Strategic Innovation in Academic Affairs Forum

Our presentation will begin momentarily:

Please note that you are muted for the duration of the presentation unless unmuted by the hosts, please place all questions or comments in the chat

January 29, 2026

Strategic Innovation in Academic Affairs Forum

Launch Years Initiative: Reimagining Mathematics Education in South Carolina - Trena Houp and Dana Yow

Bridging the AI Gap: From Polarization to Pedagogical Power – Dr. Robert Placido

January 29, 2026

Welcome!

- Housekeeping Notes:
  - This session is being recorded
  - For people who are new to his forum, please place your name, organization, and email into the chat to ensure notification of future events
  - Multiple presentations today, drop questions in the chat during each session – responses in session as time permits – all others will be posted on the website post event

SC
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LAUNCH YEARS INITIATIVE: REIMAGING MATH EDUCATION IN SC

January 29, 2026

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LAUNCH YEARS INITIATIVE

- The Mathematical Association of America calls math "the most significant barrier" to finishing a degree—and ultimately to a path of greater opportunity for all students.

- The **Launch Years Initiative** supports the scaling of mathematics pathways from high school through postsecondary education and into the workplace, aligned to students' goals and aspirations.
  - The Launch Years Initiative is supported by the Dana Center at the University of Texas at Austin

- 23 states participating, including SC.

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LAUNCH YEARS INITIATIVE

Launch Years member state teams commit to the following:

- Developing, improving, and/or implementing multiple modern math pathways in high school that align with and feed into the higher education math pathways

- Developing, improving, and/or implementing multiple modern math pathways in higher education that align with and follow from the high school math pathways

- Measuring success and progress of math pathways implementation.

- Providing students with the necessary information, choices, and opportunities to empower them to enroll in high school and postsecondary math courses aligned to their interests, aspirations, and career goals

- Providing supports for all students to engage in on-grade-level math throughout high school and enroll in college-level math immediately upon matriculation into an institution of higher education

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LAUNCH YEARS INITIATIVE

- States are focusing on different areas, including designing and implementing postsecondary and high school mathematics pathways, modern math courses and content, and advising practices.

- Additional Information available on the Launch Years Initiative website.

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LAUNCH YEARS INITIATIVE STATE LEADERSHIP TEAM

- Dana Yow, Executive Director, SC Oversight Committee (state co-lead)
- Trena Houp, Executive Director, Academic Program Planning and Decision Support, USC Columbia (state co-lead)
- Angela Peters, Director, Office of Academic Affairs and Licensing, SC Commission on Higher Education
- Rosline Sumpter, Vice President, Academics, Student Affairs & Research, SC Technical College System
- Sandra Ammons, Team Lead, Math and Science, South Carolina Department of Education
- Tommy Hodges, Dean, USC Columbia
- Katherine Mulholland, SC Coalition for Mathematics & Science, Clemson University
- Rebecca Battle-Bryant, Director, State Office of Workforce Development
- Chris Finney, Director, Data Integration and Analysis Division, SC Revenue and Fiscal Affairs Office
- Melanie Barton, Deputy Director Chief of Staff and Senior Education Advisor, Governor's Office
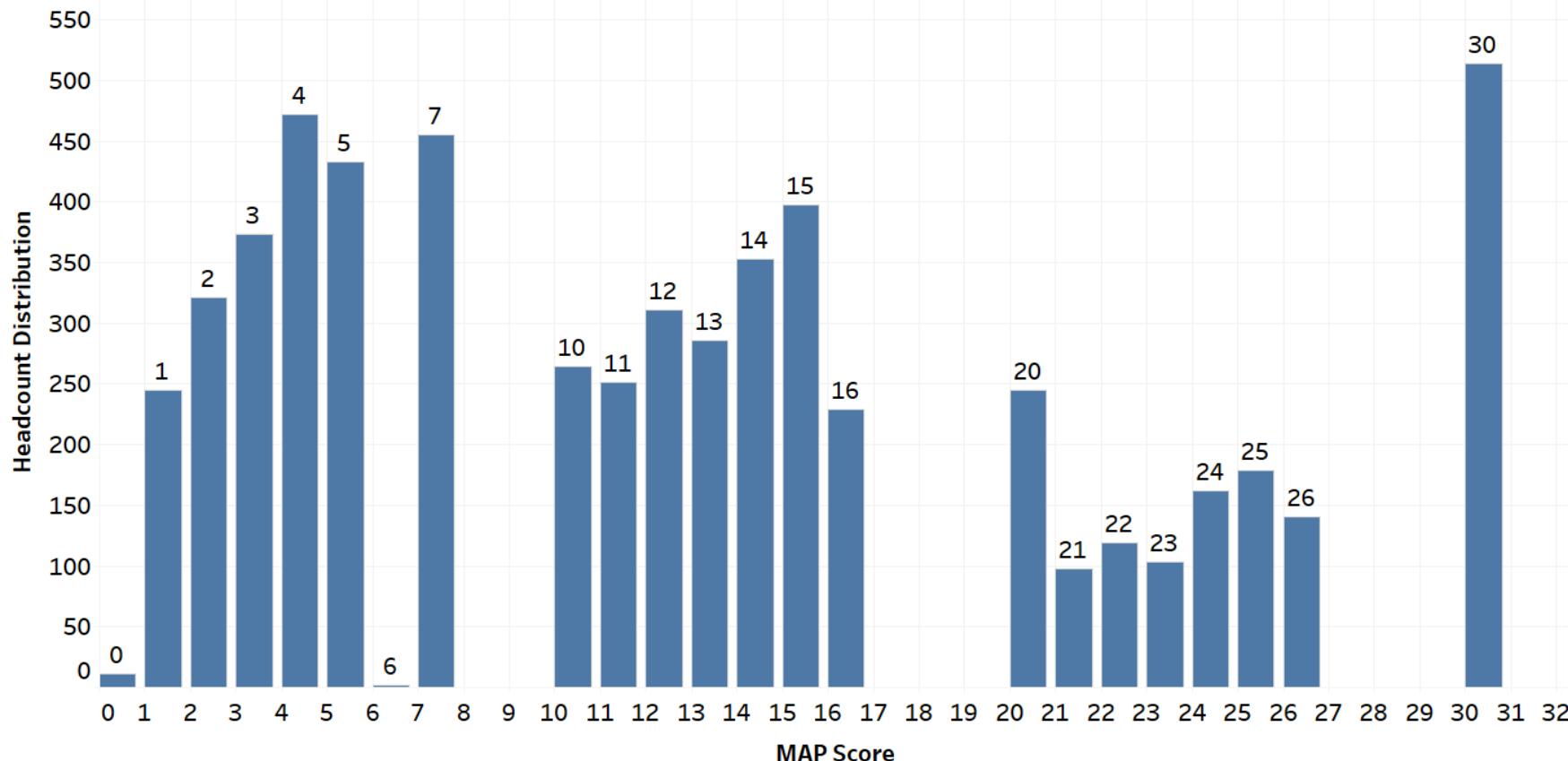
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MATH PLACEMENT AT USC COLUMBIA

- More students are placing into lower-level math courses that are prerequisites, but not degree-applicable.

- 187% increase from Fall 2019 (1015 students) to Fall 2024 (2918 students)

- In Fall 2019, 24.1% of new freshmen taking math were placed into such courses; in Fall 2024, that increased to 53.5%

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MATH PLACEMENT SCORES FALL 2025

USC is implementing the Assessment and Learning in Knowledge Spaces (ALEKS) math placement test for students entering in Fall 2026.

MAP score of 20 is needed for MATH 122 Calculus for Business Administration and Social Sciences. A score of 24 is needed for MATH 141 Calculus I with corequisite workshop course and a score of 30 is needed for MATH 141.

MATH READINESS AT USC

- Analyzed data examined over 21,000 first-year, full-time USC Columbia students from Fall 2022 to Fall 2024 to identify factors influencing failure rates (DFW) in lower-level math courses.

- Key findings show that students with lower MAP or SAT scores, lower high school weighted core GPAs, and those from underrepresented or in-state backgrounds are more likely to struggle.

