NATIONAL ASSESSMENT GOVERNING BOARD

NAEP
12th GRADE
PREPAREDNESS
COMMISSION

The Nation's Report Card and 12th Grade Academic Preparedness

April 10, 2012 Jackson, Mississippi

- An independent, non-partisan board
- Sets policy for and oversees NAEP

- The only continuing, nationally representative, state-comparable measure of student achievement

- Created to increase awareness about academic preparedness, as measured by NAEP

What is NAEP?

NAEP: Gold Standard in Assessing Achievement

Assess what students know and can do:

SUBJECTS	GRADES
Reading, Mathematics, Writing, Science, U.S. History, Civics, Geography, Economics, the Arts, Technology and Engineering Literacy, Foreign Language	4, 8, and 12

RESULTS

Student Achievement Data for the

- Nation
- States
- 21 Urban Districts

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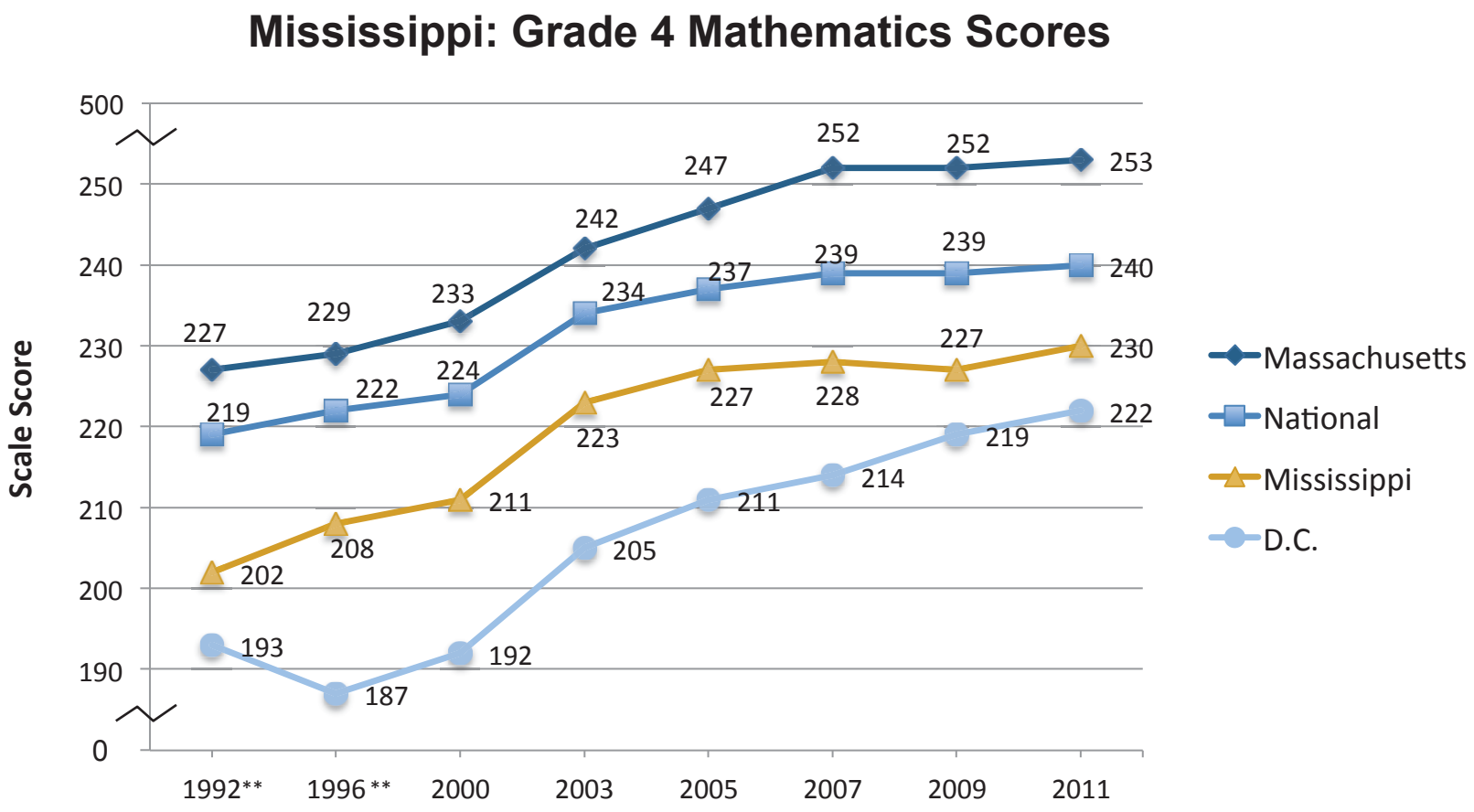
NAEP Provides Mississippi with Data in Comparison to the Nation and Other States



