



HANDOUT D2

Research Report

Arkansas's Learning Expectations for Students

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Adequacy
Study

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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 statute requires the legislature to biennially review the academic standards (referred to in the statute as the “curriculum frameworks” before Act 936 of 2017) developed by the Arkansas Department of Education’s Division of Elementary and Secondary Education (DESE).

Furthermore, Arkansas’s current definition of adequacy specifically refers to curriculum requirements:

1. The standards included in the state’s curriculum framework, which define what Arkansas students are to be taught, including specific grade level curriculum, **a mandatory thirty-eight (38) Carnegie units defined by the Arkansas Standards of Accreditation to be taught at the high school level**, and opportunities for students to develop career readiness skills;
2. The standards included in the state’s testing system. The goal is to have all, or all but the most severely disabled, students perform at or above proficiency on these tests; and
3. Sufficient funding to provide adequate resources as identified by the General Assembly.

For this report, the Bureau of Legislative Research (BLR) studied the current status of Arkansas’s academic standards within the context of the state’s constitutional requirements for adequacy and equity as well as in comparison with regional and national expectations for student learning.

Relevant findings detailed in this report include:

1. In terms of adequacy, current statute, regulation and practice in Arkansas do not correspond to the definition of adequacy printed above because schools are no longer mandated to teach the required 38. Instead, schools have to *offer* 38 approved courses. If no students are enrolled in a required course, it does not have to be taught.
2. In terms of equity in educational access, data analyses reveal some disparities in courses being taught at schools related to the schools’ and/or student bodies’ characteristics.

COMPETING THEORIES OF WHAT STUDENTS SHOULD LEARN

Educators since the beginning of time have had to decide what 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, it’s helpful to look at two conflicting theories of learning and curriculum that have bumped into each other throughout the 20th and early 21st 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)”¹
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.”²
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.”³

In stark contrast to Bobbitt’s Taylorism, John Dewey, a contemporary of Bobbitt, 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.*⁴

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... ”⁵ 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 20th century.⁶ Criticism of the Dewey approach, however, included the inability to “gauge the growth and development” of students.⁷

By the latter part of the 20th 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 20th 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.”⁸

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

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

² Ibid.

³ Ibid.

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

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

⁸ “Columbus in 1776, Arkansas Gets Another F,” Arkansas Democrat-Gazette editorial, Sept. 27, 2003.

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.”⁹

Researcher Wayne Au described the period of No Child Left Behind (NCLB) and high-stakes-testing accountability as harkening 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.”¹⁰ 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.¹¹

After nearly two decades of standards-based learning, the U.S. – and Arkansas, too – seem to be headed back to a child-focused approach that at first seems more reminiscent of Dewey, with numerous states shifting to education models centered around more personalized or, as it is called in Arkansas statute, student-focused learning. The goal, according to Arkansas statute, is “to ensure that all students in the public schools of this state have substantially equal opportunity to achieve and demonstrate academic readiness, individual academic growth, and competencies through the application of knowledge and skills in core subjects, consistent with state academic standards through a student focused learning system... .” Some researchers, however, contend that personalized learning largely delivered through purchased software rather than by teaching staff is “an advanced form of digital Taylorism.”

According to DESE, however, the state of Arkansas is “encouraging schools to think of student-focused learning through an equity lense [sic], so that every student has access to the educational resources and rigor they need at the right moment in their education.”¹²

The shift toward personalized learning in Arkansas will be discussed in greater detail later in the report.

WHEN THEORY HITS REALITY: LEARNING BARRIERS IN ARKANSAS

Regardless of the theories driving teaching, what BLR has learned from Arkansas educators through superintendents’, principals’ and teachers’ surveys and site visits to 74 randomly selected schools is that teachers overwhelmingly want to teach their students in a way that challenges them to reach their full potential. (Please refer to Appendix A for an explanation of BLR’s methodologies for educator surveys and school site visits performed for the 2020 adequacy study.)

Despite their desire to focus on academics, educators point to many barriers – mainly related to poverty and other societal influences – that keep students from coming to school ready to learn.

“A very small portion of my job has anything to do with curriculum,” one middle school teacher commented. “I’m busy with students who may not have electricity, who are involved in drugs or already in the juvenile system, whose parents are getting a divorce, who may not have eaten the previous night, who may have been abused...I could go on. It is extremely difficult to teach a student who is not held accountable for actions, at school or at home, and has no interest in being educated. Unfortunately, we are seeing more and more of these types of students and teachers are being expected to ‘raise’ their students in addition to educating them. Parents are uninterested in their student’s education and their behavior.”

This sentiment was echoed in many educators’ comments in response to this open-ended question: **“Finally, please provide any comments you would like to make to legislators that**

⁹ “New Study Gives Arkansas School Science Standards ‘D’” by Petty Harris, Associated Press, Dec. 8, 2005.

¹⁰ “Teaching Under the New Taylorism: High-Stakes Testing and the Standardization of the 21st Century Curriculum”

¹¹ “Reports Says States Aim Low in Science Classes” by Michael Janofsky, New York Times, Dec. 7, 2005.

¹² Comments received from Stacy Smith, DESE Assistant Commissioner, via email dated Jan. 2, 2020.

would help them in making decisions about improving the teaching environment or student achievement.” Many suggested the need for addressing mandated maximum class sizes to help deal with students' basic needs as well as their educational ones. For example, an English teacher told BLR, “we need smaller class sizes and lighter student loads. With the rise of socio-emotional and mental health issues in our young people, it is becoming extremely difficult to teach in a general education classroom. Large classes and heavy student loads mean that more time is spent addressing those crises and behavioral issues than providing instruction or guiding students' learning.”

Likewise, principals and superintendents want their schools to be effective communities of learning. In many schools, however, students arrive who are not ready to learn due to social, emotional and financial challenges. As one high school principal commented to BLR, “We have a large concern about mental health of students and teachers. We struggle with this so greatly that sometimes it is hard to teach in the classroom. We need more funding for mental health.”

School personnel find they must tend to these basic needs before they can attend to students' intellectual and academic growth. Three specific examples heard while visiting Arkansas schools for site visits during fall 2019 are:

- One rural elementary school in north central Arkansas with more than 70% of students qualifying for free and reduced-price lunches recently installed a shower. Some of the schools' families have no running water, so children were going long stretches without bathing, which hampered their ability to concentrate and also set them up for possible bullying. The principal of the school said these children now can slip in and take a quick shower as soon as their bus arrives and, if needed, dress in clean clothes donated to the school. The principal says this has made a noticeable difference in helping the students settle in to the school day with an ability to better focus on learning.
- One rural high school has had to add a policy to its student handbook outlining the steps they will take when a student tries to self-harm. Several of the school's students recently have practiced “cutting,” some to inflict pain as a means of coping with emotional issues and one or two perhaps as suicide attempts. The acts were performed with knives or razorblades and, in one instance, with scissors in the school bathroom.
- One rural school has added an onsite health clinic for its school which allows both students and teachers to seek medical attention without having to take time to leave the school. The principal said this has benefitted many of the school's students because it ensures the children are seen by a health professional. Before the school had the clinic, the principal feared some parents could not or would not take their child to the doctor because of financial reasons – not being able to afford the gas to get to the doctor's office, for instance.

One superintendent in northeast Arkansas with a primary school with more than 80% of its students qualifying for free and reduced-price lunches especially wanted legislators to be aware of this fact. “There's a hidden population in this state,” the superintendent said. “Most legislation is not passed for the 82% of [this school's] students who live in poverty. It's passed for the 18% who live in a house that looks like the legislators'.” Many educators in the surveys and during the site visits voiced a need for funding to support more mental health workers and provide basics for students in the form of food, clothing and school supplies to help students be able to focus on academic tasks.

WHAT SCHOOLS SHOULD TEACH AND WHAT STUDENTS SHOULD LEARN IN ARKANSAS: THE FOCUS OF THE LAST 35 YEARS

What and how students should learn has long been a legislative concern in Arkansas. Today's academic standards, in fact, have their roots in legislation that was passed in 1983 – the same year the national education report *A Nation at Risk* made headlines with its warning of educational mediocrity. That was also the year that the Arkansas Supreme Court ruled that the state's education funding system was inequitable (*Dupree v. Alma School District*). Act 445 of 1983 significantly strengthened the requirements both for which courses schools were expected to teach *and* which of those courses students must successfully complete to graduate. The State Board of Education approved the resulting Standards for Accreditation of Arkansas Public Schools the following year, which specifically listed the required-to-teach courses as well as the required-to-graduate ones.

These requirements were intended to be a baseline for what all schools were to provide students, not the ceiling. Furthermore, to help ensure equity for students regardless of where they lived in Arkansas, the new standards stipulated that any district with a high school that did not teach all of the required courses would risk annexation or consolidation with another school district.

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). *That meant schools not only had to show they had a designated teacher for the course, but at least one student had to be enrolled in the course for the entire unit of time. Schools could not simply say they were offering the course, but no one enrolled.* Schools not teaching the required 38 courses were to be placed in probationary status instead of being deemed accredited, and two consecutive years of probation could lead to penalties from the state.

Courses marked with an asterisk are those that could be taught every other year, according to the 1984 Standards for Accreditation, 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, databases, graphics and telecommunications)
- **4 units of social studies** (1 unit each of world history and American history with an emphasis on 20th-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 the standards as well as additional languages.¹³ The new standards also increased graduation requirements from 16 units to 20, with 15 specifically required.

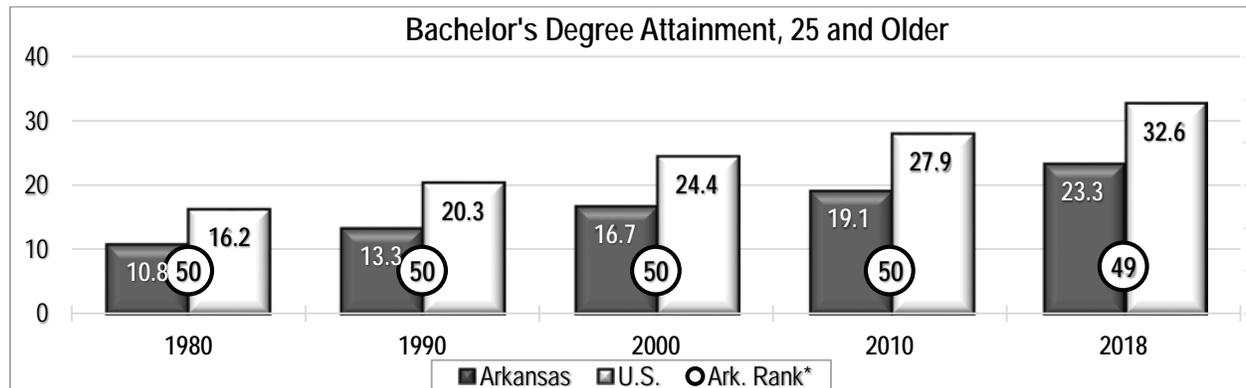
¹³ Standards for Accreditation for Arkansas Schools, Preliminary Report of the Education Standards Committee, September 1983.

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.

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.¹⁴

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 the Arkansas Supreme Court’s first *Lake View* decision, which again found that the state’s system of funding of public schools failed to meet constitutional standards. The impact of these events could be seen in the 2005 Standards for Accreditation, which strengthened course requirements. Now, the curriculum at each public school had to include **38 units that must be taught each year**, not only every other year. Two new graduation tracks – **Smart Core** with 22 required credits for graduation and **Common Core (now simply called “Core”)**¹⁵ with 21 required credits – 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, while 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 of recommendations to increase the percentage of Arkansas adults holding bachelor’s degrees. The goal was to reach 27% (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, from 50th to 49th, possibly due to the implementation of the report’s many recommendations.



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

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.

¹⁴ Standards for Accreditation, Arkansas Public Schools: Revised Edition,” Adopted by the State Board of Education, May 1993.

