



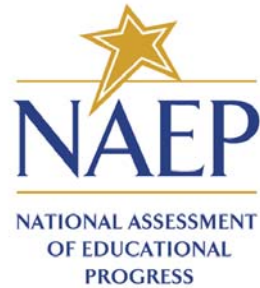
**NAEP**  
12<sup>th</sup> GRADE  
PREPAREDNESS  
COMMISSION

# The Nation's Report Card and 12<sup>th</sup> Grade Academic Preparedness

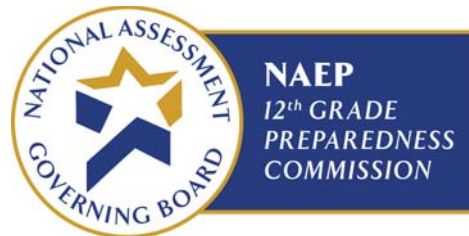
April 10, 2012 Jackson, Mississippi



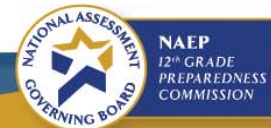
- An independent, non-partisan board
- Sets policy for and oversees NAEP



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



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



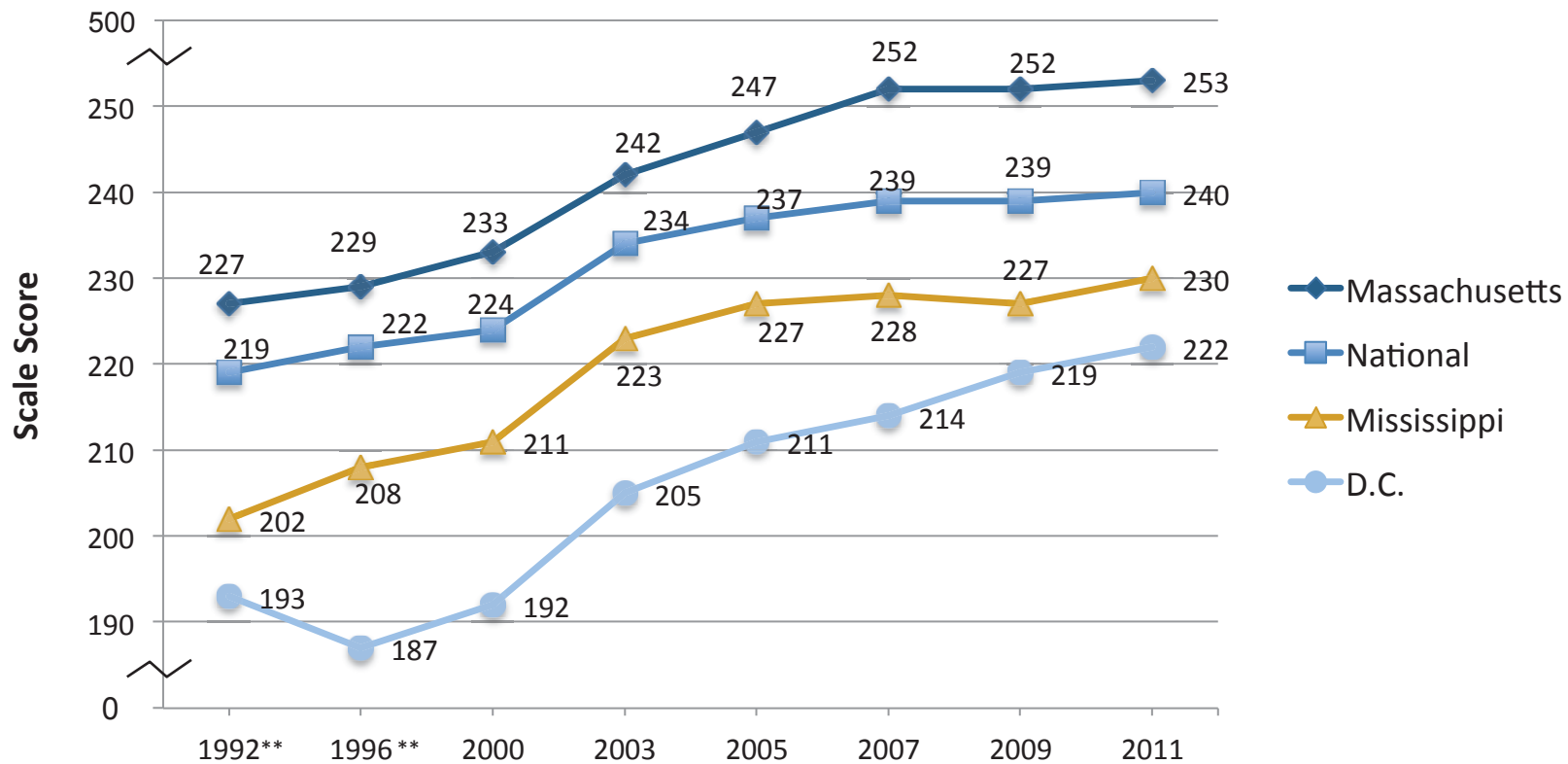
# What is NAEP?

