



## Research Report

# Arkansas's Learning Expectations for Students

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**Prepared for**

**THE HOUSE INTERIM COMMITTEE ON EDUCATION  
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# CONTENTS

|   |           |
|---|-----------|
| <b>Introduction</b> .....   | <b>1</b>  |
| <b>National Context</b> .....   | <b>1</b>  |
| <b>Arkansas Historical Background</b> .....                                     | <b>3</b>  |
| <b>Arkansas Academic Standards</b> .....  | <b>7</b>  |
| The Required 38: From Teach to Offer .....                                      | 11        |
| Most Frequent Courses Offered But Not Taught.....                               | 11        |
| Curriculum Waivers .....  | 12        |
| <b>Graduation Requirements / Smart Core</b> .....                               | <b>13</b> |
| <b>Advanced Educational Courses</b> .....                                       | <b>14</b> |
| Fall 2016 Enrollment Characteristics of Traditional High School AP Classes..... | 15        |
| Fall 2016 Enrollment Characteristics of Charter High School AP Classes .....    | 15        |
| <b>Computer Science Requirements</b> .....                                      | <b>16</b> |
| Enrollment Levels in Computer Science Courses by Type.....                      | 16        |
| <b>Student-Focused Learning</b> .....   | <b>17</b> |
| <b>Conclusion</b> .....   | <b>20</b> |
| <b>Appendix A: Smart Core Waivers, 2016-17</b> .....                            | <b>21</b> |
| <b>Appendix B: Personalized Learning in the News</b> .....                      | <b>23</b> |



## INTRODUCTION

The “adequacy study statute”—ACA §10-3-2102 – requires the General Assembly “to assess, evaluate and monitor the entire spectrum of education across the State of Arkansas to determine whether equal educational opportunity for an adequate education is being substantially afforded to the school children of the State of Arkansas... .” In addition, the statute requires *an evaluation of what constitutes an adequate education as well as an evaluation of the method of providing equality of educational opportunity*. As part of that process, the legislature has biennially reviewed the academic standards (referred to in the statute as the “curriculum frameworks” before Act 936 of 2017) developed by the Arkansas Department of Education. This report represents the current review of those standards.

## NATIONAL CONTEXT

Educators since the beginning of time have had to decide which material they deem most important for their students to learn. What do they teach them? How do they teach it? And what do they leave out of their lessons?

But to better understand the changing trends in today’s curriculum, especially as Arkansas transitions toward a system of student-focused learning, it’s helpful to look at two conflicting theories of learning and curriculum that have bumped into each other throughout the 20<sup>th</sup> and into the 21<sup>st</sup> centuries.

In the early 1900s, a University of Chicago education professor, John Franklin Bobbitt, applied concepts of scientific management in factory production to education. Specifically, he adapted the ideas of Frederick Taylor, which involved “the factory managers’ ability to gather all the information possible about the work which they oversaw, systematically analyse [sic] it according to ‘scientific’ methods, figure out the most efficient way for workers to complete individual tasks, and then tell the workers exactly how to produce their products in an ordered manner... .(Noble, 1977)”<sup>1</sup> Translated to the school setting, the school administrator developed the best methods for teachers to employ to assure that students met the desired standards. According to Bobbitt, writing in 1913, the teacher “must be a specialist in the performance of the labour that will produce the product.”<sup>2</sup> The student, in Bobbitt’s framework, was the “raw material” to undergo production and the “school is to be the factory assembly line where this process takes place.”<sup>3</sup>

In stark contrast to Bobbitt’s Taylorism, John Dewey, a contemporary, developed an education theory that centered around the child. Researcher Aliya Sikandar says that:

With his firm democratic belief in civil societies and education, Dewey rejected authoritarian structures and subsequently the traditional teaching methods of schools. He believed in progressive education and advocated for reforms in pedagogical aspects of teaching and school curricula; most importantly, Dewey believed that at the centre of the academia was the child.<sup>4</sup>

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<sup>1</sup> “Teaching Under the New Taylorism: High-Stakes Testing and the Standardization of the 21<sup>st</sup> Century Curriculum” by Wayne Au, *Curriculum Studies*, 2011, Vol. 43, No. 1, 25-45.

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

<sup>4</sup> “John Dewey and His Philosophy of Education” by Aliya Sikandar, *Journal of Education and Educational Development*, Vol. 2, No. 2, December 2015, 191-201.

Dewey's approach emphasized experiential learning, with the teacher planning and connecting "the subject matter to the students, keeping in consideration the needs, desires, interests, and cognitive development of the students... ." <sup>5</sup> Dewey's approach, along with his ideas that education could transform the world into a more egalitarian and humane society, greatly influenced education theorists and systems in the United States throughout the 20<sup>th</sup> century. <sup>6</sup> Criticism of the Dewey approach, however, included the inability to "gauge the growth and development" of students. <sup>7</sup>

By the latter part of the 20<sup>th</sup> century, American leaders and thinkers grew ever more concerned about how U.S. students were performing compared with others in the world, and sounded the alarm of "a rising tide of mediocrity" in "A Nation at Risk: The Imperative for Educational Reform," published in 1983. The national report recommended a high school curriculum including four years of English and three years each of math, science and social studies as well as one-half year of computer science. In addition, the report also recommended that students pursue proficiency in a foreign language. This was actually a less demanding load than that preferred by 75% of the respondents in a Gallup Poll cited in the report.

By the end of the 20<sup>th</sup> century, a "new Taylorism" was said to be emerging in the standards and accountability movement. Studies by the Thomas B. Fordham Institute in the early 2000s examined and graded the learning standards in each state by subject, often finding them lacking specificity and failing to cover the necessary content. Arkansas's standards for science and American history received a "D" and an "F" respectively. In response to a Fordham report, editorialists at the Arkansas Democrat-Gazette wrote, "Standards tell teachers, students, and parents what the schools are striving for. If those standards are just vague generalities – and too often that's just what the educantists have bequeathed American schools – then we'll turn out an ignorant generation unprepared to wrestle with the great questions of the day."<sup>8</sup>

Fordham's report on science standards was also critical of experiential learning, a focus that hearkened back to Dewey's approach to education. "On the one hand you have this fad, this idea of discovery learning that the only way kids are going to learn something in a meaningful way is to have a direct experience of it," a Fordham official told the Associated Press in 2005. "The problem here is that too many states, including Arkansas, are not putting enough emphasis on the actual content that kids are supposed to be learning in science."<sup>9</sup>

Researcher Wayne Au described the period of No Child Left Behind (NCLB) and high-stakes-testing accountability as hearkening back to Taylorism, saying, "...high-stakes testing in the US not only standardizes the content of the curriculum as well as the forms such content takes in the classroom, it also works to standardize teachers' pedagogies as they work to deliver test-driven curriculum in an efficient manner."<sup>10</sup> Meanwhile proponents of NCLB believed that high standards and accountability assured students would learn what was needed. "I'm a what-gets-measured-gets-done kind of gal," U.S. Education Secretary Margaret Spellings said of the standards and testing environment imposed by NCLB. <sup>11</sup>

After nearly two decades of standards-based learning, the U.S. – and Arkansas, too – seems to be headed back to a child-focused approach much more reminiscent of Dewey, with numerous

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<sup>5</sup> Ibid.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

<sup>8</sup> "Columbus in 1776, Arkansas Gets Another F," Arkansas Democrat-Gazette editorial, Sept. 27, 2003.

<sup>9</sup> "New Study Gives Arkansas School Science Standards 'D'" by Petty Harris, Associated Press, Dec. 8, 2005.

<sup>10</sup> "Teaching Under the New Taylorism: High-Stakes Testing and the Standardization of the 21<sup>st</sup> Century Curriculum"

<sup>11</sup> "Reports Says States Aim Low in Science Classes" by Michael Janofsky, New York Times, Dec. 7, 2005.

states shifting to education models centered around more personalized or, as it is called in Arkansas statute, student-focused learning. In Chicago's implementation of personalized learning, for instance, the student experience is described as "[s]tudents take ownership of their learning, selecting topics of interest to explore through project-based learning opportunities, often connected to the community, and are supported as they develop the agency necessary to become lifelong learners."<sup>12</sup>

## ARKANSAS HISTORICAL BACKGROUND

What and how students should learn has long been a legislative concern in Arkansas. In 1983, for instance – the same year the national education report *A Nation at Risk* made headlines -- the state significantly strengthened statewide curriculum requirements through Act 445, and the State Board of Education approved the resulting Standards for Accreditation of Arkansas Public Schools the following year. These moves were part of the state's response to the *Alma v. Dupree* Supreme Court case, in which the court found Arkansas's system of funding public schools to be unconstitutionally inequitable. The new standards specified what each public school must teach. If schools did not teach the required courses, their district would risk annexation or consolidation with another school district. The standards addressed the inequality manifested in a situation in which not all students in the state had access to the same basic courses. **Of the state's 363 school districts in 1983, only 147 offered physics, 268 offered chemistry, 159 offered art, 194 offered music and 176 offered a foreign language.**<sup>13</sup>

The 1984 Standards outlined subjects to be taught in grades K-4, 5-8 and 9-12, with the high school offerings to include 38 units that must be taught at least every other year (up from 24 units that had to be taught annually). Courses marked with an asterisk are those that could be taught every other year while the rest had to be taught every year:

- 7 units of language arts (4 units of English, ½ unit of oral communications and ½ unit of drama, \*1 unit of journalism and 1 unit of applied communication)
- 5 units of science (1 unit each of biology, \*chemistry and \*physics and 2 units of applied science)
- 6 units of mathematics (1 unit each of Algebra I, geometry, \*Algebra II and \*pre-calculus and 2 units of applied mathematics)
- 2 units of the same foreign language
- 3 ½ units of fine arts (1 unit each of art, instrumental music and vocal music and \*½ unit of survey of fine arts or an advanced art or music course)
- 1 unit of computer applications (to include word processing, spreadsheets, data bases, graphics and telecommunications)
- 4 units of social studies (1 unit each of world history and American history with an emphasis on 20<sup>th</sup>-century America, plus 2 units selected from a list of 12 other related subjects)
- 1 unit of physical education and ½ unit of health and safety education
- 9 units of tech prep and applied technology (eight units must be taught each year) from a minimum of three programs of study selected from three different occupation/technical programs from a list included in the standards)

In addition, course offerings were to include appropriate Advanced Placement courses and additional foreign language courses – both higher levels of the foreign language offered to meet

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<sup>12</sup> "Sustaining Innovation and Preparing for Scale: Financial Sustainability Research and Analysis of Personalized Learning School Models," LEAP Innovations / AFTON," retrieved at [http://www.leapinnovations.org/images/LEAP\\_Afton\\_Report.pdf](http://www.leapinnovations.org/images/LEAP_Afton_Report.pdf).

<sup>13</sup> "School Standards Fill an Elementary Need," editorial by Ernest Dumas, Arkansas Democrat-Gazette, March 1, 1987.

the standards as well as additional languages.<sup>14</sup> The new standards also increased graduation requirements from 16 units to 20, with 15 specifically required.

**Following implementation of the new standards, about 30 small districts voluntarily consolidated with other districts in 1985 and 1986 due to their inability to teach all of the required courses.<sup>15</sup>**

By the start of the next decade, Arkansas – and much of the rest of the nation – was focusing on meeting the national education goals that the National Governors Association had defined as the set of achievements America's students should meet by 2000. Act 236 of 1991 stated that Arkansas “must determine what students must know and be able to do to meet these goals. ... [I]t will require a curriculum that places a greater emphasis on teaching students to think, and to apply methods that are appropriate to ensure that all students will master the more challenging curriculum.” A task force was to develop a plan that would work toward “integrating statewide curriculum frameworks” with assessments and professional development. The curriculum frameworks were to “define the broad themes and topics for instruction... .”