¹⁵ 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 DESE, Arkansas was involved in the development of the national Next Generation State Standards and has adopted them for the state as well.

As just noted, the Standards for Accreditation have been tweaked numerous times throughout the years, yet the mandate for schools to teach 38 specific units remained until the passage 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, so the pressure to have certified teachers on hand or to encourage students to enroll in less popular courses was alleviated for some schools and districts. Furthermore, according to DESE, if schools offer an unrequired course for a second year that no child enrolled in, the school could receive an accreditation violation notice. While this is not written policy, schools have been notified of the fact through DESE messaging, as DESE wants schools to "find and offer courses that students are taking."¹⁶

Another big change occurred with the 2018 revision of the Standards for Accreditation. The list of specific courses that were approved to be taught as the required 38 as well as the list of courses required for graduation were removed from the rule, meaning that the legislature no longer has review authority over what those courses are. Instead, they are maintained in a separate document that is annually approved by the State Board of Education while the rules still contain the number of required courses by content area. (See Appendix B for the current document disseminated by the Arkansas Department of Education's Division of Elementary and Secondary Education (DESE).)

The first year the list was approved, the State Board of Education approved a set of courses that no longer required physics or journalism to be included as part of the required 38 and that reduced the oral communication requirement from one full year to one semester. (In lieu of one full year of oral communications, schools could opt to offer 1 semester of Drama ELA with one semester of oral communications. Drama ELA was separate for drama courses offered to satisfy Fine Arts requirements.) **The most recent list contained another change: no longer is chemistry one of the three science courses students are required to complete to graduate with a Smart Core diploma.**

EACH COURSE'S CONTENT MUST ADHERE TO STATE'S ACADEMIC STANDARDS

Act 930 of 2017, which created a new accountability system for the state, maintained the ADE (now DESE) responsibility to establish the required courses and also the content – "academic standards" – taught within those courses. 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 as well as from community members with professional experience related to the academic content area. The revision process is also to include 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.

Content areas for which academic standards have been created include:

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

¹⁶ Email from Stacy Smith, DESE Assistant Commissioner, dated Jan. 3, 2020.

These standards are available on DESE's website at www.arkansased.gov/divisions/learning-services/curriculum-and-instruction. Each content area links to documents with academic 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 and 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 DESE's website, follows:

Committee Work	Academic Standards to be Revised	State Board Approval	Full Implementation
2014-2016	Science	2015 – K-8 2016 – 9-12	K-4 – 2016-2017 5-8 – 2017-2018 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 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

Act 1706 of 2003 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 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 2019. The amount for content standards curriculum frameworks dropped to \$50,000 in 2009 and then remained unchanged through 2019 as well.)

Not all of the money is spent each year, as the following chart of the last few years' expenditure totals shows. The funding that remained for each line item was added to the carry forward balance for the year in the Public School Fund or spent on other purposes in the future.

	Fund Center Name	Content Standards	Content Standards Curriculum	Total
2015	Funded Budget	\$161,000	\$50,000	\$211,000
	Actual Expense	\$157,803	\$39,422	\$197,225
2016	Funded Budget	\$161,000	\$50,000	\$211,000
	Actual Expense	\$152,762	\$49,477	\$202,239
2017	Funded Budget	\$161,000	\$50,000	\$211,000
	Actual Expense	\$125,051	\$9,420	\$134,471
2018	Funded Budget	\$161,000	\$50,000	\$211,000
	Actual Expense	\$142,106	\$49,907	\$192,013
2019	Funded Budget	\$161,000	\$50,000	\$211,000
	Actual Expense	\$74,137	\$6,000	\$80,137
2020 (12/30/19 YTD)	Funded Budget	\$161,000	\$50,000	\$211,000
	Actual Expense	\$83,684	\$3,000	\$86,684

The Standards for Accreditation 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)
English Language Arts	K-4, 5-8
Mathematics	K-4, 5-8
Social Studies	K-4, 5-8
Science	K-4, 5-8
Health/Safety/Physical Education	K-4, 5-8
Career and Technical Education	5-8
Arkansas History	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.

As the high school course list in Appendix B shows, high schools are to offer **38** unique courses including:

Credits	Class
6	English Language Arts
6	Mathematics
5	Science
4	Social Studies
9	Career Education

Credits	Class
1 ½	Physical Education and Health
2	Foreign Language (same language)
1	Computer Science
3 ½	Fine Arts

In addition, high schools must offer a transitional course (a rigorous course designed to help students who were assessed to be below college and career readiness standards meet those standards), and AP courses in endorsed areas. Schools may ask to have other courses approved as part of the required 38 courses they offer.

EARNING AN ARKANSAS DIPLOMA

To graduate with an Arkansas diploma, students must pass a minimum of **22** credit courses including:

Credits	Class	Information
4	English Language Arts	must include English 9, 10, 11 and 12 ¹⁷
4	Mathematics	must include Algebra I, Geometry, Algebra II and a 4 th approved math or computer science course (if a student waives the college and career preparatory diploma called Smart Core, a different math course may be substituted for Algebra II and the fourth approved math course)
3	Science	must include biology, physical science and a third science or computer science course
3	Social Studies	must include U.S. history, world history, civics (1/2 credit) and economics and personal finance (1/2 credit)
½	Oral Communications	
½	Physical Education	
½	Health and Safety	
½	Fine Arts	
6	Career Focus	

Furthermore, students must successfully complete a digital course and a course that includes personal and family finance after grade 9. In addition, students must pass the Arkansas Civics Exam and complete hands-on CPR training before receiving a diploma.

¹⁷ The State Board of Education in December 2019 approved 10 new semester-long courses for 11th and 12th grade students focusing on college and career interests that can be taken for graduation credit in lieu of English 11 or English 12. The same academic standards are incorporated in the semester courses as are in the year-long courses, ADE's Stacy Smith told the State Board on Dec. 12, 2019. In addition, schools are allowed to offer four of the semester courses in place of English 11 or English 12.

GRADUATION REQUIREMENTS IN SREB AND OTHER STATES

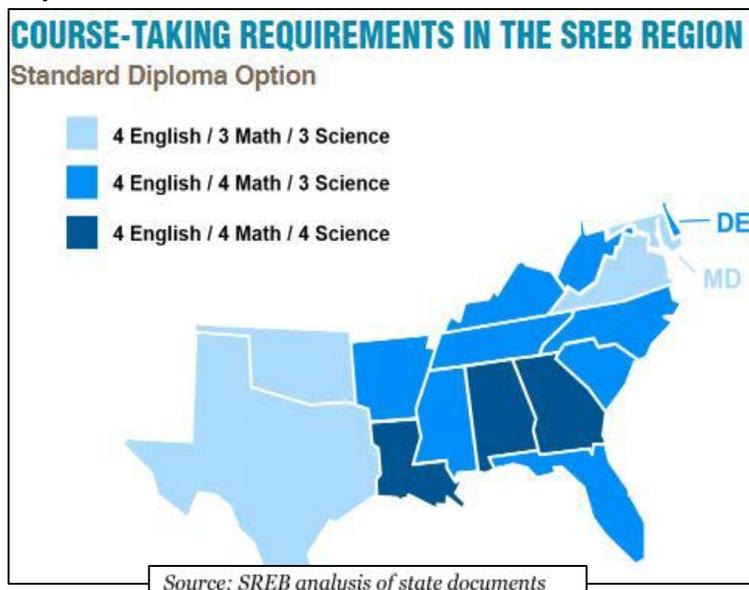
In comparison with Southern Regional Education Board (SREB) states, Arkansas graduation requirements are not starkly different. All require four years of English, though five require only three years of math (as compared with our four) and three – Louisiana, Alabama and Georgia – require four years of science (as compared with our three).

According to a 2019 report from the Education Commission of the States, 47 states and the District of Columbia have minimum statewide graduation requirements for high school students. Colorado, Massachusetts and Pennsylvania allow local school districts to set graduation requirements. The total units required by states to graduate vary from 13 to 24.

For example, Ohio requires 20, California requires 13, the District of Columbia requires 24, and Maryland requires 21.¹⁸

A deeper dive into the SREB states' graduation requirements for students entering 9th grade in 2018 offers a few other comparisons with particular courses:

- Only **five** of the 15 other SREB states require that students pass Algebra II to graduate: Alabama, Delaware, Georgia, Louisiana and Tennessee
- Only **three** of the 15 other SREB states require students to pass chemistry to graduate: Georgia, Louisiana and Tennessee



CURRICULUM WAIVERS AND THEIR IMPACT

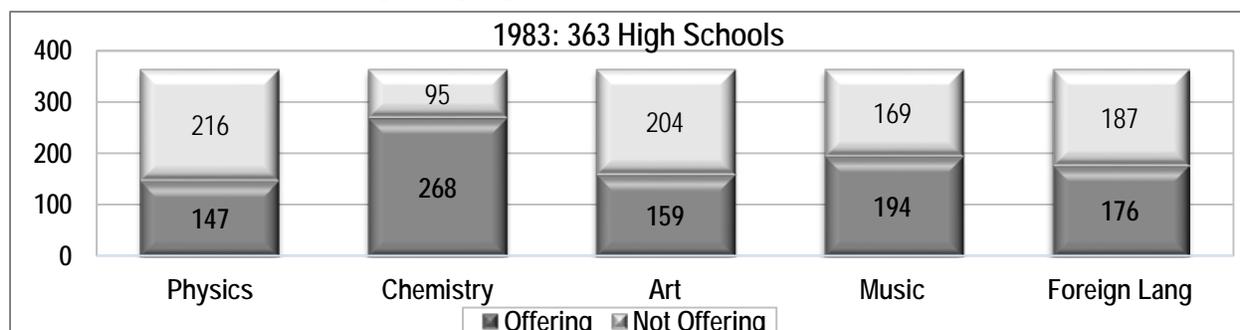
Over the years, schools and school districts have been able to apply for and receive more and more waivers from Arkansas education laws and rules, including those concerning curriculum. The concept was first introduced with charter school legislation in the late 1990s. Following that was the creation of Schools of Innovation (2013) and Act 1240 schools (2015); waivers are allowed for both types of schools. Schools of Innovation are to implement innovative learning techniques to improve school and student performance, and can only be formed after at least 60% of the school's eligible employees vote to do so. Act 1240 schools are schools that have students living within their attendance boundaries who have enrolled in a charter schools. They are able to apply for the same waivers as the waivers obtained by the charter schools in which their former students are enrolled. **Act 538 of 2019 allows any public school to apply for some or all of the waivers granted to charter schools – so now, waivers from most laws are available to all schools, traditional or charter, for periods of up to five years.**

During the 2018-19 school year, only 247 – or about 2.5% -- of the nearly 10,000 waivers to Arkansas education laws and rules the State Board of Education had granted to public schools and charters were for curriculum-related requirement. About 50 of those waived schools from having to offer one or more of the required 38 courses. (Waivers are scheduled to be discussed more fully discussed at a later adequacy meeting.)

¹⁸ "High School Graduation Requirements: State Profiles," Education Commission of the States, February 2019, retrieved at <https://www.ecs.org/high-school-graduation-requirements-state-profiles/>

HIGH SCHOOL REQUIREMENTS: COMING FULL CIRCLE

The legislative moves in 1983 that created the list of 38 courses that must be taught as well as more stringent graduation requirements were part of the state's response to the *Alma v. Dupree* Arkansas Supreme Court case, in which the court found Arkansas's system of funding public schools to be unconstitutionally inequitable. That fact is illustrated in the following graph showing that, **of the state's 363 high schools in 1983, only 147 offered physics, 268 offered chemistry, 159 offered art, 194 offered music and 176 offered a foreign language.**¹⁹



After 1983, schools received probation status for accreditation purposes if they did not teach at least one class of each of the 38 courses. The intent, as outlined in the prologue of the 1983 Standards of Accreditation, was to “permit a broader curriculum in both the academic and vocational areas and [to] meet the needs of more of our students.” The 1993 revision of the Standards for Accreditation further stated, “Every child in Arkansas is entitled to attend a school that meets these minimum standards regardless of the location of the school district. Local districts have the authority to set standards that exceed these requirements.” In other words, difficulties in staffing or low enrollments were not sufficient reasons to not teach a course.

