

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

November 18, 2011 Nashville, Tennessee



- 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?



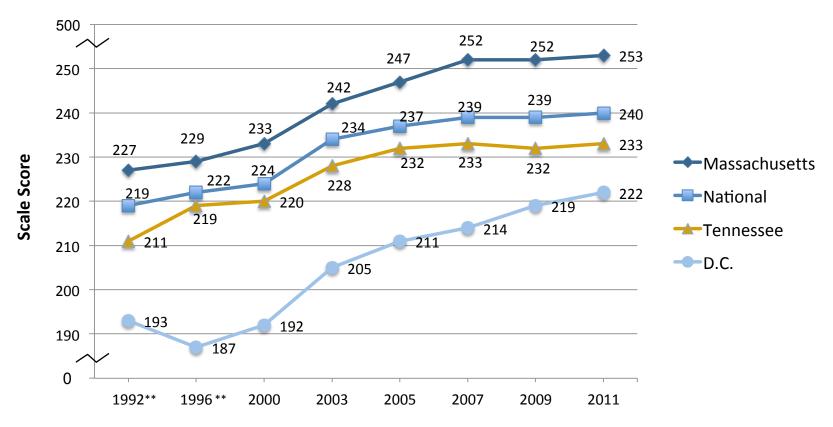
## **NAEP:** Gold Standard in Assessing Achievement

Assesses 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 Tennessee with Data in Comparison to the Nation and Other States

#### **Tennessee: Grade 4 Mathematics Scores**



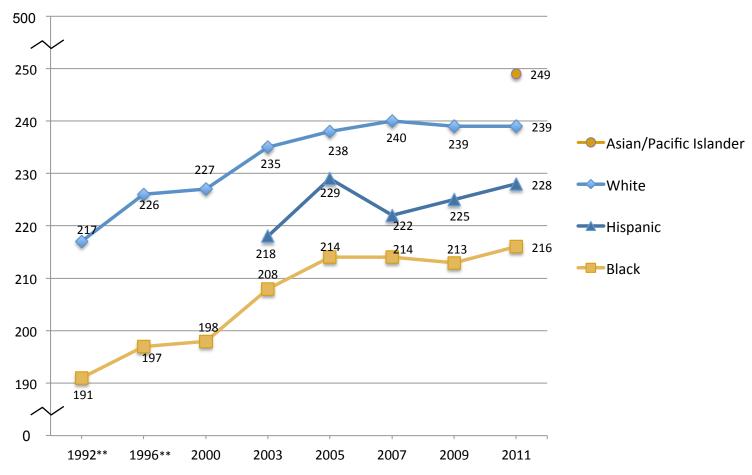
<sup>\*\*</sup> Accommodations were not permitted.

Source: National Center for Education Statistics, 2011



## **NAEP Reports on Student Achievement Gaps**

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



<sup>\*\*</sup> Accommodations were not permitted.

Source: National Center for Education Statistics, 2011



### **NAEP Provides Unique Benefits to States**

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



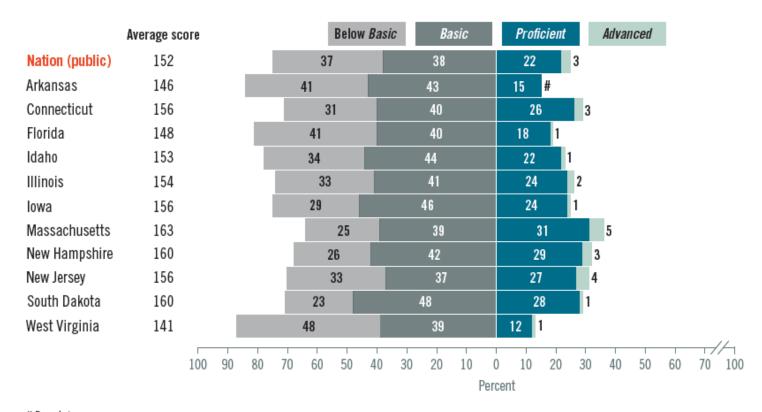
### **NAEP Provides Unique Benefits to States**

- ★NAEP will put Tennessee's state results in international context.
- ★NAEP provides state-comparable achievement data for all states.
- ★NAEP is the only source of national and statecomparable 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 every two years beginning in 2013



## NAEP: Only Source of 12th Grade Comparisons

#### **Grade 12 Mathematics Scale Scores and Achievement Levels**



<sup>#</sup> Rounds to zero.

