:1, whereas the district's traditional high schools are 30:1. This means that custodial and all office personnel costs are more in relation to the size of student enrollment than other schools in the district. West Auburn also receives some federal funding from the Enhancing Education through Technology (Ed Tech) program, to help pay for some professional development of teachers around uses of technology in the classroom, and from the Impact Aid



Source: Auburn School District

Discretionary Grant program, to compensate for some of the school's increased expenditures because of the enrollment of children living on Indian lands.

Additionally, West Auburn receives some funding from organizations not affiliated with the district. During the 2009–10 school year, the school received grants from the National Highway Traffic Safety Administration, the Muckleshoot Indian Tribe, the Boeing Co., and the NEA Foundation, which totaled $8,249, as well as donations from USAgain, Target, and Washington Mutual, which totaled $462. West Auburn used these grants and donations to pay for field trips and for instructional materials and supplies for specialized programs.

West Auburn is more expensive to operate as an administrative unit than other schools in the district. During the 2009–10 school year, West Auburn's per-pupil cost was roughly $9,533[21]—or approximately $209 less than the district's per-pupil expenditure for the 2008–09 school year, the latest year for which this data was available (see **Figure 2**).[22]

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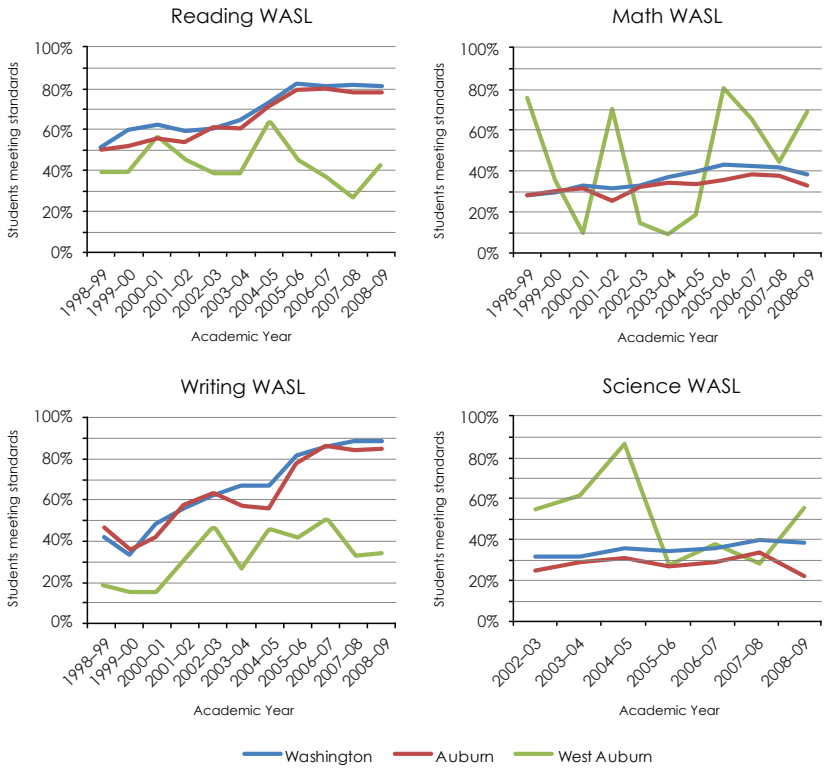
[21] This number was derived from dividing West Auburn's total expenditures ($2,515,516) for the 2009–10 school year by the total number of students (267) enrolled at West Auburn during the 2009–10 school year.

[22] According to the National Center for Education Statistics (NCES), Auburn's per-pupil expenditure for the 2008–09 school year was $9,742.

Figure 4 *Percentage of students in West Auburn, Auburn, and Washington that met standards in reading, writing, math, and science WASLs, 2008–09 school year*



Source: Auburn School District

Student performance

Since Auburn began contracting with Apex Learning in 2005, West Auburn has helped roughly 130 students[23] who were not successful in the traditional schools earn high school diplomas. That figure comprises roughly 10 percent of the students that have attended West Auburn since 2005 (see **Figure 3**). Although the number of annual graduates from West Auburn had decreased in 2006 when the school first began using Apex Learning, it had started to increase again by 2008. But the following year, in 2009, the number again dropped abruptly when the state began requiring students to pass the WASL in math to graduate. Previously, the state had only required students to pass the WASL in reading, writing, and science to graduate.

[23] This number reflects the total number of graduates from West Auburn since 2005, including graduates who did not take online courses.

During the 2008–09 school year, West Auburn's students—who were the most academically behind of Auburn's students before enrolling at the alternative high school—continued to perform below district and state levels in reading, writing, math, and science WASLs (see **Figure 4**). Overall, Apex Learning appears to have had little impact on West Auburn's WASL scores. It remains to be seen if the credit-recovery efforts currently underway within the district will impact the WASL.

VOLUSIA COUNTY, FLA., FAST FACTS

- 443,343 residents
- 55.3 percent of children are eligible for free or reduced-price lunch
- Apex Learning serves 3,451 students in 9,505 enrollments

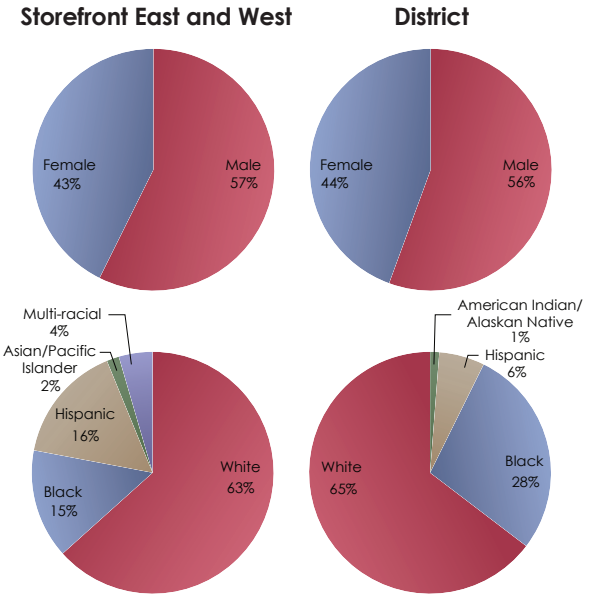
Volusia County Schools in Volusia County, Fla.