Teaching the required 38 courses was a high bar for many small schools, as one rural superintendent told the Arkansas Gazette in 1987. “I may not have over three students in art or music, but I have to have a teacher,” he said, noting the expense. “Is it worth it or not? If it's my kids, it's worth it.”

In 2003, after the Arkansas Supreme Court found the state's education system to be both inadequate and inequitable in its 2002 *Lake View* decision, the required 38 high school courses were maintained as a part of the state's plan for adequacy.

Up through 2015, however, it was common each year for several schools to be placed in probationary status for not teaching a required course. The threat of probation for not teaching a course is practically non-existent now, though, largely due to the passage of Act 853 in 2015. Act 853 changed the mandate from “teach” to “offer,” stipulating that if no student enrolled in one of the required 38, the school no longer had to teach it.

In order to see if the change in requirements for what schools must teach affected the presence of those courses in Arkansas high schools, BLR used data from DESE's Arkansas Public School Information System to analyze some of the courses taught during the 2018-19 school year in the state's 294 Arkansas traditional, charter, virtual and alternative high schools. The 294 high schools are located in the 235 school districts and the 17 charter systems that year that had high schools with all grades 9-12. Feeder junior highs with 9th grades were accounted for as part of the high school in their districts. The courses, which were taught both in traditional classrooms and through digital learning, included:

- One (chemistry) that until this school year was mandated both for graduation and as one of the required 38
- Three that are part of the required 38 but are not graduation requirements
- Two that were part of the required 38 until the 2018-19 school year
- One that was optional as part of the required 38 until the 2018-19 school year

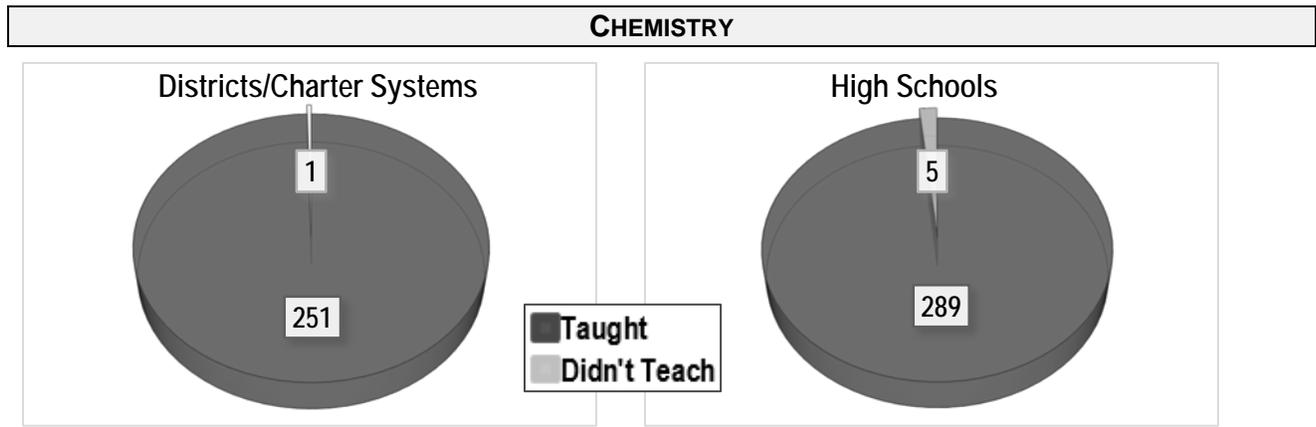
As detailed in the following sections, **the analysis reveals inconsistencies in courses actually taught which correlated with various characteristics of schools or their student bodies. As one would expect, the course students had to take in order to graduate was the most likely to be taught. Courses are also likely to be taught – though less so – if they are one of the required 38 courses. As seen with the courses that are no longer required, the number of schools in which they are taught decreases.**

¹⁹ “School Standards Fill an Elementary Need,” editorial by Ernest Dumas, Arkansas Democrat-Gazette, March 1, 1987.

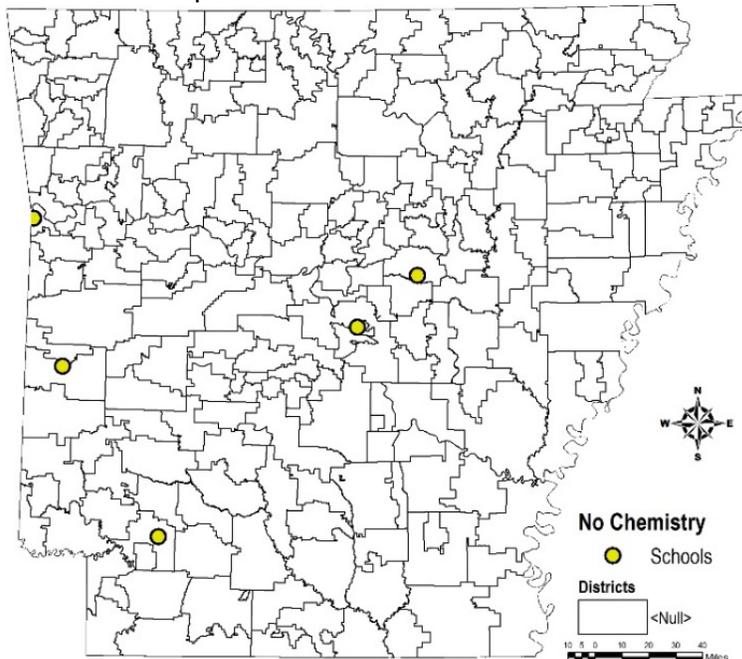
CHEMISTRY

Chemistry was still required for graduation in 2018-19, but was removed from that list for the current school year. Chemistry Integrated is required to be offered as one of the 38 courses that schools must teach. DESE explains that: "In reference to chemistry, students must earn a physical science credit which can be met by completing multiple different chemistry courses, physical science courses or physics courses. Students could even end up graduating with 2 chemistry credits in addition to a biology credit to meet science graduation requirements. These new graduation requirements that were implemented this school year open up many more options for students to choose from to earn science graduation credits than in the past."²⁰

Being a graduation requirement, chemistry was taught at all but five high schools in 2018-19. All but one district – Capital City Lighthouse Upper Academy – taught chemistry that year. In 2018-19, 27,544 students were enrolled in chemistry in 289 high schools representing 251 school districts and charter school systems.



Of the five high schools that did not teach chemistry, three were alternative education centers, one was a virtual charter school and the other was an open-enrollment charter school.²¹ The location of the schools are noted on the map below:

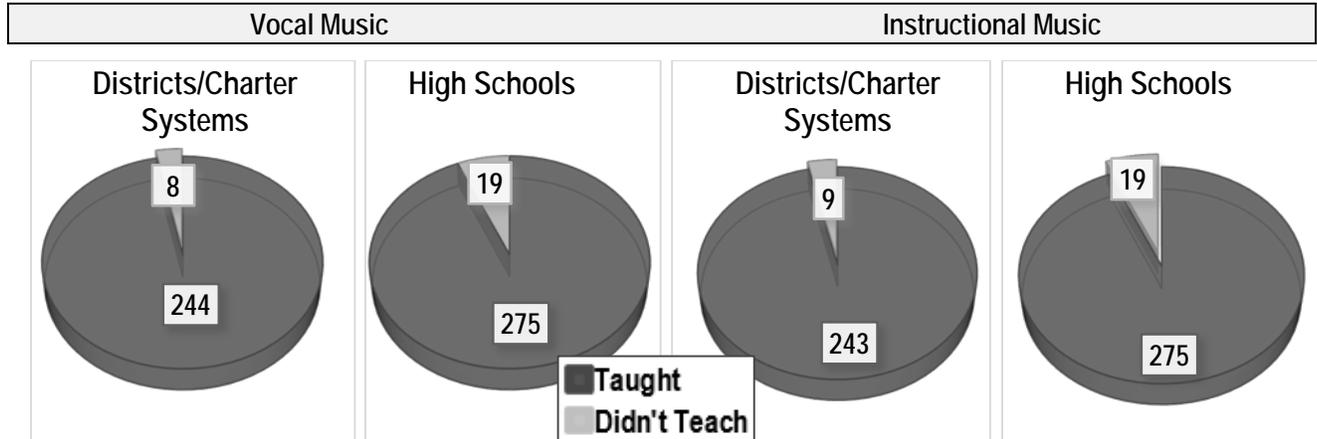


²⁰ Email dated 11/21/2019 from Stacy Smith, Assistant Commissioner for Learning Services, DESI, ADE.

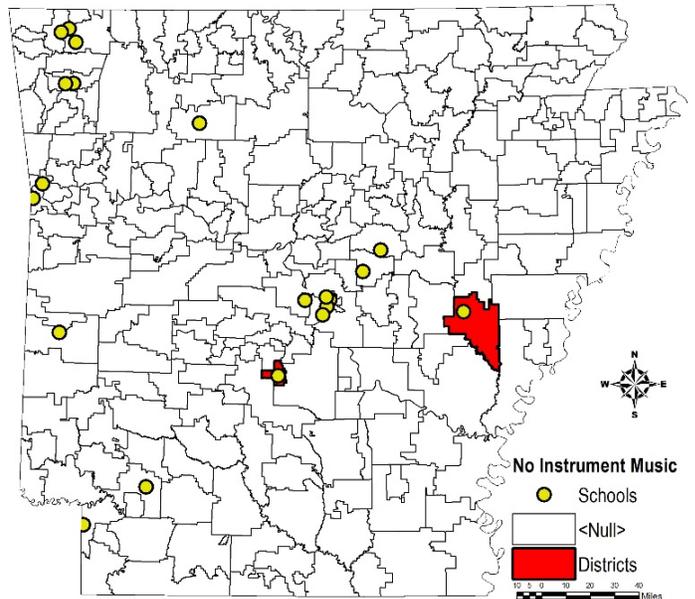
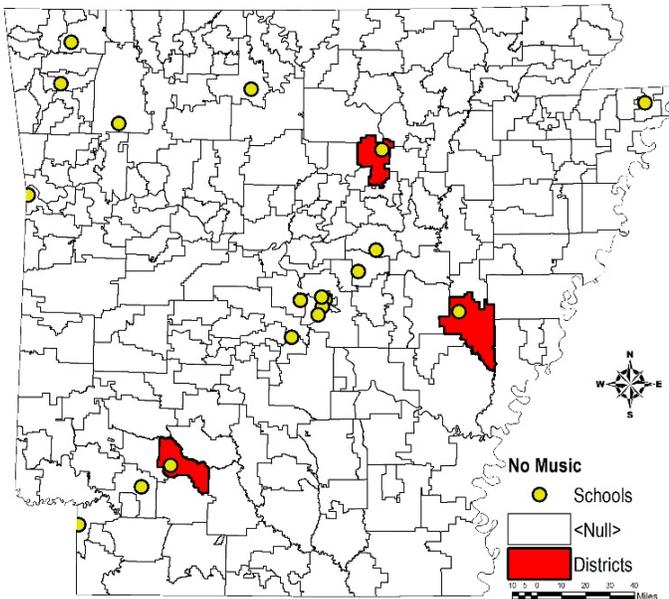
²¹ DESE says flooding caused the school to close its high school grades. Phone call with Tracy Webb on Jan. 6, 2020.

MUSIC

High schools are required to offer both vocal music and instrumental music courses, yet there are several schools and districts in which one of the courses was not taught during the 2018-19 school year. Even so, in 2018-19, 18,422 students were enrolled in vocal music in 275 high schools representing 244 school districts and charter systems. That same year, 20,201 students were enrolled in instrumental music classes in 275 high schools representing 243 school districts and charter school systems.