The law also called for restructuring the education system, “providing educators in every school with the flexibility and tools they need to determine the best way to achieve the goals with their students.” According to the Arkansas Democrat-Gazette, mandated changes in the law “force [ADE] to quit bossing around the state's 324 schools districts and, instead, assist them in developing more effective ways for students to learn.”<sup>16</sup>

Even so, when the Standards for Accreditation were revised in 1993, the 38 units that had to be taught (some only every other year) remained, and the graduation requirements inched up to 21. A student could pursue either of two tracks to graduation under the standards: a “traditional college-preparatory core” of classes or a “technical post-secondary core” curriculum.<sup>17</sup>

The winds were shifting again by 1997. Act 1108 of that year called for the production of “academically competent students.” The law repealed language that emphasized ADE's role to assist school districts and instead said that the “Department of Education will be structured to provide leadership, service and support to public schools,” adding that the department would provide “leadership in marshaling support for a quality and equitable educational system” and that it would be “committed to supporting policy development and procedures that enable the governor, the Arkansas General Assembly, the State Board of Education, and business and professional organizations to work together in a positive and consistent manner to improve education.” (Note that educators themselves were not included.) Act 1172 of 1997 created the Arkansas Comprehensive Testing and Assessment Program (ACTAP) and directed ADE to develop standardized tests for grades four, eight and eleven to assess achievement in reading, writing, mathematics and, when funded, science and social studies as well as end-of-level tests for ninth- and 10<sup>th</sup>-graders in the same subjects. Two years later, Act 999 changed ACTAP to ACTAAP – the Arkansas Comprehensive Testing, Assessment and Accountability Program.

By 2003, the state had to respond to the mandates of the new federal No Child Left Behind Act (which included high-stakes testing) as well as to another decision from the Arkansas Supreme Court, which again found that the state's system of funding of public schools failed to meet constitutional standards. Act 1706 of that year appropriated \$100,000 for the development of a comprehensive plan to revise content standards and curriculum frameworks in reading, writing, mathematics, science, history, geography and civics. (In 2005, an appropriation for \$161,000

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<sup>14</sup> Standards for Accreditation for Arkansas Schools, Preliminary Report of the Education Standards Committee, September 1983.

<sup>15</sup> “School Standards Fill an Elementary Need.”

<sup>16</sup> “Educators Consider Department Changes,” Arkansas Democrat-Gazette, May 3, 1991.

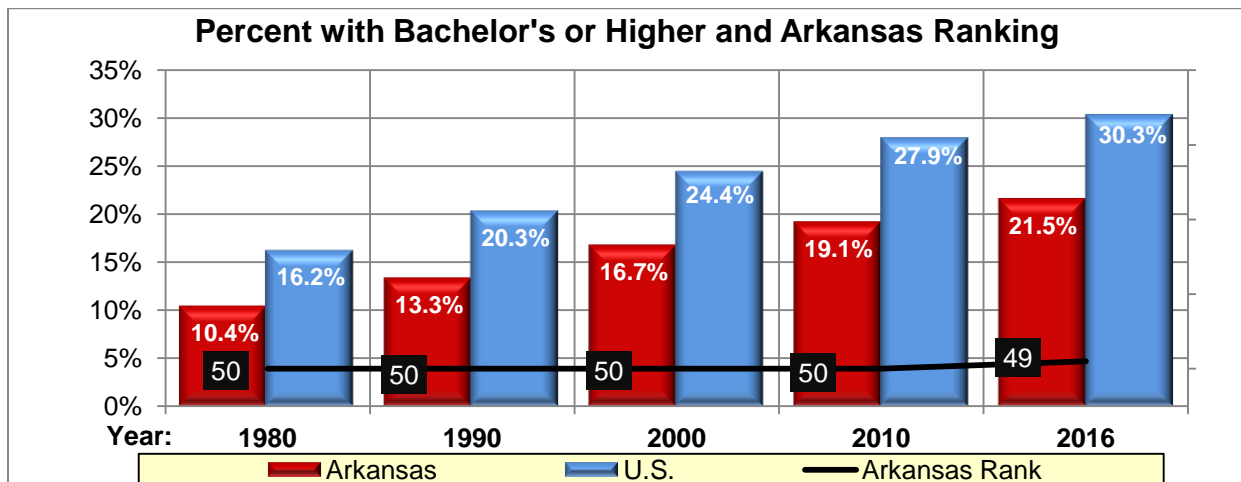
<sup>17</sup> Standards for Accreditation, Arkansas Public Schools: Revised Edition,” Adopted by the State Board of Education, May 1993.



was made for content standards. In 2007, two appropriation amounts for curriculum development purposes appeared in Act 229 -- \$161,000 for content standards and \$100,000 for content standards curriculum frameworks. The \$161,000 amount for content standards remained unchanged through 2018. The amount for content standards curriculum frameworks dropped to \$50,000 in 2009 and then remained unchanged through 2018 as well.)

The 2005 Standards for Accreditation reflected the ways these changes would affect the state's academic standards. Now, the curriculum at each public school had to include **38 units that must be taught each year**. Two new graduation tracks – **Smart Core** and **Common Core** -- were introduced. Both of these sets of classes were contained within the 38 units, but Smart Core required more rigorous coursework. For example, students enrolled in Common Core had to take three math units, including Algebra I and Geometry. Smart Core graduates had to complete Algebra II and a fourth, higher level math course.

In 2008, the Arkansas Task Force on Higher Education Remediation, Retention, and Graduation Rates published a report chock-full of recommendations to increase the percentage of Arkansas adults holding bachelor's degrees. The goal was to reach 27 percent (the projected average for states included in the Southern Regional Education Board) by the year 2015. One of the recommendations was to improve high school students' preparation for college, specifically to have fewer students opting out of the state's more rigorous Smart Core graduation track. While Arkansas did not reach its goal for holders of bachelor's degrees, the period after 2010 was the first in several decades to see Arkansas boost its ranking among states in terms of percent of adults with bachelor's degrees.



Source: U.S. Census and American Fact Finder Data.

Beginning in 2009, students were automatically enrolled in Smart Core, with the ability to opt out with their parents' approval. Also by that year, the Common Core curriculum was renamed simply the Core. The number of units required to graduate in the Core curriculum inched up to 22 from 21 because Core graduates now also had to take four years of math, though they still did not have to take Algebra II or a higher level math course.

While the Standards for Accreditation have been tweaked numerous times throughout the years, the required 38 units and Smart Core graduation requirements remained much the same through the 2017-18 school year, with the exception of Act 853 of 2015. That act allowed a high school to *not teach* one of the required 38 units if it could show that it had offered the course(s) but that no one and signed up for – or remained enrolled in – the course(s). **For the first time in a decade, a school's accreditation status would not automatically be marred because it didn't teach one of the required 38 units.**

Other notable laws that have had an impact on the state's curriculum during the last five years include:

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**2013: Act 328** allowed school districts to offer American Sign Language for a foreign language credit.

**Act 421** allowed the State Board to grant waivers to school districts for the purpose of combining or embedding courses that are required by the Standards for Accreditation. All frameworks listed for the two courses must be taught.

**Act 601** created districts and schools of innovation. These schools could be granted waivers from many state laws concerning education, including specific curriculum requirements.

**Act 1280** provided for the expansion of digital learning opportunities to all public school students.

**Act 1440** allowed a nonsectarian, academic study of the Bible to be offered as an elective

**2015: Act 160** required elementary schools to teach cursive writing by the end of the third grade.

**Act 187** required each public high school and each public charter high school to offer a computer science course that met curriculum standards and could be taught in a traditional classroom setting, in a blended learning environment, as an online-based course or in another tech-based format.

**Act 952** required a unit on dating violence awareness to be taught during health in grades 7-12.

**Act 1079** provided flexibility in scheduling art, music and physical education.

**Act 1240** allowed school districts to be granted the same waivers that are granted to open-enrollment charter schools that draw students from their schools.

**Act 1284** required that certain social studies courses in grades 7-12 include a relevant review of United States history for the colonization period through 1890, specifically including the colonial period, the American Revolution, the foundation of the United States government and the American Civil War.

**2017: Act 478** required student to pass (60%) of the civics portion of the naturalization test for immigrants to become a U.S. citizen in order to receive a high school diploma from a public high school or a high school equivalency diploma from a state entity.

**Act 480** requires the creation of personal and family finance standards and that high school students earn a credit during 10<sup>th</sup>, 11<sup>th</sup> or 12<sup>th</sup> grades that includes the personal and family finance standards.

**Act 561** required the development of educational materials and units regarding Dr. Martin Luther King, Jr., and civil rights leaders to be taught while moving the observation of General Robert E. Lee to General E. Lee Day, a state memorial day, which would be the second Saturday of each October. The act also calls for ADE to develop materials pertaining to Arkansas and the Civil War, which would be taught in Arkansas history classes.

**Act 867** repealed the requirement for high school students to attend a full day of school and removed physical presence as a requirement for attendance.

**Act 872** allows school districts to submit plans to the department for awarding credit for high school courses based on subject matter mastery rather than completing a certain number of hours of classroom instruction.

**Act 929** repealed the oral health standards requirement for the Arkansas physical education and health curriculum requirements.

The 2017 General Assembly also passed **Act 930**, which repealed ACTAAP and replaced it with the Arkansas Educational Support and Accountability Program, or AESAP. ADE has authored rules for Act 930, which were approved for public comment by the State Board at its April meeting. The State Board voted on approval at its June 2018 meeting.

Act 930 refers to “academic standards” instead of “curriculum frameworks” and directs ADE to continue to develop academic standards “that define what students shall know and be able to do in each content area.” According to ADE, the state will continue to use the Arkansas Academic Standards, a state-revised version of the former Common Core State Standards in English language arts and mathematics and the Next Generation Science Standards for science.

ADE also presented the first major revision of the Standards of Accreditation during the State Board’s April meeting. Those rules were approved by the State Board of Education in a specially called meeting on May 30, 2018, and were before the Arkansas Legislative Council on June 15, 2018. The new version of the rules specify the number of courses in each subject to be offered each year, for a total of 38 courses, though the specific courses to be offered are no longer included in the rules but in a separate document to be approved annually by the State Board of Education.

Additionally, Act 930 puts forth a new direction for how these standards will be taught, a change that harkens back to the vision statement that ADE created more than two years ago: “The Arkansas Department of Education is transforming Arkansas to lead the nation in student-focused education.”<sup>18</sup> Student-focused learning will be discussed in detail later in this report.

## ARKANSAS ACADEMIC STANDARDS

Act 930 provides ADE with the responsibility “to establish academic standards that define what students shall know and be able to demonstrate in each content area.” Instruction in all of the state’s public schools is to be based on these standards to “prepare students to demonstrate the skills and competencies necessary for successful academic growth and high school graduation.” The academic standards are to be reviewed and revised periodically with input from Arkansas K-12 and higher education educators and community members with professional experience related to the academic content area and with study and consideration of national and international academic standards and, as deemed appropriate, evaluations of the academic standards by national groups and organizations. The standards are to be disseminated publicly.

ADE provides specifics of the Arkansas Academic Standards on its website. Content areas for which standards have been created include:

- Computer Science
- English Language Arts (revised from the Common Core State Standards)\*
- Fine Arts
- Foreign Language
- Library Media Services
- Mathematics (revised from the Common Core State Standards)\*
- Physical Education and Health
- Science (Next Generation Science Standards)\*
- Social Studies
- English Language Proficiency
- Personal Finance

\*Arkansas adopted the Common Core State Standards in English language arts and mathematics in 2010 and the standards were revised by a committee of Arkansans in 2015 to become part of the Arkansas State Standards. According to ADE, Arkansas was involved in the development of the national Next Generation State Standards and has adopted them for the state as well.