# 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	

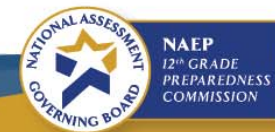
# NAEP Provides Mississippi with Data in Comparison to the Nation and Other States

## Mississippi: Grade 4 Mathematics Scores



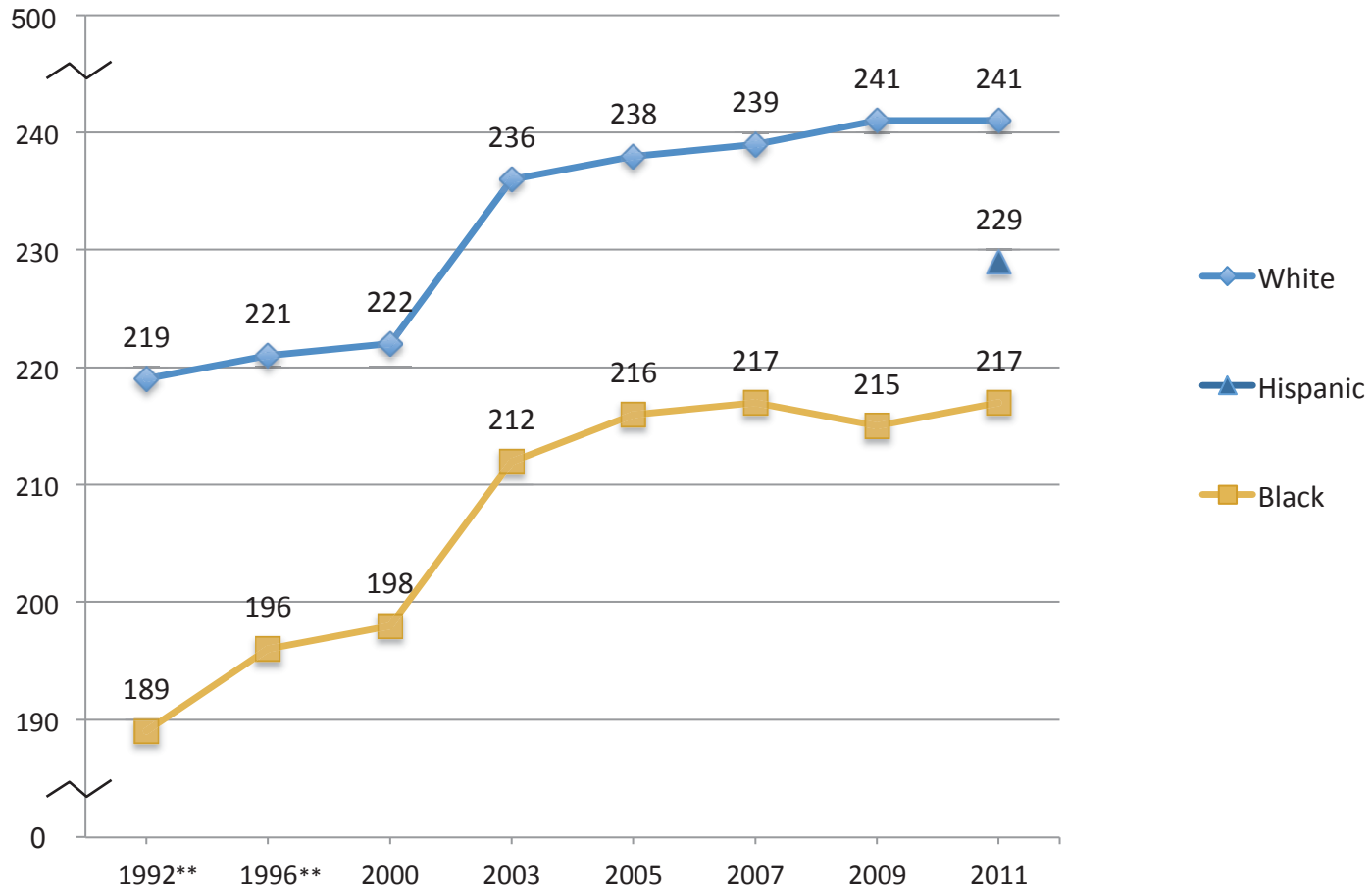
\*\* Accommodations were not permitted.

