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EXHIBIT E1



College and Career Readiness

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and the House Committee on Education

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Presentation Overview

- Context for college and career readiness
 - Research on indicators of postsecondary success
 - College and career readiness in SREB region
 - College and career readiness in Arkansas
- College and career readiness definitions
- Measuring college and career readiness in Arkansas
 - Available data and accountability measures
- Additional methods for incentivizing college and career readiness
 - Graduation requirements
 - Endorsed diplomas/certificates
 - Scholarships
- Initial considerations for college and career readiness definition in Arkansas



Context for College and Career Readiness

Context for College and Career Readiness

Key Takeaways

- College and career readiness is an important area of concern nationally, in SREB states and in Arkansas
- Research has found indicators and predictors of postsecondary success
- Arkansas performance compared to other states and nationally differs in many key areas of postsecondary success and college performance (remediation)
- However, Arkansas outcomes for CTE completers are better for both graduation and placement outcomes compared to SREB states

National Research Indicators and Predictors of Postsecondary Success

- Research from the College and Career Readiness and Success Center (CCRS Center) has shown that there are a variety of indicators, predictors and factors that are correlated with postsecondary success:
 - **Indicators** are measures with an established threshold. Students who perform at or above the threshold (e.g., students who earn a 3.0 grade point average [GPA] or higher) are more likely to be prepared for their college and career pursuits
 - **Predictors** are measures that are strongly correlated with improved postsecondary outcomes, but for which a numeric threshold has not been established
 - **Other potential factors** are skills and attributes that have been identified as important to students' success and are driven by sound theoretical arguments (e.g., collaborative skills are important for future success), but may not have reliable measurement metrics
- See handout for specific indicators, predictors and factors at different grade levels

Context for College and Career Readiness

SREB Region

- According to a 2017 Southern Regional Education Board (SREB) report on college and career readiness:
 - By 2025, two out of every three jobs in the U.S. will require some postsecondary education and training¹
 - In the SREB region, less than 40 percent of students meet their states' college- and career readiness benchmarks
 - On average, between 40 percent and 60 percent of first-year college students are required to take one or more remedial courses in English or math
 - Less than a quarter of students who required remediation earned a credential within eight years²

¹ Georgetown University Center on Education and the Workforce

² Community College Research Center at Teachers College, Columbia University

Context for College and Career Readiness *Arkansas*

Arkansas Averages (2018-19)	
Graduation Rate	87.6% (4-year), 90.2% (5-year)
Average ACT Scores	
Reading	20.18
English	19.28
Math	18.91
Science	19.74
Composite	19.68
College Going Rate	48.80%
Remediation Rate	64.90%
College Credit Accumulation Rates	56.10%

National comparisons (See appendix slides)

- 17% of graduates meet readiness benchmarks in all four ACT subjects compared to 27% nationally
- Arkansas students also require higher rates of remediation

Context for College and Career Readiness

Arkansas, continued

Outcomes for CTE Completers using Perkins Act Data				
State	% Technical Skill Attainment	Graduation Rate	Placement	% Nontraditional Completion
Alabama	92.17%	89.65%	91.10%	19.05%
Arkansas	75.12%	96.70%	95.62%	22.21%
Delaware	21.70%	99.07%	66.39%	25.68%
Florida	84.29%	97.47%	81.67%	98.15%
Georgia	67.54%	96.33%	99.70%	18.33%
Kentucky	72.81%	98.47%	93.02%	15.41%
Louisiana	95.59%	90.50%	56.99%	17.92%
Maryland	67.74%	99.38%	83.93%	27.55%
Massachusetts	90.61%	94.84%	96.39%	22.40%
Mississippi	61.19%	93.38%	89.41%	13.36%
North Carolina	78.38%	99.20%	94.45%	33.13%
Oklahoma	91.04%	96.40%	94.33%	14.24%
South Carolina	93.07%	98.34%	97.62%	78.55%
Tennessee	96.86%	98.03%	94.90%	27.18%
Texas	76.84%	96.37%	69.70%	38.02%
Virginia	97.07%	97.94%	96.23%	31.23%
West Virginia	91.97%	98.38%	88.63%	19.09%
Average (SREB + MA)	79.65%	96.50%	87.65%	30.68%