*** Accommodations were not permitted.*

Source: National Center for Education Statistics, 2011

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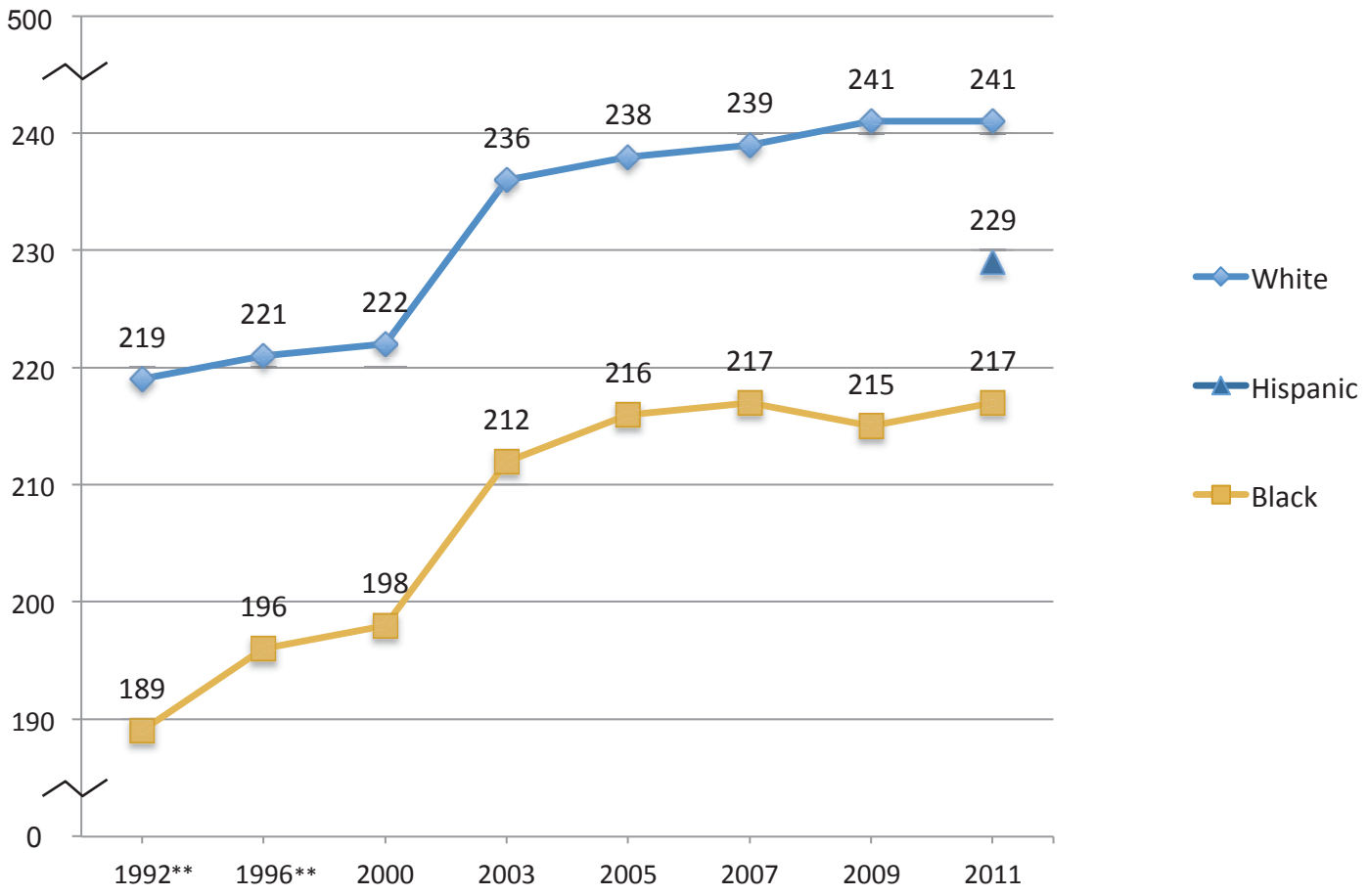
NAEP Reports on Student Achievement Gaps

