• 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?
**Assess what students know and can do:**

<table>
<thead>
<tr>
<th>SUBJECTS</th>
<th>GRADES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading, Mathematics, Writing, Science, U.S. History, Civics, Geography, Economics, the Arts, Technology and Engineering Literacy, Foreign Language</td>
<td>4, 8, and 12</td>
</tr>
</tbody>
</table>

**RESULTS**

Student Achievement Data for the
- Nation
- States
- 21 Urban Districts

---

**NAEP: Gold Standard in Assessing Achievement**
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 12th grade.
  – 11 state pilot at 12th grade in 2009 – reading and math
  – Administered again in 2013
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

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

- **Mississippi**
  - All Institutions: 38%
  - Public 2-year: 43%
  - Public 4-year: 21%

- **Nation**
  - All Institutions: 28%
  - Public 2-year: 42%
  - Public 4-year: 20%

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

**Unemployment Rate**
- Less than High School Diploma: 13.1%
- High School Graduate: 8.4%
- Some College / Associate Degree: 7.2%
- Bachelor's Degree or Higher: 4.2%

**Median Weekly Earnings**
- Less than High School Diploma: $444
- High School Graduate: $641
- Some College / Associate Degree: $744
- Bachelor's Degree or Higher: $1,158

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 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
12th Grade Blue-Ribbon Panel Report

2006
Contract with Achieve to review NAEP in terms of preparedness

2006-08
Report of Technical Panel on Validity Research

2009
Board Approval of Validity Research Program

2010-11
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

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

» 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: 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
Mathematics Preparedness Findings

- 80% At or Above SAT ≈ 500 (175)
- 67% At or Above SAT ≈ 500 (169)
- SAT Concordance ≈ 500 (165)
- 50% At or Above SAT ≈ 500 (164)

FL: Met ACT Benchmark (180)
FL: Met SAT Benchmark (179)
FL: Did NOT meet SAT Benchmark (143)
FL: Did NOT meet ACT Benchmark (138)
Reading Preparedness Findings

80% At or Above SAT ≈ 500 (325)
67% At or Above SAT ≈ 500 (313)
SAT Concordance ≈ 500 (303)
50% At or Above SAT ≈ 500 (301)

FL: Did NOT meet SAT Benchmark (279)
FL: Met ACT Benchmark (308)
FL: Did NOT meet ACT Benchmark (271)

FL: Met SAT Benchmark (311)
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