Volusia County Schools (Volusia), situated on the east coast of Central Florida along nearly 47 miles of Atlantic Ocean beaches, is a small urban district that serves a racially and socioeconomically diverse student population (see **Appendix B** for district demographics). With nearly 63,000 students and 8,000 employees, it is the 10th largest district in Florida and the largest employer in Volusia County. In addition to education, Volusia County's roughly 500,000 residents are employed primarily in tourism and farming.

The district began contracting with Apex Learning during the 2003–04 school year to provide online courses to students enrolled in its dropout-prevention-and-recovery program. Previously, the program, which began in the fall of 1992, had used a server-based computer program for its curriculum. In 2003, the program's administrators decided to update the curriculum and, in particular, switch from a server-based to an online curriculum. They believed that online courses would be cheaper and more convenient to maintain. After researching various online options, they selected Apex Learning primarily because its courses were more rigorous than other online courses the district had tested and were aligned to state standards. The district has since expanded its use of Apex Learning to include credit-recovery, juvenile-justice, middle-to-high-school-transition, and full- and part-time virtual-school programs. During the 2009–10 school year, Volusia served 3,451 students in 9,505 Apex Learning enrollments.[24]

[24] Although Apex Learning is Volusia's primary provider of online courses for high school students, Volusia also allows students to take online courses from other providers, including Florida Virtual School (FLVS). The number of enrollments reported in this paper is only for Apex Learning and is not representative of the total number of online enrollments completed by Volusia's students.

Figure 5 *Demographics of students in Volusia's dropout-prevention-and-recovery program vs. the district, 2008–09 school year*



Source: Volusia County Schools

Dropout prevention and recovery

Volusia uses Apex Learning in its dropout-prevention-and-recovery program to allow students between ages 16 and 22 who either are not succeeding in the traditional high school setting or have dropped out and wish to return to earn the credits necessary to receive a high school diploma (see **Figure 5** for student demographics). The district operates the program at two sites: Storefront School East (Storefront East) and Storefront School West (Storefront West). Neither of these are typical settings for a school. Instead, they occupy storefront spaces at rented commercial property to accommodate students who, administrators believed, having previously dropped out of school might be reluctant to return to a traditional high school setting. Each storefront space is relatively small and includes a reception area, two offices, a conference room, restrooms, and one classroom equipped with roughly 25 computers that are separated by panels on three sides to give students a sense of privacy and reduce distractions.

Students enrolled in Volusia's dropout-prevention-and-recovery program complete the same graduation requirements as students at the district's traditional high schools, with the chief difference being that all the courses are offered online. To earn original credits toward a high school diploma, students must complete the online courses

with a grade of 70 percent or higher. Once a student enrolled at Storefront East or Storefront West has satisfied the district's graduation requirements, he or she receives a standard high school diploma—rather than a GED[25]—from one of Volusia's *traditional* high schools.[26] The district's administrators insisted that students received a traditional high school diploma rather than a GED because they recognized that many employers regarded a GED as inferior to a high school diploma.

Students must be employed for 15 hours per week in a job that meets Florida's Compensatory Education standards or concurrently enrolled at Daytona State College.

The program imposes certain admission requirements to ensure that admitted students had previously given the traditional school system a fair chance and to attract students who had completed a minimum number of credits so that the program would not be overwhelming. Students must have already attempted two years of traditional high school, earned 10 to 12 credits toward graduation (Florida requires students to complete 24 credits to graduate), and received passing or near-passing scores on the 10th grade Florida Comprehensive Assessment Test (FCAT).[27] Students must also be employed for a minimum of 15 hours per week in a job that meets Florida's Compensatory Education standards or concurrently enrolled at Daytona State College. By allowing students to earn high school credit for work experience or college courses, the district hopes to better prepare students to enter the workforce full time or pursue a college degree.

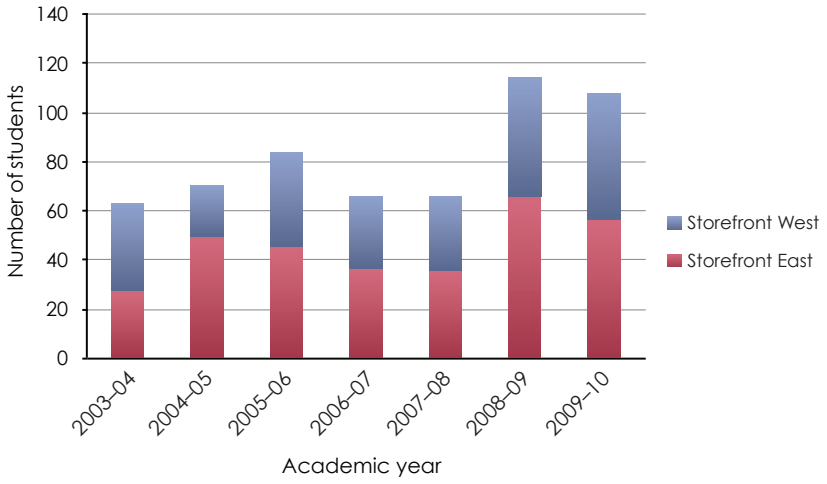
When Volusia set up its dropout-prevention-and-recovery program in 1992, administrators wanted to provide students with a set structure similar to that of a traditional school, while at the same time offering students the flexibility to work on courses at their own pace and level. As a result, the program follows a traditional school calendar and a daily class schedule, but its structure is different from a traditional school. Each site offers students a choice of enrollment in one of two sessions: a morning session (from 8 a.m. to noon) or an afternoon session (from noon to 4 p.m.). During each session, students work on two courses per day for two hours each.