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<sup>18</sup> Arkansas Department of Education Vision Statement: <https://v3.boardbook.org/Public/PublicItemDownload.aspx?ik=39254741>

These standards are available on ADE's website at [www.arkansased.gov/divisions/learning-services/curriculum-and-instruction](http://www.arkansased.gov/divisions/learning-services/curriculum-and-instruction). Each content area links to documents with learning standards according to grade, grade span or individual course topic. For instance, within English Language Arts, academic standards are available for Grades 1, for Grades K-5 or for Creative Writing I, among many others.

In accordance with Act 930, the academic standards are to be reviewed and revised periodically. The revision schedule, per ADE's website, follows:

| Committee Work | Academic Standards to be Revised                | State Board Approval      | Full Implementation                                    |
|----------------|---|---------------------------|--|
| 2014-2016      | Science   | 2015 – K-8<br>2016 – 9-12 | K-4 – 2016-2017<br>5-8 – 2017-2018<br>9-12 – 2018-2019 |
| 2015-2016      | Mathematics                                     | Spring 2016               | 2017-2018  |
| 2015-2016      | English Language Arts                           | Spring 2016               | 2017-2018  |
| Summer 2017    | Physical Education Health<br>Driver's Education | Spring 2018               | 2019-2020  |
| Summer 2018    | Foreign Language Library Media                  | Spring 2019               | 2020-2021  |
| Summer 2019    | Fine Arts                                       | Spring 2020               | 2021-2022  |
| Summer 2020    | Social Studies Arkansas History                 | Spring 2021               | 2022-2023  |
| Summer 2021    | Mathematics                                     | Spring 2022               | 2023-2024  |
| Summer 2022    | English Language Arts                           | Spring 2023               | 2024-2025  |
| Summer 2023    | Science   | Spring 2024               | 2025-2026  |

The previous Rules Governing the Standards for Accreditation – as opposed to the new rules that were approved in May 2018 – spelled out more specifically what each public school in Arkansas was to teach and when they were to teach it. (In grades 9-12, the required courses were to be taught until Act 853 of 2015; the passage of Act 853 that year changed the requirement for schools to teach the courses to having to offer the courses each year. If no one enrolled, the course did not have to be taught.)

In the latest version of the Standards for Accreditation, the rules direct schools to adopt and implement curriculum aligned to the Arkansas Academic Standards. Furthermore, the rules state that students in grades K-4 and in grades 5-8 shall receive instruction annually based on the Arkansas Academic Standards in each of the following content areas:

| Content Area                            | Grade Span(s)  |
|---|--|
| <b>English Language Arts</b>            | K-4, 5-8   |
| <b>Mathematics</b>                      | K-4, 5-8   |
| <b>Social Studies</b>                   | K-4, 5-8   |
| <b>Science</b>                          | K-4, 5-8   |
| <b>Health/Safety/Physical Education</b> | K-4, 5-8   |
| <b>Career and Technical Education</b>   | 5-8  |
| <b>Arkansas History</b>                 | A unit at each elementary grade with emphasis in grades 4 and 5; one full semester to all students at grade 7, 8, 9, 10, 11 or 12. |

When it comes to high school, the revised standards say that schools must offer 38 courses within the following content areas: English language arts, mathematics, social studies, science, physical education and health, fine arts, foreign language, career education and computer science. As opposed to prior versions of the Standards for Accreditation, however, specific courses that must be offered in each content area are not listed. Instead, the new rules say that schools must offer the 38 courses approved by the State Board and posted on ADE's website. According to ADE, the list of course offerings will be voted on each year as well as periodically as curriculum standards are reviewed, revised and approved.<sup>19</sup> This means that the list of

<sup>19</sup> Meeting with ADE Assistant Commissioner Stacy Smith, May 8, 2018.

courses required to be offered at each high school will no longer go through the rules promulgation process, with a public comment period, as they have in the past. Rather, the State Board will simply vote on them each year. ADE is currently developing a process – which will be added to the Rules Governing the Standards of Accreditation for Public Schools at a later date – that tentatively will involve an initial presentation of the course list to the State Board early in the calendar year so feedback from interested parties can be obtained before a vote is scheduled for the spring of each year.<sup>20</sup> Approval of the document this year is planned for the State Board meeting in July.<sup>21</sup>

As shown in the following chart, there are a few differences from the specific high school courses listed in the previous (last approved in 2015) and the document to be approved by the State Board. The courses under 2018 are listed in red to indicate that they are NOT included in the Standards but are listed in a separate document approved outside of the rule-making process. Places where requirements have changed are noted in yellow highlight. For instance, physics is no longer required to be offered. ADE says that less than 5 percent of Arkansas public high students have been taking physics courses. In addition, physics learning standards will be incorporated in the three required science courses – that's why they are called "integrated" – and some schools may continue to offer AP physics rather than regular physics.<sup>22</sup> Note that while the requirements are listed as "units" in the Standards, the companion document refers to "credits," not units, in an effort to provide consistency with other ADE documents.<sup>23</sup>

| Content Area      | Current (2015) Standards  | Draft 2018 SBE Document  |
|-------------------|---|--|
| Language Arts     | <b>6 units:</b><br>4 units English<br>1 unit oral communication OR ½ unit oral communications & ½ unit drama<br>1 unit journalism<br>Other options as approved by ADE       | <b>6 credits:</b><br><b>English 9 – 1 credit</b><br><b>English 10 – 1 credit</b><br><b>English 11 – 1 credit</b><br><b>English 12 – 1 credit</b><br><b>Oral Communications – ½ credit</b><br><b>1 ½ ADE approved ELA credits</b> |
| Science           | <b>5 units:</b><br>1 unit biology<br>1 unit chemistry<br>1 unit physics<br>Other options as approved by ADE   | <b>5 credits:</b><br><b>Physical Science Integrated – 1 credit</b><br><b>Biology Integrated – 1 credit</b><br><b>Chemistry Integrated – 1 credit</b><br><b>ADE approved science – 2 credits</b>                                  |
| Mathematics       | <b>6 units:</b><br>1 unit Algebra I<br>1 unit geometry<br>1 unit Algebra II<br>1 unit pre-calculus math to include trigonometry<br>Other options as approved by ADE         | <b>6 credits:</b><br><b>Algebra I – 1 credit</b><br><b>Geometry – 1 credit</b><br><b>Algebra II – 1 credit</b><br><b>Pre-Calculus – 1 credit</b><br><b>ADE approved math – 2 credits</b>   |
| Computer Science  | <b>1 unit:</b><br>1 unit Essentials of Computer Programming, Computer Science and Mathematics, AP Computer Science, IB Computer Science or other options as approved by ADE | <b>1 credit:</b><br><b>ADE approved computer science – 1 credit</b>  |
| Foreign Languages | <b>2 units</b> of the same language   | <b>2 credits</b> of the same language<br><b>Foreign language I – one credit</b><br><b>Foreign language II – one credit</b>   |

<sup>20</sup> Phone call with Jennifer Davis, ADE attorney, May 31, 2018.

<sup>21</sup> Email for Stacy Smith dated June 1, 2018.

<sup>22</sup> Meeting with Stacy Smith.

<sup>23</sup> Meeting with Stacy Smith

| Content Area   | Current (2015) Standards  | Draft 2018 SBE Document   |
|--|---|---|
| Fine Arts  | <b>3 ½ units:</b><br>1 unit art<br>1 unit instrumental music<br>1 unit vocal music<br>½ unit survey of fine arts or an advanced art or an advanced music course   | <b>3 ½ credits:</b><br><b>Art – 1 credit</b><br><b>Instrumental music – 1 credit</b><br><b>Vocal music – 1 credit</b><br><b>ADE approved fine arts – ½ credit</b>   |
| Computer Applications w/ an emphasis on current applications | <b>1 unit</b>   | NA  |
| Social Studies   | <b>4 units:</b><br>1 unit American history w/emphasis on 20 <sup>th</sup> Century America<br>1 unit world history<br>½ unit civics<br>½ unit of Arkansas history if not taught in grade 7 or 8<br>Other options as approved by ADE  | <b>4 credits:</b><br><b>American history – 1 credit</b><br><b>World history – 1 credit</b><br><b>Civics – ½ credit</b><br><b>Economics and Personal Finance – ½ credit</b><br><b>ADE approved social studies – 1 credit</b> |
| Economics  | <b>½ unit</b><br>The economics course must be taught by a teacher appropriately licensed in either social studies or business education.<br>The appropriate licensure code must be used to differentiate between the area of social studies and the area of career focus elective credit to meet the requirements of the 38 units | Economics and Personal Finance is including in the social studies course offering (see above)   |
| Health and Safety and Physical Education                     | <b>1 ½ units:</b><br>1 unit physical education<br>½ unit health and safety education  | <b>1 ½ credits:</b><br><b>Physical education – ½ credit</b><br><b>Health – ½ credit</b><br><b>ADE approved physical education – ½ credit</b>  |
| Career and Technical Education                               | <b>9 units</b> of sequenced career and technical education courses (programs of study) representing 3 occupational areas.<br>In addition to the currently approved programs, districts may develop and request approval for innovative programs of study based on community and student needs.                                    | <b>9 units</b> of sequenced career and technical courses representing 3 occupational areas<br><b>Computer applications</b><br><b>3 programs of study – 9 credits</b>  |
| Advanced educational courses                                 | The course offerings should include appropriate Advanced Placement (AP) course.   | Course offerings shall include advanced educational courses in accordance with the laws of the State of Arkansas and the rules of the Department.   |
| Personal Finance   | NA  | Beginning with the freshman class of 2017-18, all students must earn credit in a course that has personal finance standards. (Act 460 specified “a credit.”)  |

The revised standards define a credit as a class that meets for a minimum of 120 clock hours – the equivalent of a class meeting daily for about a 45-minute period during a 178-day school year -- unless the public school has gained approval to award credits based on subject matter competency rather than seat time and passing grades. This latter flexibility corresponds to the

requirement under Act 930 for the state's public school districts to transition to a student-focused learning model. Student-focused learning will be addressed in a later section.

### THE REQUIRED 38: FROM TEACH TO OFFER

Before the passage of Act 853 of 2015, the 38 courses listed above, often called the “required 38,” had to be taught each year regardless of enrollment – or lack thereof. This grew out of a concern in the 1980s that not all students had access to classes like chemistry, physics or music. The requirement to teach the 38 was adopted – and subsequently recognized by the Arkansas Supreme Court – as an integral tool the state incorporated to ensure that all Arkansas students had equal access to an adequate education. With Act 60 of 2003, which forced school districts with enrollments of less than 350 to consolidate with or be annexed into another district, the state recognized that small districts were not likely to be able to teach the full complement of courses that constituted an adequate education. Even after Act 60, that was often still the case with the state's smaller districts, and isolated- and declining-enrollment funding have been two means by which the state has assisted smaller school districts in their ability to provide adequate education systems for their students.

With Act 853, the state pivoted from the requirement to teach to the requirement to offer. The subtitle of that act says “...a school district is not in violation of the standards of accreditation for Arkansas public schools and school districts if a school district offers a course but no students enroll in the course.” Because of the new law, no schools or districts faced accreditation issues because of not teaching the required 38 in 2016-17, though one -- Lee County School District -- was put in probation status for *failing to offer* all of the required courses. In years prior to the passage of Act 853, however, schools and school districts were subject to probation for not teaching one of the classes if they had not received a waiver from doing so.