Mississippi: Grade 4 Mathematics Scores by Race/Ethnicity



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Source: National Center for Education Statistics, 2011

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NAEP Provides Unique Benefits to States

- ★Comparisons across states
- ★Progress over time
- ★Rich information, no cost to the state
- ★Minimal burden on schools
- ★No test preparation

NAEP Provides Unique Benefits to States

- ★ NAEP will put Mississippi's state results in international context.
- ★ **NAEP is the only source of national and state-comparable student achievement data at the 12th grade.**
  - 11 state pilot at 12th grade in 2009 – reading and math
  - Administered again in 2013

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NAEP and 12th Grade Academic Preparedness

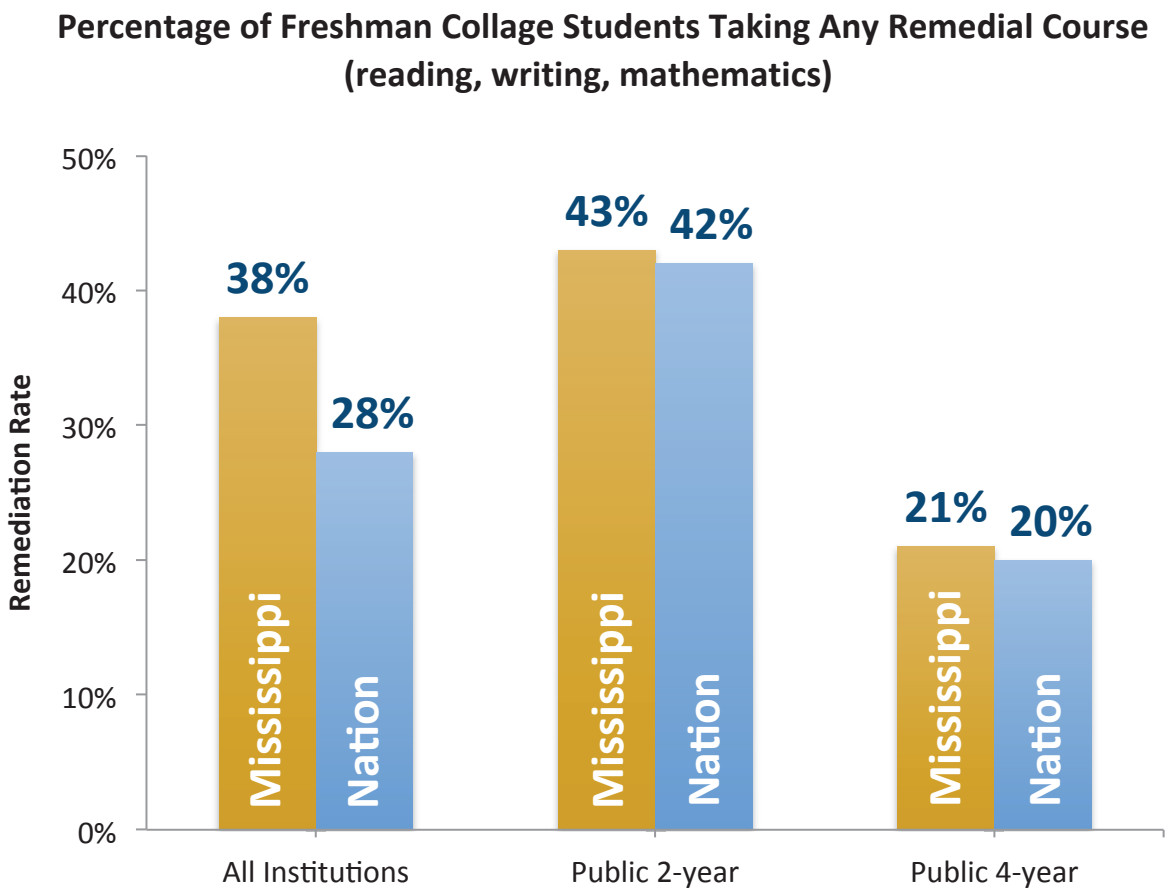
National Blue-Ribbon Panel:

Recommended NAEP Report on 12th Grade Preparedness

The panel's rationale:

- ★ Grade 12: transition to postsecondary education and training.
- ★ The nation needs an indicator of 12th grade student preparedness.
- ★ NAEP—trusted for quality and integrity.
- ★ NAEP—uniquely positioned to serve as preparedness indicator.