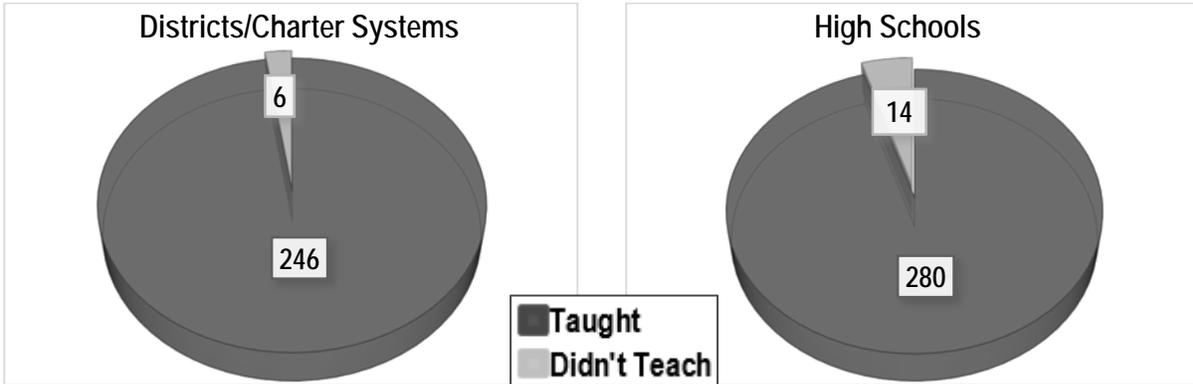
In 2018-19, of the 19 high schools that did not teach vocal music, seven were alternative education centers, six were open-enrollment charter schools and six were traditional or conversion charter high schools. Of the 19 high schools that did not teach instrumental music, eight were alternative education schools, five were open-enrollment charter schools, three were virtual schools and three were traditional or conversion charter high schools.



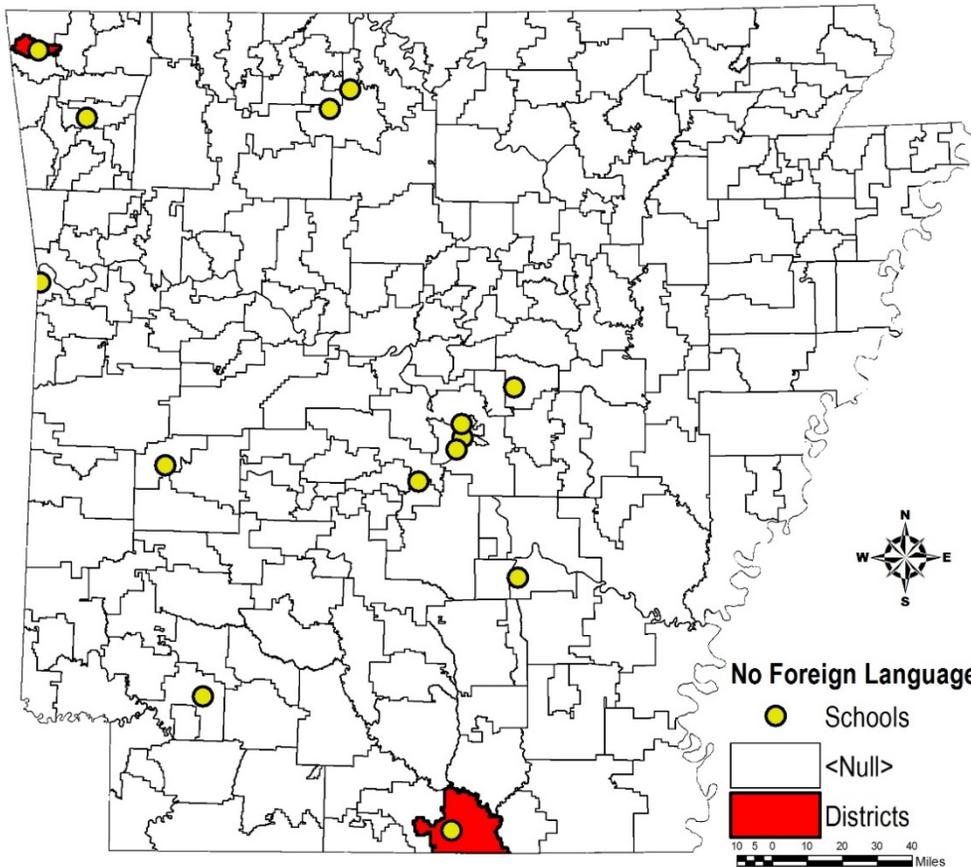
FOREIGN LANGUAGE

Students do not have to take a foreign language course to graduate with an Arkansas diploma, but two years of the same foreign language must be offered as part of the required 38 courses. In 2018-19, 44,967 students were enrolled in foreign language classes at 283 high schools representing 246 school districts and charter school systems.

FOREIGN LANGUAGE



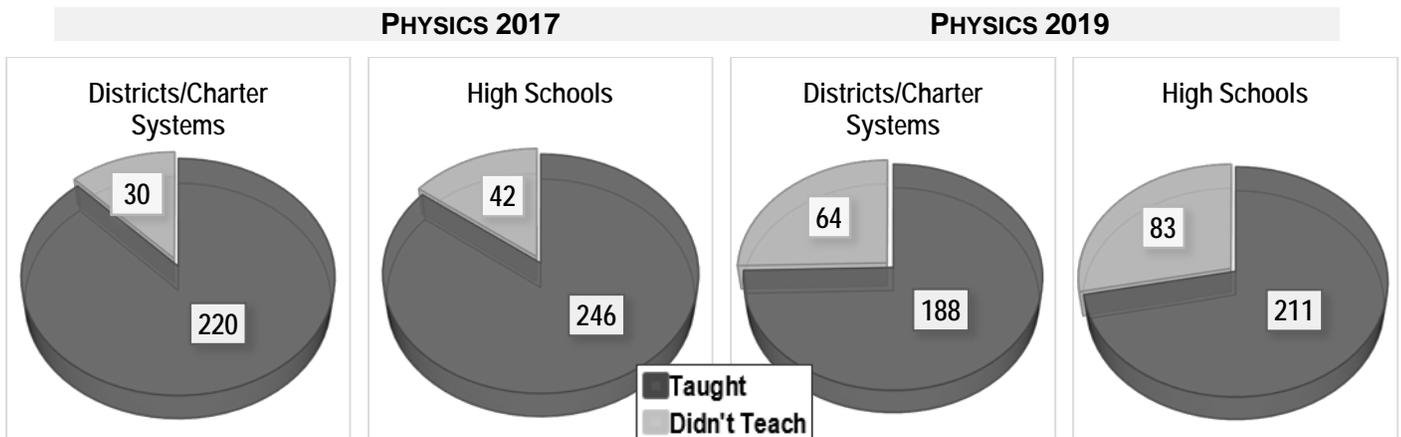
Of the **14 high schools** that did not teach foreign language in 2018-19, five were alternative education centers, four were open-enrollment charter schools and five were traditional or conversion charter high schools.



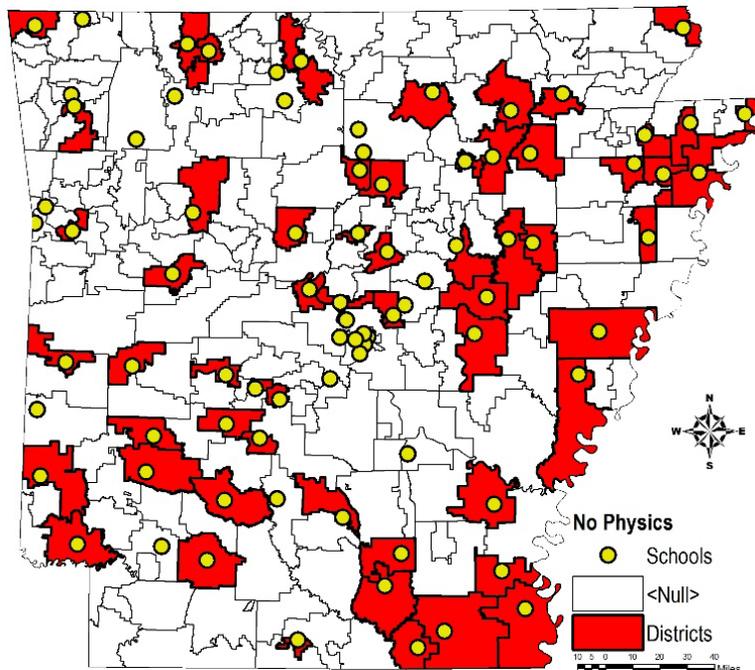
PHYSICS

Physics is no longer one of the required 38 courses, having been removed for the 2017-2018 school year. According to DESE at the time, physics academic standards were incorporated into other science courses so it was no longer necessary to have a stand-alone course. Physics is not a graduation requirement, either. One principal BLR interviewed during a site visit said that physics is still taught at the high school because the principal believes it is an important course. "Taking physics away is a bad idea," the northeast Arkansas high school principal said. "Physics is tough, but physics uses math and science in real world applications. What better way to try to make you think?"

However, physics is taken by only about 12% of all juniors and seniors. In 2018-19, 5,525 students took physics at 211 of the 294 high schools, representing 188 of the 252 public school districts and charter school systems that taught 9th-12th grades. That's almost 1,500 fewer than the 6,995 students enrolled in physics in 2016-17. The 2017 data is included to depict the trend before and after the requirement to offer the course was removed.

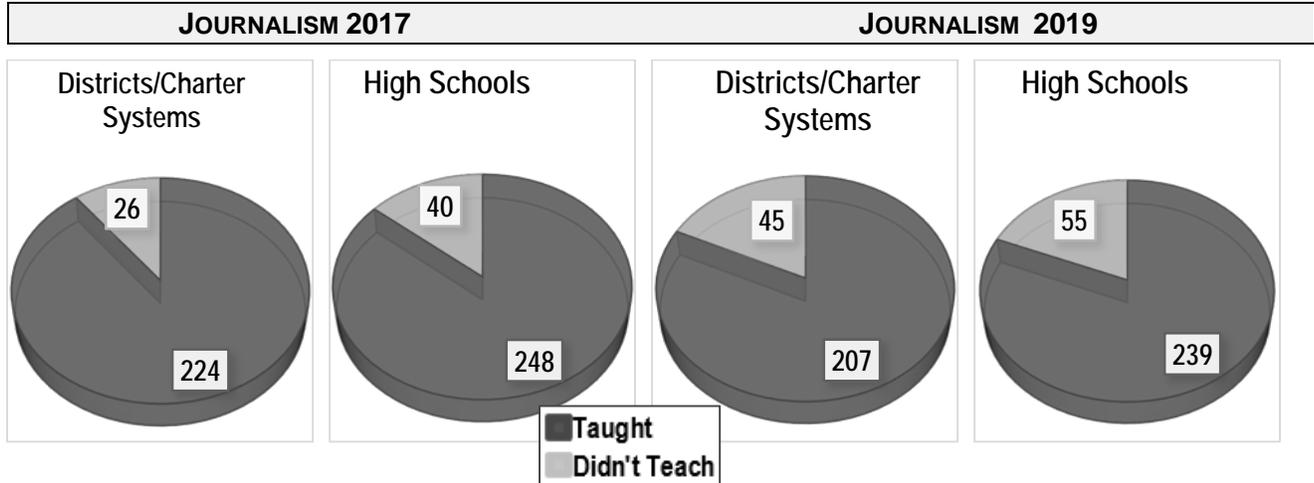


Of the 83 schools that did not teach physics in 2018-19, seven were alternative education centers, one was a virtual charter school, six were open-enrollment charter schools and 69 were traditional or conversion charter high schools. As the following map shows, more school districts in eastern and southeast Arkansas taught no physics classes:

