

RECOMMENDATIONS TO THE NATIONAL ASSESSMENT GOVERNING BOARD ON ALIGNING 12TH GRADE NAEP WITH COLLEGE AND WORKPLACE EXPECTATIONS

READING

FEBRUARY 17, 2005

ANALYSIS OF THE 2009 READING FRAMEWORK

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EXECUTIVE SUMMARY

In the fall of 2004, the National Assessment Governing Board (NAGB), engaged Achieve, Inc. to respond to a recommendation that the National Assessment of Educational Progress (NAEP) be redesigned to report on 12th graders' preparedness for college-credit coursework, workforce training, and military service. This charge was in direct response to the report of the National Commission on NAEP 12th Grade Assessment and Reporting.

Twelfth grade marks the end of high school education and is the gateway to higher education, workforce participation, and military service. Currently the United States lacks a coherent picture of the achievement and preparedness of its 12th grade students. Assessments such as state graduation tests and college admissions and placement exams serve different purposes—and therefore provide fractured information. In this environment, the 12th grade NAEP is ideally situated to fill the assessment gap between high school and college and careers, as it offers a national snapshot of student performance at this critical point of transition to adulthood and citizen responsibilities.

The meaning and value of the high school diploma, and the standards and assessments that comprise it, are central to the work of Achieve, Inc. In 2004, the American Diploma Project (ADP)—a project of Achieve and two other organizations—established a benchmark for this important transition point between the secondary and postsecondary arenas based on research from leading economists, and postsecondary and business leaders. The ADP benchmarks have gained considerable currency nationwide and offer an anchor for high school standards, assessments and graduation requirements.

To explore the implications of redesigning NAEP, Achieve assembled a small group of experts from the K-12, postsecondary, research, and policy communities to examine the issue of reading preparedness for postsecondary pursuits and to analyze the 2009 NAEP Framework at the 12th grade level. In particular, the panel addressed the following issues:

- 1. Is there a single concept of reading preparedness that can be productively defined for students entering college, the world of work, and the military?
- 2. How can the report of the American Diploma Project inform the analysis of the 2009 NAEP Framework, in terms of its content?
- 3. What changes, if any, should be made to the cognitive targets and item construction, to enable reporting preparedness for college, training for employment, and entrance into the military?
- 4. What changes should be considered for the achievement level descriptions in reading to enable reporting of student preparedness?

This analysis explores these four questions, and one other: How can a revised 12th grade NAEP that is intended to assess preparedness for college, work, and military be validated?

Relying on a central tenet of the ADP, a key recommendation in the report calls for NAEP to adopt a single definition of reading preparedness despite the vast array of college, work, and military demands in order to secure the widest possible range of opportunities for *all* students—for further education and training—upon graduation. Rationale for this recommendation springs from the emerging consensus in the nation that college and work demands have converged. Without education and training beyond high school, viable careers will be difficult for students to secure.

Another major recommendation is to increase the percentage of informational text from 60 to 70 percent on NAEP to acknowledge the heavy presence of informational text in the educational experience of high school students, the predominant reading demands in the college classroom, and the "world-of-work" imperative of both NAEP and the ADP. NAEP Reading is not an "English" test in the traditional sense—it is a test of reading in all of its components, and thus should reflect this attention to the broad spectrum of reading demands students will encounter.

At the same time, the panel agreed that increasing the percentage of informational text on NAEP should not threaten the centrality of literary studies in the English language arts classroom. Thus, the Achieve panel recommends that 20 percent of the NAEP Assessment consist of fictional texts. This retains the percentage indicated in the 2009 Framework.

Overall, panelists found the 2009 NAEP Reading Framework was a worthy statement of reading literacy and one that was aligned to the ambitious American Diploma Project benchmarks. To reflect a critical and frequent reading demand, however, the panel recommends that NAEP feature additional items that require students to read and compare the information in multiple texts. So much of what students are going to be asked to do—likely already must do—in their lives is to compare and synthesize the information contained within several texts, not a single text. In the workplace, for instance, employers depend heavily on employees' ability to draw information from multiple sources in order to reject or refine a course of action. Other panel recommendations add clarity and emphasis to specific 12th grade content and cognitive targets contained within the Reading Framework.

To enable meaningful reporting of reading preparedness, the NAEP achievement levels need to reveal the link between the content expectations, the cognitive targets, and the passage complexity of items because it is the interaction of these three elements that contributes to the challenge of an item, and in the aggregate, separates an advanced reader from a more basic reader. They do not do so in their current iteration. Moreover, when NAEP shifts from reporting proficiency in meeting the goals of a standards-based curriculum to reporting preparedness for college and careers, NAEP should review the performance descriptors for applied literacy skills in the context of work and citizenship such as the National Adult Literacy Survey (NALS) and Programme for International Student Assessment (PISA).