[25] Students can acquire a general educational development (GED) certificate through the district by passing a GED exam that consists of five different subject sections taken over seven-and-a-half hours. These subject sections include: language arts writing, language arts reading, mathematics, science, and social studies. Scores range from a minimum of 200 to a maximum of 800 on each subject section. The minimum score required on each section is 410. The total minimum score required is 2050. Individuals may retake the entire test—or individual sections—until they earn a passing grade.

[26] Volusia requires students to complete 24 course credits to graduate.

[27] The Florida Comprehensive Assessment Test (FCAT) is administered to students in grades 3 through 11. It consists of criterion-referenced tests (CRT) in mathematics, reading, science, and writing, which measure student progress toward meeting the Sunshine State Standards (SSS) benchmarks.

Figure 6 *Students enrolled in Volusia's dropout-prevention-and-recovery program during fall headcount, 2003–2009*



Source: Volusia County Schools

All students take six courses concurrently and study the same subjects simultaneously at each site on alternate days. On Mondays through Thursdays, students study either math and science or English and social studies. On Fridays they work on elective requirements (see **Appendix C** for sample class schedule). To prevent cheating, the district does not allow students to work on the online courses off-site.

Although students study the same subjects simultaneously at each site, they work individually, at their own pace and level, on a variety of online courses. For example, one student might be taking an algebra course, while a student sitting next to her is studying geometry. Students may start or finish a course at any time during the school year rather than wait until the end of a grading period to complete it. This flexibility enables students to review the material until they understand it—and allows students who have already grasped the material to advance more quickly.

Storefront East and Storefront West share four full-time teachers—a math teacher, a science teacher, an English teacher, and a social studies teacher—who alternate between the two sites in pairs. On Fridays, two of the teachers are available at each site to help students with their elective requirements. By using subject-matter experts to teach the online courses, students receive specialized and content-related help in each of the four subjects.

Since Volusia began using Apex Learning in 2003, the number of students enrolled at Storefront East and Storefront West has fluctuated but mostly increased (see **Figure 6**). During the 2009–10 school year, Volusia's dropout-prevention-and-

recovery program helped 246 students complete 1,572 enrollments, of which 921 were Apex Learning.

Volusia operates five programs that use Apex Learning:

1. Dropout prevention and recovery
2. Credit recovery
3. Middle to high school transition
4. Juvenile Justice
5. Distance learning

Credit recovery

Volusia also uses Apex Learning in its traditional schools to enable current high school students who had previously failed one or more courses to recover the lost credits so they can graduate on time. Each of the district's nine traditional high schools has its own credit-recovery lab located inside the school building where students can go during a daytime class period for which they are registered to retake the courses they have failed under the supervision of a full-time teacher. Each credit-recovery lab consists of a room lined with rows of computers and an office space with a desk for the teacher. Each lab can accommodate up to 25 students at a time taking math, science, English, and social studies courses. Students generally take only one or two online courses at a time and are not permitted to test outside of the credit-recovery labs. During the 2009–10 school year, Volusia's nine credit-recovery labs helped 2,379 students complete 4,891 Apex Learning enrollments.

Middle to high school transition

Volusia also uses Apex Learning in its middle-to-high-school-transition program to help students who are repeating the 9th grade catch up with their grade-level peers. The district operates the program at two sites: Community Learning Center East and Community Learning Center West.[28] Each site has its own "Apex lab" located inside the building where 9th graders can go during a daytime class period for which they are registered to take Apex Learning's online courses under the supervision of a full-time teacher.[29] Students may take the online courses for either credit recovery or original credit. The Apex labs are set up much like the district's credit-recovery labs. Each consists of a room lined with rows of computers and an office space with a desk for the teacher. Each lab can accommodate up to 30 students at a time taking

[28] Community Learning Center East and Community Learning Center West are one-year middle-to-high-school-transition programs that provide support for students in grades 7 through 9 who have not been successful in the traditional school setting and are at-risk of dropping out of high school. By providing targeted remediation for middle school students, the district hopes to prevent transitioning students from dropping out.

[29] Each site also has its own "Odyssey lab" where 7th and 8th graders can go during a daytime class period for which they are registered to take Odyssey's online courses.

math, science, English, and social studies courses. During the 2009–10 school year, Volusia's middle-to-high-school-transition program helped 103 students complete 143 Apex Learning enrollments.

Juvenile Justice

Volusia also employs Apex Learning in its Department of Juvenile Justice educational programs to help students stay on track during their incarceration so they can graduate on time. Students attend six 45-minute classes on Mondays through Fridays in math, science, English, social studies, business, and electives. As in a traditional school, students change classrooms and have different teachers for each subject, but all the learning takes place on the computer. Online courses allow students to work at their own pace and level, which is necessary because students are constantly entering and leaving the program. During the 2009–10 school year, Volusia's Department of Juvenile Justice educational programs helped 76 students complete 376 Apex Learning enrollments.

Distance learning

The district also uses Apex Learning in its full- and part-time virtual-school programs, which began in the fall of 2009, to provide alternative learning options for students in grades 9 through 12 who are succeeding academically but cannot attend school during regular hours.[30] These courses must be taken as part of the students' regular course schedules. Full-time students take up to six online courses at a time in math, science, English, social studies, and electives, whereas part-time students generally take only one or two online courses at a time. Although the program expects its students to spend at least one hour a day working on each of their online courses, it allows them to set their own schedules and work where and when it is convenient for them. The district does, however, require students to log in to each of their online courses at least once a day for attendance purposes. Virtual office hours are available for most courses, where teachers work with students using virtual classrooms or instant messenger programs. Students can enter a chat room to ask their teachers questions about the coursework. During the 2009–10 school year, Volusia's virtual-school program helped 139 students complete 344 Apex Learning enrollments.

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[30] Students may also take online courses through Florida Virtual School (FLVS), the state of Florida's online high school.