Source: National Center for Education Statistics, 2011



# NAEP Reports on Student Achievement Gaps

## Mississippi: Grade 4 Mathematics Scores by Race/Ethnicity



\*\* Accommodations were not permitted.

Source: National Center for Education Statistics, 2011

# 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 12<sup>th</sup> grade.**
  - 11 state pilot at 12<sup>th</sup> grade in 2009 – reading and math
  - Administered again in 2013



# NAEP and 12th Grade Academic Preparedness

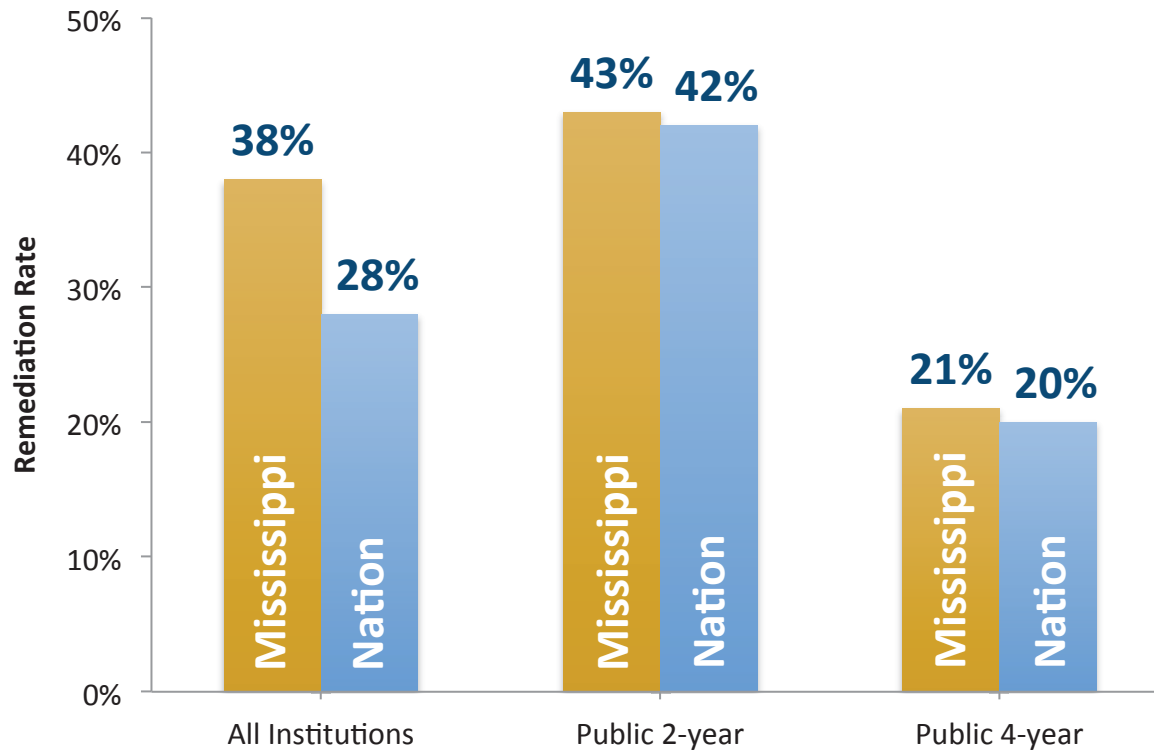
# National Blue-Ribbon Panel: Recommended NAEP Report on 12<sup>th</sup> Grade Preparedness

## The panel's rationale:

- ★ Grade 12: transition to postsecondary education and training.
- ★ The nation needs an indicator of 12<sup>th</sup> 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