NOTE: Eleven states participated in the assessment and met the reporting criteria. Detail may not sum to totals because of rounding.

Source: National Center for Education Statistics, 2009



## NAEP and 12th Grade Academic Preparedness



### **National Blue-Ribbon Panel:**

### Recommended NAEP Report on 12th Grade Preparedness

#### The panel's rationale:

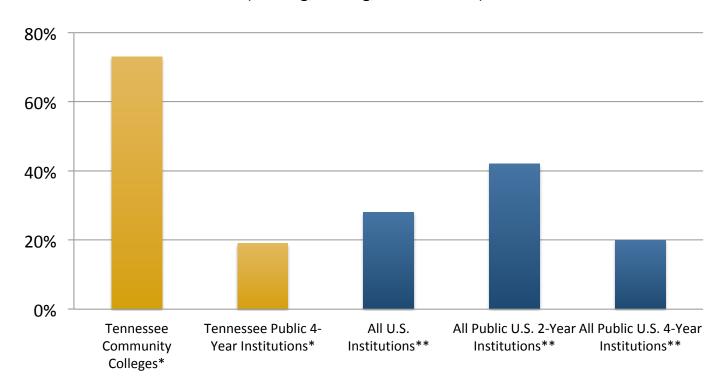
- ★ Grade 12: transition to postsecondary education and training.
- ★The nation needs an indicator of 12<sup>th</sup> grade student preparedness.
- ★NAEP—trusted for quality and integrity.
- ★ NAEP—uniquely positioned to serve as preparedness indicator.



## 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: \*Tennessee Higher Education Commission, 2010; \*\*NCES, 2004



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

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



### Changes in demography & labor market



Need for 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

- **★ Content Comparison**
- **★ Statistical Linking**
- ★ Standard Setting
- ★ Benchmarking
- ★ Higher Education Survey

Early Research Results Are Promising



### **Content Comparison**

★ Significant overlap between NAEP and ACT, SAT, and other tests

### **★ ACT Study:**

- ★ All content in ACT reading and math assessments is included in NAEP
- ★ NAEP's content coverage is broader than ACT's



## **Statistical Linking**

- ★ NAEP and SAT math = about .90 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, ACCUPLACER, COMPASS, SAT, and WorkKeys
  - 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
- ★ Training beyond high school, not bachelor's degree
- ★ Range of reading/math skills
- ★ Compensation with growth potential
- **★** Familiar to public



### Other Research Study Types

### **★ Job Training Course Content Analysis**

Review of course syllabi and textbooks for reading and math demands

### ★ Benchmarking

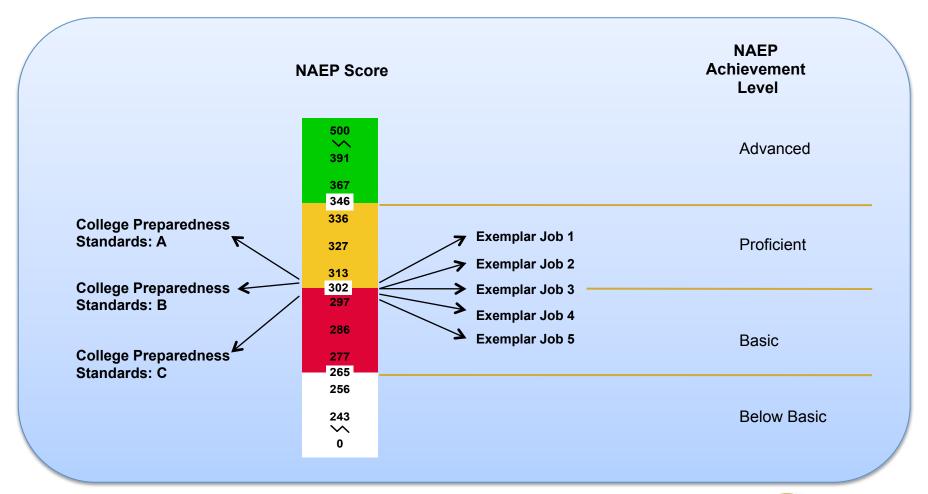
Seeking partners for collaboration—job training, military, higher ed., etc.