Figure 7 *Volusia's approximate costs for two storefront schools, 2009–10 school year*

Item	Expense
Salaries and benefits	$249,195
Purchased services	$ 44,396
Materials and supplies	$ 3,372
Other expenses	$ 1,684
Capital outlay	$ 18
School indirect[1]	$206,129
District indirect	$ 14,498
TOTAL	$519,292

[1] School indirect costs are derived from two sources: 1) expenditures reported by school and 2) school-level expenditures centrally recorded. These costs include pupil personnel, instructional media, instructional and curriculum development, instructional training, school administration, facilities acquisition and construction, central services, operation of plant, maintenance of plant, administrative technology services, and instructional technology services.

Source: Volusia County Schools

Funding

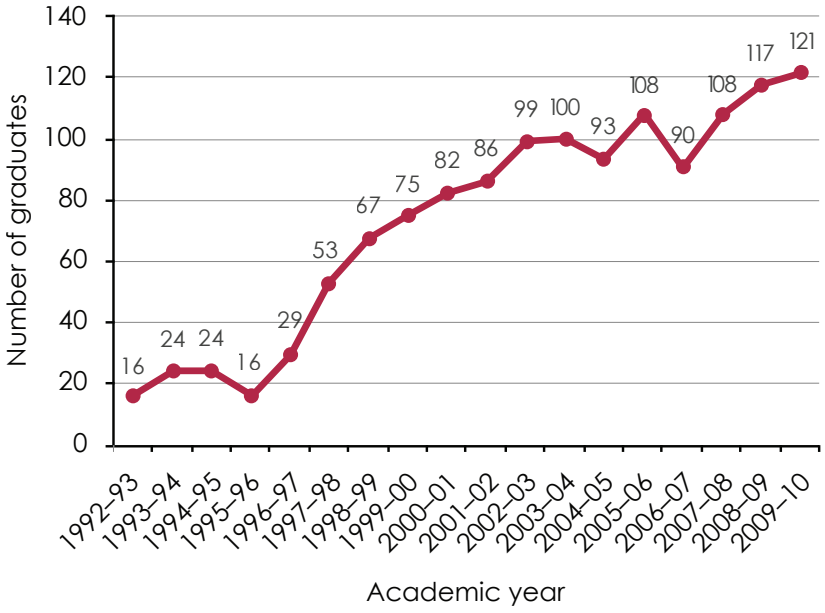
Volusia pays for its dropout-prevention-and-recovery program using state and district funding. The district receives funds on a weighted per-pupil basis through the Florida Education Finance Program (FEFP), the statewide funding formula for K–12 education, in the amount of approximately $6,700 per year for every full-time equivalent (FTE) student enrolled at Storefront East or Storefront West.[31] The state determines FTE enrollment based upon two headcounts taken in October and February.[32]

Storefront East and Storefront West are significantly less expensive to operate on a per-pupil basis than the district's traditional schools. For example, even if one considers all of the costs—operating and capital—of Storefront East and Storefront

[31] Included in this figure are basic education program funding and Exceptional Student Education (ESE) program funding, which carry a cost factor of 1.031 each for every student and special education student enrolled full time at Storefront East or Storefront West, as well as English for Speakers of Other Languages (ESOL) program funding, which has a cost factor of 1.147 for every ESL student enrolled full time at Storefront West.

[32] A student must receive 900 hours of instruction (25 hours per week; 5 hours per day) to be counted as a full-time student. Each year, full-time student enrollment is estimated based on demographic and school district projections. Once the school year begins, it is revised by actual counts of students in October and February.

Figure 8 *Graduates from Volusia's dropout-prevention-and-recovery program, 1993–2010*



Source: Volusia County Schools

West during the 2009–10 school year, the cost per student was roughly $4,642[33]—or approximately $2,013 less than the district's per-pupil expenditure for the 2009–10 school year (see **Figure 7**).[34]

Student performance

Since 1992, Volusia's dropout-prevention-and-recovery program has helped 1,308 students who were unsuccessful in the traditional schools earn high school diplomas (see **Figure 8**).[35] In 2005 and 2007, the number of graduates decreased shortly after the program began using Apex Learning, which was more challenging than previous server-based courses, but the number of graduates has since continued to increase each year.

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[33] This number was derived from dividing Volusia's total expenditures ($515,292) for two storefront schools by the total number of FTE (111) at Storefront East and Storefront West. This number does not include the K–3 basic funding that Storefront East receives for the daycare for children of teenage parents.

[34] According to the district, Volusia's per-pupil expenditure for the 2009–10 school year was $6,655.

[35] Student enrollment numbers for Storefront East and Storefront West were not available prior to 2003.

Wichita Public Schools in Wichita, Kan.

WICHITA, KAN., FAST FACTS

- 344,284 residents
- 50.4 percent of children are eligible for free or reduced-price lunch
- Apex Learning serves 946 students in 3,904 enrollments

Wichita Public Schools (Wichita), located in south central Kansas, is a large urban district that serves a racially and socioeconomically diverse student population (see **Appendix B** for district demographics). With more than 50,000 students, it is one of the largest school districts in the Midwest and educates approximately 11 percent of all public school students in Kansas.

The district began contracting with Apex Learning during the 2007–08 school year to provide online courses to students enrolled in its dropout-prevention-and-recovery and credit-recovery program. Previously, the program, which began in 1999, had used two different server-based computer programs for its curricula. In 2007, the program's administrators decided to update the curricula and, in particular, switch from a server-based to an online curriculum. They believed that online courses would be cheaper and more convenient to maintain. After researching various online options, they selected Apex Learning primarily because its courses were more rigorous than other online courses the district had tested and were aligned to state standards. During the 2008–09 school year, Wichita's dropout-prevention-and-recovery and credit-recovery program served 946 students in 3,904 Apex Learning enrollments.[36]