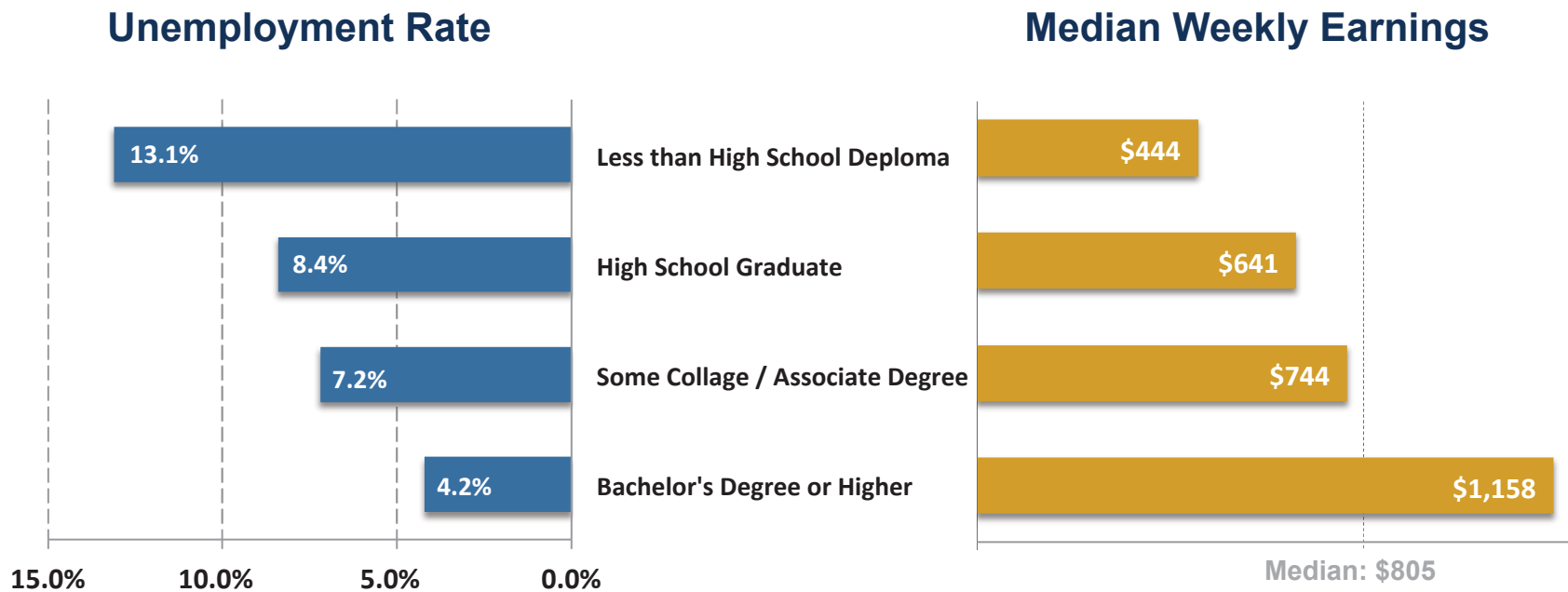
Percentage of Freshman College Students Taking Any Remedial Course  
(reading, writing, mathematics)



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

- ★ **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

# 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



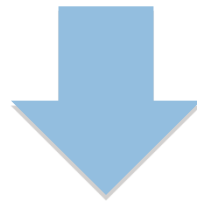
**On a daily basis we know:**

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

## What We Don't Know:

**Are the nation's 12<sup>th</sup> graders well-prepared academically for college and job training?**

The U.S. has no common definition or measure of 12<sup>th</sup> grade preparedness

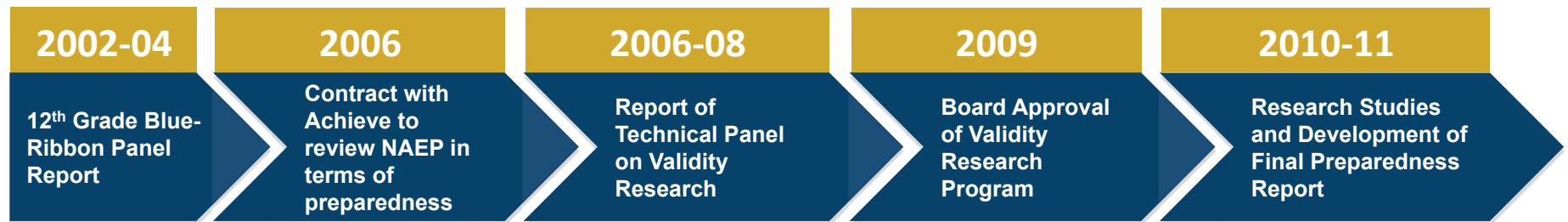


**Governing Board program of research:**

Transform 12<sup>th</sup> 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



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: 12<sup>th</sup> 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