Scatter Plot Matrix
SAT_MATH
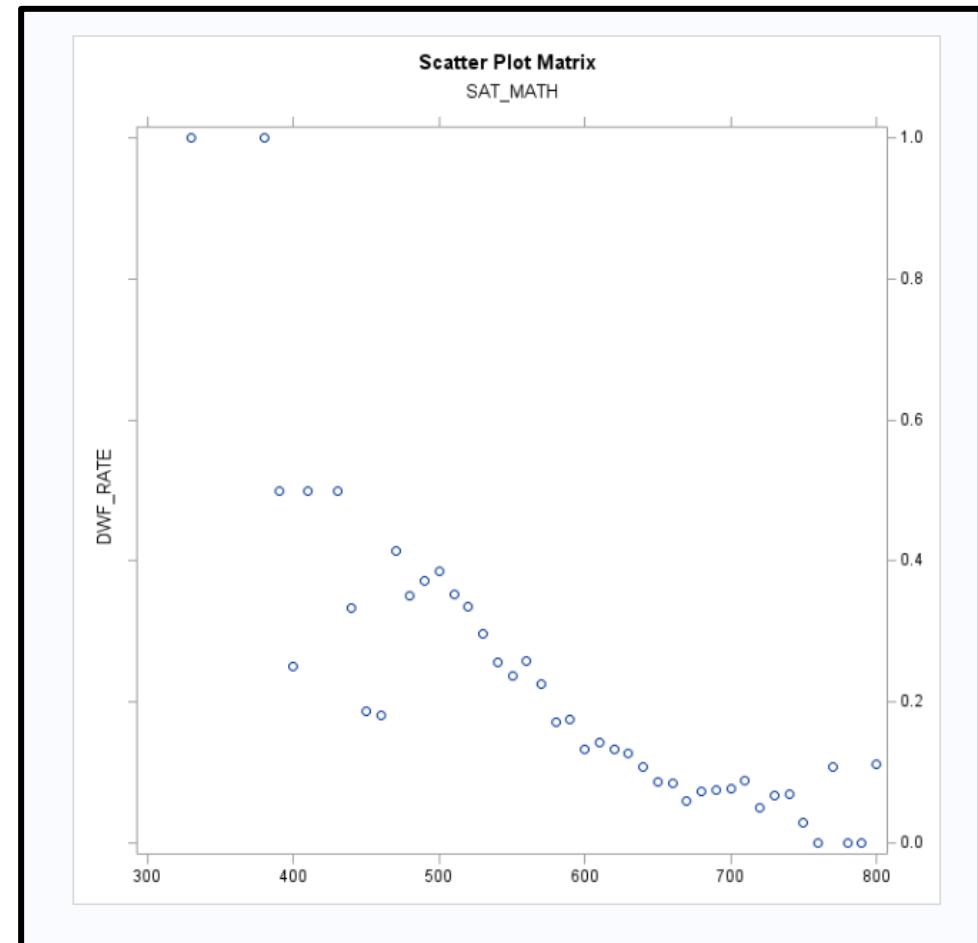
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MATH READINESS AT USC

- USC is using predictive models and AI-driven tools to proactively identify at-risk students and support targeted interventions to improve math success outcomes.
- USC analyzed the math placement exam data for Fall 2025 to identify the areas students struggle with the most:
  - Simplifying Exponents
  - Factoring Polynomials
  - Graphical Interpretation/Solving Linear Equations
  - Solving Linear Equations/Substitution
  - Finding Linear Equations
  - Solving Quadratic Equations
  - Combining Logs
  - Expanding Logs
  - Transformations of Functions Complex
  - Solving Exponential Equations
  - Graphing Trigonometric Functions
  - Trigonometric Identities

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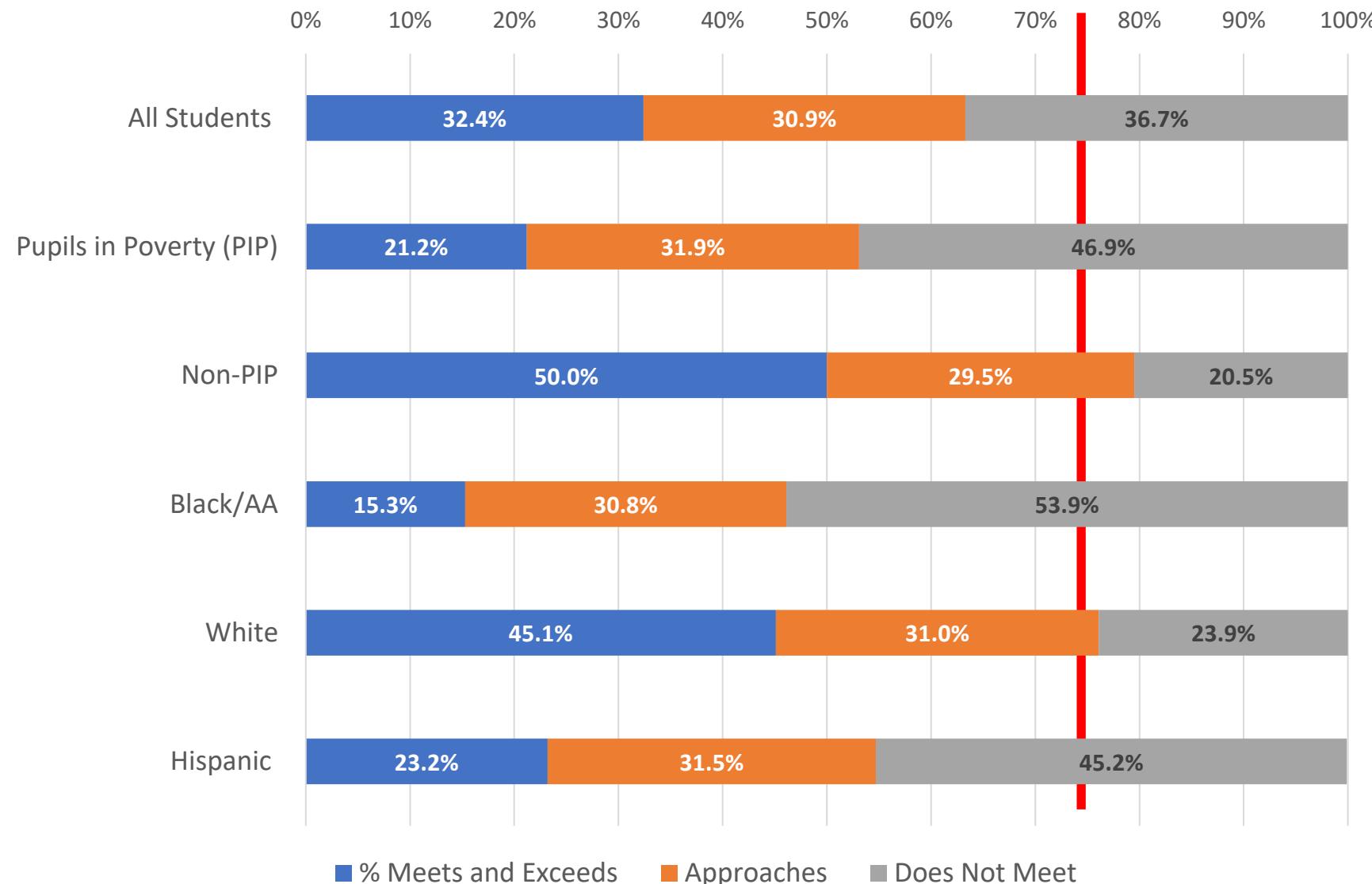# Are SC High School Graduates College and Career Ready?