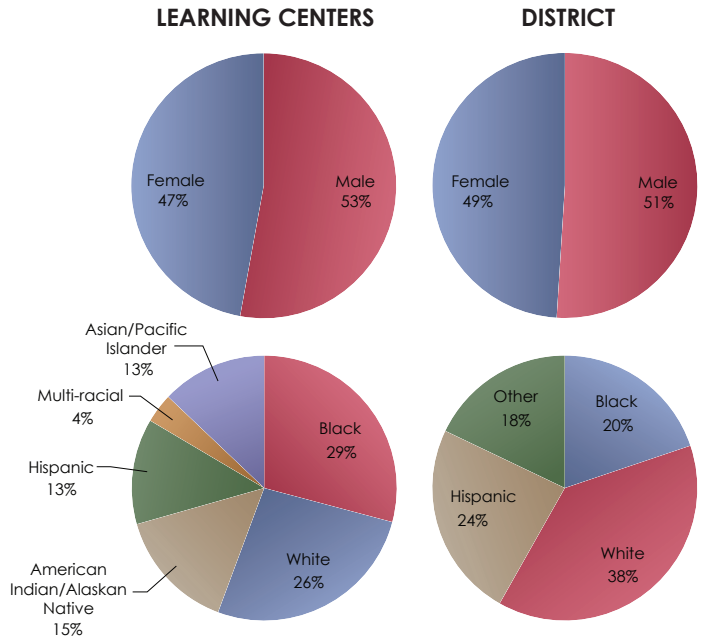
Dropout prevention and recovery

Wichita uses Apex Learning in its dropout-prevention-and-recovery program to enable high school dropouts of all ages to work toward earning diplomas (see **Figure 9** for student demographics). The district operates four dropout-prevention-and-recovery centers: Towne East Education Resource Center (Towne East), Towne West Education Resource Center (Towne West), Workforce Learning Center (Workforce), and Dunbar Learning Center (Dunbar).[37] They are located in storefront spaces at local malls and in office spaces at community centers to accommodate adults and youth who might be reluctant to return to a traditional high school setting after dropping out. All are similarly designed with a large, open space divided into a variety of work areas that accommodate different learning

[36] During the 2009–10 school year, Wichita launched a full-time virtual school, called Learning2 eSchool of Wichita, which also uses Apex Learning for its curriculum.

[37] Dunbar Learning Center was formerly called Urban League Learning Center until August 2009 when the district moved it to the Dunbar school and changed the center's name.

Figure 9 *Demographics of students in Wichita's dropout-prevention-and-recovery program vs. the district, 2008–09 school year*



Source: Wichita Public Schools

needs. These work areas include individual study stations equipped with roughly 30 computers with headsets; tables for group study and project work; a sitting area with couches and lounge chairs for comfortable reading, one-on-one interaction with teachers, student discussions, and peer counseling; a resource center with instructional materials and career information; and an office space equipped with desks for the teachers.

The program uses a blended-learning model. Each dropout-prevention-and-recovery center employs two full-time teachers—one who is licensed in English and social studies and another who is licensed in mathematics and science—who grade students' essays and written assignments, monitor student progress, assist with coursework as needed, and make sure students stay on task. Additionally, each dropout-prevention-and-recovery center employs either a social worker or student support personnel, who coordinates and arranges for support services (e.g., mentoring, child care, transportation, meal vouchers, and housing) to remove barriers.

Students enrolled in Wichita's dropout-prevention-and-recovery program complete the same graduation requirements as students at the district's traditional high schools. The chief difference is that all the courses are offered online. Students

generally take only one course at a time to help them focus on mastering the material rather than balancing too many courses at once. To earn original credits toward a high school diploma, students must complete the online courses with a grade of 80 percent or higher. Once a student enrolled at a dropout-prevention-and-recovery center has satisfied the district's graduation requirements, he or she receives a standard high school diploma—rather than a GED—from one of Wichita's *traditional* high schools.[38]

Wichita operates one program—with two parts—that uses Apex Learning:

1. Dropout prevention and recovery
2. Credit recovery

Wichita's program does not require student attendance during set hours each day. Instead, students may go to the dropout-prevention-and-recovery centers at any time during the centers' regular operating hours (between 8 a.m. and 6 p.m. on Mondays through Thursdays and between 8 a.m. and noon on Fridays) to work on their online courses. Although the program gives students the flexibility to set their own schedules, it requires them to complete at least a half credit each month and attend the centers for at least 15 hours per week to remain enrolled.[39] Outside of these requirements, the program does not limit its students to using only the centers' computers for their coursework, and many students choose to divide their study time between the dropout-prevention-and-recovery centers, where they have access to a teacher, and home. This flexibility allows students to work around their employment and family schedules—and it also allows the dropout-prevention-and-recovery centers to serve a greater number of students.

Since Wichita began using Apex Learning during the 2007–08 school year, the number of students enrolled in the dropout-prevention-and-recovery program has continued to increase (see **Figure 10**). During the 2008–09 school year, Wichita's dropout-prevention-and-recovery program helped 497 students complete 1,342 Apex Learning enrollments.

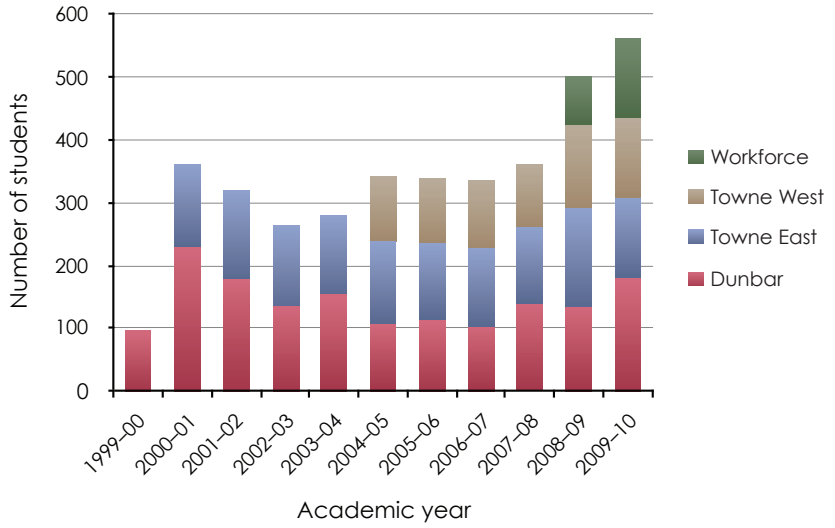
Credit recovery

Wichita also uses Apex Learning in its traditional schools. Seven of the district's 11 traditional high schools have credit-recovery centers located inside the school buildings where students can go after school, instead of during a daytime class period as in Volusia and Auburn, to retake the courses they have failed. The credit-recovery

[38] Wichita requires students to complete 22 course credits to graduate.