As our study unfolded, it became obvious to the panel that any assessment that focuses on college and career preparedness faces a daunting challenge of validation. Based on recommendations from testing experts, the panel outlines various approaches that have different purposes, advantages and liabilities.

This report endorses the idea of a redesigned NAEP to focus on reading "preparedness" for college, work, and entrance to the military and, we hope, presents NAGB with specific, actionable strategies to bring this worthy idea to fruition.

INTRODUCTION

In March 2004, the National Assessment Governing Board (NAGB) received a report from a National Commission it had established to "review the current purpose, strengths, and weaknesses" of the 12th grade National Assessment of Educational Progress (NAEP). In the fall of 2004, NAGB engaged Achieve, Inc. to respond to a major NAGB Commission recommendation that NAEP be redesigned to report on 12th graders' preparedness² for college-credit coursework, workforce training, and entrance into the military. Rather than merely asking how well students learned what they were taught in elementary and secondary school—NAEP's original purpose—the Commission urged that a redesigned 12th grade NAEP become a dependable measure of how well students are prepared for postsecondary pursuits.

To explore the means and implications of redesigning NAEP, NAGB asked Achieve to prepare a concept paper that examines the 2009 NAEP Reading Framework at the 12th grade level against the reading demands of college, military, and the world of work in order to create a tighter link between the national assessment and these destinations. Achieve assembled a small panel of experts drawn from K-12, postsecondary, research, and policy communities to:

- 1. Determine how NAEP should define student preparedness in reading for college, training for employment, and entrance into the military, drawing on research from ADP;
- 2. Determine the extent to which the NAEP Framework embodies the expectations of the American Diploma Project and what, if any, changes should be made to the Framework's knowledge and skills;
- 3. Determine what changes NAEP should make to item construction and cognitive targets to better reflect postsecondary college and career demands; and
- 4. Determine what changes should be made to the achievement level descriptions in reading to enable meaningful reporting of student preparedness.

The timeline provided for this work was limited, due to the commitment on the part of NAGB to provide NCES with revised specifications in reading by February 2005 for a proposed 2007 12th grade assessment. Achieve began this work in fall of 2004.

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¹ National Commission on NAEP 12th Grade Assessment and Reporting. 12th Grade Student Achievement in America: A New Vision for NAEP. A Report to the National Assessment Governing Board, March 5, 2004.

² Achieve panel members replaced the commonly used term "readiness" with the term "preparedness" to ensure readers of this concept paper did not view our discussion of reading as a basic skill that is taught (and learned) once and for all in the first few years of school. Rather, preparedness for the workplace and college entails the ability to comprehend complex text. See a fuller discussion of this issue under the section entitled, Parameters of the Review.

Background

Data from many sources suggest a major disjuncture between student aspirations and accomplishments. While the high school diploma is supposed to reflect adequate preparation for the intellectual demands of adult life, in reality it falls far short of its common sense goal. Nearly half of all high school graduates (41 percent) face remediation in college—undoubtedly startling (and disheartening) to many, as they must pay for coursework that yields no college credit. Students who begin in remedial reading and mathematics courses take longer to complete programs, and have a much lower probability of earning a two- or four-year degree. The situation is no better for graduates who want to begin careers. A majority of workers give high schools a grade of C or below for their efforts to prepare students for success on the job. Employers pay a stiff price annually for the lack of academic preparation among workers. One study estimates the annual cost of remedial training in reading, writing, and mathematics to a *single* state's employers at nearly \$40 million.

Researchers from Stanford University's Bridge Project revealed major discrepancies between high school expectations and college entrance and placement requirements. ⁶ The current fractured system is undermining student aspirations by failing to send clear signals about what constitutes adequate preparation for college. The recommendation to redesign the 12th Grade NAEP from a retrospective accountability tool to a prospective measure of student preparedness would help to close the gap and make the NAEP 12th grade assessment a profoundly different and unique test that would have new relevance to students, educators, and policymakers. Such an assessment could provide clearer signals to educators and students about preparation necessary for life and work in contemporary society, and also provide policymakers with important data on college and work preparedness. Existing instruments such as state high school graduation tests, SAT and ACT college admission exams, college placement tests, and AP (Advanced Placement) exams all serve different and more limited purposes. The 12th grade NAEP is ideally situated to fill the assessment gap between high school, college, and careers: it offers a snapshot of students' performance and understanding at the point of transition to adulthood and citizen responsibilities.