SC READY 3rd Grade Math, SY 24-25

	% Meets and Exceeds	Approaches	Does Not Meet
All Students	56.3%	22.4%	21.3%
Pupils in Poverty (PIP)	46.7%	26.3%	27.1%
Non-PIP	73.4%	15.9%	10.7%
Black/AA	39.8%	28.5%	31.7%
White	68.6%	18.2%	13.1%
Hispanic	46.4%	25.6%	28.1%
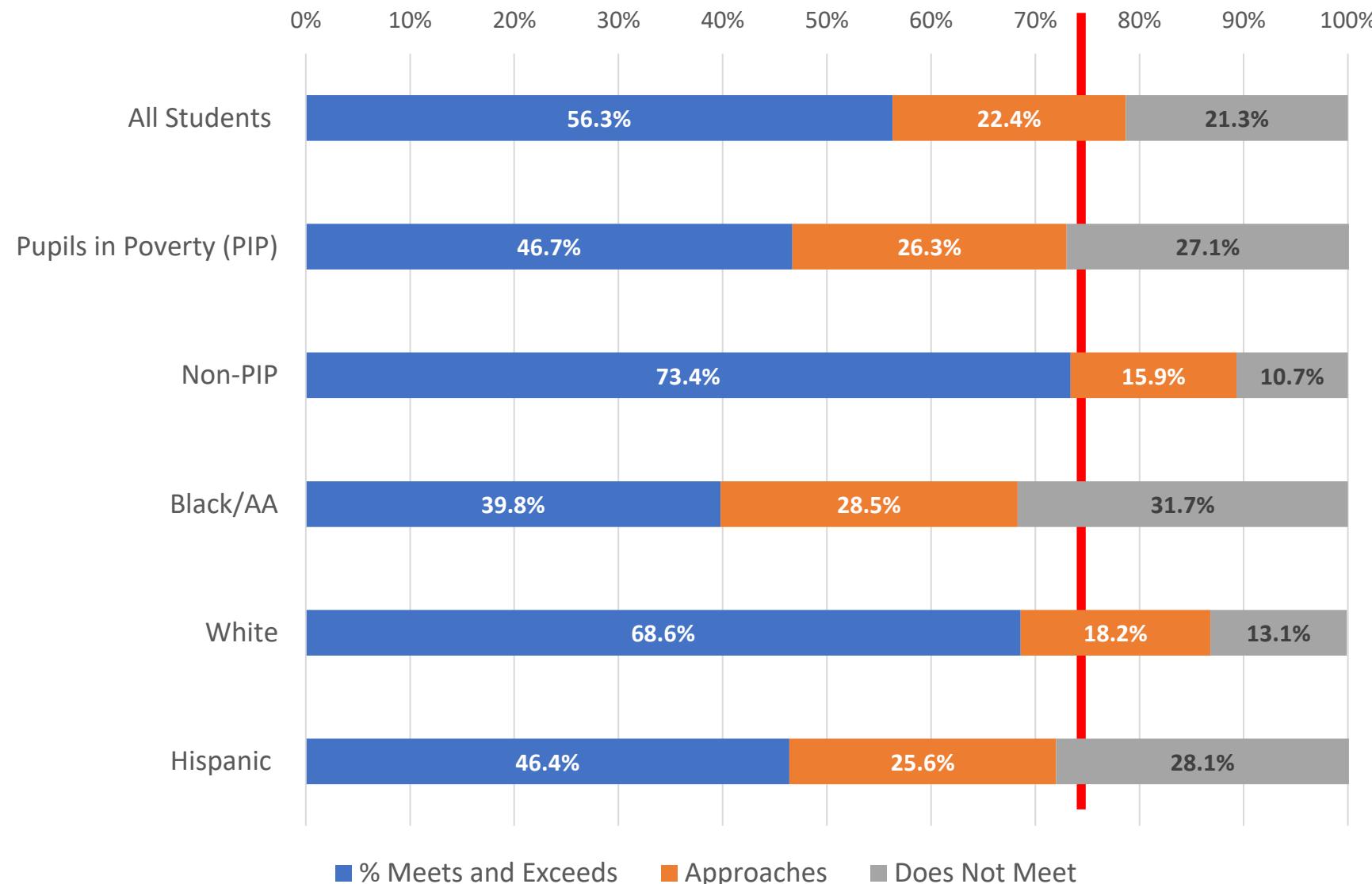
SC READY 8th Grade Math, SY 24-25

	% Meets and Exceeds	Approaches	Does Not Meet
All Students	32.4%	30.9%	36.7%
Pupils in Poverty (PIP)	21.2%	31.9%	46.9%
Non-PIP	50.0%	29.5%	20.5%
Black/AA	15.3%	30.8%	53.9%
White	45.1%	31.0%	23.9%
Hispanic	23.2%	31.5%	45.2%