An analysis of course offerings that were most frequently offered but not taught before and after Act 853 took effect (2014-15 and 2016-17) shows that of the courses (either classroom- or digital-based), more of them in 2017 were courses that were named as part of the required 38. These are noted in bold type in the following chart:

#### MOST FREQUENT COURSES OFFERED BUT NOT TAUGHT

| 2016-17                             |                      | 2014-15                              |                      |
|-------------------------------------|----------------------|--------------------------------------|----------------------|
| Course Name                         | # Courses / #Schools | Course Name                          | # Courses / #Schools |
| <b>Physics*</b>                     | 11 / 11              | Vocal Music IV                       | 15 / 15              |
| <b>Computer Science &amp; Math*</b> | 11 / 11              | Instrumental Music IV                | 13 / 12              |
| Transitional English 12             | 10 / 9               | Vocal Music III                      | 12 / 12              |
| Vocal Music IV                      | 9 / 9                | Journalism IV                        | 10 / 10              |
| Transitional Math Ready             | 8 / 8                | Instr. Music / Band III              | 9 / 8                |
| <b>Journalism I</b>                 | 7 / 7                | <b>Contemporary American History</b> | 7 / 7                |
| World Geography                     | 7 / 5                | Journalism III                       | 8 / 7                |
| Vocal Music II                      | 6 / 6                | Art III                              | 5 / 5                |
| <b>Drama</b>                        | 5 / 5                | Vocal Music II                       | 5 / 5                |
| Advanced Topics Math                | 5 / 5                |                                      |                      |
| <b>French II*</b>                   | 5 / 5                |                                      |                      |

\* These are one of an option of courses for that subject that count as one of the 38 in the Standards for Accreditation covering the 2016-17 school year.

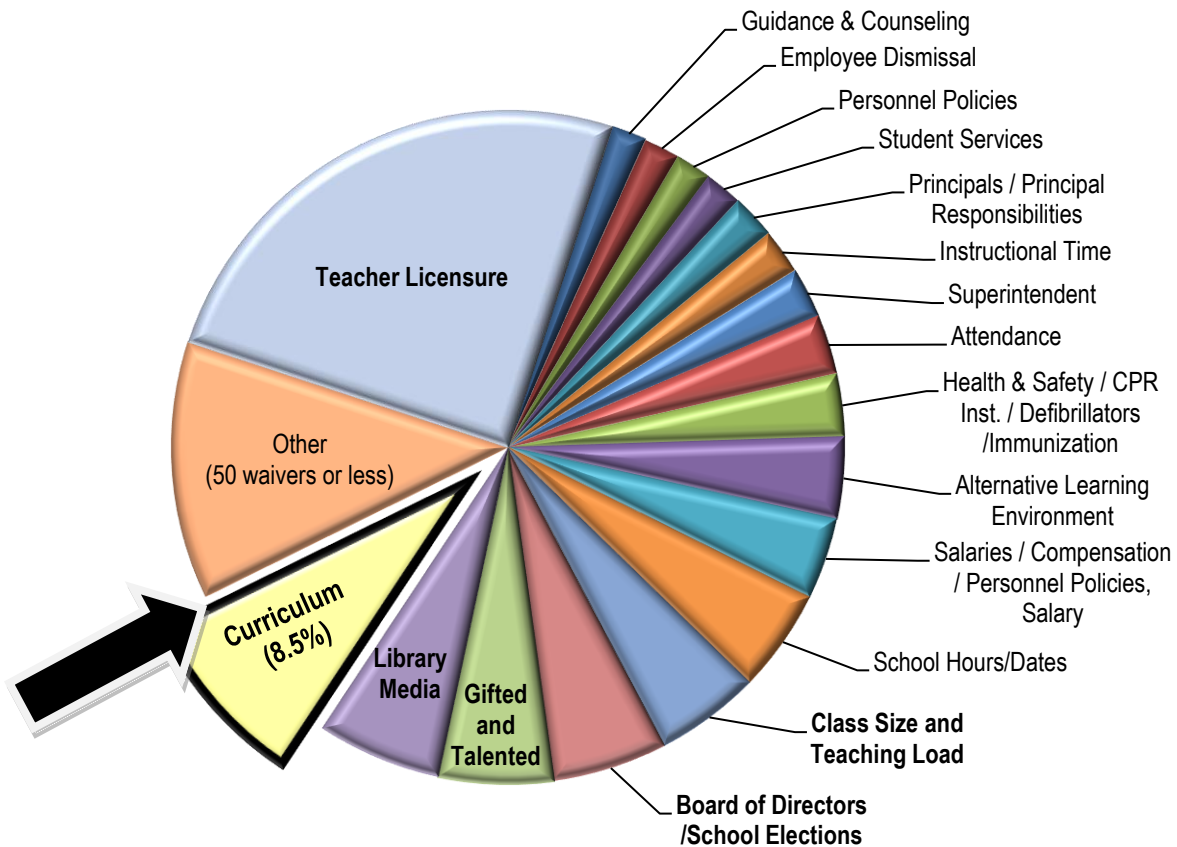
During the 2016-17 school year, **Strong High School** in the Strong-Huttig School District offered the highest number of courses – nine – that were not taught (Art II, Vocal Music II, Sociology, World Geography, Journalism, Pre-Calculus, Computer Science with Math, Spanish I

and Spanish II), **St. Paul High School** in the Huntsville School District offered eight that were not taught (Transitional English 12, digital learning; Advanced Topics in Math, digital learning; German I, digital learning; Essentials of Computer Programming, digital learning; Transitional English 12; Journalism II, III and IV), and **Decatur High School** in Decatur School District also offered eight that were not taught (Journalism II, Dramatic Lit, Calculus, Art II, Art III, Art IV, Studio Art 2-D and Vocal Music IV).

**CURRICULUM WAIVERS**

Over the years, schools and school districts have been able to apply for and receive more and more waivers, first as charter schools (which increased from 7 in 2005 to 24 in 2016) and then as Schools of Innovation (2013) and Act 1240 schools (2015). During the 2016-17 school year, 8.5% of all waivers to Arkansas education laws and rules granted by the State Board of Education were for curriculum-related requirements.

**2016-17 Waivers by Law/Rule Topic**





## GRADUATION REQUIREMENTS / SMART CORE

The new Rules Governing the Standards for Accreditation of Arkansas Public Schools say that students must earn 22 credits to graduate. As with the “required 38,” the courses required for graduation that were once detailed within the Standards for Accreditation are now noted in the separate document listing the required 38 courses that the State Board will approve at least annually. Again, this means graduation requirements will no longer go through the rule-making process but instead require only a vote by the State Board for approval.

While schools may require above and beyond what the state does in terms of graduation credits, the state specifies two 22-credit pathways – Core and Smart Core. Smart Core has been an option since the late 1990s and, beginning with the graduating class of 2013 (so those who entered ninth grade in 2009), it became the default curriculum for all high school students.

The following chart shows the difference in the requirements for Core and Smart Core, as were reflected in the 2015 (or most recent) Standards for Accreditation, and in those contained in document referred to in the revised Standards for Accreditation which is to be approved by State Board of Education.

| Content Area                           | Smart Core /<br>2015 Standards  | Smart Core /<br>SBE Document  | Core /<br>2015 Standards   | Core /<br>SBE Document  |
|--|---|---|--|---|
| <b>English Language Arts</b>           | English 9 – 1 unit<br>English 10 – 1 unit<br>English 11 – 1 unit<br>English 12 – 1 unit<br>Oral Communications – ½ unit   | English 9 – 1 credit<br>English 10 – 1 credit<br>English 11 – 1 credit<br>English 12 – 1 credit<br>Oral Communications – ½ credit | English 9 – 1 unit<br>English 10 – 1 unit<br>English 11 – 1 unit<br>English 12 – 1 unit<br>Oral Communications – ½ unit  | English 9 – 1 credit<br>English 10 – 1 credit<br>English 11 – 1 credit<br>English 12 – 1 credit<br>Oral Communications – ½ credit |
| <b>Mathematics</b>                     | 4 units with all students taking a math course in grades 11 and 12, including Algebra 1 (or Algebra A & B), Geometry (or Investigating Geometry or Geometry A & B), Algebra II, 4 <sup>th</sup> math options: Transitions to College Math, Pre-Calculus, Calculus, Trigonometry, Statistics, Computer Math, Algebra III or an AP math or 1 unit of computer science | Algebra I – 1 credit<br>Geometry – 1 credit<br>Algebra II – 1 credit<br>ADE approved fourth math credit – 1 credit                | 4 units including:<br>Algebra 1 (or A&B) – 1 unit<br>Geometry (or A&B) – 1 unit<br>OR<br>3 units of math and 1 unit of computer science  | 4 units including:<br>Algebra I – 1 credit<br>Geometry – 1 credit   |
| <b>Social Studies</b>                  | Civics or Civics/American government – 1 unit<br>World history – 1 unit<br>American History – 1 unit<br>Economics – ½ unit (may count toward career focus credits instead)  | American history – 1 credit<br>World history – 1 credit<br>Civics – ½ credit<br>Economics – ½ credit                              | 3 units with:<br>Civics – ½ unit<br>U.S. history – 1 unit<br>World history – 1 unit<br>Economics – ½ unit (may count toward career focus credits instead)                          | 3 credits with:<br>American history – 1 credit<br>World history – 1 credit<br>Civics – ½ credit                                   |
| <b>Science</b>                         | 3 units with lab experience chosen from physical science, biology or applied biology/chemistry, chemistry, physics or Principles of Technology I & II or PIC Physics OR 2 units of natural science with lab experiences and 1 unit computer science   | Physical science integrated – 1 credit<br>Biology integrated – 1 credit<br>Chemistry integrated – 1 credit                        | 3 units with at least 1 unit of biology or its equivalent and 1 unit of a physical science OR 1 unit of computer science and two units of science (biology and a physical science) | Physical science integrated – 1 credit<br>Biology integrated – 1 credit<br>Chemistry integrated – 1 credit                        |
| <b>Physical Education &amp; Health</b> | Physical education – ½ unit<br>Health and safety – ½ unit   | Physical education – ½ credit<br>Health – ½ credit  | Physical education – ½ unit<br>Health & safety – ½ unit  | Physical education – ½ credit<br>Health – ½ credit  |
| <b>Fine Arts</b>                       | ½ unit  | ADE approved fine arts – ½ credit   | ½ unit   | ½ credit  |
| <b>Career Focus</b>                    | 6 units   | 6 credits   | 6 units  | 6 credits   |

In addition, students must complete a digital course, have credit in an approved course that has financial literacy standards, pass the Arkansas Civics Exam and have training in cardiopulmonary resuscitation (CPR).

Overall, students with reported Smart Core waivers accounted for only 5.1% of Arkansas's 7<sup>th</sup>-12<sup>th</sup> graders in 2016-17. For that year, 203 school districts and charter systems reported having students opt out of the Smart Core requirements, ranging from .1% at South Conway County School District to 97.1% at SIATech Charter School in Little Rock. One of the school districts with a higher percentage of students opting out of Smart Core said the number was not a true reflection of its students' participation in the more rigorous graduation path because some parents mistakenly signed the opt-out form even though their children completed the Smart Core curriculum. The district's superintendent explained that though this applied to 15 of 24 of the 2017 class of seniors, directions from the state were to mark that those students had opted out in the computer database. (School districts and charter systems containing any grade 7-12 in 2016-17 are listed by the percent of their students with waivers from Smart Core in Appendix A.)