NAGB turned to Achieve because of its efforts, in conjunction with The Education Trust and the Thomas B. Fordham Foundation, to establish a benchmark for this important transition point. In 2003, the American Diploma Project, after a two-year study, published a set of recommendations aimed at re-establishing the value of the high school diploma and creating a tighter link between the secondary and postsecondary worlds. One of ADP's key recommendations reflects the motivation for this very analysis: to

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³ National Center for Education Statistics. *The Condition of Education 2001*, 2001.

⁴ Michael W. Kirst. "College Preparation and Grade 12 NAEP." Paper prepared for NAGB, September 2003, p. 4.

⁵ Mackinac Center for Public Policy. *The Cost of Remedial Education*, 2000.

⁶Andrea Venezia, Michael W. Kirst, and Anthony L. Antonio. *Betraying the College Dream: How Disconnected K-12 Postsecondary Education Systems Undermine Student Aspirations.* Final Report of the Bridge Project, Palo Alto, CA: Stanford Institute for Higher Education Research, p. 3.

⁷ The American Diploma Project. *Ready or Not: Creating a High School Diploma that Counts*. Washington, DC: Achieve, Inc., 2004. (URL: http://www.achieve.org/achieve.nsf/AmericanDiplomaProject)

revise the 12th grade NAEP in reading so that it will provide information on the extent to which high school seniors are ready for college and work.

The American Diploma Project

The ADP defines a set of "must have" competencies for graduates in English and mathematics. These competencies were developed with input from various contributing experts: leading economists who analyzed projections for jobs that pay enough to support a family and provide potential for career advancement; frontline managers from 22 highgrowth occupations about the skills they believed were most useful for their employees; and postsecondary and business leaders from five partner states (Indiana, Kentucky, Massachusetts, Nevada, and Texas) concerning the knowledge and skills required for success in both college and work. These three strands of research converged on a set of ambitious demands for English and mathematics that emphasize strong analytical skills staples in college classrooms and in jobs that lead to strong careers. The ADP skills offer an anchor for high school assessments and graduation requirements that have gained considerable currency nationwide. They are grounded in empirical evidence of what the postsecondary world actually requires of its employees and students. Every attention was given to the ways in which each of the benchmarks was critical to the study of not only English and literature, but also to the study of academic subjects within the humanities, sciences and social sciences. As such, they reflect fundamental reading competencies for graduates who aspire to further education, advanced training, and high-growth, high skill jobs, without regard to their specific destination.

The college and workplace *reading* demands of the ADP are organized under four strands. As the following digest illustrates, informational text, as defined by the 2009 NAEP framework (exposition, argumentation and persuasion, and procedural and document text) predominates in the ADP.

Language

Within this strand, the ADP includes several vocabulary benchmarks, including requirements that students understand morphology (the study of the structure and form of words). The benchmarks also expect students to understand language and word choices used to convey the symbolic nature of ideas, emotions, and actions in literature and informational text.

• Logic

The competencies included here require students to think critically, logically and dispassionately about what they read. They require high school graduates to judge the credibility of sources, evaluate arguments and the evidence used to support or oppose them, identify false premises and logical fallacies, and understand and convey complex information.

• Informational Text

These competencies require that students read and interpret a wide range of reference materials that may contain technical information, including intricate charts and graphs. Students are expected to comprehend, interpret, and judge the quality of information and evidence represented in such texts. The benchmarks highlight the need for graduates to integrate information (compare or connect) across a set of texts as they develop and defend their own conclusions. They also expect students to know how to tolerate ambiguity in text.

Literature

The ADP benchmarks expect that graduates know how to analyze a variety of rich literature, in particular 18th and 19th century foundational works of American literature and foundational U.S. documents for their ideas and their aesthetic and expressive elements. Students are expected to read text closely and provide evidence from literary works to support interpretations about themes and other literary elements.

In addition to the reading benchmarks, the ADP includes benchmarks in the domains of media, research, writing, and listening and speaking.

Above and beyond the subject-matter benchmarks, the ADP includes several recommendations for how educational policy and practice can more effectively prepare students for work and college:

- Encourage other disciplines—humanities, social sciences, and sciences—to reinforce college and workplace readiness expectations in English and mathematics.
- Align state standards and graduation requirements with the knowledge and skills necessary for success in postsecondary education, work, and entrance into the military.
- Align tests to "measure what matters," and make it count. In particular, require students to pass benchmarked high school graduation exams before earning a high school diploma.
- Regularly validate high school assessments as accurate predictors of postsecondary performance (grades, jobs, persistence, degree attainment).
- Revise high school assessments so that they can be used for college admissions and placement.
- Inform high schools of the academic and job performance of their graduates.