End-of-Course Exam Program Achievement Levels over time

D or F
C or Above

	SY 21-22	SY 22-23	SY 23-24	SY 24-25
D or F	57.7%	55.3%	49.3%	46.9%
C or Above	42.3%	44.7%	50.7%	53.1%
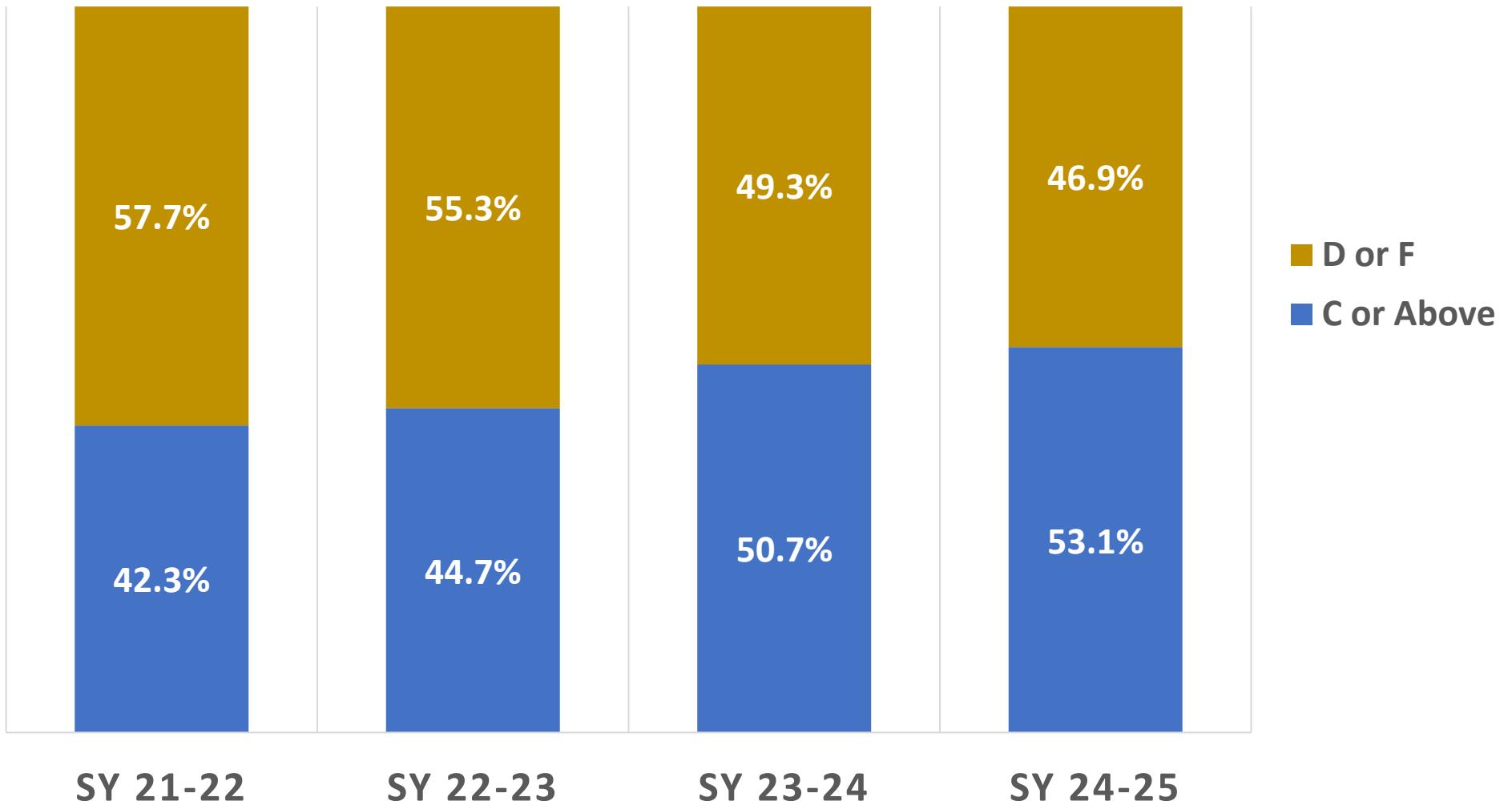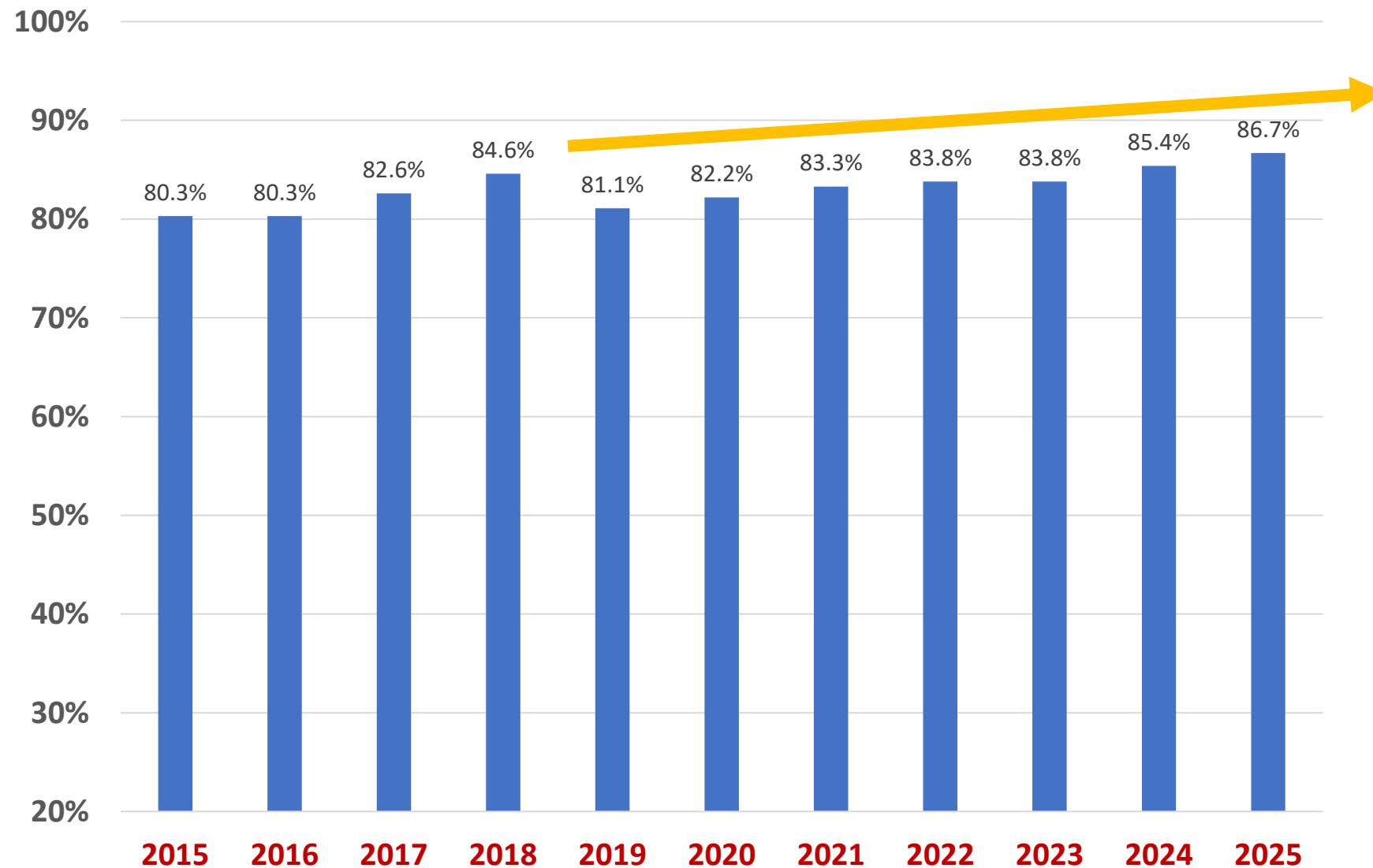
2025 Graduation Rate vs. College and Career Readiness

86.7% — 2025 On-time Graduation Rate

31.2% — % of students College **AND** Career Ready

75.1% — % of students College **OR** Career Ready
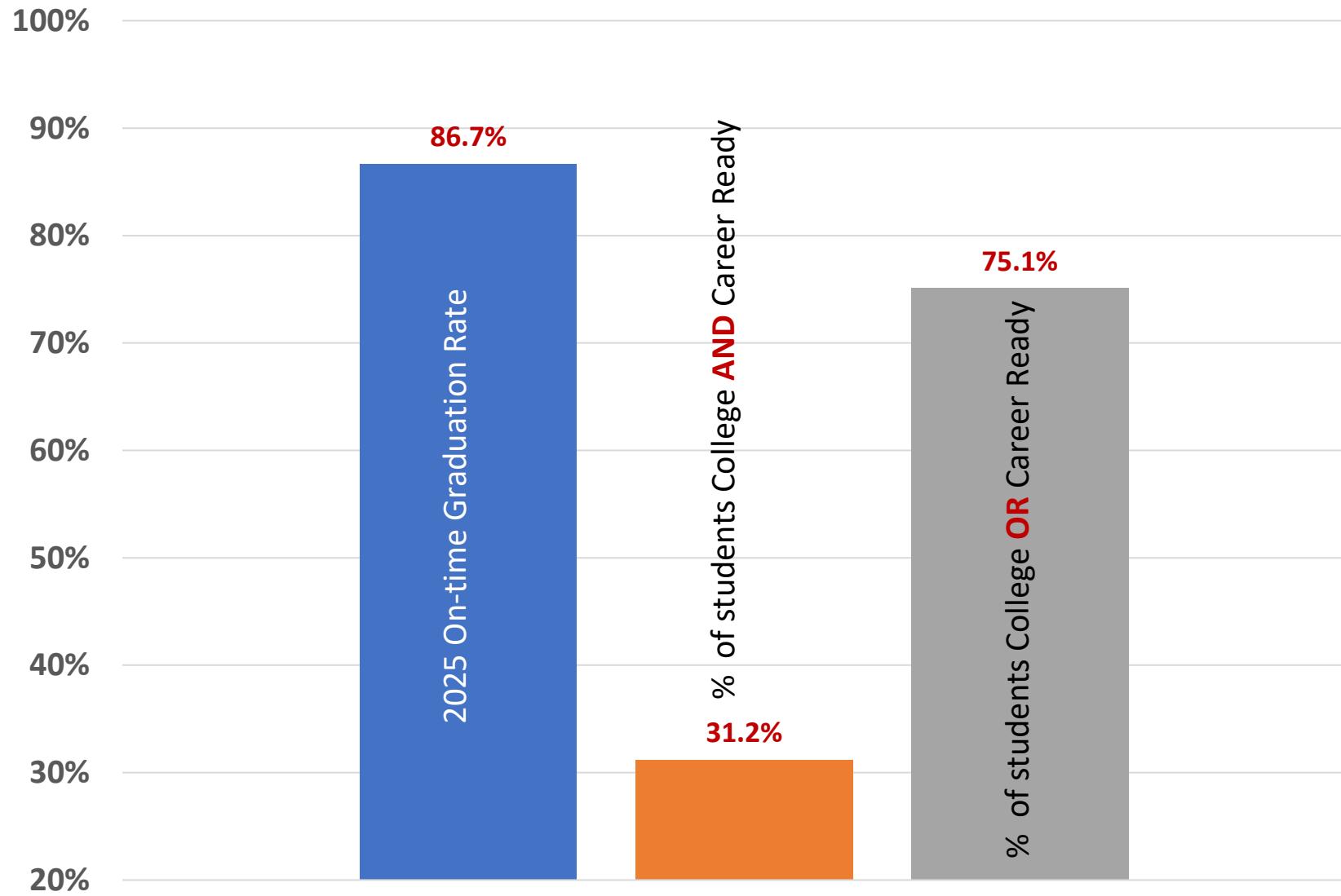
College Readiness