## Job Training: 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:** 12<sup>th</sup> 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

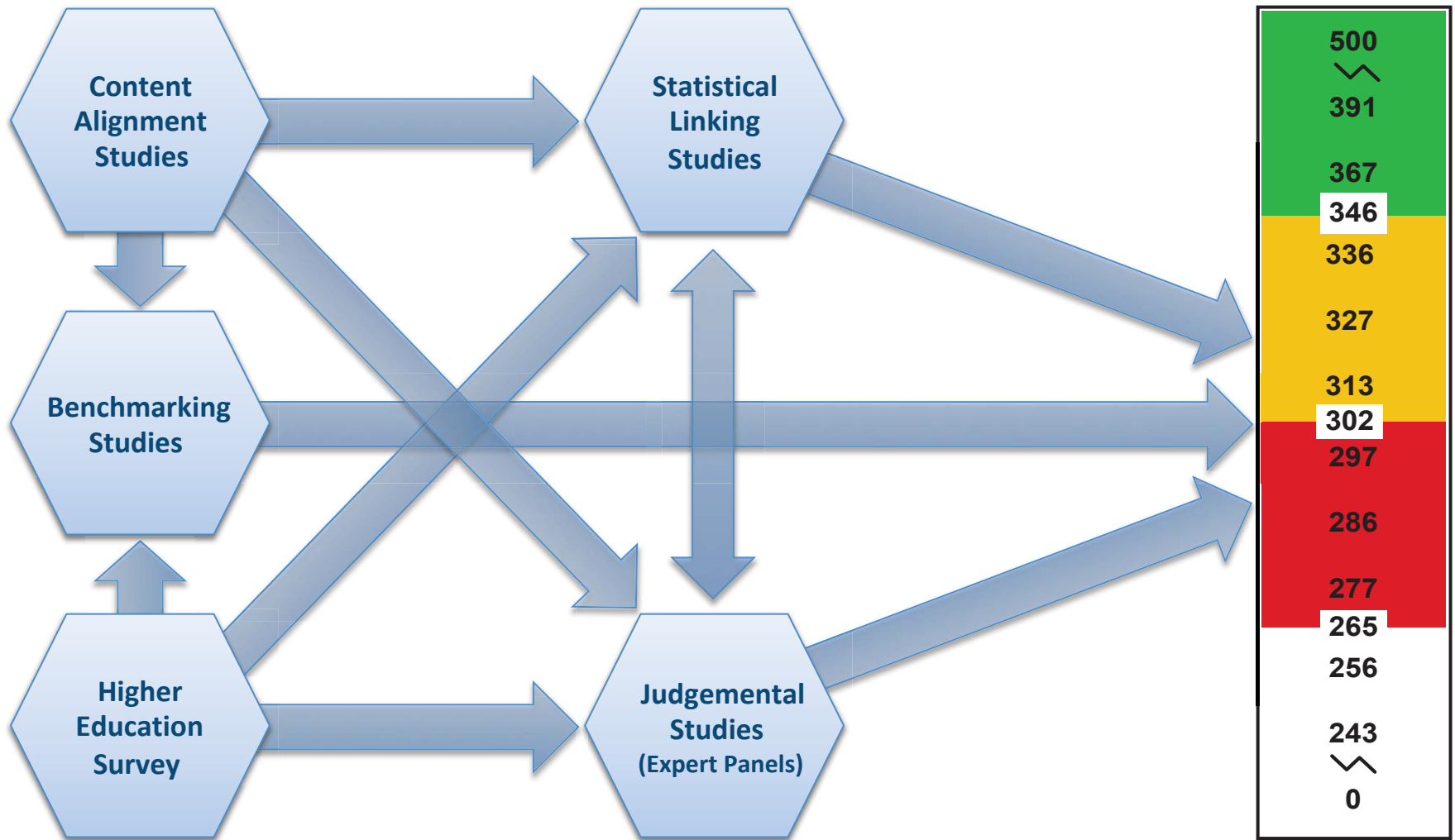
## ★ Benchmarking

- ★ Texas postsecondary pilot study
- ★ Seeking partners for collaboration—job training, military, higher ed., etc.