[39] On average, a half-credit course can take a student between 50 and 60 hours to complete. If a student works on a half-credit course consistently for three hours a day, or 15 hours a week, for example, he or she should be able to complete the course in one month.

Figure 10 *Students enrolled in Wichita's dropout-prevention-and-recovery program during fall headcount, 1999–2009*



Source: Wichita Public Schools

centers are open until 6 p.m. on Mondays through Fridays. Student attendance is not required during set days or hours. This flexibility allows students to work around their after-school activities (e.g., sports practices, clubs, and employment)—and allows the centers to serve a greater number of students. To motivate students to finish their online courses, the district charges current high school students a fee of $75 per half-credit course (dropouts pay a yearly registration fee of $5), but offers at least 100 scholarships every year to students who cannot afford to pay the course fee.

Each credit-recovery center consists of a room lined with rows of computers and an office space with a desk for the teacher. Each center can accommodate up to 30 students at one time taking math, science, English, and social studies courses. One or two teachers who teach at the high school where the credit-recovery center is located take turns staffing the center after school in exchange for hourly pay. During the 2008–09 school year, Wichita's credit-recovery centers helped 449 students complete 931 Apex Learning enrollments.

Funding

Wichita pays for its dropout-prevention-and-recovery and credit-recovery program using only state funding, registration and tuition fees, and outside grants. The program receives the Base State Aid Per Pupil (BSAPP), in the amount of approximately $4,500 per year for every full-time dropout-prevention-and-recovery

student enrolled. It also receives some state intervention funding, in the amount of approximately $2,500 per year for every student enrolled who is eligible to receive free or reduced-price lunch. The state determines full-time student enrollment based on two headcounts taken in the fall. A student needs to be in attendance for a full seven hours on at least two designated days during a fixed period of time to be counted as a full-time student.[40]

The per-pupil program costs are roughly $7,721 less than the district's per-pupil expenditure.

The program does not receive any BSAPP funds for *credit-recovery students*. Because credit-recovery students are enrolled full time at Wichita's traditional high schools, which already receive the full BSAPP amount for those students, the program is not allowed to double dip into those funds. To ensure that the credit-recovery centers are financially viable, the program uses the state funds to support the dropout-prevention-and-recovery *and* credit-recovery centers by joining them into a single funding account that holds all the money. The program's leaders then distribute the money budgeted to the program among the centers as needed. In addition, the program uses the course fee collected from credit-recovery students to reduce the operating costs for the credit-recovery centers, which do not receive direct state aid.

The program also receives some funding from organizations not affiliated with the district. The Simon Youth Foundation (SYF), a national not-for-profit organization that the Simon Property Group[41] founded to help at-risk youth earn high school diplomas, provides the building space for two dropout-prevention-and-recovery centers rent-free in two Simon malls located in the City of Wichita.

Unlike other schools in the district, the program does not require, nor does it receive, any portion of district funds obtained from property taxes. This means that the program is significantly less expensive to operate on a per-pupil basis than traditional schools in the district. For example, even if one considers all of the costs—operating and capital—of the dropout-prevention-and-recovery and credit-recovery program during the 2008–09 school year (see **Figure 11**), the cost per

[40] Because the program allows students to work at their convenience rather than attending the centers for set hours each day, the district requires all students enrolled at a dropout-prevention-and-recovery center as of September 1 to attend two seven-hour orientations at the centers on the days the headcount are taken to ensure that the program receives enough BSAPP money for it to be self-sustaining.

[41] The Simon Property Group is the nation's largest mall owner and operator.

Figure 11 *Wichita's approximate costs for four dropout-prevention-and-recovery centers and seven credit-recovery centers, 2008–09 school year*

Item	Expense
Personnel: salaries and benefits	$1,452,672
Rental and leasing[1]	$ 240,578
Software	$ 85,000
Computers (50 desktops and 23 laptops)	$ 83,522
Supplies and materials	$ 28,920
Professional services	$ 21,000
Utilities	$ 7,200
Equipment	$ 5,000
Printers	$ 2,000
In-district travel	$ 1,900
TOTAL	$1,927,792

[1] Rental and leasing includes costs that do not affect the cash flow of the district because the items were donated by SYF.

Source: Wichita Public Schools

dropout-prevention-and-recovery student was roughly $3,969[42]—or approximately $7,721 less than the district's per-pupil expenditure for the 2008–09 school year.[43] This number does not take into account that the program also served 449 credit-recovery students during the 2008–09 school year, however, which means that the program's true costs per student were even lower.

Student performance

Since 1999, Wichita's dropout-prevention-and-recovery centers have helped 974 students that the traditional schools had failed earn high school diplomas. That figure is roughly equivalent to 26 percent of the students the program has so far served or is in the process of serving (see **Figure 12**). In 2008, the number of graduates decreased when the program began using Apex Learning, which was more challenging for the students than previous server-based courses.