Many High School Graduates Are Not Prepared for Entry-Level College Courses



Source: Mississippi Institutions of Higher Learning; Mississippi Community College Board; NCES, 2004.

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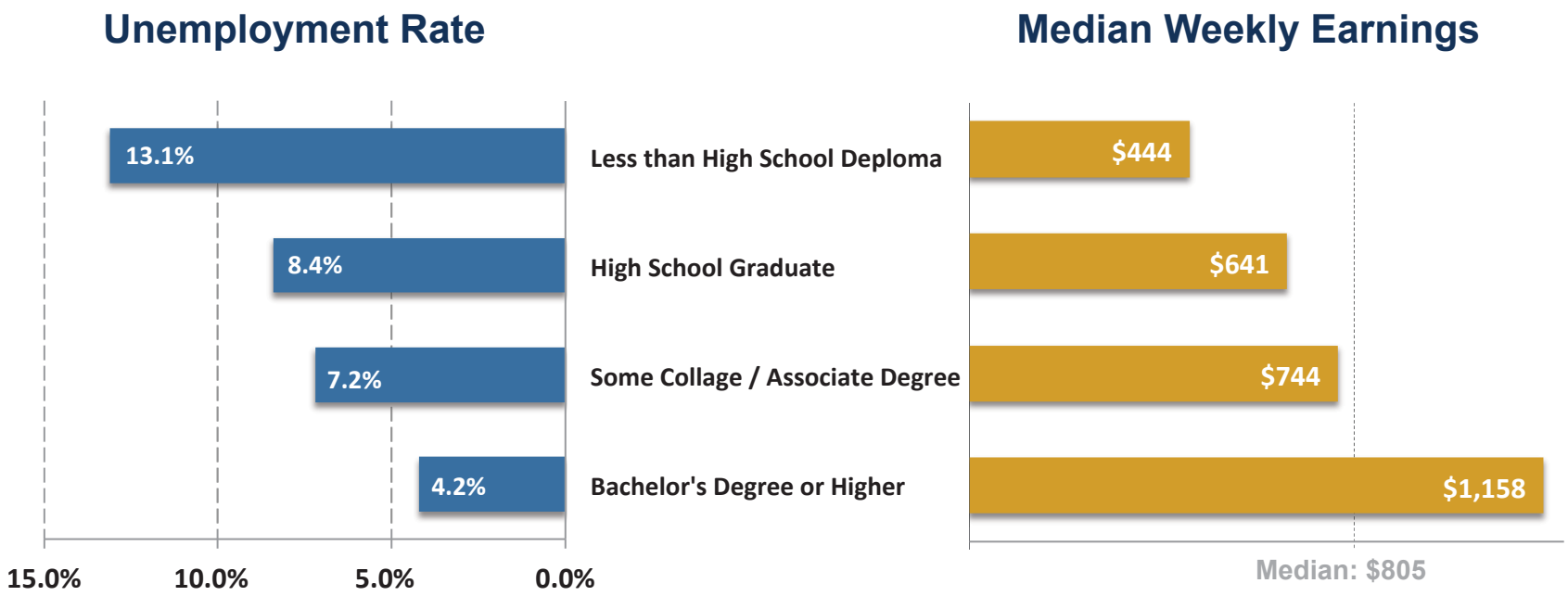
- ★ The costs of remediation are high and far-reaching.

- ★ A high school diploma and academic preparedness are not necessarily the same.

Education Level is Related to Employment and Earnings



Source: U.S. Department of Labor, Bureau of Labor Statistics, January 2012

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Our Global Competitiveness Hinges on Our Graduates' Academic Preparedness

"Because other nations have...the competitive advantage of a low wage structure, the United States must compete by optimizing its knowledge-based resources, particularly in science and technology…."