Arkansas has above average graduation and placement rates; but below average technical skill attainment and nontraditional completion rates



College and Career Readiness Definitions

College and Career Readiness Definitions

Key Takeaways

- Arkansas currently has a limited CCR definition
 - Also has separate CCR standards within career and technical education (CTE) programs that are more defined (see appendix slides)
- The majority of states have defined what it means to be college and career ready
 - Definitions vary widely in terms of how they value college vs. career readiness
 - Also vary widely in terms of how detailed and actionable they are

Current Definitions of CCR in Arkansas

- College and career readiness is defined within the state's Comprehensive Testing, Assessment, and Accountability Program statute as the acquisition of skills a student needs to be successful in future endeavors, including:
 - Successfully completing credit-bearing, first-year courses at a postsecondary institution; and
 - Embarking on a chosen career¹
- The state also has separate requirements and college and career readiness standards within career and technical education (CTE) programs

¹ 2013 AR SB 814, sec. 8(a)(1)

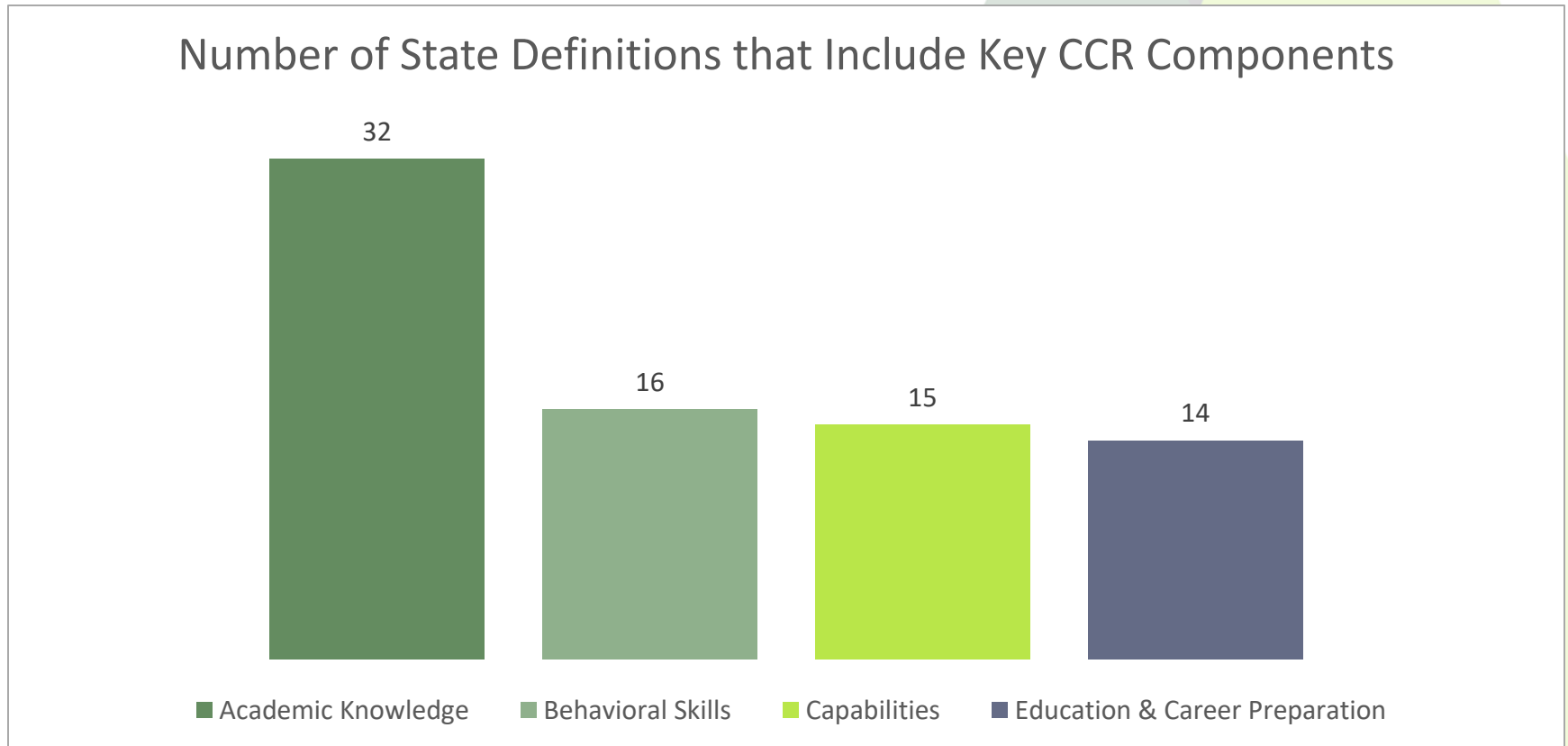
State CCR Definitions

- The majority of states have defined what it means to be college and career ready, though definitions vary widely in specificity
 - 29 states have a college and career readiness definition, while an additional 3 states separately define college readiness and career readiness
 - 3 states only have a college readiness definition, and 1 state only has a career readiness definition
 - 13 states do not currently have a college and/or career readiness definition

Components of CCR Definitions

- While definitions are supposed to address both college and career readiness, many state CCR definitions are not equally focused on career readiness
 - Often narrowly focused on students not needing college remediation
- Definitions also vary in terms of how concrete and measurable (“actionable”) they are
 - More actionable definitions identify specific academic knowledge, skills and traits that students are expected to have in order to be college and career ready
 - Areas often addressed in actionable definitions include:
 - Core academic knowledge in Math, ELA, and Science
 - Capabilities, such as critical thinking, problem solving, collaboration, and/or communication; often referred to as 21st Century Skills
 - Behavioral/readiness skills, such as resilience, perseverance and dependability
 - College and career preparation knowledge and skills, including college/career exploration, planning and decision making

CCR Definition Component Chart



National definitions most typically focus on academic knowledge, with half of definitions also including behavioral skills, capabilities and/or college/career preparation

Example of an Actionable CCR Definition

Maryland