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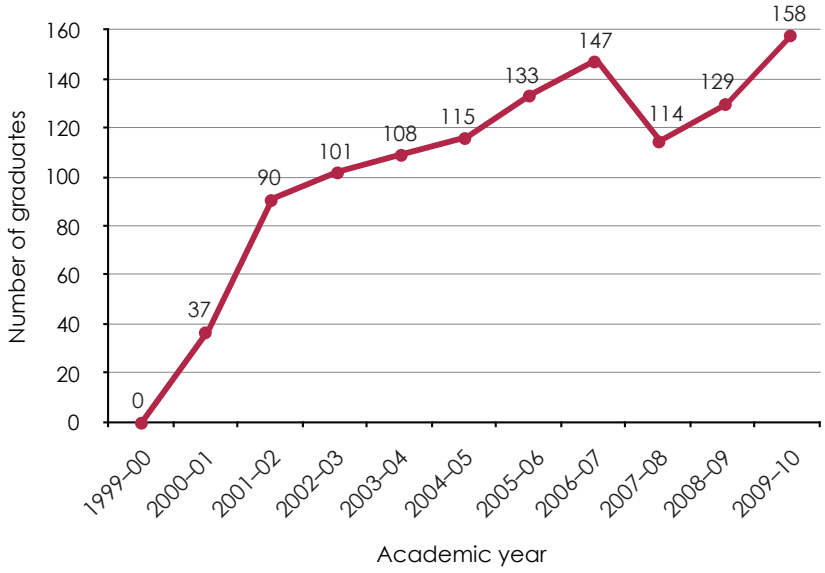
[42] This number was derived from dividing Auburn's total expenditures ($1,972,792) for four dropout-prevention-and-recovery centers and seven credit-recovery centers by the total number of students (497) enrolled at Dunbar, Towne East, Towne West, and Workforce.

[43] According to the NCES, Wichita's per-pupil expenditure for the 2008–09 school year was $11,690.

Figure 12 *Graduates from Wichita's dropout-prevention-and-recovery program, 2000–2010*

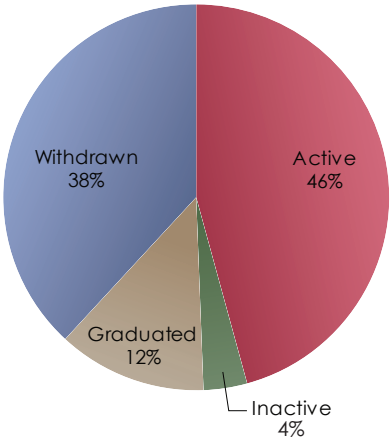


Source: Wichita Public Schools

The mean adjusted graduation rate[44] for the dropout-prevention-and-recovery centers was 81 percent for the 2008–09 school year. This number takes into account the number of students enrolled who would be expected to accumulate enough credits by the end of the year to graduate—in essence, the program's true seniors—and calculates how many from that group graduate. Although the dropout-prevention-and-recovery centers help a large number of students that the traditional schools had failed earn their high school diplomas, there are also a significant number of students enrolled at dropout-prevention-and-recovery centers who do not graduate. During the 2008–09 school year, 38 percent of the students enrolled at dropout-prevention-and-recovery centers withdrew before earning high school

[44] To determine the adjusted graduation rate, the district divides the number of probable graduates (students are counted as probable graduates if earning a half credit per month combined with entry credits would allow them to accumulate 22 credits by the end of the academic year) by the total number of students enrolled at the dropout-prevention-and-recovery center. When these numbers were calculated for the 2008–09 school year, Towne East Education Resource Center had a graduation rate of 46 percent, Towne West Education Resource Center of 46 percent, Workforce Learning Center of 75 percent, and Dunbar Learning Center of 158 percent (a graduation rate of over 100 percent is possible if a center has some students earning more than a half credit per month, or five full credits a school year).

Figure 13 *Status of students who had enrolled in Wichita's dropout-prevention-and-recovery program, 2008–09 school year*



Definitions

Active—A student who is actively progressing toward meeting the Wichita Public Schools graduation requirements.
Inactive—A student who is currently on leave with the intention of returning.
Graduated—A student who has successfully met all of the Wichita Public Schools graduation requirements.
Withdrawn—A student who has exited without meeting the Wichita Public Schools graduation requirements.

Source: Wichita Public Schools

diplomas (see **Figure 13**). Students withdraw for a variety of reasons after spending varying lengths of time in the program. Some students lack the motivation or self-discipline to finish a course. Several teachers also report that students who enter the program with fewer than 15 course credits (Wichita requires students to complete 22 course credits to graduate) tend to become burned out and withdraw without earning a high school diploma. Still others elect to use the skills they have developed to take the GED exam instead.

III. CONCLUSION

Auburn, Volusia, and Wichita all started their online learning programs to help students who were not being served well by the traditional school system, or who, in many cases, had already left the system. There are strong similarities in many of their online learning programs, but also some key differences.

The three districts had initially used server-based computer courses for their dropout-prevention-and-recovery and credit-recovery programs before making the switch to Apex Learning for cost and convenience reasons as well as rigor.

All three used some form of blended learning—where students took the online courses in brick-and-mortar environments supervised by adults who were on hand to help students with problems as they confronted them. And all three were able to graduate students each year who they otherwise would not have were it not for these programs.

Auburn's programs receive more per-pupil funding than Volusia's and Wichita's, but the bureacratic requirements to receive those funds are far more onerous and focused on input metrics around *time*.

There are some key differences as well. Auburn's online learning programs cost more money than the district's traditional schools because of class-size limits and access to district funding sources that Volusia and Wichita do not possess. Volusia and Wichita's online learning programs, however, cost significantly less than their district's traditional schools. Although all three districts run a variety of online learning programs, all three have set very different policies, parameters, and processes around their programs. For example, explicit policies in Auburn prohibit virtual-school teachers from communicating with their students via means other than phone and e-mail, whereas Volusia encourages virtual teachers to work with their students using primarily virtual classrooms and instant messenger programs. In addition, although Auburn's online learning programs receive far more per-pupil funding than Volusia's and Wichita's, the bureaucratic requirements to receive those funds in some cases are far more onerous and focused on input metrics around time rather than simple enrollment on various "count days" on given days in certain months, as is the case in Volusia and Wichita. And all three staff their online learning programs in different ways and put different requirements in place for students—as some programs expect students to work on only one course at a time whereas others expect students to work on several.

Lastly, comparing the results of the online learning programs and finding out which approaches were the most successful was impossible because of a lack of data in all three districts—even to the point of making it difficult to know without a concerted manual effort how many unique students an online learning program had served over the course of a given time period in some cases.