**The percent of students opting out of Smart Core has been decreasing slightly over past years:**

| School Year | Core          | Smart Core      | Total Enrollment |
|-------------|---------------|-----------------|------------------|
| 2013-14     | 14,459 (6.7%) | 199,262 (93.2%) | 213,721          |
| 2014-15     | 13,297 (6.2%) | 201,966 (93.8%) | 215,263          |
| 2015-16     | 12,010 (5.6%) | 203,359 (94.4%) | 215,369          |
| 2016-17     | 10,921 (5.1%) | 205,030 (94.9%) | 215,951          |

## ADVANCED EDUCATIONAL COURSES

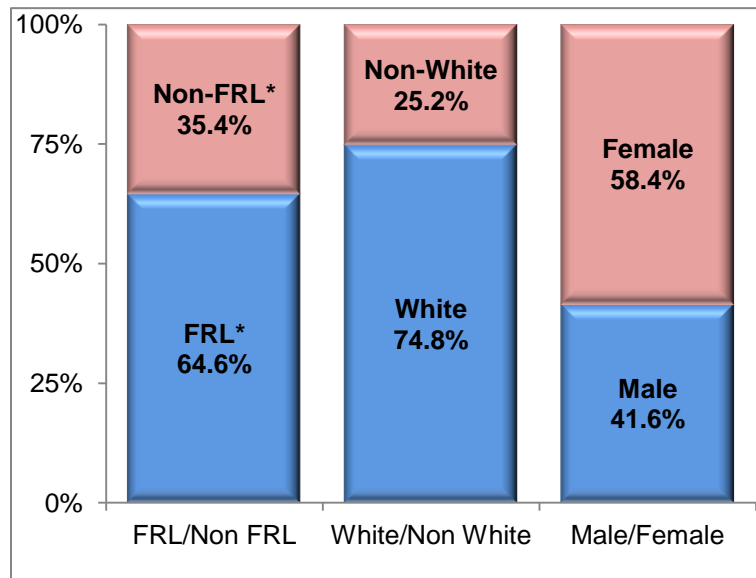
The newly revised Standards for Accreditation say that advanced education courses will be offered in accordance with Arkansas laws and with ADE rules. ACA §6-16-1204 stipulates that, beginning with the 2008-09 school year, each high school in Arkansas shall offer a minimum of four Advanced Placement courses, with one each in English, math, science and social studies. That directive is reflected on the course list to be approved by the State Board of Education, which says that, "An AP [Advanced Placement] course must be offered in the 4 core academic areas... ." State statute allows for International Baccalaureate (IB) courses to be offered instead of AP courses.

Though the law only required that four AP courses be offered in the core academic areas, 75% of Arkansas's traditional high schools – representing all but two school districts, Kirby and Palestine-Wheatley-- taught at least one AP course during the 2016-17 school year. Twelve of 18 charter high schools did. Offerings ranged from only one AP course at eight traditional high schools to 41 different courses at Central High School in the Little Rock School District. All of the charter high schools with AP courses taught at least four of them, with Haas Hall Academy teaching the most at 16.

In all, 1,665 AP courses were taught in traditional Arkansas high schools that year, with a total enrollment of 48,058. Meanwhile, an enrollment of 2,628 filled the 114 total AP courses taught in charter schools. (The enrollment totals over-represent the number of students as students may have been enrolled in more than one AP class during the year.) In terms of enrollment, AP US History, AP English Literature and Composition and AP English Language and Composition were the most popular AP courses at both traditional and charter high schools.

The following graph details the enrollment by student characteristic for traditional school districts and then for charter schools:

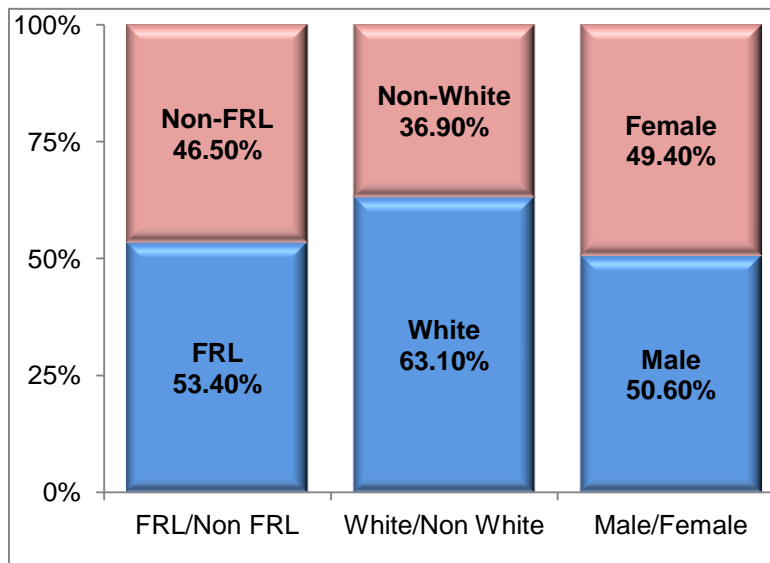
#### FALL 2016 ENROLLMENT CHARACTERISTICS OF TRADITIONAL HIGH SCHOOL AP CLASSES



Students may count more than once if they were enrolled in more than one AP course.

\*FRL stands for students who qualify for the federal free and reduced-price lunch program.

#### FALL 2016 ENROLLMENT CHARACTERISTICS OF CHARTER HIGH SCHOOL AP CLASSES



In addition, ACA § 6-16-1204 provides that schools may offer concurrent enrollment courses (in which students earn both high school credit and college-level credit) if they do so through an Arkansas institution of higher education. The concurrent credit courses may be offered at reduced rates of tuition. In 2017, Act 1118 added that students qualifying for free or reduced-price lunches do not have to pay the costs of qualifying concurrent credit courses for up to six credit hours.

## COMPUTER SCIENCE REQUIREMENTS

Act 187 of 2015 required each public high school and public charter high school to offer a course “of high quality” in computer science. ADE’s website offers curriculum frameworks for the following high school options worth ½ credit per course level: Computer Science High School Courses Levels 1-4, which include Computer Science with Programming/Coding Emphasis, Mobile Application Development, Networking/Hardware Emphasis, Robotics and Information Security Emphasis. Other high school courses for which ADE has frameworks are Advanced Programming, Advanced Networking, Advanced Information Security, Computer Science Independent Study and Computer Science Internship.

In addition, ADE also has frameworks for grades K-8 so that computer science learning standards can be incorporated into the instruction at each grade level. In December of 2017, Governor Hutchinson announced that he was directing \$500,000 in state funding to provide stipends of up to \$2,000 for elementary and middle school computer science teachers to take training on higher-level computer science concepts and on how to assist other teachers with embedding computer science standards into their teaching of other subjects.<sup>24</sup>

The introduction of computer science as a mandatory offering has garnered the state national recognition in the last few years by organizations such as Facebook, Microsoft, Code.org and the Computer Science Teachers of America.

Computer science courses are taught in traditional and charter high schools as traditional classroom-based courses or as digital-learning courses. Courses offered included AP Computer Science, AP Computer Science Principles, Computer Science with Mathematics, Essentials of Computer Programming and IB Computer Science, with the most popular being Essentials of Computer Programming. The courses are ½ credit courses, so students may or may not be enrolled in a computer science course during the second semester. Therefore, this report compares trends in the fall semester enrollments only.

During the fall of the 2015-16 school year, about half of the computer science class enrollment was in digital learning courses. The following year, however, classroom-based computer science courses became predominant, with only about a fifth of the enrollment being in digital-learning classes. According to ADE, the bulk of the state’s computer science funding has been used “to increase the number of certified/trained teachers in an attempt to allow more schools the flexibility of employing a certified teacher for employment within their physical classrooms.”<sup>25</sup>

Specifically, during the fall of the 2016-17 school year, 140 traditional high schools in 121 school districts taught classroom-based computer science courses and 11 charter high schools did. Meanwhile, 113 traditional high schools in 103 school districts taught digital-learning computer sciences courses, while six charter schools did.

As shown in the following chart, enrollment overall was higher in 2016-17 than in the previous year:

| ENROLLMENT LEVELS IN COMPUTER SCIENCE COURSES BY TYPE |               |             |              |             |
|---|---------------|-------------|--------------|-------------|
|   | 2015-16       |             | 2016-17      |             |
|   | Classroom     | Digital     | Classroom    | Digital     |
| <b>Traditional HS</b>                                 | 1,468 (52.9%) | 1,404 (47%) | 3,119 (77.1) | 926 (22.3%) |
| <b>Charter HS</b>                                     | 127 (42.7%)   | 170 (57.2%) | 341 (80.4)   | 83 (19.6%)  |

Enrollment counts may not reflect the exact number of students as some students may be enrolled in more than one computer science course at a time.

<sup>24</sup> “Teacher stipends set for computer science” by Cynthia Howell, Arkansas Democrat-Gazette, Dec. 6, 2017.

<sup>25</sup> Email from Anthony A. Owen, Chief State STEM Officer and State Director of Computer Science Education with the Arkansas Department of Education, dated May 10, 2018.

## STUDENT-FOCUSED LEARNING

A few years ago, the Department of Education created its current vision statement: “The Arkansas Department of Education is transforming Arkansas to lead the nation in student-focused education.”<sup>26</sup> This vision parallels components of the federal Every Student Succeeds Act, which allows states to redesign assessments for student-focused learning as well as pilot new assessment systems that are aligned with competency-based education.<sup>27</sup> The vision statement also undergirds much of Act 930 of 2017, which mandates the move to student-focused learning systems for all schools by the 2018-19 school year.

Beginning with the 2017-18 school year, according to Act 930, the Department of Education was to collaborate with school districts as they transitioned to a system of student-focused learning with the goal of supporting success for all students. In the student-focused learning model, educators will use multiple academic measures to determine whether a student needs additional support or is able to work at an accelerated pace. The idea is that time becomes the variable, while content mastery becomes the constant. ADE says Arkansas is at the beginning stages of transitioning to such a system and it will be several years before all of the state's schools move to a true competency-based system of teaching and learning.

However, recent legislation that has paved the way includes Act 872 of 2017, which allows school districts to submit plans to the department for awarding credit for high school courses based on subject matter mastery rather than completing a certain number of hours of classroom instruction. In addition, Act 867 of the same year allows a student's attendance to be recorded without being physically present in the classroom.

To assess individual student performance, Act 930 says that school districts must consider a student's scores on statewide academic assessments and may also use, without limit:

- Subject grades
- Student work samples
- Local assessment scores

Starting with the 2018-19 school year, each student shall have a student success plan mapped out for him or her by the end of 8<sup>th</sup> grade. The plan will be developed collaboratively by school personnel, the student and the student's parents. At a minimum, it is to:

- Guide students along pathways to graduation
- Address accelerated learning opportunities
- Address academic deficits and interventions
- Include planning for college and career

Individualized education programs (IEPs) for special education students will serve as student success plans if the IEP addresses academic deficits and intervention needs and includes a transition plan that addresses college and career planning components.

Student success plans will be reviewed and revised annually. Department staff say the student success planning process will be more about developing positive relationships between the student and his or her teachers and maximizing and personalizing the process of education rather than past practices that focused solely on selecting courses to ensure graduation.<sup>28</sup>

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<sup>26</sup> Arkansas Department of Education Vision Statement:  
<https://v3.boardbook.org/Public/PublicItemDownload.aspx?ik=39254741>

<sup>27</sup> A Handbook for Personalized Competency-Based Education, by Robert J. Marzano, Jennifer S. Norford, Michelle Finn and Douglas Finn III; published by Marzano Research, 2017.

<sup>28</sup> July 18, 2017, meeting with Arkansas Department of Education staff.