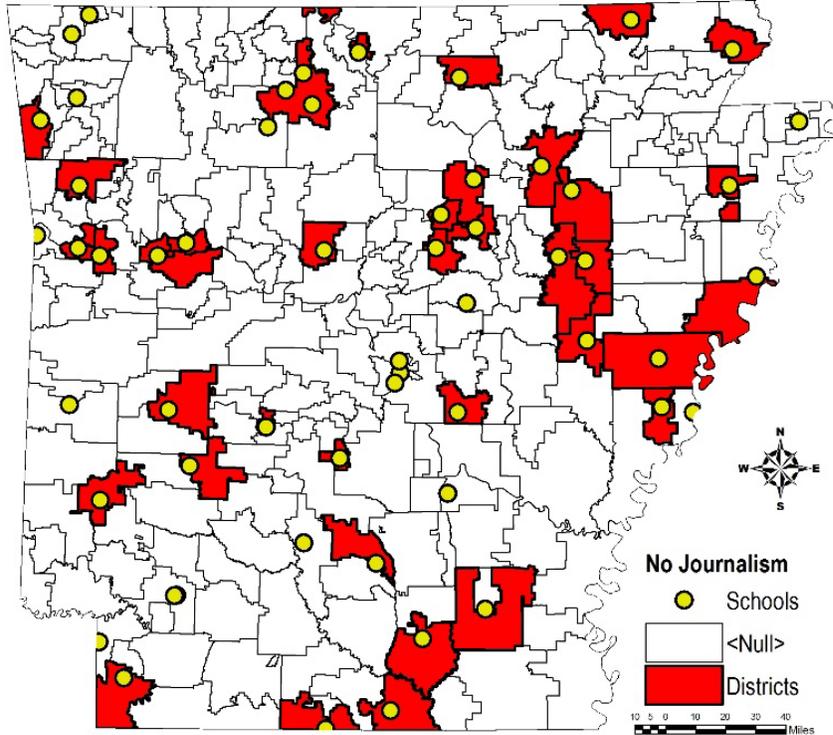


JOURNALISM

Journalism, like physics, was required to be offered until the 2017-18 school year. Therefore, two years of data are presented to show the before-and-after trend. In 2018-19, 5,255 students were enrolled in journalism classes at 238 high schools representing 207 school districts and charter school systems. That's nearly 400 fewer journalism students than there were during the 2016-17 school year.



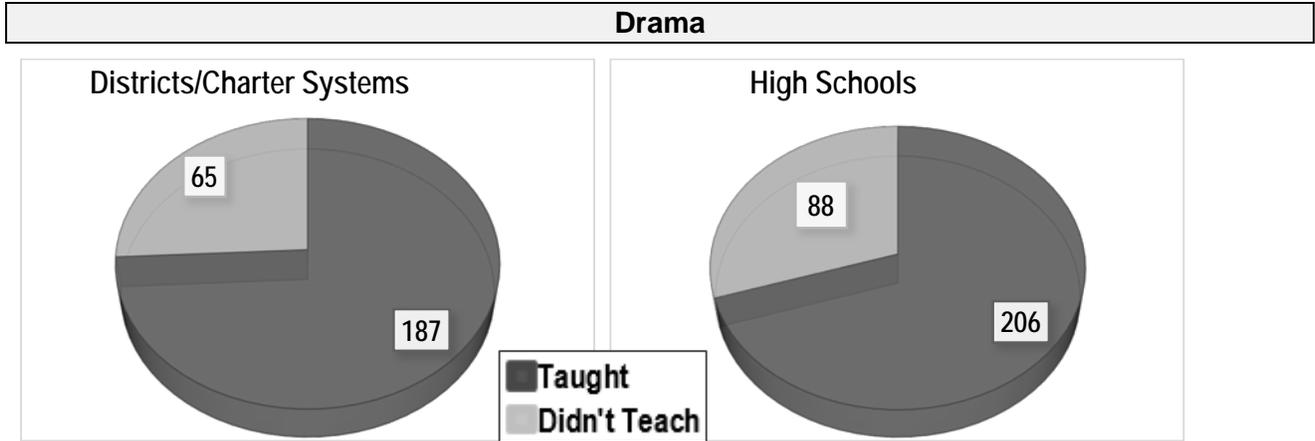
Of the **55 high schools** that did not teach journalism in 2018-19, three were alternative education centers, one was a virtual charter school, eight were open-enrollment charter schools and 43 were traditional or conversion charter schools. As the following map shows, journalism classes were less prevalent in eastern and southern Arkansas school districts.



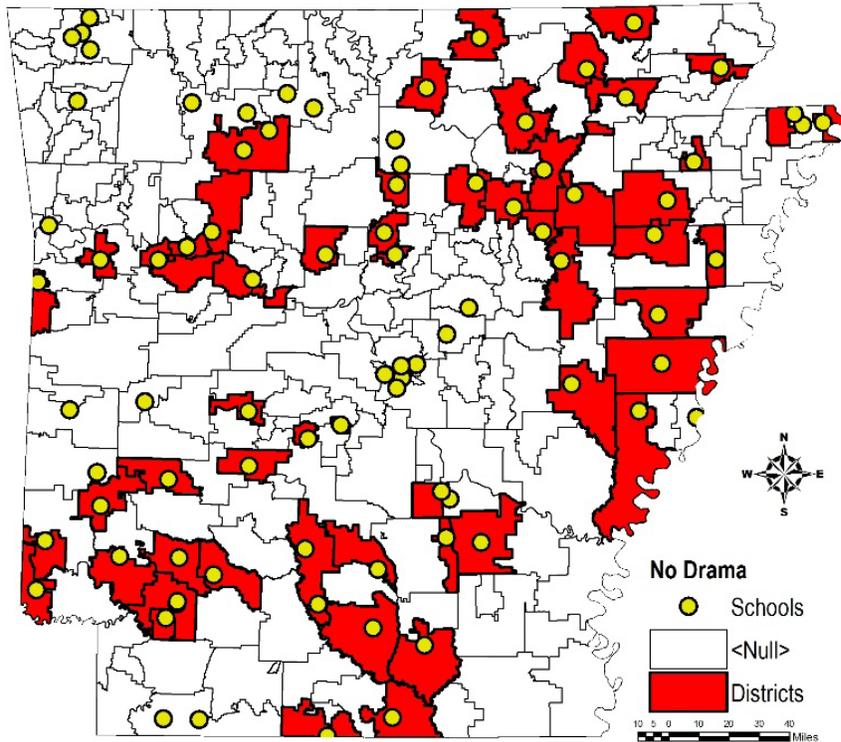
While one principal BLR interviewed during a site visit said his high school still offered journalism because, like physics, the principal thought the course was valuable for making students think, others said not having to teach journalism had helped because it freed up a period during which a different course could be offered.

DRAMA

Drama can fill a fine arts requirement but it is not and has not been a graduation requirement for students. In 2018, 2,744 students enrolled in drama courses at 206 high schools representing 187 school districts in 2018-19.



Of the **88 high schools** that did not teach drama in 2018-19, five were alternative education centers, four were virtual charter schools, nine were open-enrollment charter schools and 70 were traditional or conversion charter schools. As the map below shows, students in eastern and southern Arkansas school districts were less likely to attend a school where drama was taught.

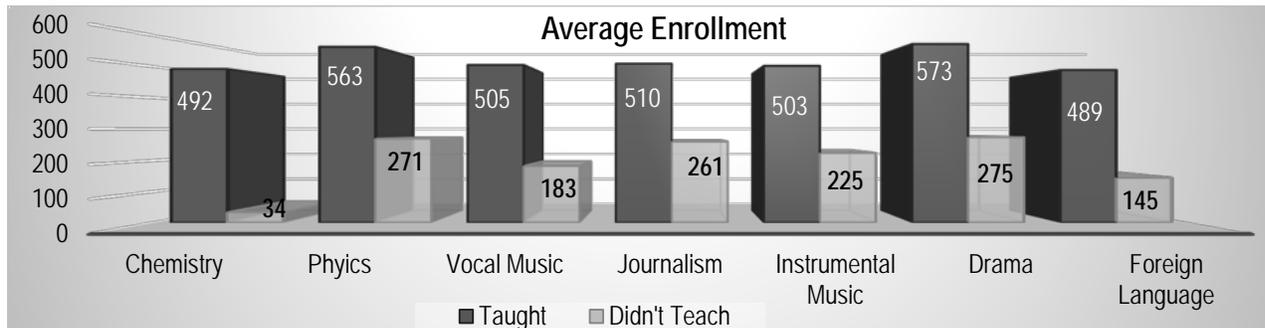


ANALYZING EQUITY IN TERMS OF COURSE AVAILABILITY

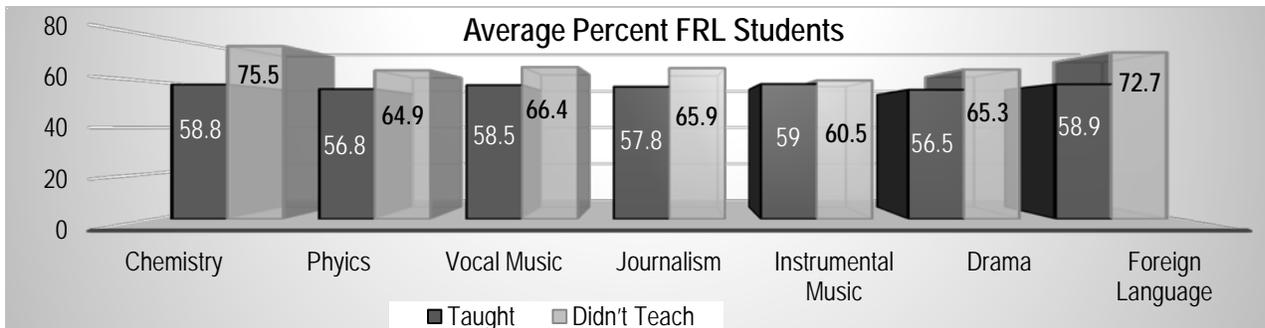
The U.S. Government Accountability Office (GAO) conducted a study in 2017 to try to uncover why students from low-income families earned bachelor's degrees at rates much lower than their more affluent peers. **The study found that high-poverty schools offered fewer of the courses that prepare students for a public four-year college (in particular three math courses consisting of Algebra I, Algebra II and Geometry, three sciences consisting of biology, chemistry and physics, and any Advanced Placement courses.)** The study found the same inequities for high schools that were smaller, had larger percentages of nonwhites or were charter schools.

BLR performed a similar analysis of course enrollment in Arkansas high schools to see if geographic, demographic, school size or school governance differences in schools produced any inequities. This analysis found similar patterns in the state as the GAO report found in the nation.

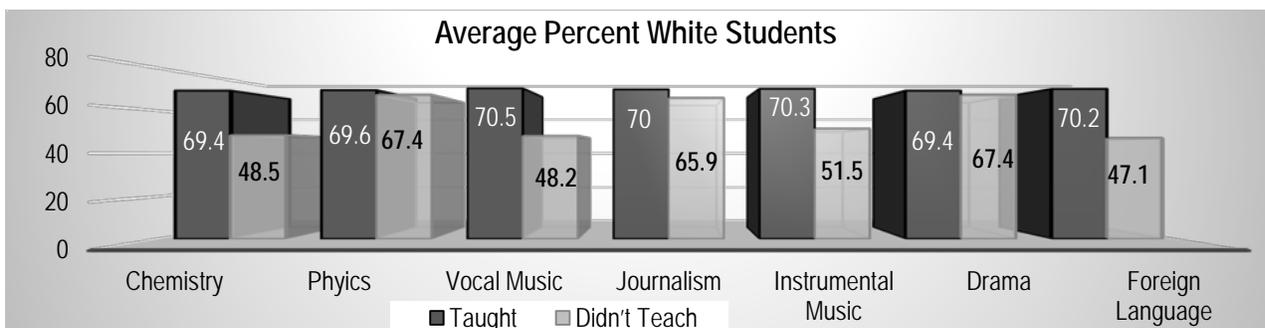
The courses were more likely to be taught at schools with larger enrollment in 2018-19:



Conversely, courses were less likely to be taught at schools with larger percentages of students qualifying for free and reduced-price lunches (FRL) in 2018-19:



Courses were more likely to be taught at schools with larger percentages of white students in 2018-19:



And, as noted in each section above, alternative education programs, virtual charter schools and open-enrollment charter schools were less likely than traditional high schools to teach many of these courses.