33.0% of 2025 Graduation Cohort were college ready

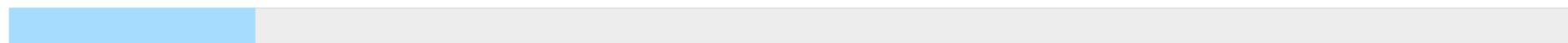Students in the graduation cohort who are college ready   33%   (20951 / 63429)
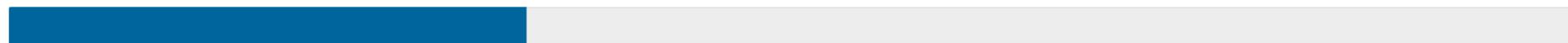
Students in the graduation cohort who achieved an ACT composite score of 20 or higher   10.2%   (6448 / 63429)
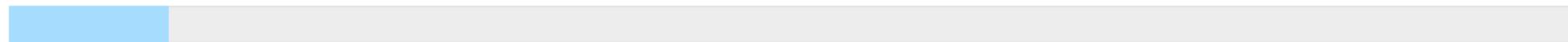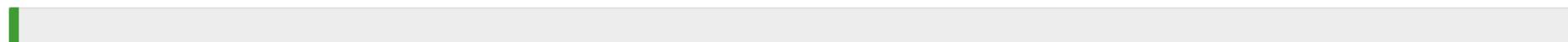
Students in the graduation cohort who achieved an SAT score of 1020 or higher   20%   (12675 / 63429)
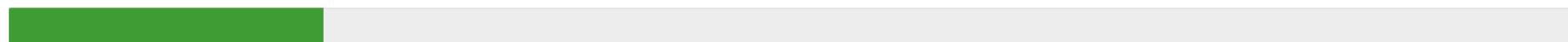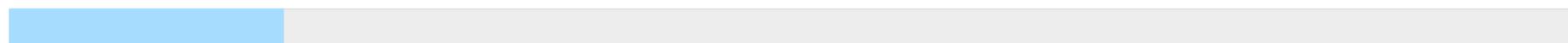
Students in the graduation cohort who earned an Advanced Placement (AP) score of three or higher   15.7%   (9971 / 63429)
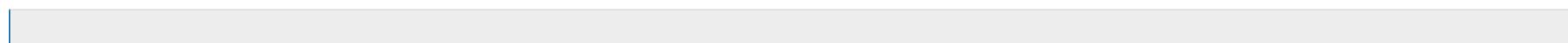
Students in the graduation cohort who earned an International Baccalaureate (IB) score of four or higher   0.6%   (388 / 63429)

Students in the graduation cohort who completed six hours of dual credit course work with a grade of C or higher   17.5%   (11126 / 63429)

Students in the graduation cohort who scored a C or higher in any Advanced Level (A) Cambridge International Exam   0.1%   (68 / 63429)

Career Readiness

73.3% of 2025 Graduation Cohort were career ready
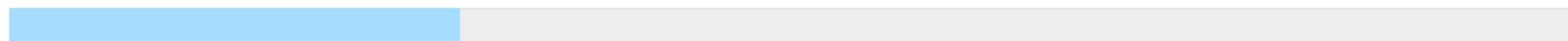
Students in the graduation cohort who are career ready   73.3%   (46502 / 63429)
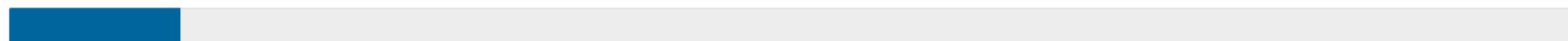
Students in the graduation cohort who have completed Career and Technical Education (CTE) with certification   28.9%   (18340 / 63429)

Students in the graduation cohort who completed a state-approved work-based learning experience   11%   (6966 / 63429)

Students in the graduation cohort who achieved 3 or above (or Silver or higher pre-2022-23) on the career readiness assessment
                                                                                                     54.9%   (34821 / 63429)
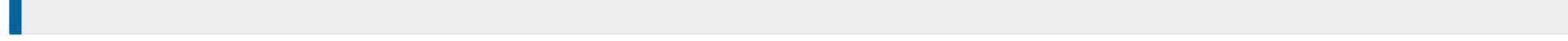
Students in the graduation cohort who took the ASVAB and scored 31 or higher   10.6%   (6711 / 63429)

Students in the graduation cohort with a disability who successfully completed the South Carolina High School Employability Credential
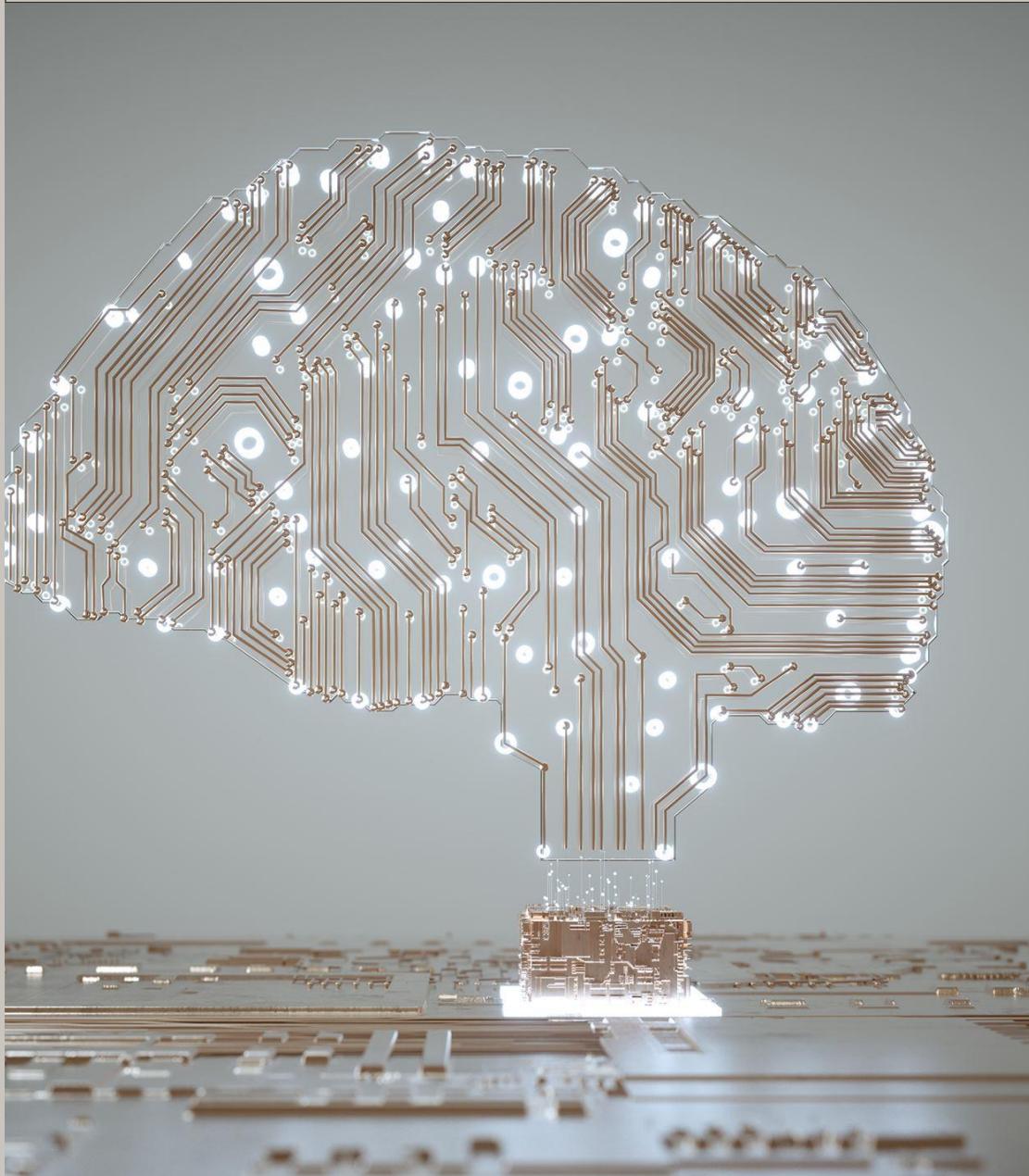   0.8%   (520 / 63429)

CHE's Initiative in Math Education

- New Collaborative Center of Excellence in Math Education

- Participating institutions: Columbia College, Newberry College, and USC Aiken

- Awarded almost $180,000 for FY2025-26

BRIDGING THE AI GAP: FROM POLARIZATION TO PEDAGOGICAL POWER

Uniting perspectives to empower education through AI

PHASE 1: THE LANDSCAPE

THE CURRENT STATE OF AI IN HIGHER ED

Faculty Polarization on AI

Faculty are divided as 'Racers' who rapidly adopt AI and 'Resisters' who fear its impact, causing institutional fragmentation.