While performing site visits to schools in fall 2017, BLR asked 73 principals about the impact that requiring student success plans for all students by the end of 8<sup>th</sup> grade will have on them. Not surprisingly, most elementary principals did not expect too much of an impact on their schools, though most were also quick to offer that through the use of Response to Intervention, professional learning communities and the use of student-level data, their schools already engaged in delivering individualized learning for students. Principals at the middle school level, on the other hand, often voiced that they were incorporating something akin to student success planning but they were more often concerned about additional costs in terms of money, time and training. Some also worried that it would become another exercise in compliance rather than a meaningful student-engagement process. Similarly, many high school principals thought they were already doing something along the lines of student success planning, but frequently voiced that they had not yet received much guidance from ADE about what the actual process and resulting documentation would be.

Department officials say many school districts are already incorporating elements of student-focused learning into their instructional programs. However, when the BLR questioned school principals about that during the site visits, few seemed familiar with the concept or felt that they had had substantial guidance from ADE regarding the transition. Several voiced concerns about the need for more professional development and a few voiced fears that this would be an unfunded mandate, while others said it might mean no more than filling out additional paperwork to show compliance.<sup>29</sup> ADE says that professional development about how to work with each student and his/her family to develop a student success plan focused on their strengths, needs and interests will be provided to school districts in fall 2018.<sup>30</sup>

Because the implementation of personalized learning nationwide is still in its early phases, research into the costs of doing so is limited and tends to focus on small samples of schools. One recent study, for example, examines the cost of 16 start-up charter schools while another focuses on six existing public schools in Chicago that transitioned to personalized learning models.

The costs estimated with the newly formed charter schools were higher than in the traditional schools, ranging from \$5,300 per pupil to \$24,000 per pupil, with an average cost of about \$14,000 per pupil in the first year and \$10,300 in the second year. The largest proportion of funds – 59% – was spent on salaries.<sup>31</sup>

In Chicago, the upfront costs for schools transitioning to personalized learning also called for additional funding, but they were lower than in the new charter schools, ranging in the six studied schools from \$233 per pupil to \$1,135 per pupil. After the first year or two, funding needs were similar to what they had been previously, though the allocations differed. The study calculated that start-up costs – largely for professional development and technology – equaled between 1 and 7 percent of total student funding.<sup>32</sup> Start-up funding was most often used for technology, professional development, instructional support staff, and stipends and planning team salaries. Ongoing funding changes were needed for tiered teaching staffs (lead teachers with teachers' aides or student teachers). In addition, the Chicago study found that it became even more important to retain teachers because so much investment in professional development for student-focused learning had been made in them.

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<sup>29</sup> Compilation of Bureau of Legislative Research site visit surveys, fall 2017.

<sup>30</sup> Meeting with Stacy Smith.

<sup>31</sup> "Financing Personalized Learning: What Can We Learn from First-Generation Adopters?" Center on Reinventing Public Education, April 2016.

<sup>32</sup> "Sustaining Innovation and Preparing for Scale: Financial Sustainability Research & Analysis of Personalized School Learning Models."

The schools in both studies benefitted from private grants to help begin the initiatives, and, in fact, the Chan Zuckerberg Initiative quite recently donated \$14 million to the Chicago Public Schools to expand personal learning models into 100 more Chicago schools.<sup>33</sup>

The two versions of learning incorporated into the schools described above are further along the spectrum to true personalized- and competency-based learning than Arkansas schools will be next year, as the main difference marking Arkansas's student-focused system will be the development of student success plans. However, school districts may submit plans to pursue competency-based systems under Act 872 of 2017, and the goal as described by ADE staff seems to be for competency-based learning to be the eventual norm across the state. Therefore, while funding may not be an issue at present, it very well may become so in future years.

Some educators and researchers have expressed concerns about the pace at which personalized-learning is being adopted. "The evidence base is very weak at this point," the RAND Corporation told Education Week about its studies of the effectiveness of personalized learning systems.<sup>34</sup> Others worry about reliance on technology instead of teachers to determine what a child needs to learn, greater inequities in curriculum and expectations among schools, and that "some versions of personalized learning encourage a 'reductionist type of education' that 'breaks learning into little bits and scraps and bytes of disparate skills, disconnected from an inspiring, coherent whole.'"<sup>35</sup>

While the new student-focused and competency-based learning systems mirror much of Dewey's child-centered approach, the fact that learning is still based on standards and competency of those standards also reflect Taylorism's focus on the end product of what all children learn and are able to do after completing school.

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<sup>33</sup> "CPS 'personalized learning' initiative draw \$14 M 'like;'" Gift from Facebook CEO's charity will help extend tailored lessons to more kids," by Heidi Stevens, Chicago Tribune, May 2, 2018.

<sup>34</sup> "The Case(s) Against Personalized Learning," Education Week, Nov. 7. 2017.

<sup>35</sup> "The Case(s) Against Personalized Learning."

## CONCLUSION

Historically, the approach to what to teach and how to teach it tends to swing from academic systems characterized by standardization and accountability to systems centering on the needs and capabilities of the individual student. This movement between education philosophies is evident in Arkansas's recent history as well. Within the last 40 years, it is fair to say that standardization and accountability have dominated the landscape except for a period in the early 1990s when the push was toward more flexibility for schools paired with education that was more experiential. That movement was short-lived, however, as the high stakes accountability of No Child Left Behind took over in the early 2000s.

Yet, the last few years have seen a swing back in the other direction. In Arkansas, that swing has manifested itself in the form of waivers from curriculum standards and changes in the Standards for Accreditation, both of which have served to loosen the requirements of what schools in the state must teach. Several pieces of legislation in 2017 served to solidify that shift in approach, with Act 930 legislating that all schools implement student-focused learning and several other legislative and rule-making moves giving schools flexibility in regard to students' physical attendance and means of earning course credits.

In addition to providing schools with more flexibility regarding course offerings, the state also is working with school districts to transition to a student-focused learning model that will pre-stage a true competency-based model years down the road. Student-focused learning in Arkansas schools will first center on student success plans that map out paths to graduation individualized to a student's strengths, needs and interests. This system potentially will lead to a competency-based system of education, in which each student advances through coursework at his or her own pace. Research about the effectiveness and costs of personalized learning systems is in the early stages and therefore not conclusive of the approach's outcomes or costs on a broad scale.



**APPENDIX A: SMART CORE WAIVERS, 2016-17**

| LEA     | School District             | % 7-12 grade students with waivers |
|---------|-----------------------------|------------------------------------|
| 6052700 | Siatech Little Rock Charter | 97.1%                              |
| 5608000 | East Poinsett Co. SD*       | 47.2%                              |
| 7105000 | South Side SD(Vanburen)     | 44.4%                              |
| 3809000 | Hillcrest SD                | 42.0%                              |
| 5502000 | Centerpoint SD              | 37.5%                              |
| 2503000 | Viola SD                    | 31.8%                              |
| 1605000 | Buffalo Is. Central SD      | 31.3%                              |
| 3804000 | Hoxie SD                    | 25.1%                              |
| 5903000 | Hazen SD                    | 25.0%                              |
| 6502000 | Searcy County SD            | 25.0%                              |
| 6606000 | Mansfield SD                | 24.5%                              |
| 5008000 | Nevada SD                   | 24.3%                              |
| 0502000 | Bergman SD                  | 24.3%                              |
| 4102000 | Foreman SD                  | 23.4%                              |
| 0303000 | Mountain Home SD            | 21.7%                              |
| 4706000 | Rivercrest SD 57            | 20.2%                              |
| 0803000 | Green Forest SD             | 19.8%                              |
| 3212000 | Cedar Ridge SD              | 19.2%                              |
| 4302000 | England SD                  | 19.2%                              |
| 5706000 | Ouachita River SD           | 17.6%                              |
| 0701000 | Hampton SD                  | 17.0%                              |
| 1704000 | Mulberry/Pleasant View      | 16.9%                              |
| 5404000 | Marvell-Elaine SD           | 16.9%                              |
| 7301000 | Bald Knob SD                | 16.8%                              |
| 3002000 | Glen Rose SD                | 16.6%                              |
| 6102000 | Maynard SD                  | 16.6%                              |
| 7102000 | Clinton SD                  | 16.3%                              |
| 4902000 | Mount Ida SD                | 16.3%                              |
| 5205000 | Harmony Grove SD (Ouach)    | 16.0%                              |
| 4401000 | Huntsville SD               | 15.8%                              |
| 6603000 | Hackett SD                  | 15.7%                              |
| 2807000 | Greene County Tech SD       | 15.7%                              |
| 2403000 | County Line SD              | 15.6%                              |
| 1003000 | Gurdon SD                   | 15.6%                              |
| 4303000 | Carlisle SD                 | 15.5%                              |
| 4708000 | Gosnell SD                  | 15.5%                              |
| 3001000 | Bismarck SD                 | 15.2%                              |
| 4203000 | Paris SD                    | 15.0%                              |
| 6301000 | Bauxite SD                  | 14.7%                              |
| 0406000 | Siloam Springs SD           | 14.3%                              |
| 2404000 | Ozark SD                    | 14.3%                              |
| 4603000 | Fouke SD                    | 14.0%                              |
| 6505000 | Ozark Mountain SD           | 13.6%                              |
| 1201000 | Concord SD                  | 13.5%                              |
| 1611000 | Nettleton SD                | 13.1%                              |
| 2501000 | Mammoth Spring SD           | 12.5%                              |
| 1603000 | Brookland SD                | 12.5%                              |
| 2304000 | Guy-Perkins SD              | 12.0%                              |
| 1304000 | Woodlawn SD                 | 11.9%                              |
| 3302000 | Melbourne SD                | 11.5%                              |
| 7307000 | Riverview SD                | 11.5%                              |
| 5504000 | South Pike County SD        | 11.3%                              |
| 5102000 | Jasper SD                   | 11.2%                              |
| 4712000 | Manila SD                   | 10.8%                              |
| 4101000 | Ashdown SD                  | 10.7%                              |
| 1204000 | West Side SD (Clebune)      | 10.7%                              |
| 7504000 | Dardanelle SD               | 10.6%                              |
| 3102000 | Dierks SD                   | 10.4%                              |
| 7302000 | Beebe SD                    | 10.4%                              |
| 3601000 | Clarksville SD              | 10.3%                              |
| 1602000 | Westside Cons. SD(Craigh)   | 10.3%                              |
| 7204000 | Greenland SD                | 9.9%                               |
| 0304000 | Norfolk SD                  | 9.7%                               |