- In Maryland, college- and career-readiness includes mastery of rigorous content knowledge and the abilities to apply that knowledge through higher-order skills to demonstrate success in college and careers. This includes the ability to think critically and solve problems, communicate effectively, work collaboratively, and be self-directed in the learning process.
- More specifically, a student who is college- and career-ready should:
 - Be prepared to succeed in credit-bearing postsecondary introductory general education courses or in industry certification programs without needing remediation;
 - Be competent in the Skills for Success (SFS) (includes learning, thinking, communication, technology, and interpersonal skills.);
 - Have identified potential career goal(s) and understand the steps to achieve them; and
 - Be skilled enough in communication to seek assistance as needed, including student financial assistance.
- Additional examples of actionable definitions are available in the appendix slides.



Measuring College and Career Readiness in Arkansas

Measuring College and Career Readiness

Key Takeaways

- Arkansas has a robust set of data available addressing most of the indicators and predictors of postsecondary success found in national research to measure and monitor college and career readiness
- The state's ESSA School Index and High School School Quality and School Success (SQSS) Indicators measure many components of college and career readiness

Robust Existing Data Collection in Arkansas

- Assessment
 - ACT Aspire performance and growth
 - ACT scores and participation rate
 - SAT scores and participation rate
 - NAEP
- CTE
 - Completion (including nontraditional completion)
 - Technical skill attainment
 - Placement
- Advanced coursework
 - Advanced Placement (AP) scores and participation rate
 - International Baccalaureate (IB) participation rate
 - Concurrent enrollment
- Postsecondary
 - College going rate
 - College credit accumulation rate
 - Remediation rate
- Other outcomes
 - GPA and on-time credits
 - Attendance rate
 - Retention rate
 - Discipline data by type of infraction

Arkansas ESSA School Index

- Weighted Achievement (35% of ESSA School Index)
 - Each student’s individual performance on ACT Aspire exams, recorded as one of “1 – In Need of Support”, “2 – Close”, “3 – Ready”, or “4 – Exceeding”
- Student Growth (50% of ESSA School Index through eighth grade, 35% in grades 9-12)
 - ADE uses a value-added model that refers to students’ past ACT Aspire scores to predict current-year performance, allocating points to over- and under-performing schools accordingly. This subcomponent is itself a weighted average that also accounts for the English language proficiency among English learners at each school
- Graduation Rates (15% of ESSA School Index in grades 9-12)
 - Both 4- and 5-year high school graduation rates are considered, carrying 10% and 5% of the weight on the Index, respectively.
- School Quality and Student Success (SQSS) Indicators (15% of ESSA School Index)