More generally, understanding or calculating the effectiveness of online learning programs is often difficult—and comparing different programs with each other is even more so. The reason is that although successful course completion is one useful metric—especially when the goal is gathering credits to graduate from high school—it lacks a reliable outside objective measurement of how much students have in fact learned. For example, if a given student completes one online course but not another, it is possible that the first course was better, but it is also possible that it was simply easier—among other explanations. In the absence of an objective

measurement (e.g., end-of-course exams, a balanced assessment, and the judgment of an outside expert), it is difficult to know. This same phenomenon is true of course in traditional courses, yet most people do not question their validity, even though they have less transparency than most online courses whose content and lesson delivery can be easily observed and evaluated and aligned reliably to state standards. In both cases, the majority of states have not developed uniform end-of-course exams for students to take whenever they complete a course.

Nevertheless, there continues to exist a deep market-driven need for Apex Learning's services—and a flexibility to employ its online courses in the manner that accord with different district policies. With Auburn, Volusia, and Wichita schools experiencing graduation rates below 70 percent, many students were not being well served by the traditional schools, and the opportunity to take online courses filled a needed void in their lives, the district, and the community at large.

Some programs expect students to work on only one online course at a time whereas others expect students to work on several.

Appendix A *Apex Learning's course catalog, 2010–11 school year*

Apex Learning®

Course Catalog
2010–2011 School Year

Subject	Foundations	General Studies				Advanced Placement[1] Courses
			Literacy Advantage™	Core	Honors	
Math	Math Foundations I	Introductory Algebra		✔		AP Calculus AB
	Math Foundations II	Algebra I-A		✔		AP Statistics
		Algebra I-B		✔		
		Algebra I	✔	✔	✔	
		Algebra II		✔	✔	
		Geometry	✔[2]	✔	✔	
		Precalculus		✔	✔	
		Consumer Math		✔[2]		
		Integrated Math I		✔		
		Integrated Math II		✔		
Science		Earth Science		✔	✔	AP Biology
		Physical Science	✔	✔	✔	AP Chemistry
		Biology	✔[2]	✔[2]	✔[2]	AP Physics B
		Chemistry		✔	✔	AP Psychology[3]
		Psychology[3]		✔[2]		
English	English Foundations I	English I: Introduction to Literature and Composition	✔	✔	✔	AP English Language and Composition
	English Foundations II	English II: Critical Reading and Effective Writing	✔[2]	✔	✔	AP English Literature and Composition
	Reading Skills and Strategies[3]	English III: American Literature		✔	✔	
	Writing Skills and Strategies[3]	English IV: British and World Literature		✔	✔	
Social Studies		Geography and World Cultures[3]		✔	✔	AP Macroeconomics[3]
		World History		✔	✔	AP Microeconomics[3]
		World History to the Renaissance		✔[2]	✔[2]	AP U.S. Government and Politics[3]
		World History since the Renaissance		✔[2]	✔[2]	AP U.S. History
		U.S. History	✔[2]	✔[2]	✔[2]	
		U.S. History to the Civil War[3]	✔[2]	✔[2]	✔[2]	
		U.S. History since the Civil War	✔[2]	✔[2]	✔[2]	
		U.S. Government and Politics[3]	✔	✔	✔	
		U.S. and Global Economics[3]		✔	✔	
World Languages		French I		✔	✔	AP French Language and Composition
		French II		✔	✔	AP Spanish Language and Compositon[2]
		Spanish I		✔	✔	
		Spanish II		✔	✔	
Fine Arts		Art Appreciation[3]		✔[2]		
		Music Appreciation		✔		
PE/Health		Physical Education[3]		✔		
		Skills for Health[3]		✔		

1 Advanced Placement and AP are registered trademarks of the College Board.
2 New Fall of 2010
3 One semester course. All other Apex Learning courses are two semesters.

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Source: Apex Learning

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Appendix B *Auburn, Volusia, Wichita, and U.S., demographic breakdowns*

Metric	Auburn, Wash.	Volusia County, Fla.	Wichita, Kan.	U.S.
Total population	40,314	443,343	344,284	281,421,906
Percentage of population that is black, Hispanic, or Native American	12.4%	16.2%	22.2%	25.7%
Percentage of households with children that are single mother	9.1%	6.0%	7.5%	7.2%
Percentage of population that is high school graduate or higher	82.8%	82.0%	83.8%	80.4%
Percentage of population with bachelor's degree or higher	15.6%	17.6%	25.3%	24.4%
Percentage of population that is unemployed	4.1%	3.5%	3.6%	3.7%
Mean household earnings	$49,036	$44,376	$49,736	$56,604
Percentage of households with public assistance income	5.8%	2.1%	3.1%	3.4%
Percentage of families that are below poverty level	10.2%	7.9%	8.4%	9.2%
Percentage of children that are eligible for free or reduced-price school lunch	44.3%[1]	55.3%[1]	50.4%[1]	42.5%[1]
Median home value	$153,400	$87,300	$78,900	$119,600

[1] These numbers are from November 2010.

Source: U.S. Census Bureau (2000)

Appendix C *Sample class schedule for Volusia's dropout-prevention-and-recovery program*

	Monday	Tuesday	Wednesday	Thursday	Friday
Storefront East, morning session					
8 a.m. to 10 a.m.	English	Math	English	Math	Elective #1
10 a.m. to noon	Social Studies	Science	Social Studies	Science	Elective #2
Storefront West, morning session					
8 a.m. to 10 a.m.	Math	English	Math	English	Elective #1
10 a.m. to noon	Science	Social Studies	Science	Social Studies	Elective #2
Storefront East, afternoon session					
Noon to 2 p.m.	English	Math	English	Math	Elective #1
2 p.m. to 4 p.m.	Social Studies	Science	Social Studies	Science	Elective #2
Storefront West, afternoon session					
Noon to 2 p.m.	Math	English	Math	English	Elective #1
2 p.m. to 4 p.m.	Science	Social Studies	Science	Social Studies	Elective #2

About Innosight Institute

Innosight Institute, founded in May 2007, is a 501(c)(3) not-for-profit think tank whose mission is to apply Harvard Business School Professor Clayton Christensen's theories of disruptive innovation to develop and promote solutions to the most vexing problems in the social sector.

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