| LEA     | School District            | % 7-12 grade students with waivers |
|---------|----------------------------|------------------------------------|
| 1305000 | Cleveland County SD        | 9.5%                               |
| 5604000 | Marked Tree SD             | 9.5%                               |
| 3301000 | Calico Rock SD             | 9.3%                               |
| 3810000 | Lawrence County SD         | 9.2%                               |
| 5605000 | Trumann SD                 | 9.0%                               |
| 4901000 | Caddo Hills SD             | 9.0%                               |
| 0203000 | Hamburg SD                 | 8.9%                               |
| 7303000 | Bradford SD                | 8.6%                               |
| 2203000 | Monticello SD              | 8.6%                               |
| 7311000 | Searcy SD                  | 8.6%                               |
| 7104000 | Shirley SD                 | 8.6%                               |
| 1408000 | Emerson-Taylor-Bradley SD  | 8.4%                               |
| 0801000 | Berryville SD              | 8.3%                               |
| 6901000 | Mountain View SD           | 8.3%                               |
| 6304000 | Harmony Grove (Sal)        | 8.2%                               |
| 4602000 | Genoa Central SD           | 8.2%                               |
| 1702000 | Cedarville SD              | 8.1%                               |
| 2705000 | Sheridan SD                | 7.9%                               |
| 5802000 | Dover SD                   | 7.8%                               |
| 4502000 | Yellville-Summit SD.       | 7.8%                               |
| 7003000 | Junction City SD           | 7.1%                               |
| 0104000 | Stuttgart SD               | 7.1%                               |
| 3211000 | Midland SD                 | 7.1%                               |
| 5805000 | Russellville SD            | 7.0%                               |
| 1703000 | Mountainburg SD            | 7.0%                               |
| 7008000 | Smackover-Norphlet SD      | 6.7%                               |
| 5801000 | Atkins SD                  | 6.6%                               |
| 4702000 | Blytheville SD             | 6.5%                               |
| 1002000 | Arkadelphia SD             | 6.5%                               |
| 3104000 | Mineral Springs SD         | 6.5%                               |
| 3606000 | Westside SD (Johnson)      | 6.5%                               |
| 0101000 | Dewitt SD                  | 6.5%                               |
| 6002000 | North Little Rock SD       | 6.4%                               |
| 7007000 | Parkers Chapel SD          | 6.3%                               |
| 3004000 | Malvern SD                 | 6.2%                               |
| 1203000 | Quitman SD                 | 6.2%                               |
| 0601000 | Hermitage SD               | 6.2%                               |
| 4713000 | Osceola SD                 | 6.1%                               |
| 2202000 | Drew Central SD            | 6.0%                               |
| 0402000 | Decatur SD                 | 5.9%                               |
| 1608000 | Jonesboro SD               | 5.9%                               |
| 0602000 | Warren SD                  | 5.9%                               |
| 3005000 | Ouachita SD                | 5.8%                               |
| 0802000 | Eureka Springs SD          | 5.6%                               |
| 6004000 | Jacksonville No Pulaski SD | 5.6%                               |
| 1106000 | Rector SD                  | 5.6%                               |
| 2105000 | Mcgehee SD                 | 5.6%                               |
| 7309000 | Pangburn SD                | 5.3%                               |
| 7202000 | Farmington SD              | 5.2%                               |
| 5403000 | Helena/ West Helena SD     | 5.1%                               |
| 4202000 | Magazine SD                | 5.0%                               |
| 3209000 | Southside SD (Indep)       | 4.9%                               |
| 1402000 | Magnolia SD                | 4.9%                               |
| 6703000 | Horatio SD                 | 4.9%                               |
| 1802000 | Earle SD                   | 4.8%                               |
| 6601000 | Fort Smith SD              | 4.7%                               |
| 6003000 | Pulaski County Special SD  | 4.7%                               |
| 7205000 | Lincoln SD                 | 4.6%                               |
| 7208000 | West Fork SD               | 4.5%                               |
| 5707000 | Cossatot River SD          | 4.4%                               |
| 0501000 | Alpena SD                  | 4.4%                               |
| 6602000 | Greenwood SD               | 4.3%                               |
| 3509000 | Watson Chapel SD           | 4.2%                               |

| LEA     | School District                                  | % 7-12 grade students with waivers |
|---------|--|------------------------------------|
| 5804000 | Pottsville SD                                    | 4.1%                               |
| 7403000 | Mccrory SD                                       | 3.9%                               |
| 2606000 | Lakeside (Garland)                               | 3.7%                               |
| 7207000 | Springdale SD                                    | 3.7%                               |
| 6802000 | Cave City SD                                     | 3.6%                               |
| 0504000 | Omaha SD   | 3.6%                               |
| 2306000 | Mt. Vernon/Enola SD                              | 3.5%                               |
| 1804000 | Marion SD  | 3.4%                               |
| 0405000 | Rogers SD  | 3.4%                               |
| 5006000 | Prescott SD                                      | 3.3%                               |
| 4301000 | Lonoke SD  | 3.2%                               |
| 4003000 | Star City SD                                     | 3.2%                               |
| 6605000 | Lavaca SD  | 3.2%                               |
| 5204000 | Camden Fairview SD                               | 3.2%                               |
| 7203000 | Fayetteville SD                                  | 3.2%                               |
| 7509000 | Western Yell Co. SD                              | 3.2%                               |
| 1503000 | Nemo Vista SD                                    | 2.9%                               |
| 4204000 | Scranton SD                                      | 2.9%                               |
| 0503000 | Harrison SD                                      | 2.8%                               |
| 0403000 | Gentry SD  | 2.7%                               |
| 1803000 | West Memphis SD                                  | 2.7%                               |
| 5201000 | Bearden SD                                       | 2.7%                               |
| 2305000 | Mayflower SD                                     | 2.6%                               |
| 2605000 | Lake Hamilton SD                                 | 2.6%                               |
| 6303000 | Bryant SD  | 2.5%                               |
| 7201000 | Elkins SD  | 2.5%                               |
| 6302000 | Benton SD  | 2.5%                               |
| 6804000 | Highland SD                                      | 2.4%                               |
| 5303000 | Perryville SD                                    | 2.4%                               |
| 7001000 | El Dorado SD                                     | 2.2%                               |
| 6103000 | Pocahontas SD                                    | 2.2%                               |
| 1701000 | Alma SD  | 2.1%                               |
| 4304000 | Cabot SD   | 2.0%                               |
| 3604000 | Lamar SD   | 1.9%                               |
| 5901000 | Des Arc SD                                       | 1.9%                               |
| 5106000 | Deer/Mt. Judea SD                                | 1.8%                               |
| 7304000 | White Co. Central SD                             | 1.8%                               |
| 3306000 | Izard County Cons SD                             | 1.8%                               |
| 2803000 | Marmaduke SD                                     | 1.7%                               |
| 0505000 | Valley Springs SD                                | 1.7%                               |
| 6047700 | Estem Public Charter                             | 1.7%                               |
| 1101000 | Corning SD                                       | 1.4%                               |
| 3510000 | White Hall SD                                    | 1.4%                               |
| 3201000 | Batesville SD                                    | 1.4%                               |
| 0401000 | Bentonville SD                                   | 1.4%                               |
| 2002000 | Fordyce SD                                       | 1.2%                               |
| 7310000 | Rose Bud SD                                      | 1.2%                               |
| 4201000 | Booneville SD                                    | 1.2%                               |
| 2104000 | Dumas SD   | 1.1%                               |
| 2502000 | Salem SD   | 1.1%                               |
| 2808000 | Paragould SD                                     | 1.1%                               |
| 3704000 | Lafayette County SD                              | 1.1%                               |
| 4701000 | Armored SD                                       | 1.0%                               |
| 6040700 | Academics Plus SD                                | 1.0%                               |
| 1612000 | Valley View SD                                   | 1.0%                               |
| 2307000 | Vilonia SD                                       | 0.9%                               |
| 6053700 | Responsive Ed Solutions Premier High Little Rock | 0.9%                               |
| 7510000 | Two Rivers SD                                    | 0.8%                               |
| 1613000 | Riverside SD                                     | 0.8%                               |
| 7009000 | Strong-Huttig SD                                 | 0.7%                               |
| 2602000 | Fountain Lake SD                                 | 0.7%                               |
| 1104000 | Piggott SD                                       | 0.7%                               |
| 0901000 | Dermott SD                                       | 0.7%                               |
| 0506000 | Lead Hill SD                                     | 0.6%                               |
| 3502000 | Dollarway SD                                     | 0.6%                               |
| 3806000 | Sloan-Hendrix SD                                 | 0.6%                               |

| LEA     | School District        | % 7-12 grade students with waivers |
|---------|------------------------|------------------------------------|
| 2903000 | Hope SD                | 0.5%                               |
| 2402000 | Charleston SD          | 0.5%                               |
| 7206000 | Prairie Grove SD       | 0.4%                               |
| 2603000 | Hot Springs SD         | 0.4%                               |
| 1601000 | Bay SD                 | 0.4%                               |
| 5803000 | Hector SD              | 0.4%                               |
| 2301000 | Conway SD              | 0.3%                               |
| 4605000 | Texarkana SD           | 0.3%                               |
| 1705000 | Van Buren SD           | 0.2%                               |
| 6701000 | Dequeen SD             | 0.2%                               |
| 1507000 | South Conway County SD | 0.1%                               |

These school districts and charter schools had no Smart Core waivers recorded in APSCN:

Arkansas Arts Academy  
Arkansas Connections Academy  
Arkansas Virtual Academy  
Augusta School District  
Barton-Lexa School District  
Blevins School District  
Brinkley School District  
Clarendon School District  
Cotter School District  
Covenant Keepers Charter School  
Cross County School District  
Crossett School District  
Cutter-Morning Star School District  
Danville School District  
East End School District  
Flippin School District  
Forrest City School District  
Future School of Fort Smith  
Gravette School District  
Haas Hall Academy  
Haas Hall Bentonville  
Harrisburg School District  
Heber Springs School District  
Imboden Charter School District  
Jackson County School District  
Jacksonville Lighthouse Charter,  
Jessieville School District  
KIPP Delta Public Schools  
Kirby School District  
Lakeside School District  
Lee County School District  
LISA Academy  
Little Rock Preparatory Academy  
Little Rock School District  
Mena School District  
Mountain Pine School District  
Nashville School District  
Newport School District  
Ozark Montessori Academy Springdale  
Palestine-Wheatley School District  
Pea Ridge School District  
Pine Bluff Lighthouse Academy  
Pine Bluff School District  
Poyen School District  
Responsive Ed Solutions Northwest Arkansas Classical Academy  
Responsive Ed Solutions Quest Middle School of Pine Bluff  
Responsive Ed Solutions Quest Middle School of Little Rock  
Spring Hill School District  
Waldron School District  
Wonderview School District

\*According to the superintendent, this percentage includes 15 of 24 seniors whose parents signed opt-out forms even though they completed the Smart Core curriculum.

**APPENDIX B: PERSONALIZED LEARNING IN THE NEWS**

## **SD school is getting rid of traditional classrooms; ND leaders are impressed**

By Barry Amundson on May 9, 2018 at 10:53 p.m.

HARRISBURG, S.D.—Personalized or customized learning remains in its infancy levels in the Dakotas, but a school district in southeast South Dakota is taking it to a new level and is becoming recognized as a regional leader in the effort.

Harrisburg is a district that includes students from the southern part of the city of Sioux Falls along with rural and Harrisburg residents.

Visitors by the hundreds, including North Dakota's governor and superintendent of public instruction, have been checking out the innovative efforts with the hope of bringing them back to their home states and school districts and change the traditional way of classroom teaching.

At most elementary schools, students sit in their desks most of the day in classes led by one teacher. It's not that way in personalized learning.

In this new way of learning at Freedom Elementary School in Harrisburg, innovation program director Travis Lape and Principal Tanja Pederson are seeing test scores climb and discipline problems fall dramatically as students learn at their own pace, help each other, and meet in small groups or individually in "coaching sessions" with teachers all day long except for a large group meeting to start each day where teachers pitch activities or lessons for the day and students get to choose.

This gives students much more of a "voice and choice in their educational journey," said Pederson. "It's not competition anymore between the students as they grow on their own."

Students basically no longer call themselves second-graders or fifth-graders, but rather some of the students call themselves or are referred to by labels put on by the district called "little and middles" in the younger grades and "molders and olders" in the higher grades.

Students will have the same four teachers for four years from second through fifth grade, providing continuity and allowing teachers to get to know their students on a much more personal and in-depth level.

Pederson said they asked parents about personalized learning in a survey and 94 percent said they wanted their children in the program, thus they are in the process of making the transition.

Students still get the basics of reading, math, science and social studies, but once they master certain standards, they move along at their own pace.

Sometimes, a student who has mastered a skill will even work with another student who needs some helping catching up.

"Students really seem to become more engaged," Lape said. "They like it."

### ***Some misconceptions***

A criticism Lape has heard is that the students get to "do whatever they want."

However, that's not true, he said. "We like to call it the invisible structure because at the end of the day, the students do have to prove they are learning and mastering skills."