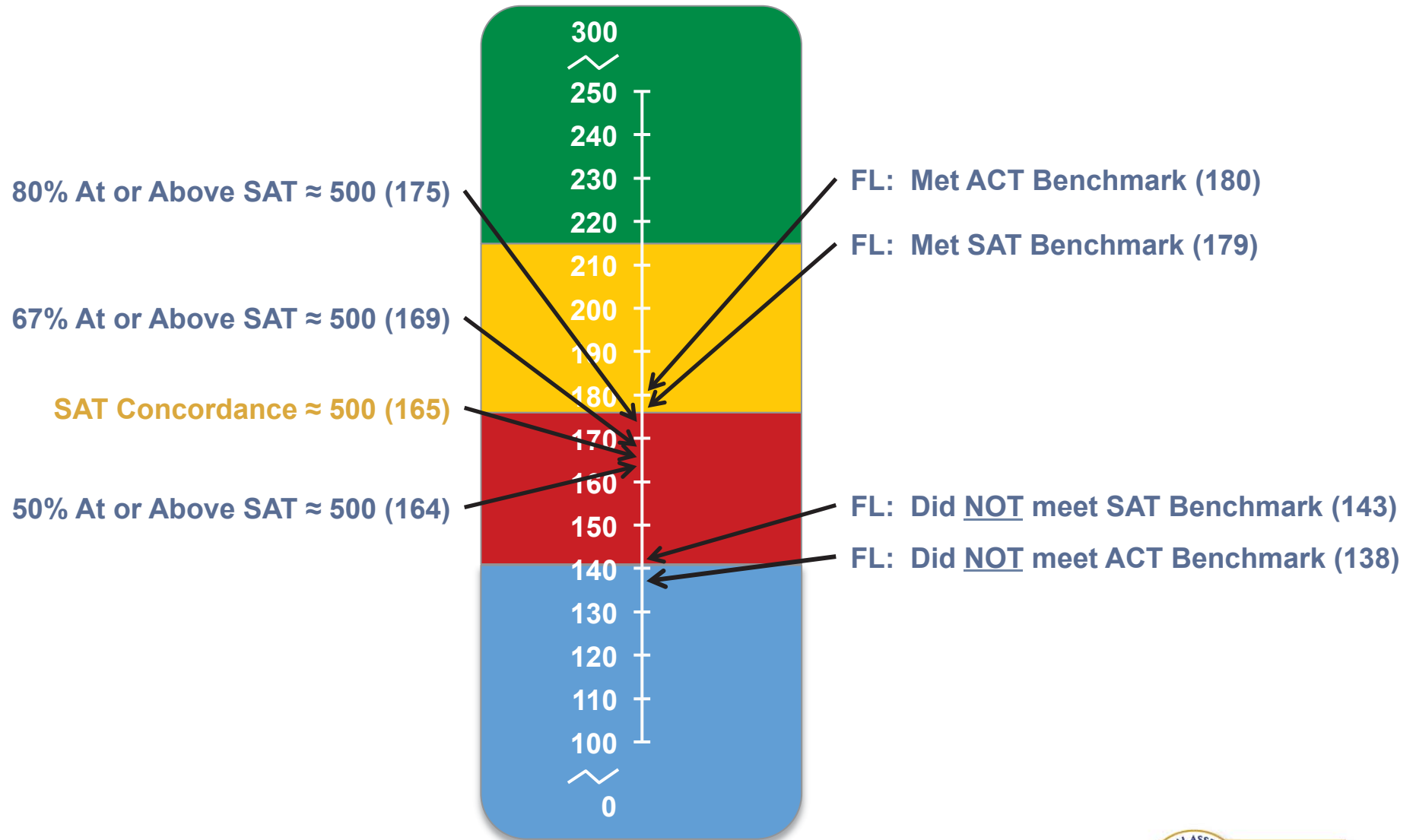
## ★ Higher Education Survey

- ★ Tests and cut-scores used to place freshmen

# Study Interrelationships

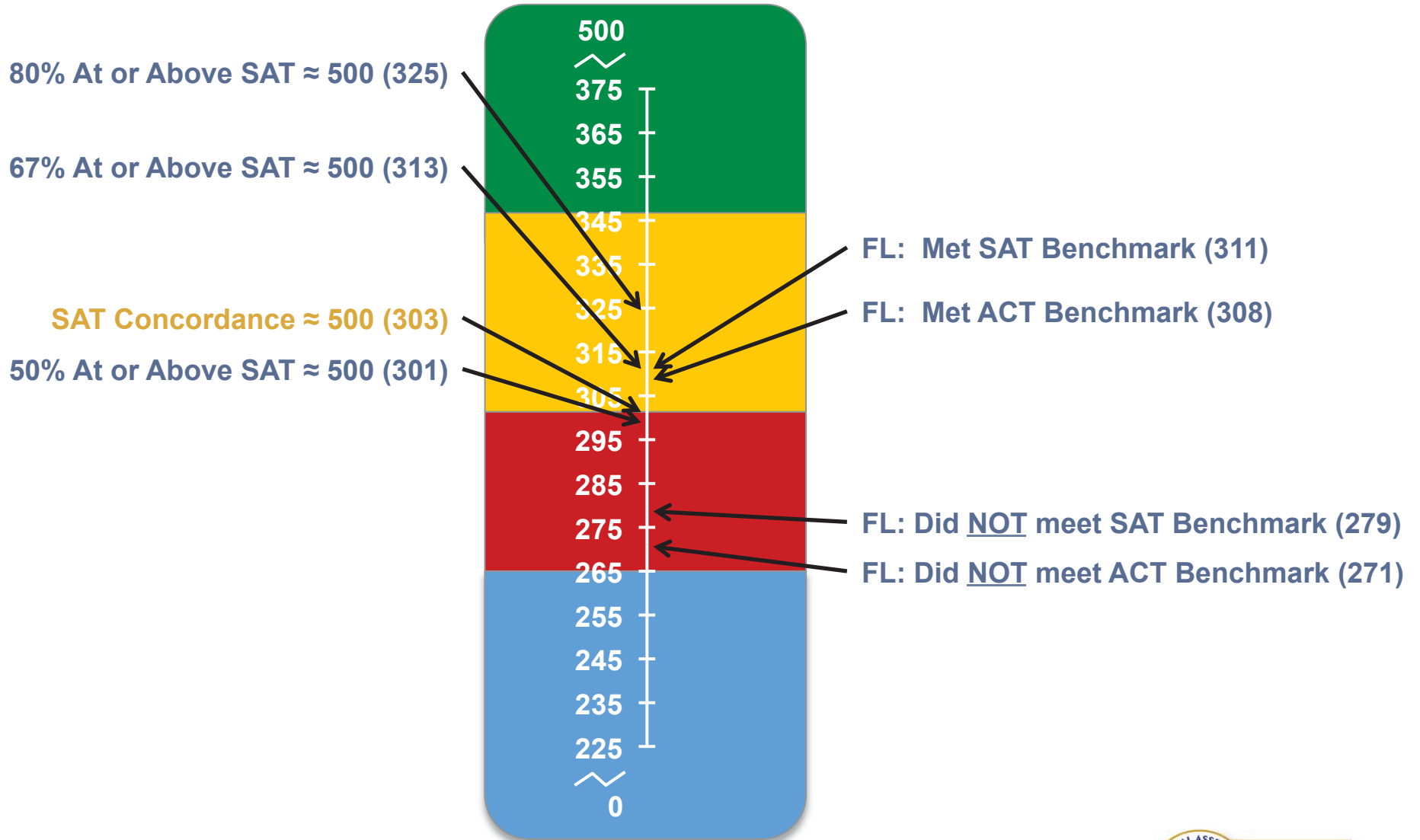


# Mathematics Preparedness Findings





# Reading Preparedness Findings



## 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](http://www.nagb.org)
- ★ NAEP 12<sup>th</sup> Grade Preparedness Commission:  
[www.nagb.org/commission](http://www.nagb.org/commission)
- ★ Preparedness Research and Resources:  
[www.nagb.org/commission/researchandresources](http://www.nagb.org/commission/researchandresources)