Arkansas High School SQSS Indicators

- Although 70% of the ESSA School Index is derived from student performance on ACT Aspire exams, additional information on college and career readiness can be described through SQSS Indicators. Additional points are earned for:
 - On-Time credits: completing 5.5, 11, and 16.5 credits by the end of grade 9, 10, and 11, respectively
 - High School GPA: cumulative high school GPA of 2.8 or better
 - ACT composite score: score greater than or equal to 19
 - ACT readiness benchmark:
 - An ACT Math score greater than or equal to 22, or
 - An ACT Reading score greater than or equal to 22, or
 - An ACT Science score greater than or equal to 23
 - AP/IB/Concurrent Enrollment credits
 - Computer Science credits
 - Community Service/ Service Learning credits



Additional Approaches for Incentivizing College and Career Readiness

Additional Approaches for Incentivizing College and Career Readiness

Key Takeaways

- The state's graduation requirements include career focused credit requirements and are aligned with state college admission requirements
- Arkansas provides additional recognition for CCR through:
 - Arkansas Career Readiness Certificates using ACT Work Keys
 - Scholarship opportunities for students
- Other states offer examples for further incentive opportunities, particularly for career readiness

Graduation Requirements

- The state's graduation requirements include career focus credit requirements and are aligned with state college admission requirements

Subject	Credit Requirements
English	4
Math	4
Science	3
Social Studies	3
Oral Communication	0.5
Physical Education	0.5
Health and Safety	0.5
Fine Arts	0.5
Career focus or Additional Content	6

- In the SREB region, most states require 4 credits of English and Math, with three states also requiring 3 years of science. Most state requirements are aligned with their state's college admission requirements
 - Four states specifically require CTE or career preparation courses in their graduation requirements; North Carolina requires career credits for a specific diploma path

Diploma Paths

- Arkansas provides additional recognition for career readiness through Arkansas Career Readiness Certificates using ACT Work Keys
 - Free to all Arkansas students
- Several states provide diploma endorsement opportunities to students who meet certain college or career readiness standards
 - North Carolina (5 endorsements available, including Career Endorsement, College Endorsement, College/UNC Endorsement and Academic Scholars Endorsement)
 - South Carolina (College-Ready or Career-Ready Seals of Distinction)
 - Ohio (Career technical honors diploma and STEM honors diploma beginning in the 20-21 school year)

Scholarships

- Arkansas provides scholarship opportunities to students primarily based upon academic performance and assessment scores, with some opportunities for students pursuing careers in certain fields (such as healthcare, IT or other STEM fields)
- Most other states also offer scholarship opportunities for academic performance, often funding through lottery proceeds. There are some state examples of also offering expanded opportunities specifically for CTE and career:
 - Wyoming's Hathaway Scholarships are intended to provide an incentive for Wyoming students to prepare for and pursue post-secondary education within the state of Wyoming. The program consists of four separate merit scholarships, each with specific eligibility requirements, which include 2 or 4 years of either fine and performing arts, foreign language or career and technical education
 - North Dakota's Career and Technical Education Scholarship provides graduates who complete a prescribed course of study and assessments in CTE with scholarships totaling up to \$6,000 within six academic years of high school graduation



Initial Considerations for CCR Definition

Initial Considerations for CCR Definition for Arkansas

- Equally value college and career readiness in CCR definition
- Develop a definition based upon key components of actionable definitions from other states and best practice research:
 - Core academic knowledge and skills in mathematics, science, and ELA
 - Capabilities such as critical thinking, collaborative problem solving, as well as information and technology skills
 - Behavioral skills related to success in education and the workforce, such as dependability, working effectively with others, adapting, and managing stress
 - Education and career preparation knowledge and skills needed to successfully navigate one's educational and career path, including self-knowledge of one's abilities, likes and dislikes, values, etc.; knowledge about majors and occupations; and a variety of skills related to educational and career exploration, planning, and decision making¹
- Encourage state agencies to collaboratively identify the specific standards, skills and indicators to measure using the robust data available within the state data system
- Include career readiness items in High School SQSS Indicators
 - For example, provide points for CTE completion, earning Arkansas Career Readiness Certificates