In terms of school governance, traditional high schools, including conversion charter high schools, were the most likely to offer all but one of the courses discussed in this report, as the following table shows. This may be more of a function of school size rather than governance, however, as virtual, alternative education and open enrollment charter schools tend to be smaller.

PERCENT NOT TEACHING COURSES BY SCHOOL GOVERNANCE

School Type	Chem	Vocal Music	Instru. Music	For. Lang.	Physics	Journ-alism	Drama	Ap
Ale	37.5%	87.5%	100%	62.5%	87.5%	37.5%	62.5%	62.5%
Virtual	25%	0%	75%	0%	25%	25%	100%	75%
O-E Charter	5%	30%	25%	20%	30%	40%	45%	40%
Traditional	0%	2.3%	1.1%	1.9%	26.3%	16.4%	26.7%	5.3%

SITE VISIT RESPONSES REGARDING CURRICULUM REQUIREMENTS

BLR asked junior and high school principals during the site visits in fall 2019 about recent changes to curriculum requirements in the Standards for Accreditation. Of the 16 responses recorded by the writing of this report, responses were mixed with a few principals pointing to the benefits of having more flexibility with their scheduling of classes, a few others saying it helped because certified teachers were hard to find for classes like journalism, physics and drama and a few others saying they still offered some or all of the no-longer-required courses for their students.

SMART CORE AND CORE GRADUATION DIPLOMAS

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 state requires parents to sign forms if they want to waive Smart Core for their children, in which case students must instead complete the Core requirements. Waivers are offered as early as 7th grade.

Overall, students with reported Smart Core waivers accounted for only 4% of Arkansas's 7th-12th graders in 2018-19. For that year, 196 of the 260 school districts and charter school systems reported having students opt out of the Smart Core requirements, ranging from only one student with a waiver in 17 school districts and charter school systems to 400 students with waivers in the Pulaski County Special School District.

White students were more likely to opt out of Smart Core, as they accounted for 68.6% of the opt-out waivers in 2018-19 while they comprised only 62% of Arkansas's 7th-12th grade public school population. Meanwhile, black students accounted for only 16.7% of the opt-out waivers, while they made up 19.6% of that same population. Hispanics accounted for 10.4% of the opt-out waivers, while they made up 12.8% of 7th-12th grade public school students in 2018-19.

The percent of students opting out of Smart Core has been decreasing slightly each year for the past few years:

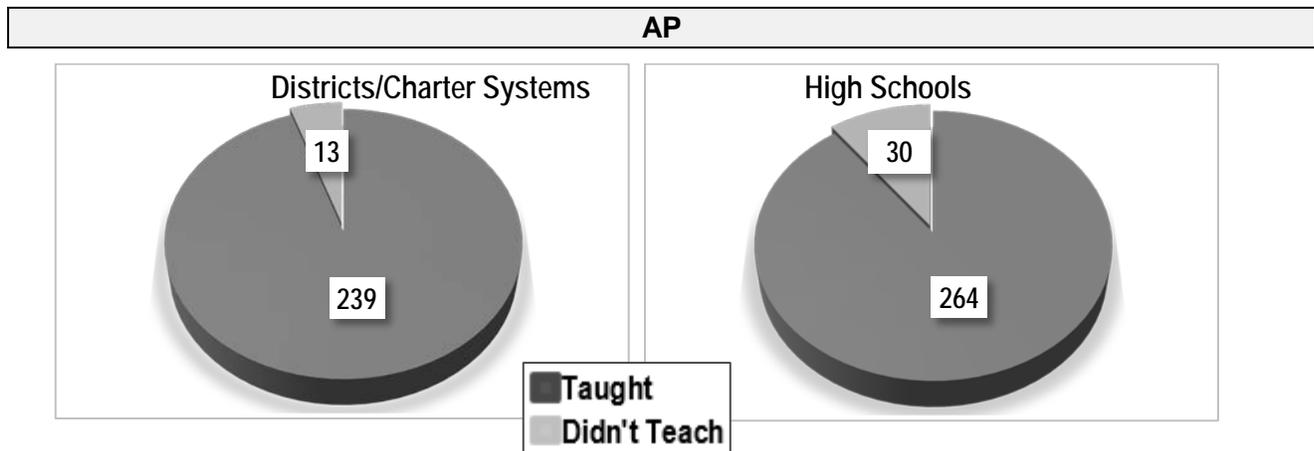
School Year	Core	Smart Core	Total Enrollment
2013-14	14,459 (6.7%)	199,262 (93.2%)	213,721
2014-15	13,297 (6.2%)	201,966 (93.8%)	215,263
2015-16	12,010 (5.6%)	203,359 (94.4%)	215,369
2016-17	10,921 (5.1%)	205,030 (94.9%)	215,951
2017-18	9,702 (4.5%)	206,847 (95.5%)	216,549
2018-19	8,630 (4%)	208,007 (96%)	216,637

ADVANCED EDUCATIONAL COURSES

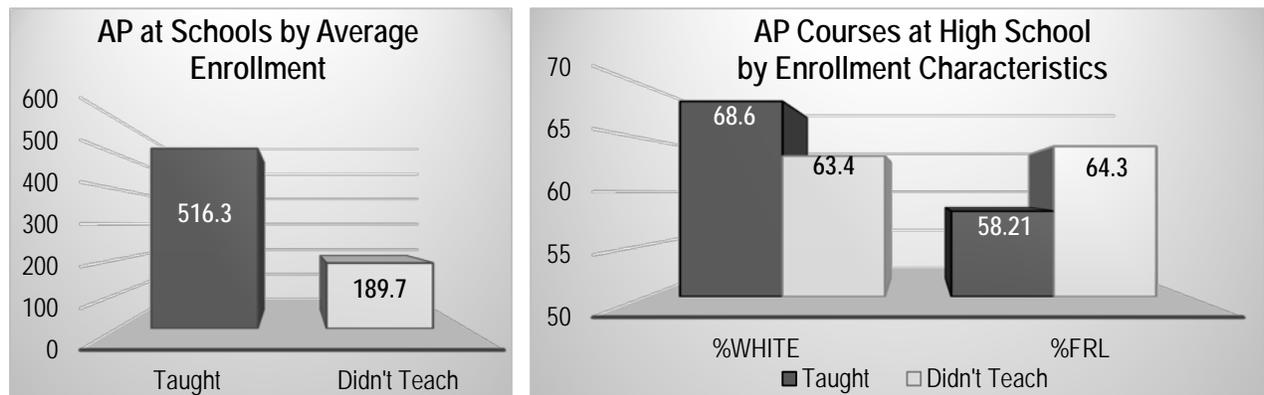
The Standards for Accreditation require schools to offer advanced education courses in accordance with Arkansas laws and DESE rules. Arkansas Code §6-16-1204 stipulates that, beginning with the 2008-09 school year, each high school in Arkansas shall offer a minimum of four Advanced Placement courses, with one each in English, math, science and social studies. State statute allows for International Baccalaureate (IB) courses to be offered instead of AP courses.

The number of AP or IB courses taught at schools during the 2018-19 school year ranged from one AP course taught at 17 different high schools to 33 at Little Rock Central High School alone.

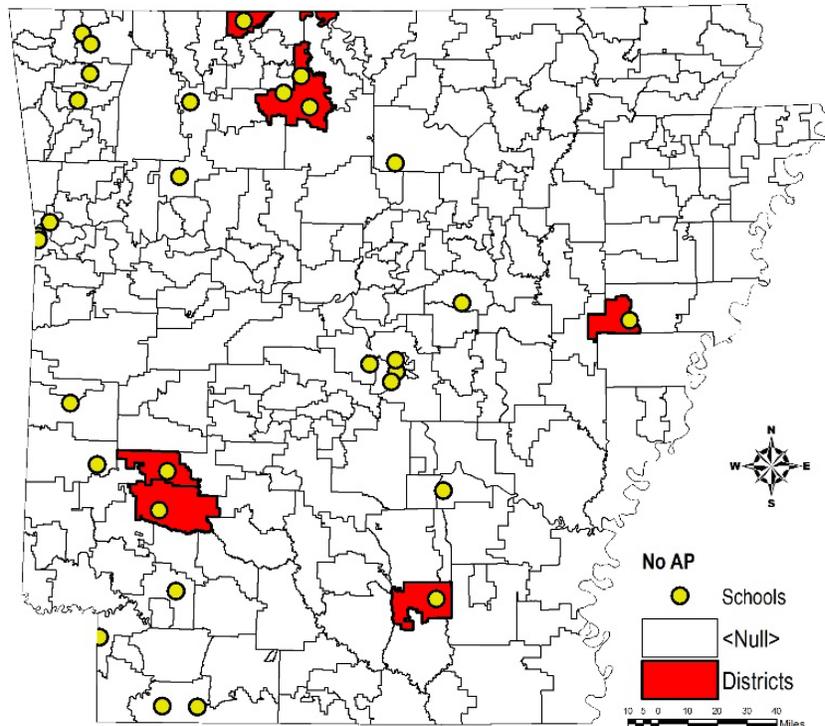
For the 2018-19 school year, **239 of the 252 school districts and charter school systems** in the state taught at least one advanced course (AP or IB). Of the 14 without AP, seven were school districts and seven were charter school systems. That same year, **264 of 294 high schools** taught at least one AP or IB class. Of the 30 with no AP courses, five were alternative education centers, three were virtual charter schools, eight were charter schools and 14 were traditional or conversion charter high schools.



As with many other high school course offerings, students had more access to AP or IB courses in larger schools or in schools with lower percentages of free and reduced-price lunch students and higher percentages of white students, as shown in the following charts:



As the map shows below, AP is taught across the state with the exception of several rural districts:



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 concurrent credit courses for up to six credit hours as long as the courses are offered on the grounds of the student's public school district and are taught by a teacher employed by that district.

Act 456 of 2019 provides that, if funds are available, eligible students will receive an Arkansas Concurrent Challenge Scholarship in an amount not to exceed \$500 or the tuition and mandatory fees associated with an endorsed concurrent credit course or certificate program. The student must be enrolled in an endorsed concurrent enrollment course or certificate program at an approved institution of higher education. An institution is considered "approved" if, among other things, it offers at least a 50% reduction in tuition and mandatory fees to eligible students enrolled in endorsed concurrent enrollment courses or certificate programs at the institution. While this act does not directly provide assistance for solely free and reduced-price lunch students, it does allow those students to enroll in endorsed concurrent enrollment courses or certificate programs and receive a scholarship to do so. At the time of the law's passage, these funds were deemed likely to be available, according to legislative discussion.

Financial assistance for students in poverty makes a difference, according to one high school principal of a rural high school in north-central Arkansas. The school is able to transport students to a community college for classes each day. "They're going to a college, understanding what's at stake, feeling a little better about themselves," the principal explained, adding, "I can eliminate barriers for those kids" because students may not be able to afford the transportation to college classes after high school.

OTHER EDUCATIONAL FOCUSES IN ARKANSAS

COMPUTER SCIENCE

Act 187 of 2015 required each public high school and public charter high school to offer a course “of high quality” in computer science. DESE’s website offers academic standards 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 DESE has frameworks are Advanced Programming, Advanced Networking, Advanced Information Security, Computer Science Independent Study and Computer Science Internship.