**Risks of Unmanaged AI Adoption**

Rapid AI use without oversight leads to shadow IT, unvetted curriculum changes, and risks to academic integrity and security.
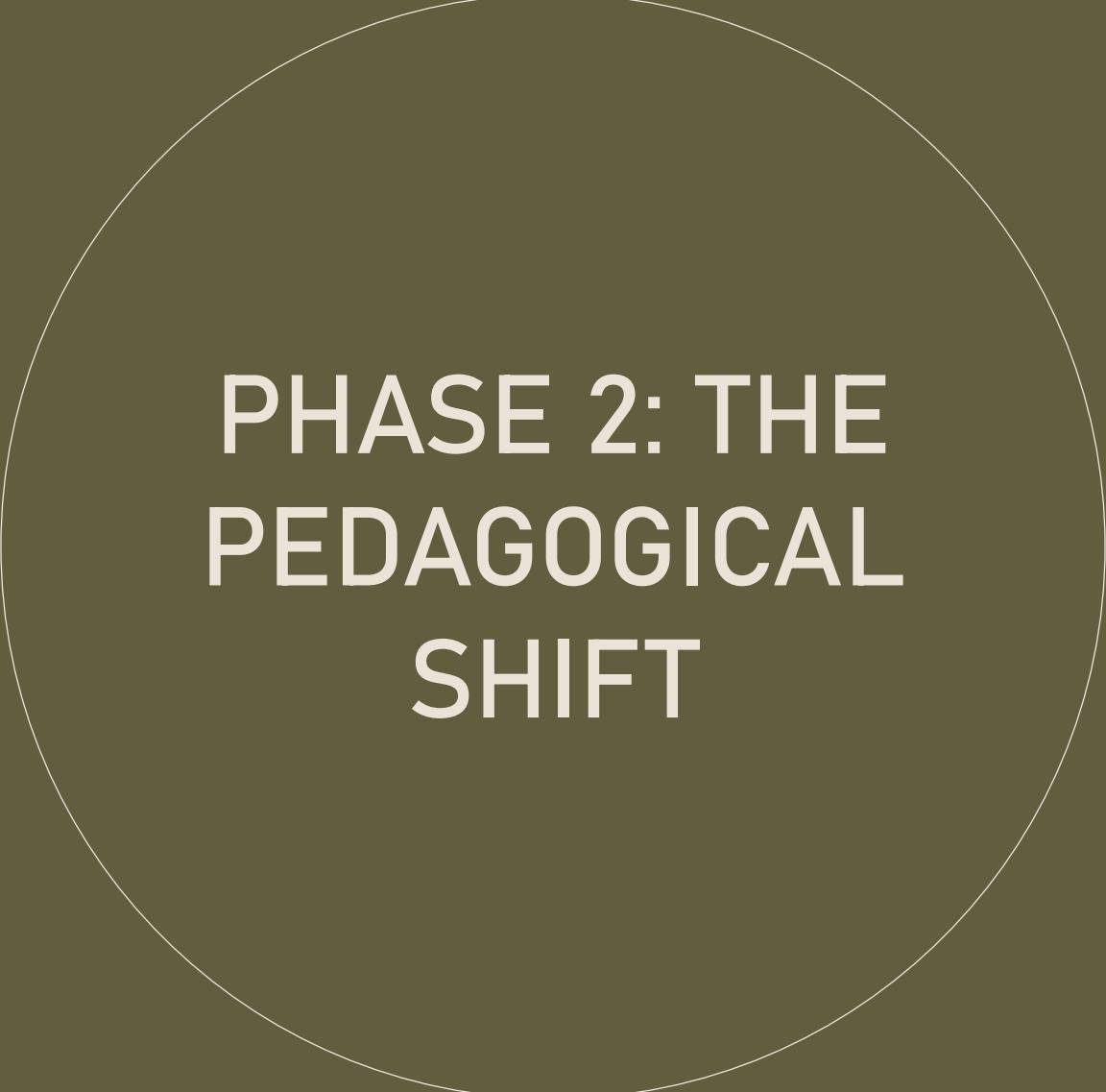
Fear Limiting Innovation

Fear of plagiarism, copyright issues, and job replacement hinders meaningful AI integration and educational progress.

Path to Empowerment

Shifting faculty mindset to embrace AI as a strategic tool can enhance teaching and unify the student learning experience.
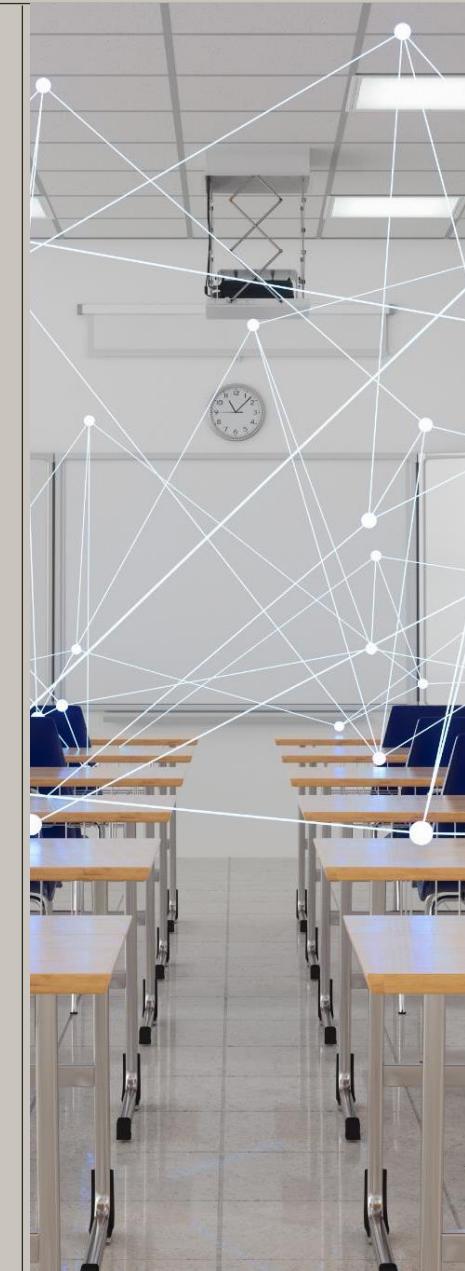
PHASE 2: THE PEDAGOGICAL SHIFT

BEYOND THE CALCULATOR – AI AS A SOCRATIC TUTOR

Reframing AI in Education

Shift perception of AI from cheating tool to cognitive engine enhancing deep learning and inquiry.

Socratic Tutoring Approach

AI acts as a Socratic tutor, prompting critical thinking and encouraging productive struggle.

Introducing the Gem Bot

A custom AI bot designed to support learning under strict pedagogical principles, fostering active student participation.

Enhancing Academic Integrity

Leveraging AI to amplify intellectual engagement while preserving academic integrity and integrity.

THE SOCRATIC GEM ARCHITECTURE

No Direct Answers

The system deliberately avoids giving direct answers to preserve the learning process integrity and encourage student effort.