¹ Language from ACT Holistic Framework for CCR



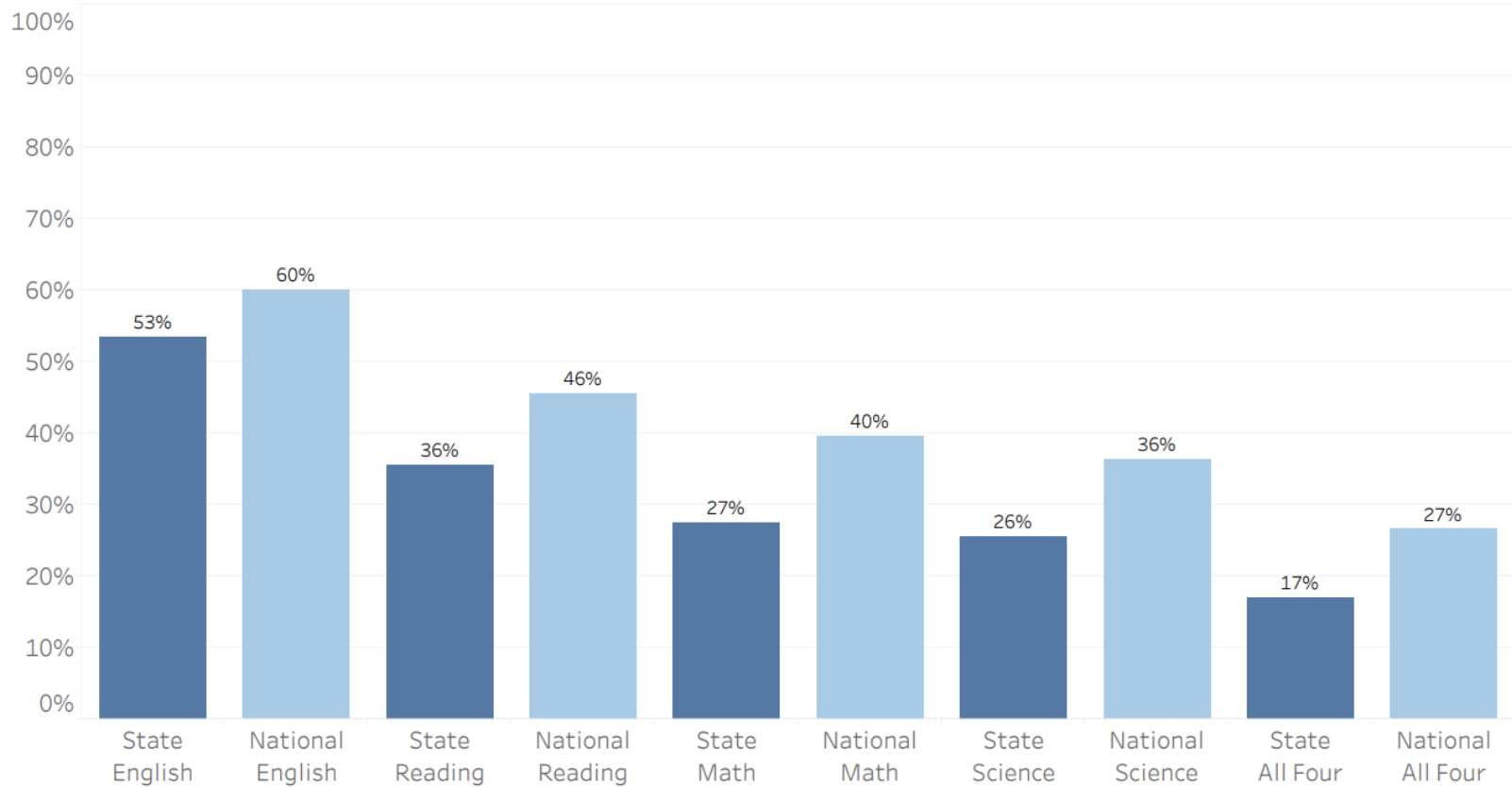
Questions?