– National Academy of Sciences,"Rising Above the Gathering Storm"

Changes in demography & labor market

=

Need to close gaps and achieve

high levels of academic preparedness

What We Know, What We Don’t Know

What We Know

On a daily basis we know:

- ★The changes on the stock market
- ★The number of bushels of wheat produced
- ★The price of gold

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What We Don't Know:

Are the nation's 12th graders well-prepared academically for college and job training?

The U.S. has no common definition or measure of 12th grade preparedness

Governing Board program of research:

Transform 12th grade NAEP into indicator of preparedness for postsecondary education and training

The Governing Board's Preparedness Research

The Governing Board's Work on Preparedness: Underway for Nearly a Decade

2002-04	2006	2006-08	2009	2010-11
12th Grade Blue-Ribbon Panel Report	Contract with Achieve to review NAEP in terms of preparedness	Report of Technical Panel on Validity Research	Board Approval of Validity Research Program	Research Studies and Development of Final Preparedness Report

The Governing Board's approach: rigorous, comprehensive, and methodical in making NAEP a preparedness indicator.

Working Definition of Preparedness

- ★ The knowledge and skills needed to **qualify for placement** into entry-level college-credit courses or job training, **without the need for remediation** in math or reading.
  - Assumption: 12th graders need training beyond high school to qualify for a career
  - **"Preparedness"** versus **"Readiness"** – NAEP measures *academic* proficiency
  - Academic skills for college and for job training not necessarily the same

A Comprehensive Plan:
More than 30 Studies in Five Research Areas

Study Types	Questions
Content Comparison	Is the content of NAEP similar to relevant tests?
Statistical Relationships	How does performance on NAEP compare to performance on other relevant tests?
Judgemental Standard Setting	What is the point on the NAEP scale that experts judge as just "academically prepared?"
Survey of Postsecondary Institutions	What are the tests and cut-scores used for placement?
Benchmarking	How do selected reference groups perform on NAEP?

- **Research Results Are Promising**

Content Comparisons:
ACT, SAT, ACCUPLACER

College: ACT, SAT, & ACCUPLACER

- ★ NAEP content is similar to the ACT, SAT, and ACCUPLACER.
- ★ ACT, SAT, and ACCUPLACER content is generally covered by NAEP.
- ★ NAEP is generally broader.
- ★ NAEP differs in some ways:
  - types of test questions
  - cognitive rigor of test questions
  - types of reading texts
  - weighting/coverage of specific content in mathematics

Content Comparisons: WorkKeys

<u>Job Training:</u> WorkKeys

- ★ Some NAEP content is similar to WorkKeys
- ★ WorkKeys measures some content that NAEP does not.
- ★ NAEP is broader.
- ★ WorkKeys Applied Mathematics and Reading for Information focus on the application of foundational skills in workplace situations and NAEP does not.
- ★ NAEP does not have workplace situations as its primary focus.

Statistical Linking

- ★ NAEP and SAT math = **.91** correlation
- ★ NAEP and SAT reading = **.74** correlation
- ★ Proficient on NAEP = 500 on SAT Reading and Math = College Board Readiness Benchmark
- ★ **Florida study**: 12th grade state NAEP and ...
  - ★ ACT, SAT, and ACCUPLACER
  - ★ Employment and salary data
  - ★ Course grades in college and job training programs
- ★ Florida results are confirming of NAEP/SAT results