Inquiry-Driven Learning

It stimulates critical thinking by asking questions that encourage students to explore and understand concepts deeply.

Metacognitive Reflection

Learners reflect on their confidence and problem-solving steps, enhancing self-awareness and cognitive skills.

Non-Judgmental Support

The Gem offers patient, encouraging responses to normalize struggle and support ongoing learning.
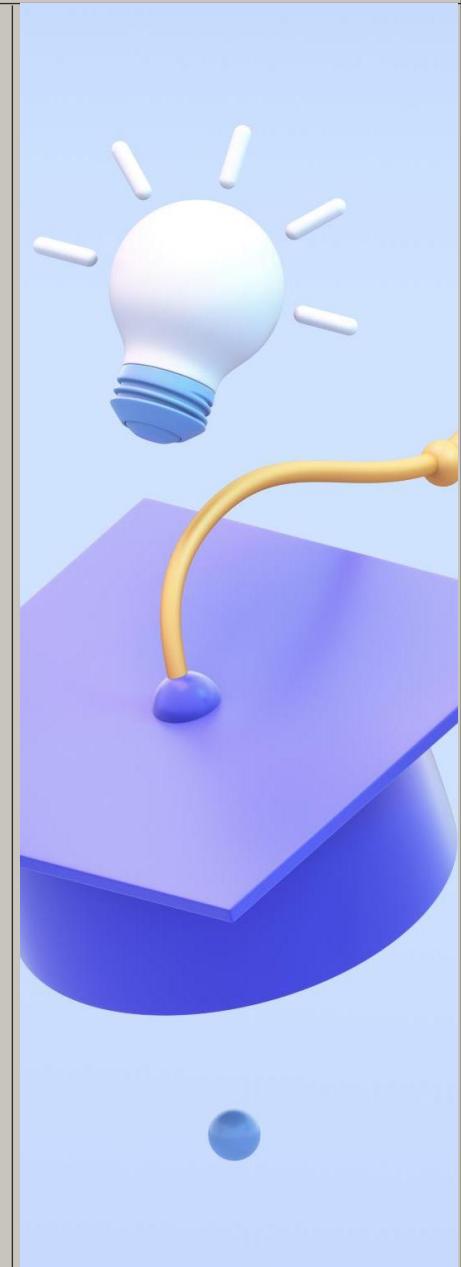
LIVE SCENARIO – THE AFFECTIVE LOOP

Acknowledging Student Emotions

The AI begins by validating the student's feelings, recognizing frustration as a normal part of learning.

Normalizing Learning Struggles

The AI reinforces that struggle is essential for genuine learning, promoting a growth mindset.

Offering Agency and Options

The AI provides choices to the student to break down the problem or use analogies, empowering learner engagement.

Fostering Resilience and Persistence

By addressing emotional and cognitive needs, AI transforms frustration into growth opportunities for learners.
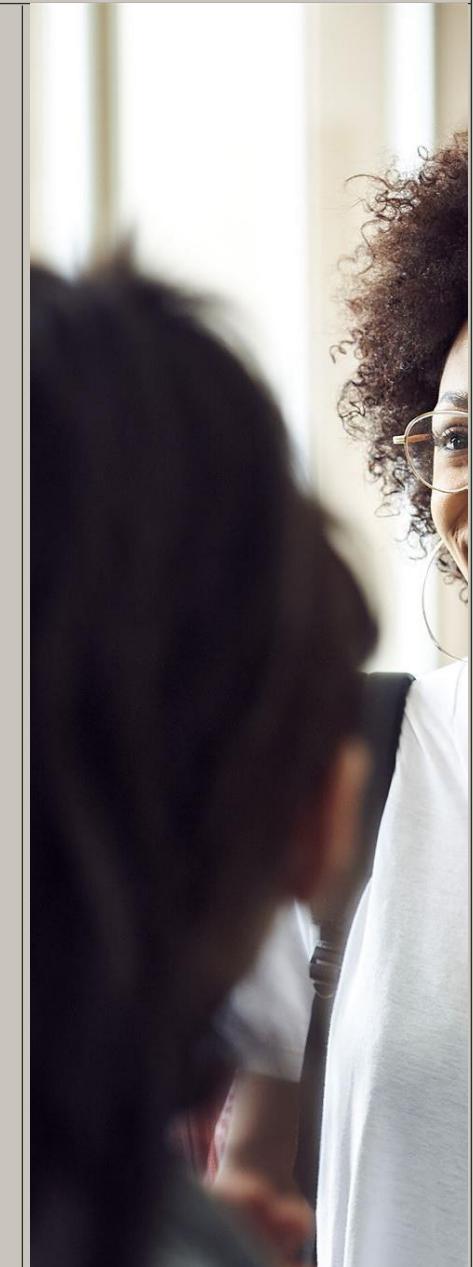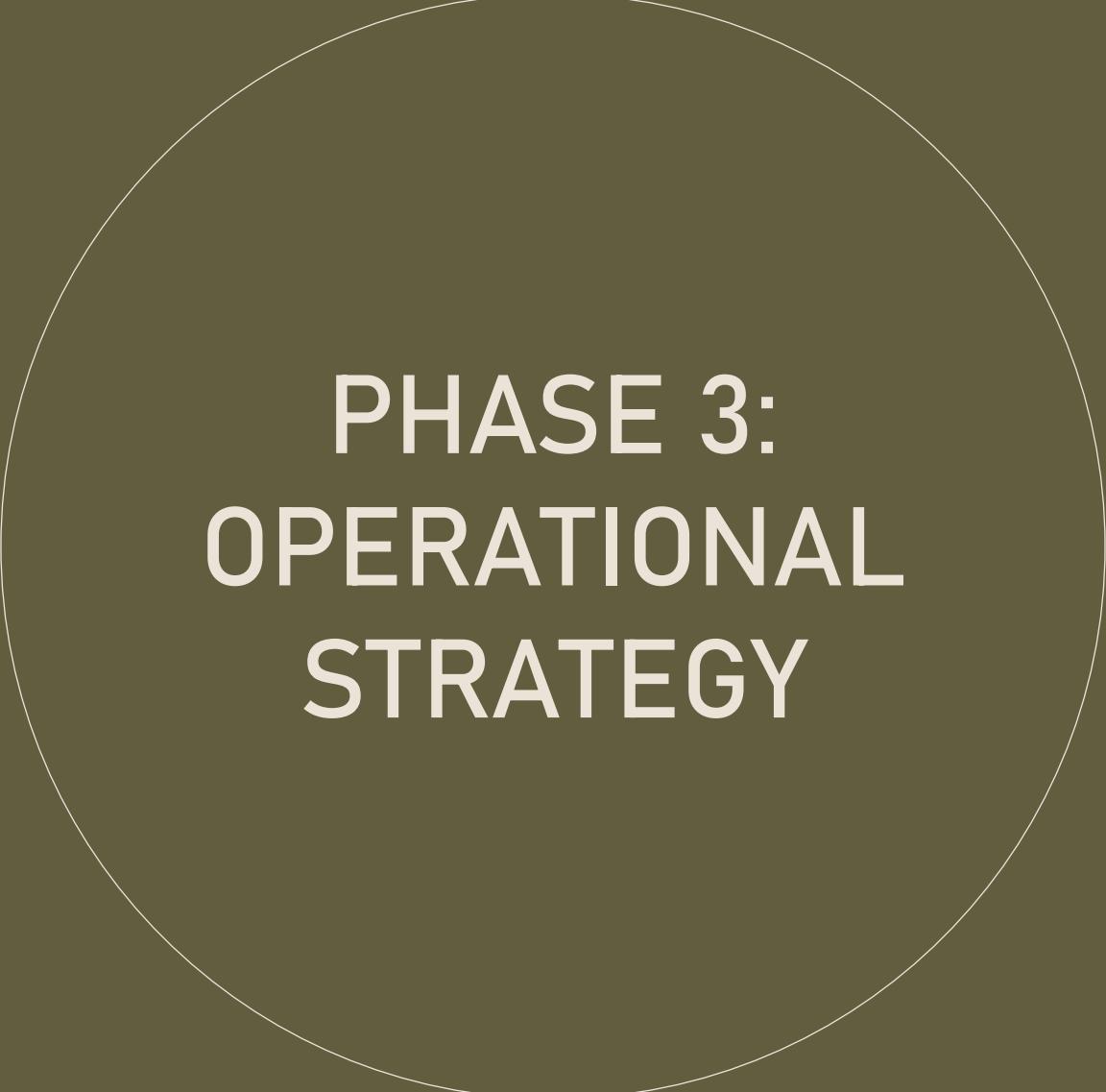
PHASE 3: OPERATIONAL STRATEGY

OPERATIONALIZING AI – GETTING STARTED

Dedicated AI Leadership

Appointing a Chief AI Officer ensures AI leadership bridges academic and operational goals effectively.