In addition, DESE also has academic standards 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.²² Most recently, Governor Hutchinson announced a new set of academic standards focused on cyber security to be available for course offerings in the 2020-2021 school year.

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.

Enrollment in high school computer science courses continues to grow in both traditional (including conversion charters) and open-enrollment public charter high schools.

Year	# Districts	# Charter Systems	# Trad. High Sch.	# Charter High Sch.	# Trad High Sch. Students	# Charter High Sch. Students
2017	201	12	223	14	4,045	424
2018	209	11	229	14	9,916	665
2019	211	11	231	16	13,741	764

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.

THE NEW RECESS REQUIREMENT

In 2019, the Arkansas legislature passed Act 641 to provide 40 minutes of “unstructured social time” to allow for “extended learning opportunities” at all elementary schools. According to the act, the intent was to provide what is often called recess at each elementary school because:

- Students need the ability to learn and grow from one another in social settings.
- Learning respect and social awareness often occurs during recess.
- Opportunities for more physical activity promote healthy and active lifestyles.
- Scheduled breaks from academic learning allow better focus in the classroom.

Furthermore, because other mandates on school time had already created a packed day for schools, the 40 minutes is to be counted as instructional minutes. This time is to be supervised, though unstructured, and to occur outside as weather permits. Public elementary schools may

²² “Teacher stipends set for computer science” by Cynthia Howell, Arkansas Democrat-Gazette, Dec. 6, 2017.

request waivers from DESE if certain criteria are met. According to DESE, three virtual schools have requested such waivers for the current school year.²³

BLR received feedback about this law in response to questions on the teacher survey and during the site visits that asked for input for legislators on topics not formally asked about. Several principals touched on the subject during site visits, and most of them who did noted that while the law served children well, a lot of their teachers were not completely happy with the new requirement. Indeed, the majority of teachers who broached the subject on their surveys responded similarly to this one:

“The new recess laws are great for allowing the students to be more active, but the way in which they were written has caused a major headache to teachers. There was no consideration for teacher breaks/lunches or physical space/safety issues for indoor recess. Teacher duties increased by more than 50% and we were already working much more than 40 hours a week before this. Because of the increase of time spent on recess/lunch/after school duties, most teachers are working more than 50-60 hours a week. When students have indoor recess that is unstructured and in a small area, it is nearly impossible to keep students from getting hurt.”

Additional issues regarding the impact on teachers' duty is scheduled to be addressed later in the adequacy study.

RISE AND THE RIGHT TO READ ACT

In 2017, DESE and Governor Hutchinson joined together to create the Reading Initiative for Student Excellence (RISE) initiative in the state's public schools. The initiative – a response to overall low reading scores by the state's public school students – had three main goals driving it:

1. Strengthen instruction by incorporating the science of reading.
2. Create community collaboration.
3. Build a culture of reading.

Act 1063 of 2017 added fuel to this drive by adding several specific mandates:

- Beginning with the 2018-19 school year, public school districts and open-enrollment public charter school systems shall provide professional development for teachers in the science of reading. Elementary and special education teachers are required to obtain *proficiency* credentials in knowledge and practices of scientific reading instruction while all other teachers are required to obtain *awareness* credentials in the same.
- By no later than 2023, persons who complete a state-approved educator preparation program or who obtain licensure through reciprocity or by adding an endorsement would have proficiency in the science of reading instructional practices.

Act 83 of 2019 provided additional requirements related to RISE, including that schools develop a literacy plan as part of its overall school improvement plan, select an approved reading curriculum program and annually provide professional development based on the science of reading.

In fall 2019, the state offered K-2 RISE Train the Trainer training to its 4th cohort of educators. Districts were able to send up to four persons to the training at a cost of \$1,200 per trainer (plus travel expenses.) Each participant was required to attend 14 days of training and then pass an assessment to gain certification in order to be able to conduct RISE Academies in his or her home district.

While BLR did not specifically ask about RISE in the surveys or site visits, a couple of administrators and at least one teacher addressed the initiative. All thought the need for RISE was

²³ Email from Tracy Webb, Coordinator of Monitoring, Systems Support and charter Schools, DESI, dated Jan. 1, 2020.

there and that it was beneficial for teachers to be trained in the science of reading. Administrators valued the training, but some also pointed to the cost and the additional time required without any additional funding or resources.

As one superintendent of a small district told BLR during a site visit, “I don’t think you’re going to find anybody that has had anything to do RISE that would say it did not need to happen. It’s good professional development, but it has consumed a lot of our time,” the superintendent said, adding that in addition to the tuition costs, there are costs for substitute teachers while teachers are out of the classroom for training as well as for books, materials and copying charges. “We’ve used money from just about anywhere we can find it – NSLA, operating. We did whatever we could to find funds” to cover those expenses.

STUDENT-FOCUSED LEARNING

Student-focused learning is an approach to education that is being tried in various communities across the nation. In the student-focused learning model, educators 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.

A few years ago, DESE created its current vision statement: “The Arkansas Department of Education is transforming Arkansas to lead the nation in student-focused education.”²⁴ This vision parallels components of the federal Every Student Succeeds Act, which allows states to redesign assessments for student-focused learning as well as to pilot new assessment systems that are aligned with competency-based education.²⁵ 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 DESE 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.

Act 867 of 2017 allows a student’s attendance to be recorded without being physically present in the classroom. Additionally, Act 872 of the same year 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. According to DESE, no districts have yet submitted plans for approval, though DESE knows of one that is working on an application and two others that have requested information regarding the applications.²⁶

Starting with the 2018-19 school year, each student was to have a student success plan mapped out for him or her by the end of 8th grade. School personnel, the student and the student’s parents are to be involved with the development of the plan. At a minimum, it is to:

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

Within that process, multiple identifiers are to be used to assess individual student performance and needs. Act 930 says that school districts must consider a student’s scores on statewide academic assessments and may also use, without limitation:

• Subject grades	• Local assessment scores	• Student work samples
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²⁴ Arkansas Department of Education Vision Statement: <https://v3.boardbook.org/Public/PublicItemDownload.aspx?ik=39254741>

²⁵ 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.

²⁶ Email from Stacy Smith, Assistant Commissioner, Learning Services, DESE, ADE; Dec. 18, 2019.

Individualized education programs (IEPs) for special education students 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.

School personnel are to work with students to review and revise student success plans 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. Past practices, by contrast, focused solely on selecting courses to ensure graduation.²⁷

Initially, student success plans were to be designed at the school or district level, but now there are a number of computer-based systems that schools may choose from to assist in the planning process. A few administrators reported that the time required to transfer all of the student data into the electronic systems posed an upfront burden, though some of the benefits from the systems were things like career-planning and ways to teach soft skills and résumé building.

AND THE SURVEY SAYS...

Superintendents by far see the student success planning process as a positive event for students as well as for schools. BLR asked about the overall impact on students and on schools of creating student success plans, and superintendents provided the following responses:

Superintendents Say:	Impact on students	Impact on schools
Very positive	86 / 33.2%	64 / 24.7%
Somewhat positive	161 / 62.2%	178 / 68.7%
Somewhat negative	4 / 1.5%	16 / 6.2%
Very negative	2 / .8%	1 / .4%
No response	6 / 2.3%	NA

As one junior high principal said during the BLR site visits, "Students like that someone is looking at this, helping them and guiding them as they plan for their future." This sentiment was echoed by the majority of principals responding to this question during the site visits, though three commented that the process was time consuming and one each commented that it was an unfunded mandate, that the electronic platforms were cumbersome because they did not link with the E-School platform and that eighth-graders were too excited about life in high school to start seriously thinking about careers or college. In addition, three responded that the process was too new to be able to detect any impact.

Despite the statutory requirement that all high school students have a student success plan, not all have gone through the process as of the beginning of this school year, however. When BLR surveyed superintendents in late summer 2019, one of the questions was:

Please indicate the percentage of rising 9th- through 12th-grade students who have a student success plan. Of the 252 responses:

- 97 school districts and charter school systems responded that 100% of their rising 9th through 12th graders had student success plans
- 36 responded that 75%-99% did
- 16 responded that between 50%- 74% did
- 31 said fewer than 50% did.

²⁷ July 18, 2017, meeting with Arkansas Department of Education staff.

BLR also asked, **Who is involved in creating the individual student success plans? (Check all that apply.)** Of the 252 responses, 136 districts and charter school systems involve all these persons in the student success plan process:

- Student (240*)
- Teacher(s) (229*)
- Counselor(s) (239*)
- Administrator(s) (178*)
- Parent(s) (219*)

*Indicates the number of superintendents indicating this person(s) is involved in developing student success plans.

Other people mentioned as taking part in the student success plan process were graduation coaches, college and career coaches, curriculum coordinators, student support specialists, and military and college representatives.

BLR asked the 259 superintendents this survey question, **Please indicate which elements are included in the student success plans in your district. (Check all that apply.)** Their responses indicate that 79 school districts and charter school systems address all of these elements during student success planning:

- Courses the student will take in high school (238*)
- Internships (124*)
- Civic volunteer roles (151*)
- Four- or two-year college planning (235*)
- Post-high school jobs (197*)
- Post-high school military service (179*)

*Indicates the number of superintendents indicating this element was included while developing student success plans.

Other elements mentioned as part of the student success plan process include skill and interest profiles such as KUDER, student grades and assessments, financial literacy, personal and academic improvement goals, extra-curricular activities, career and technical education, and interventions.

LITERATURE REVIEW REVEALS MIXED RESULTS FOR STUDENT-FOCUSED LEARNING

The research surrounding the issue of student-focused learning – sometimes called personalized learning – suggests both benefits and deficits, depending on how much technology is involved in student-focused learning implementation.

Technology is seen as a helpful instructor in that it can respond to students' prior knowledge and allow students to work at a more efficient pace.²⁸ It is also seen as a cost-efficient way for schools to address student learning. "As public budgets shrink, and technology enables increasingly individualized instruction, schools are justifiably looking toward online models for ways to improve student performance."²⁹

Others see personalized learning that relies heavily on technological delivery systems as part of the larger movement toward corporatization of public education. "Advocates for personalized learning technology thus suggest that if digital platforms such as Google, Netflix, Amazon, and Facebook have transformed the way we conduct business, work, shop, communicate, travel, organize, and entertain one another, then it only makes sense to apply the operational logics of these platforms' educational systems in the name of progress and innovation. ... However, our analysis in this paper suggests, in their current form, personalized learning technologies reflect narrow corporate-driven educational policies and priorities such as privatization, standardization, high-stakes assessment, and systems of corporate management and accountability."³⁰ Other fears relate to the fact that learning in this manner tends to encourage the mastering of discrete tasks rather than encouraging higher level thinking and holistic learning of concepts.

According to a 2013 article about personalized learning in the journal *Education Next*, many educators and policy makers were increasingly seeing a blending of the classroom teacher with digital programs for individualized learning as a positive path. "The beauty of a hybrid model, also known as blended learning, is that it enhances the human element. Computers help students to achieve competency by letting them work at their own pace. And with the software taking up chores like grading math quizzes and flagging bad grammar, teachers are freed to do what they do best: guide, engage, and inspire."³¹

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* in 2017 about its studies of the effectiveness of personalized learning systems.³² 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.'"³³

²⁸ "Investigations of human factors in personalized learning" by Sherry Y Chen, Pei-Ren Huang, Yu-Cheng Shih and Li-Ping Chang in *Interactive Learning Environments*, 2016.

²⁹ "The Promise of Personalized Learning" by Susan Headden in *Education Next*, Fall 2013.

³⁰ "Netflixing human capital development: personalized learning technology and the corporatization of K-12 education" by Heather Roberts-Mahoney, Alexander J. Means and Mark J. Garrison in *Journal of Education Policy*, January 2016.

³¹ "The Promise of Personalized Learning."