Appendix

ACT Scores

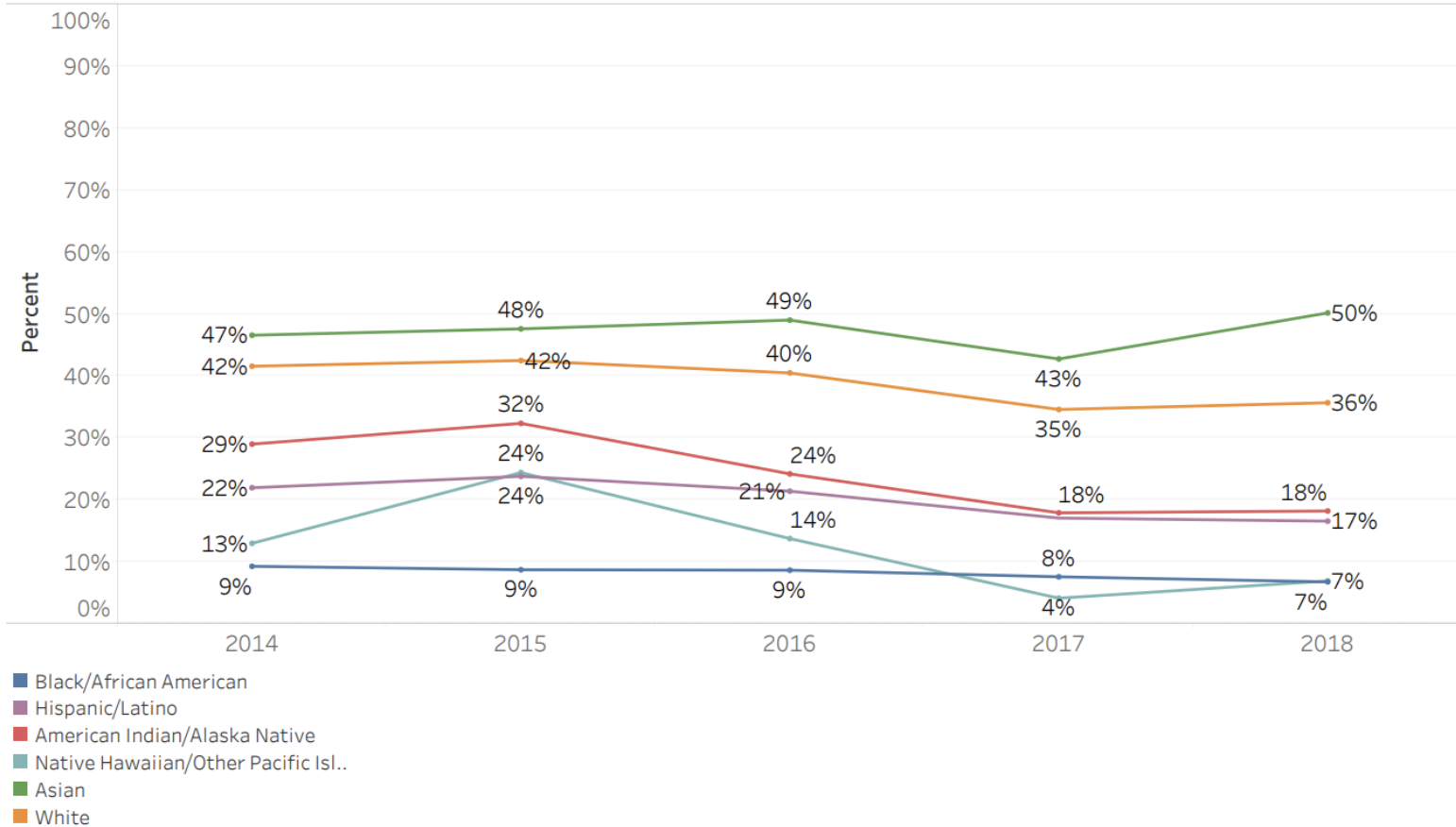
Percent of 2018 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks* by Subject



Arkansas ACT scores are lower than national averages in all subject areas

ACT Scores, continued

Percent of 2014-2018 ACT-Tested High School Graduates Meeting Three or More Benchmarks by Race/Ethnicity