"It's just that they are on their own educational journey. They have that voice and choice day in and day out," Pederson said.

"I think sometimes they don't feel so rushed and that's what they like, too," she said.

Some parents with students in the program also wonder why most days they don't have any homework to bring home.

"Well if we are hitting their zone of proximal development and challenging them for six to seven hours they should be tired. They should not have to go home and have another hour of homework." Lape said

"We still want kids to be kids," he said, and have time to be outdoors and do the things on the outside that they want to do, although they do recommend students read at least a half-hour after school or at night.

### ***Burgum impressed***

When North Dakota Gov. Doug Burgum visited Harrisburg in March with Superintendent of Public Instruction Kirsten Baesler and the governor's 18-member education innovation task force he formed last fall, they came away impressed and excited.

"I went down there and got completely blown away," Burgum said in an interview in Fargo recently. "It was really, really remarkable."

He said teachers were enthusiastically behind the initiative and that's critical to its success.

"It's all got to come from the front-line teachers," he said. Burgum credited the teachers there with taking a risk and reinventing the way students learn.

Once they started the personalized learning, the teachers said they would never go back, Burgum said.

Pederson and Lape agree, as does Harrisburg teacher Tyler Muth.

Not only does Muth think students are doing better academically and behavior-wise, but he also thinks he's become a better overall teacher working closely each day with the other three instructors in his "pod."

As an example, he said one of the other instructors is very organized and that it's "rubbing off on me."

In some instances, the transformation in the classrooms has been kind of "messy," Lape said.

When the Harrisburg High School first started planning the program seven years ago and put it in place five years ago, "there was a lot of learning and growing," he said

"But this is really a grassroots effort," he said.

Pederson agrees. "They (the teachers) are the ones on the ground that have done the hard work and provided the energy," she said. "Despite all of that, they find it so rewarding in the way the students are doing that they wouldn't do it any other way now."

North Dakota superintendent Baesler, in an interview, said their recent visit to Harrisburg and by teachers and administrators from other schools have left them "inspired."

"When you see it, the teachers and the students involved, it's exciting," she said. "You also then realize it's no longer just a dream, a pipe dream."

Baesler said staff at the Northern Cass school district, which have made several visits to Harrisburg, is believed to be the first in North Dakota to start the personalized learning program.

She said three others, West Fargo, Oakes and New Rockford-Sheyenne, are in the planning stages. In addition to making trips to Harrisburg, those schools are working with a nonprofit organization called Knowledge Works from Cincinnati that helps train instructors and works on policies that need to be put in place. Baesler said a bill that passed by wide margins in the past legislative session has given schools in North Dakota the options of offering the personalized learning programs.

### **Getting attention**

In the last five years, the district has had more than 1,000 visitors to study the high school's customized learning program, that started with planning seven years ago. In just the past year, more than 300 have visited the elementary school, where they call it personalized learning, and more than 200 have visited the middle school. Lape and Pederson, however, emphasize that when they meet with all of the visitors they hope they consider developing their own personalized programs at their schools and what will work for them.

"We hope they don't replicate what we have," Lape said. "But that they can use the pieces that they like. We think it would be disservice to their school and community as we believe each community has their own different needs."

What Lape and Pederson think may be unique in their school's personalized learning is the use of technology as a tool for learning. Each learner has an iPad, but it is used as a way to create their learning through artifacts. Also unique, they say, is how they have started "interest sessions to explore student passions" with expert speakers brought into the "pods."

As for technology, students might decide they want to make a video or an online poster to explain how they have mastered a skill or they can use a variety of educational apps.

In the "interest sessions," students even at their young age can start to explore their areas of "passion." Some of the expert speakers brought in have been a meteorologist, a South Dakota wildlife professional, a cake decorator that helped students with math and measurements and sessions about activities with figure skating, curling and snowboarding instructors.

### **Ongoing effort**

Pederson and Lape realize this effort is one that will be ongoing, ever-changing and challenging.

They are excited about how the elementary students will be moving through their educational journey as they reach the middle school and high school levels where they will be used to and comfortable with the new way of learning.

In their "pods" at the school of 260 students in grades second through fifth, about one-third still take traditional classes while the other two-thirds are in personalized learning. Last year, in the first year of the program on the elementary level at Freedom, there were 94 students in one "pod" with four teachers. This school year, the program has expanded to include 177 students in two pods. Next school year, the entire second- through fifth-grade-age students, those 260 or more, will be in personalized learning. Students in kindergarten and first grade are still in traditional classrooms. This year's graduating class will be the 2nd class to have gone through the personalized learning or, as they call it at the high school level, customized learning, for all four years. Lape said around 30 of the students could have graduated early, having met their credits needed, but they would miss out on some of the schools activities such as sports, prom, and graduation by leaving early. Instead, the high school has been working on offering college credit courses that students can take in their senior year, including speech, career exploration, college orientation and a certified nursing assistant program. Professors come to the school for the classes, with the district paying the tuition for the credits that the colleges offer. Now, when the Harrisburg elementary students move into middle school and high school, this new way of learning will be second-hand. If statistics hold out, they could be much better students and be better prepared for the world, Lape and Pederson said.

REPORTER PATRICK SPRINGER CONTRIBUTED TO THIS ARTICLE

## Chicago Tribune

### CPS 'personalized learning' initiative draws \$14M 'like'; Gift from Facebook CEO's charity will help extend tailored lessons to more kids

**Byline:** Heidi Stevens

It was a Friday afternoon, and Grace Rios' fifth-grade math class was buzzing with the sort of energy usually reserved for recess. Students were moving around, playing games, chatting up their classmates. Compound fractions seemed an unlikely spark for such electricity, but this was not your typical classroom.

Rios teaches at Patrick Henry Elementary, one of 120 **Chicago public schools** that have incorporated "**personalized learning**" into their curriculum since the 2014-15 school year. The idea is to tailor lessons to students' individual needs, giving them the ability to learn in the ways -- and at the pace -- that work best for them.

It's a little unconventional, a little chaotic and, maybe, quite possibly, revolutionary.

And it's earning the attention of some big names.

On Tuesday, the Chan Zuckerberg Initiative -- Facebook CEO Mark Zuckerberg and his wife, physician Priscilla Chan's, philanthropic organization -- announced a \$14 million grant to CPS and LEAP Innovations to bring **personalized learning** programs into more Chicago schools.

CPS and LEAP, a nonprofit organization that works with schools to implement **personalized learning**, estimate the grant will bring the programming into roughly 100 more schools. Funding, they say, will go toward training teachers and principals, purchasing technology and other classroom resources and redesigning classrooms to support **personalized learning**.

"We've been living with an education system that is very one-size-fits-all," said Phyllis Lockett, LEAP Innovations founder and CEO. "We end up losing kids that are a bit behind, and disengaging kids who are showing competence but aren't able to move on because the rest of their class isn't there yet."

Teachers go through an 18-month professional development program to learn **personalized learning** techniques, Lockett said.

"When you think about your average CPS classroom," Lockett said, "you've got one teacher, 25 to 30 students and four levels of proficiency within that classroom -- maybe more. We've been asking teachers to satisfy every single student's needs every single day, and that's impossible."

Instead of desks, students in **personalized learning** classrooms use "flexible seating" (beanbags, small couches, communal benches), or forgo seats altogether in favor of a rug to sprawl out upon.

Instead of lecturing in front of the classroom, **personalized learning** teachers sit with one student at a time while the rest of the kids collaborate in small groups. Some students use laptops. Others use whiteboards. Others opt for traditional pencils and paper.

**Personalized learning** looks a little different in each classroom, but the CPS Department of **Personalized Learning** spells out a system by which teachers meet one-on-one with each student to create a continually updating file of that student's individual strengths, challenges, goals and, perhaps trickiest of all, learning style.

"The research is clear that when you individualize learning for students, it accelerates student growth and mastery," said Janice Jackson, CEO of **Chicago Public Schools**. "I'm really excited to see that happen in schools that have already been incorporating **personalized learning**, and in the schools that will now have that opportunity because of this generous gift."

Schools that want a piece of the new \$14 million grant can start applying in the fall, Lockett said, and **personalized learning** training will begin in early 2019.

Jackson said schools in underserved communities will likely be prioritized.

"Our goal is to not only expand **personalized learning** throughout the city in schools that are ready to take on that challenge, but also to make sure children in all parts of the city have access to the program," Jackson said. "We didn't want it to just go to the top-performing schools."

Schools that already incorporate **personalized learning** into their curricula span the city, from Ashburn Community Elementary and Wendell Smith Elementary on the Far South Side to Frederick Funston Elementary School on the Near West Side to Patrick Henry in Chicago's Albany Park neighborhood.

At Patrick Henry, Rios said she works with her students to determine whether they're more visual learners or hands-on learners and whether they respond better to a peer or a teacher instructing them. She assigns each student a mentor within the school building -- usually an administrator or another teacher -- to meet for 10 minutes each week to discuss progress and goals.

"My first few years teaching I was just given a curriculum and I followed it," said Rios, who's been teaching nine years. "Now I have a better sense of whether or not a child is understanding what's being taught and I'm able to cater to them."

It's more work, she said, but it's more rewarding.

"It's actually incredible," she said. "It took a lot to build up that trust with my kids where I do trust them to go off in a corner with a friend and work through a formula. But it works because they're getting the work done. And I think it stays with them longer as opposed to me just saying, 'Here's how you do this.' "

The million-dollar question -- or \$14 million question, as it were -- is whether **personalized learning** works.

A recently released LEAP Innovations report found that students who received **personalized learning** instruction in reading gained 13 percentile points on the national NWEA Measures of Academic Progress (MAP) assessment compared with students who didn't receive **personalized learning** instruction. Students who received **personalized learning** instruction in math didn't score significantly higher than a control group of students who didn't receive **personalized learning**.

But Jackson said it's too early to judge the long-term effectiveness of the approach. "This is an emerging field," she said. The \$14 million grant, Jackson said, will spur more research.

"We feel strongly that as we roll this out, because of the investment, we'll need to do an internal analysis on students in the program compared to students outside the program," she said. "The district is in the process of getting that proposal out to some of our university partners and seeing who's going to be able to do that research for us." Meanwhile, the **personalized learning** purveyors are optimistic.

"I grew up in the city," Juan Gutierrez, principal of Patrick Henry, told me. "I'm a product of **Chicago Public Schools**. I remember being in a traditional classroom where I just sat and took whatever they taught me. I wasn't empowered to lead any of my learning. And I feel like we're doing students an injustice if we don't create an environment where we're doing everything we can to value their differences and really support them in the areas they're good at and also the areas where they need to grow."

Particularly, Lockett said, when the world that today's students will inhabit and inherit is changing so rapidly.

"When you line up the future workforce needs and the kinds of skills these young people will need to demonstrate -- the growth mindset, the resiliency, the problem-solving skills, the collaboration skills, the leadership skills -- we've got to round out how we're serving the whole child," she said. "This is helping round out those skill sets without a cost toward rigor. This is rigorous."

Even if it doesn't look like the quiet, uniform rigor to which many of us are accustomed.

My time observing the kids at Patrick Henry was, by no means, an exhaustive study in **personalized learning**. But I left there feeling like I witnessed a glimpse of what can happen when students are trusted with a little more autonomy than they're used to, a little more freedom to figure out who they are and a little less judgment when they don't fit neatly into a mold.

It was refreshing. I'm eager to see where the Zuckerberg-Chan money lands and whether it can transform the way a few hundred children learn. I like what Lockett told me on our way out of the school.

"One of the principals in our portfolio reminded me that we forget that kids will rise up to the level of expectation we set for them," she said. "We just need to raise the bar."