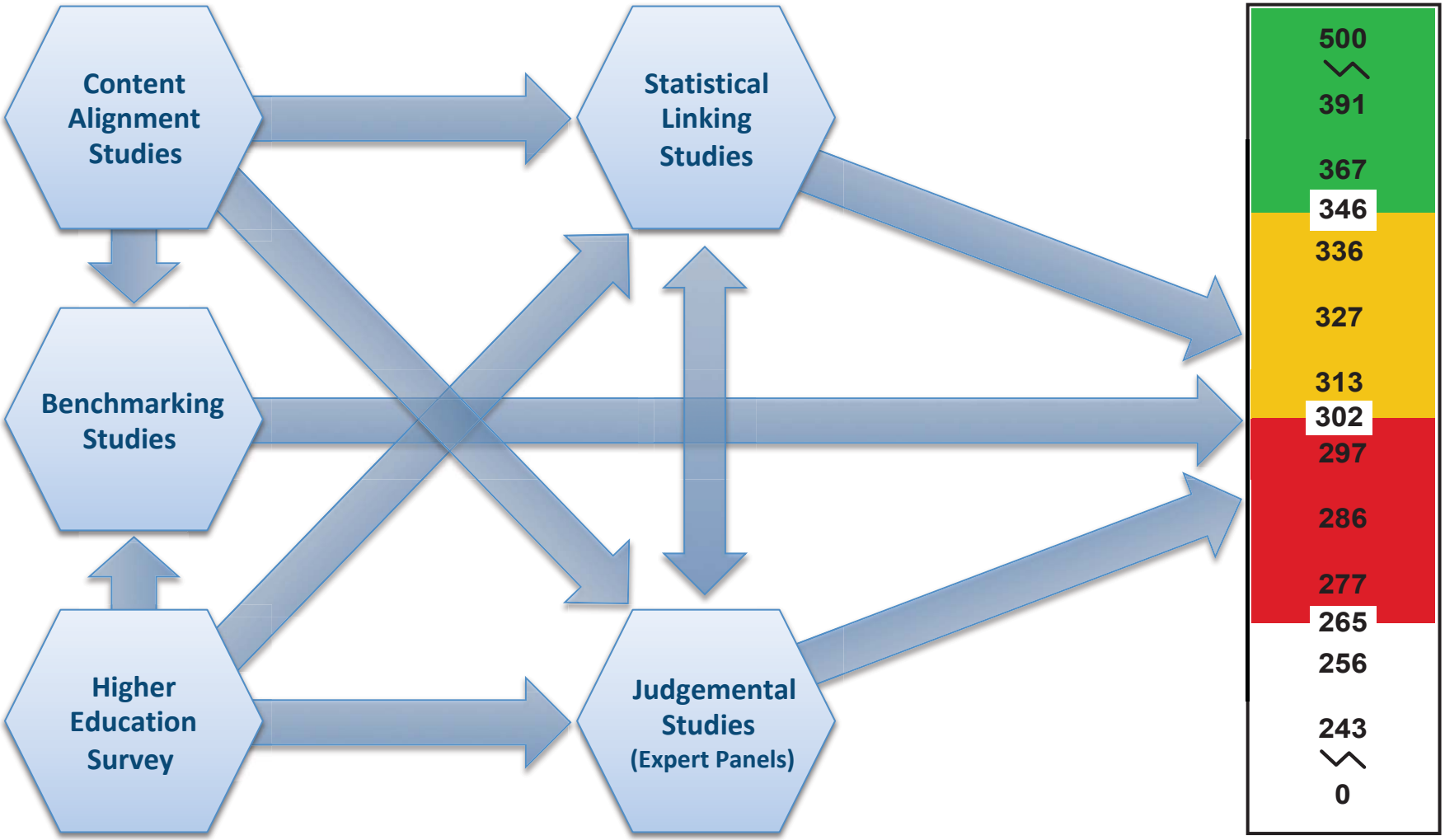
Standard Setting:
12 studies in five job training programs and college placement

- Job training
  - Automotive Master Mechanic
  - Computer Support Specialist
  - HVAC Technician
  - Licensed Practical Nurse
  - Pharmacy Technician
- Criteria
  - Significant numbers, stable or growing positions
  - Range of occupations, civilian/military comparability
  - Training beyond high school, not bachelor's degree
  - Range of reading/math skills
  - Compensation with growth potential
  - Familiar to public

Other Research

- **Job Training Course Content Analysis**
  - Review of course syllabi and textbooks for reading and math demands
- **Benchmarking**
  - Texas postsecondary pilot study
  - Seeking partners for collaboration—job training, military, higher ed., etc.
- **Higher Education Survey**
  - Tests and cut-scores used to place freshmen

