

12<sup>th</sup> Grade NAEP as a Measure of College and Employment Preparedness

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## Charge to the Panel

- Determine the technical feasibility of utilizing 12<sup>th</sup> grade NAEP results as measures of college and career readiness
- Assist the National Assessment Governing Board in planning research and validity studies that will enable the National Assessment of Educational Progress (NAEP) to report on the preparedness of 12th graders for postsecondary education and job training



### Preparedness vs. Readiness

- Preparedness is defined as a subset of readiness. Specifically, preparedness focuses on academic qualifications, which are measured by NAEP
- Readiness includes behavioral aspects of student performance—time management, persistence, and interpersonal skills, for example—which are not readily measurable by NAEP



### **Definition of Preparedness**

- Preparedness for college means that the student has the reading and mathematics knowledge and skills to qualify for entry level college credit coursework without the need for remedial coursework in mathematics or reading.
- Preparedness for workplace training means that the student has the reading and mathematics knowledge and skills needed to qualify for job training; it does not require that the student is ready to be hired for a job.
- Preparedness does not mean success in postsecondary education and training.
- The operational definition of preparedness is limited to academic skills in reading and mathematics as assessed by NAEP



# Distinguishing Achievement from Preparedness

- Achievement and preparedness are conceptually different
  - E.g., the NAEP cut score indicating a proficient learner may be different from (higher or lower) than the cut score indicating performance that enables placement into a non-remedial credit-bearing general education course
- NAEP reporting for grade 12 reading and mathematics would include achievement levels as well as preparedness reference points, both on the NAEP scale
- Reference points can be thought of as areas on the NAEP score scale that identify indicators of preparedness for specific postsecondary contexts



## Panel's Conclusions and Strategy

- The Technical Panel concluded that, with the appropriate validity studies, reporting on preparedness using NAEP seems feasible
- The panel debated two strategies to determine feasibility
  - Strategy A: Conduct research to identify whether the NAEP assessment has the properties needed to report on pre-specified statements of preparedness
  - Strategy B: Identify external indicators of preparedness and determine how those indicators relate to the NAEP scale
- The Panel chose Strategy B
  - The intent is to triangulate data from distinctly different sources to illuminate as fully as possible the relationships of interest



# Multi-method Validation Approach

- 1. Content alignment
- 2. Statistical relationship
- 3. Criterion-referenced judgmental standard-setting studies
- 4. National surveys

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## The Array of Study Results: Potential Outcomes

■ Hypothetical Scenario #1: The Ideal Clustering of NAEP Preparedness Reference Points





## The Array of Study Results: Potential Outcomes

■ Hypothetical Scenario #2: NAEP Preparedness Reference Points Cluster with Some Outliers





## The Array of Study Results: Potential Outcomes

■ Hypothetical Scenario #3: NAEP Preparedness Reference Points with Minimal Discernible Patterns





## **Summary Observations**

- Not all comparisons are entirely technical in nature; some skill in combining methods and interpreting results is still required
- Statistical methods, while important, are often not enough in and of themselves to determine relationships of interest
- Validity issues are highlighted in comparisons of this nature, and validity analyses are often more multi-faceted
- The reality is that comparisons of this nature are of interest to assessment users, and methods to make such comparisons need to be developed and refined even if they are technically complex and potentially a bit messy