Arkansas ACT scores vary significantly by race/ethnicity

Remediation Rates Compared to National Rates (2016)

Remedial Enrollment and Success, For Every 100 Students Starting College (Complete College America)

	National	Arkansas
2-Year Institutions		
2-year Institution, Math Remedial enrollment per 100 students	52	55
2-year Institution, Math, Fail to complete course	42	45
2-year Institution, English Remedial enrollment per 100 students	34	43
2-Year Institution, English, Fail to complete course	27	35
4-Year Institutions		
4-year Institution, Math Remedial enrollment per 100 students	24	33
4-year Institution, Math, Fail to Complete Course	16	21
4-year Institution, English Remedial enrollment per 100 students	12	27
4-Year Institution, English, Fail to complete course	7	16

Arkansas remediation rates are higher than all national averages

Additional CTE Standards and Requirements in Arkansas

- Arkansas law asserts that “A rigorous career and technical education program of study that links secondary education and postsecondary education and combines academic and technical education in a structured sequence of courses that progresses from broad foundation skills to occupationally specific courses shall be made available” (§ 6-5-1002(b)(1)).
 - The statute defines a “career and technical education program of study” as “a planned program of courses and learning experiences that:
 - Begins with the exploration of career options;
 - Supports basic academic and life skills; and
 - Enables achievement of:
 - High academic standards;
 - Leadership;
 - High-skill, high-wage employment preparation; and
 - Advanced continuing education” (§ 6-5-1002(a)).
- Under ADE’s Rules Governing Standards for Accreditation of Arkansas Public Schools and School Districts, schools serving students in grades 9 through 12 are required to teach 9 units of “sequenced career and technical education courses representing three occupational areas.”

College and Career Readiness Program Standards in CTE Programs

- Further, college and career readiness program standards for CTE programs in Arkansas require:
 - Clear, rigorous content standards
 - Partnerships with educators, business and community stakeholders
 - Sequences of secondary and postsecondary career and technical education program of study courses that help students transition to postsecondary education without requiring duplicate classes or remedial education
 - Comprehensive guidance counseling and academic advisory systems
 - Innovative and creative instructional approaches that enable teachers to integrate academic, career, and technical instruction; and
 - Valid and reliable technical skills assessments that provide ongoing information on whether or not a student is attaining the necessary knowledge and skills for entry into postsecondary education or a career in his or her selected career and technical education program of study
- AR Code § 6-5-1003 (2016)

Examples of Actionable CCR Definitions

Ohio

- Definition:
 - Ohio’s college- and career-ready definition is to ensure all students ‘Start Ready and Graduate Ready’ from their PreK–12 learning environment, qualified for success in a degree or credential-granting postsecondary education program, without remediation, and advanced training for a career of choice. Student readiness for college and careers includes:
 - Content Knowledge: A deep core-content knowledge in academic and applicable technical content;
 - 21st Century Skills: The effective use of academic and technical skills (e.g., research, problem-solving, systems thinking);
 - Readiness Behaviors: The acquisition of readiness behaviors such as goal-setting, persistence, and resourcefulness;
 - College and Career Survival Skills: The acquisition of knowledge and skills needed to navigate successfully within the world of higher education and world of work.

Examples of Actionable CCR Definitions

Massachusetts

- Definition:
 - Massachusetts students who are college and career ready will demonstrate the knowledge, skills and abilities that are necessary to successfully complete entry-level, credit-bearing college courses, participate in certificate or workplace training programs, and enter economically viable career pathways.
 - In order to meet this goal, the Commonwealth has defined a set of learning competencies, intellectual capacities and experiences essential for all students to become lifelong learners; positive contributors to their families, workplaces and communities; and successfully engaged citizens of a global 21st century.

Examples of Actionable CCR Definitions

Massachusetts, continued

- Definition continued:
 - Beyond achieving college and career ready levels of competence in English Language Arts / Literacy and Mathematics, all high school students should:
 - Develop a foundation in the academic disciplines identified in the MassCore course of study,
 - Build competencies for workplace readiness as articulated in the Integrating College and Career Task Force Report, and
 - Focus on applying academic strategies to problem solving in diverse professional and life contexts, appropriate to individual student goals.
- Massachusetts has developed specific curriculum frameworks and essential learning items in each area