³² "The Case(s) Against Personalized Learning," *Education Week*, Nov. 7, 2017.

³³ "The Case(s) Against Personalized Learning."

APPENDIX A: ADEQUACY STUDY METHODOLOGIES

As part of the 2020 Adequacy Study, the BLR conducted online surveys of superintendents and principals in Arkansas. The BLR also visited a randomly selected, representative sample of 74 schools and interviewed their principals. Teachers in the 74 randomly selected schools were also invited to complete an online survey. The online surveys allowed the BLR to collect specific, quantitative data from districts, while the principal interviews asked more open-ended qualitative questions. This report provides the questions and responses from all four surveys related to foundation funding and the matrix. Responses to other survey questions have been or will be presented in other reports throughout the Adequacy Study process.

The superintendent and principal surveys were conducted using online questionnaires. The superintendent survey was distributed beginning July 23, 2019, and the last district responded **November 21, 2019**. The BLR received responses from all **235** school districts and **24** of the **25** open enrollment charter schools (not including the Excel Center, which serves adult students).

The principal survey began October 14, 2019, and the last principal response was received **December 12, 2019**. A total of **1,045** principal surveys were distributed and **752** principals completed the survey, providing a **72%** response rate.

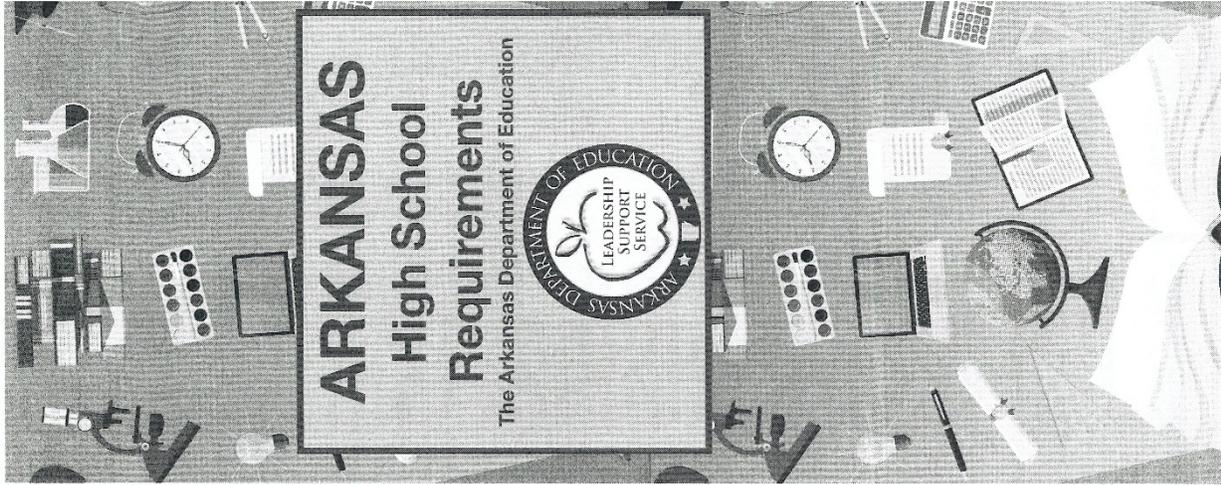
The school visits and principal interviews began October 29, 2019, with the final visits on **December 18, 2019**. The BLR visited a total of **74** schools and interviewed the principals of those schools. Some schools invited other staff members to the interviews, and some included their superintendents in the conversation.

The BLR invited certified teachers in the **74** randomly selected schools to complete an online teacher survey. Each principal was asked to provide the name of a teacher or staff member who would distribute the teacher survey instructions and individual access codes to his/her colleagues. Generally only certified teachers assigned to teach a class were invited to complete the survey (i.e., not administrators), but the survey pool also included guidance counselors, English as a second language teachers, alternative education teachers, library/media specialists and instructional facilitators, regardless of whether they were assigned to teach a class. Teachers accessed the survey online using an individual code that was distributed to them by the teacher representative assigned by the principal. A total of **2,504** surveys were distributed, and **1,241** teachers responded by **January 4, 2020**, for a response rate of nearly **50%**.

To elicit the most candid responses, district and school staff were assured their answers would not be individually identified, therefore responses are provided only in aggregate. Quotes used from the surveys and site visits are provided only where the respondent and school cannot be identified.

APPENDIX B: REQUIRED 38 AND GRADUATION REQUIREMENTS

The following is the brochure from the Arkansas Department of Education's Division of Elementary and Secondary Education listing the courses that are required to be offered at each school and that students are required to pass in order to graduate.



Legislative Requirements

Connected directly to Curriculum and Instruction Requirements

- A.C.A. § 6-16-101 Celebrate Freedom Week
- A.C.A. § 6-16-105 Flag Etiquette
- A.C.A. § 6-16-111 Morals, manners, patriotism and business integrity
- A.C.A. § 6-16-121 Historical Contributions made by African Americans
- A.C.A. § 6-16-124 Arkansas History
- A.C.A. § 6-16-126 Food borne illness in health
- A.C.A. § 6-16-132 PE credit
- A.C.A. § 6-16-135 Personal Finance
- A.C.A. § 6-16-139 Technology Curriculum
- A.C.A. § 6-16-143 CPR
- A.C.A. § 6-16-147 Computer Science
- A.C.A. § 6-16-148 Required review of US History from Col.-1890 in multiple courses
- A.C.A. § 6-16-149 US Citizenship Test
- A.C.A. § 6-16-501 Organ Donor instruction in health
- A.C.A. § 6-16-1004 Dating Violence in health
- A.C.A. § 6-16-1202 AP Course requirements (4)
- A.C.A. § 6-16-1406 Digital Learning Credit required
- A.C.A. § 6-15-2012 Transitional Courses

Standards Development:

- A.C.A. § 6-15-2906 Arkansas Academic Standards

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Arkansas Graduation Requirements

English Language Arts - 4 credits

- English 9
- English 10
- English 11
- English 12

Mathematics - 4 credits

- Algebra I - 1 credit
- Geometry - 1 credit
- Algebra II* - 1 credit
- ADE approved fourth math or Computer Science Flex - 1 credit

Science - 3 credits

- ADE approved biology - 1 credit
- ADE approved physical science - 1 credit
- ADE approved third science or Computer Science Flex - 1 credit

Social Studies - 3 credits

- US History - 1 credit
- World History - 1 credit
- Civics - ½ credit
- Economics and Personal Finance - ½ credit

Oral Communication - ½ credit

Physical Education - ½ credit

Health & Safety - ½ credit

Fine Arts - ½ credit

Career Focus or Additional Content - 6 credits

Additional requirements

- State Minimum of 22 graduation credits
- Students must complete a digital course for credit
- Students must earn a credit in a course that includes personal & family finance after grade 8
- Students must pass the Arkansas Civics Exam
- Students must complete hands-on CPR training

* Algebra II and/or fourth math may be replaced by another approved course if Smart Core is selected.

Courses Required to be Offered at all Arkansas High Schools - (38 Credits)

English Language Arts 6 credits

English 9 (410000) 1 credit
 English 10 (411000) 1 credit
 English 11 (412000) 1 credit
 English 12 (413000) 1 credit
 Oral Communication A (414000) ½ credit
ADE approved ELA 1 ½ credits from the list:
 Critical Reading I (419110)
 Creative Writing (417010) ½ credit
 Debate I (414050)
 Dramatic Literature A (416110) ½ credit
 Forensics I (414020)
 Journalism I (415000)
 Transitional Literacy Ready (496030)
 Approved AP* and IB offerings

Mathematics 6 credits

Algebra I (430000) 1 credit
 Geometry (431000) 1 credit
 Algebra II (432000) 1 credit
 Pre-Calculus (433000) 1 credit
ADE approved Math 2 credits from the list:
 Adv. Topics and Modeling in Math (439050)
 Algebra III (439070)
 Calculus (434010)
 Math Applications and Algorithms (439080)
 Quantitative Literacy (439120)
 Statistics (439090)
 Math Ready (439110)
 Approved AP* and IB offerings

Science 5 credits

Physical Science Integrated (423000) 1 credit
 Biology Integrated (420000) 1 credit
 Chemistry Integrated (421000) 1 credit
ADE approved Science 2 credits from the list:
 Astronomy (425050)
 Chemistry II (421010)
 Earth Science (425020)
 Environmental Science (424020)
 Anatomy/Physiology (424030)
 Physics (422000)
 Approved AP* and IB offerings
 Approved course approval

Social Studies 4 credits

US History Since 1890 (470000) 1 credit
 World History Since 1450 (471000) 1 credit
 Civics (472000) ½ credit
 Economics and Personal Finance (474300) ½ credit
ADE approved Social Studies 1 credit from the list:
 Arkansas History (473000) ½ credit
 African American History (474700) ½ credit
 Psychology (474400) ½ credit
 Sociology (474500) ½ credit
 United States Government (474100) ½ credit
 World Geography (474600) ½ credit
 Approved AP* and IB offerings

Career Education 9 credits

Three Programs of Study representing three (3) of the following occupational areas.
 Agriculture Science and Technology
 Business and Marketing Technology
 Family and Consumer Sciences
 Trade and Industry
 Science, Technology, Engineering, and Mathematics

Physical Education and Health 1 ½ credits

Physical Education 1 credit (or combination of two 1/2 credits)
 Health & Safety (480000) ½ credit

Foreign Language 2 credits

Foreign Language (2 credits of the same language)

Computer Science 1 credit

Sequential combination of HS CS Level 1 and HS CS Level 2 courses

Fine Arts 3½ credits

Visual Art (450) 1 credit
 Visual Art I (450000)

Instrumental Music (451) 1 credit

Band I (451000)
 Jazz Band I (451200)
 Orchestra I (451100)

Vocal Music (452) 1 credit

Vocal Music I (452000)

ADE approved Fine Arts ½ credit

Any Visual Art (450)
 Any Instrumental Music (451)
 Any Vocal Music (452)
 Dance I (459200)
 Music Technology (459020)
 Music Theory (459010)
 Stagecraft I (459240)
 Theatre I (459100)
 Approved AP and IB offerings

Schools must offer:

- 38 unique courses even if a course falls into two categories
- a transitional course
- AP courses in endorsed areas*
- courses selected from the list above

Schools may submit a request for other courses to meet the 38 through the Course Approval System



APPENDIX C: RECENT LAWS CONCERNING ARKANSAS'S LEARNING EXPECTATIONS

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

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 10th, 11th or 12th 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.

Act 930 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.

2019: Act 83 provides additional requirements related to the state's reading initiative RISE, including that schools develop a literacy plan as part of its overall school improvement plan, select an approved reading curriculum program and annually provide professional development based on the science of reading.

Act 245 requires all high schools to participate in bleeding control training as a component of the school's health service.

Act 456 created the Arkansas Concurrent Challenge Scholarship Program to make concurrent courses more affordable for Arkansas high school students.

Act 466 expanded to students in grade nine the ability to earn credit in a course that includes family finance standards as well as those in grades 10-12.

Act 641 mandated elementary schools to provide at least 40 minutes per school day for recess

Act 709 requires a public school that expels a student to offer digital learning courses or other alternative education courses so the student may earn academic credit that is at least equal to the credit the student would have earned if still enrolled.

Act 757 was a clean-up bill touching on many areas of education, including the repeal of the requirement for development of accreditation standards regarding remedial instruction, health education and oral health standards.

Act 852 expanded the number of historical documents and events that may be discussed, read or posted in public school buildings and classrooms.

Act 1086 requires the Department of Education (now DESE) to develop a Bible course for high school credit that meets the academic rigor and curriculum standards of other elective courses approved by the State Board of Education and that complies with all requirements of the Arkansas and the United States constitutions.

Act 1018 adds to preexisting statute that the historic work of Arkansas civil rights leaders will be emphasized as well as American civil rights leaders in the teaching of African-American history in grades K-12 in public schools.