Structured Professional Development

Structured programs like eight-week courses provide faculty practical AI skills beyond one-time workshops.

Phased AI Adoption

Starting with productivity tools builds trust and shows value before expanding to complex AI applications.

ADDRESSING THE SECURITY ELEPHANT
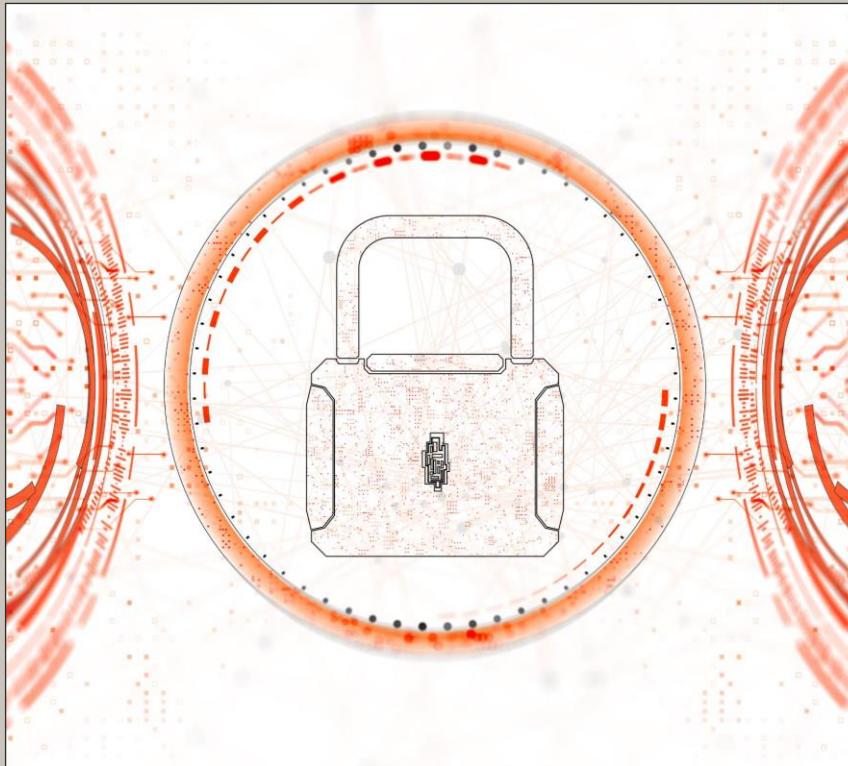
Data Privacy Concerns

Privacy and intellectual property issues limit AI adoption in academia, creating significant barriers for institutions.

Enterprise Security Solutions

Robust enterprise AI solutions offer zero-day retention policies and prevent data misuse for external model training.

Risks of Free Consumer Tools

Lack of secure institutional platforms drives faculty to consumer tools that do not sufficiently protect data.

Institutional Investment Benefits

Investing in enterprise AI solutions enables secure, responsible AI use and mitigates security risks effectively.

THE INVESTMENT
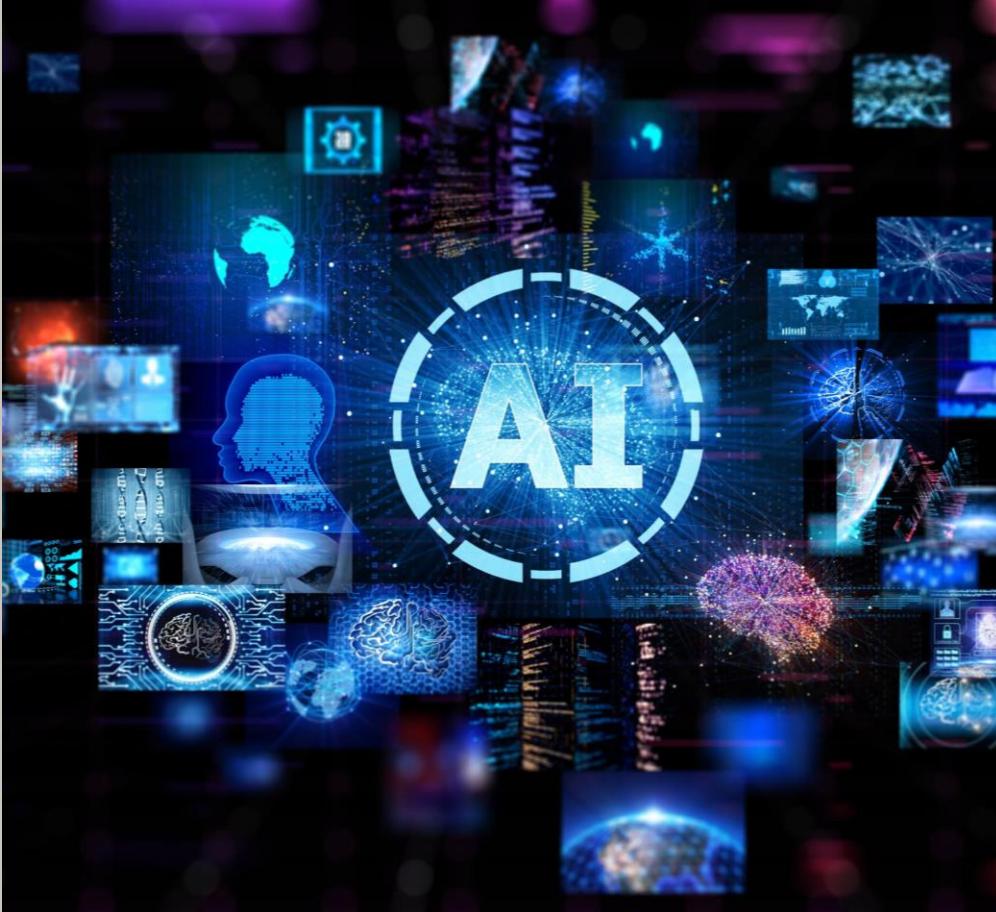
Cost vs Obsolescence

Licensing AI tools may be costly but is essential to avoid falling behind in innovation and efficiency.

Return on Investment

Investing in AI improves student retention through personalized learning experiences and boosts productivity.

Strategic Positioning

Framing AI as a strategic investment prepares institutions for long-term success in a tech-driven world.

PHASE 4: CONCLUSION

THE PATH FORWARD

Building Infrastructure

Institutions must develop governance and security frameworks to support AI integration in education.

Embracing Educational Culture

Cultivating a culture of Socratic learning and productive struggle enables meaningful engagement with AI.

Action and Leadership

Launching pilot programs and investing in leadership and training are essential for AI-enhanced academic excellence.

Transforming Education

AI can transform polarization into pedagogical power, shaping the future of learning positively.

Q&A

Opportunity for Clarification

Q&A session allows academic leaders to ask questions and clarify implementation strategies.

Focus on Practical Steps

Discussion centers on practical next steps, governance, security, and faculty engagement concerns.

Emphasis on Proactive Action

Reinforces urgency of proactive action to adapt concepts within institutional contexts.

Thank you for your attendance today!

- We are hopeful that the presentations today sparked thoughts for your campus or organization

- Post session survey is now open on the website and will remain open until 5pm tomorrow (January 30, 2026) – please provide your feedback to ensure these sessions remain valuable into the future

- Reminder that all content (presentation decks, recording of session, and responses to questions) will be posted to the website post event:

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