Study Interrelationships



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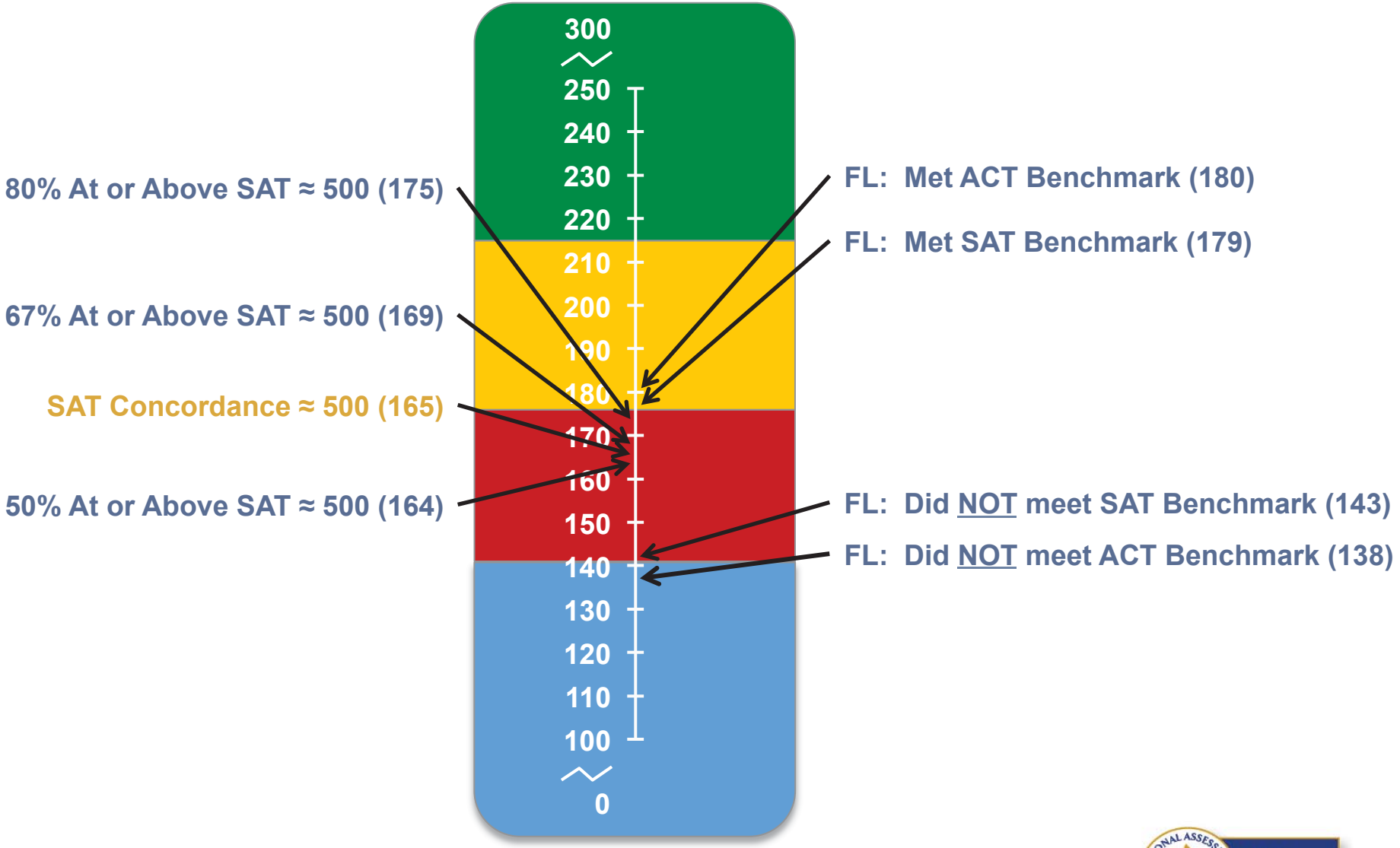
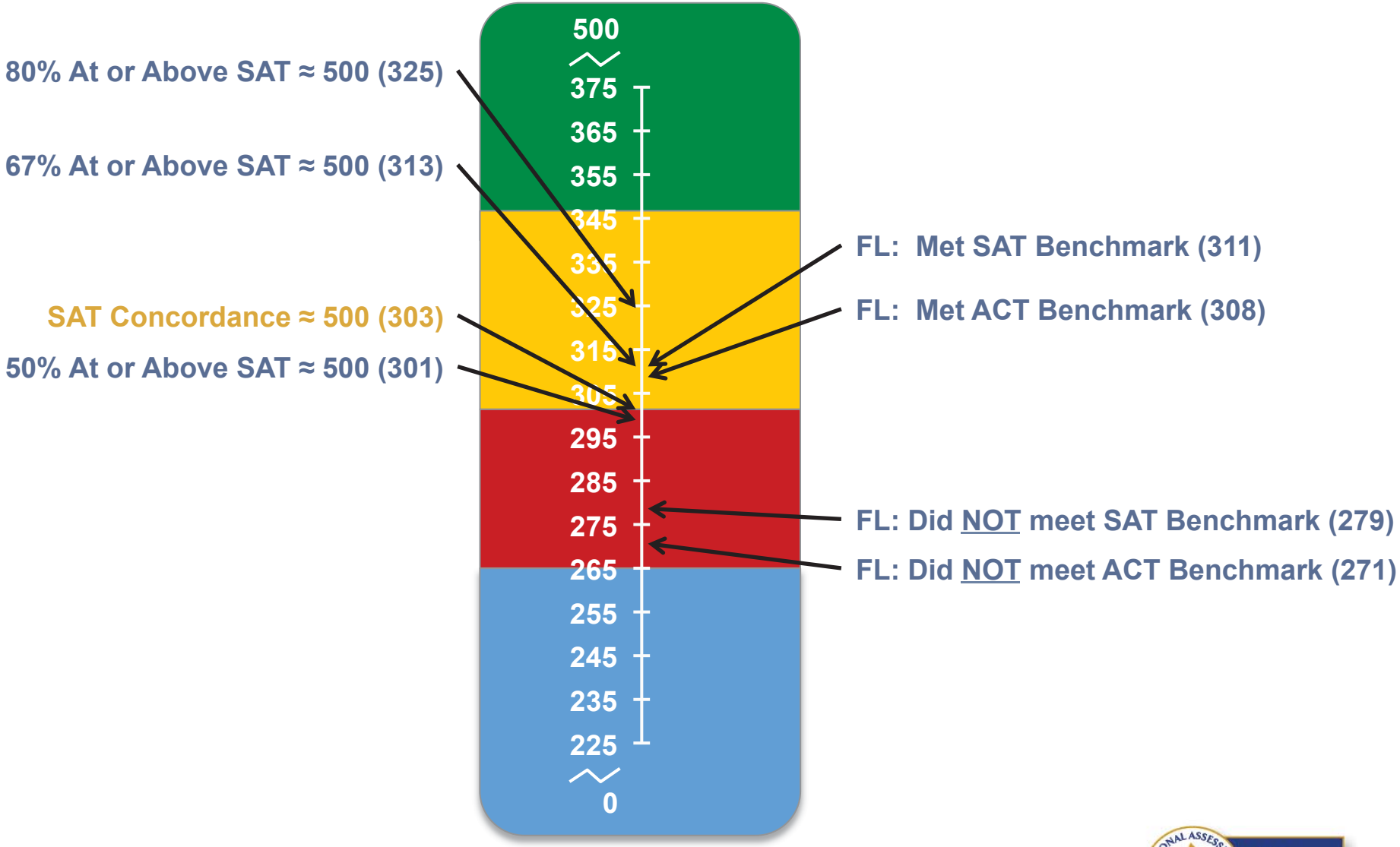
Mathematics Preparedness Findings



Reading Preparedness Findings



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Next Steps

- ★ Review findings with technical experts.
- ★ Develop Preparedness Reports for 2012.
  - Public report (print and electronic)
  - Technical report (electronic only)
- ★ Plan research for 2013 NAEP.

Conclusions

- ★ Governing Board's research is
  - Rigorous, comprehensive
  - Methodologically sound, well documented
- ★ Cautious optimism – NAEP as preparedness indicator.
- ★ NAEP content may not be well aligned with job training requirements.

Panel Discussion

- ★ Potential relevance and use of this research in Mississippi?
  - NAEP as preparedness indicator
  - The NAEP research
  - The research results
- ★ Additional research to consider?
- ★ Potential partners for additional research?

For More Information...

- National Assessment Governing Board: www.nagb.org
- NAEP 12th Grade Preparedness Commission: www.nagb.org/commission
- Preparedness Research and Resources: www.nagb.org/commission/researchandresources