### **★** Higher Education Survey

Tests and cut-scores used to place freshmen

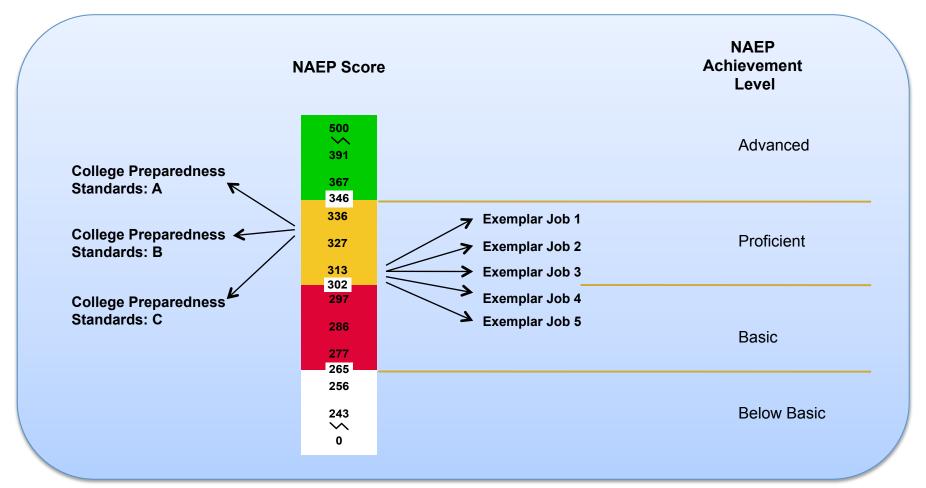


## **Scenario 1: Results Converge**



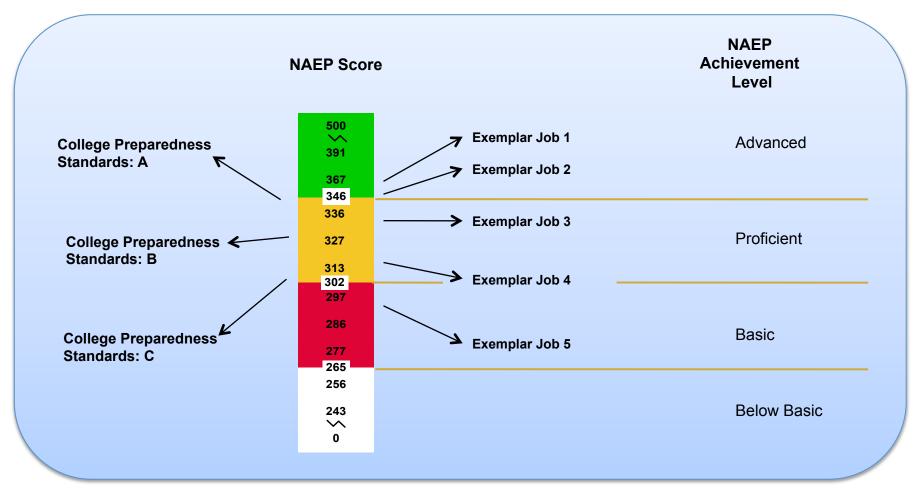


## **Scenario 2:** Results Converge but in Different Ranges on Scale





### **Scenario 3: Results Are Dispersed Across Scale**





## **Implications**

- ★ Potential relevance and use of this research in Tennessee?
- \* Additional research to consider?
- ★ Potential partners for additional research?
- ★ Research to consider were Tennessee to volunteer for 12<sup>th</sup> grade NAEP at the state level in 2013?



# What is the relevance and utility of the NAEP 12<sup>th</sup> Grade Academic Preparedness Initiative to Tennessee?

NAEP as an indicator of academic preparedness

—The NAEP research

The research results



What additional research should be considered in connection with NAEP 12<sup>th</sup> grade assessments in reading and mathematics to be conducted in 2013?

Who are potential research partners?



### For More Information...

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