The 2009 NAEP Reading Framework at 12th Grade

While the 2009 Framework honors many aspects of the 1992 Framework, it also introduces some changes that are designed to embody reading and analytical skills needed for rigorous college-level courses and other postsecondary endeavors. The reading assessment reports how well students perform in reading various texts and responding to those texts by answering multiple-choice and constructed-response questions. At grade 12 the ratio is 40:60.

For the first time in NAEP, vocabulary will be measured explicitly with the potential for a vocabulary subscale. Vocabulary items will function both as measures of passage comprehension and a test of readers' knowledge of the intended meaning of a word.

Separate subscales also will be reported for literary and informational text, reflecting international reading assessments. The 2009 Framework classifies informational texts into three broad categories (these relate to the types of reading included under ADP's Informational Text and Logic Strands):

- Exposition presents information and provides explanations. At grade 12 it includes complex political, social, historical and scientific essay formats, in addition to historical documents, news and feature articles, research reports, book reviews, and a variety of analytical and informational articles.
- Argumentation and persuasive texts accomplish many of the same goals as exposition but are distinguished by authors' appeals that direct readers to specific goals or specific beliefs. At grade 12, these include political and social commentary essays, historical accounts that argue a position or take a stance, and position and policy papers.
- Procedural texts and documents may be primarily prose, arranged to show specific steps toward accomplishing a goal or may combine both textual and graphic elements to communicate to the user. In addition, the Framework calls for stand-alone documents at grade 12, such as complex forms and applications. The key distinguishing feature of this genre is whether successful completion of the relevant procedure(s) depends critically on pragmatic considerations.

As in the ADP benchmarks, students are expected to read informational texts with comprehension, as well as for the specific craft behind the authors' choices of words, phrases, and structural elements.

Whether informational or literary, passages selected as stimulus material under the 2009 Framework must be authentic texts that evidence characteristics of good writing and coherence and reflect our literary heritage by representing many historical periods.

The 2009 NAEP Reading Framework includes three classes of cognitive targets: Locate/Recall, Integrate/Interpret, and Critique/Evaluate. The term, cognitive targets,

refers to "the mental processes or kinds of thinking that underlie reading comprehension." These cognitive targets are hierarchal, ranging from lower levels of cognitive demand to higher or more complex levels of demand. Cognitive targets identify the cognitive dimension or the type of performance required by each item. For instance, an assessment item may require students to recall information or make some sort of inference or judgment. NAEP items will reflect cognitive dimensions that are applicable to both literary and informational texts and others that are specific to the text type.

Correlations between the ADP college and workplace reading demands and the 2009 Framework are considerable (see Appendix A for a detailed side-by-side comparison of the ADP Benchmarks and 2009 NAEP Reading Frameworks). The analysis that follows suggests some additional adjustments that NAEP might consider in order to report more meaningfully on preparedness for college-credit course work, workplace training, and entrance into the military.

Parameters for the Review

This report is limited to the kind of reading and reasoning that is associated with college and career success, and is not meant to speak to other elements of preparedness for college or the workplace.

While reading and reasoning are key ingredients of preparedness for postsecondary endeavors, the ADP cites additional competencies as prerequisites to tackling the demands of college and work. For example, employers and college professors cite strong oral communication skills—the ability to listen attentively and to express ideas clearly and persuasively—as being so essential to success that they insist schools should emphasize them simultaneously with the transmittal of other academic knowledge.

The ADP benchmarks also define research skills as central to a student's ability to frame, analyze, and solve problems. Credit-bearing coursework in colleges and universities requires students to identify areas for research, narrow those topics and adjust their research methodology as necessary. They are asked to consider various interpretations of both primary and secondary resources as they develop and defend their own conclusions. Similarly, in the workplace, employers depend heavily on employees to evaluate the credibility of existing research to establish, reject or refine products and services.

Collaboration, communication, and flexible interdisciplinary thinking and capacities that contribute to team efforts are additional aspects included within the ADP English benchmarks that were promoted heavily by employers as keys to success on the job. College programs, too, are moving more and more towards interdisciplinary and project-oriented approaches. Some college assignments (and all workplace tasks) included in the ADP reflect this new emphasis.

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⁸ National Assessment Governing Board. *Reading Framework for the 2009 National Assessment of Educational Progress*. U.S. Department of Education, September 2004, p. 36.

Vital though these competencies are, NAEP reading does not—and is not designed to—measure skills or knowledge in addition to reading and comprehending a range of texts. Thus, the Achieve panel chose to limit its review to the reading aspects of the ADP. Whether or not the National Assessment should expand into other domains covered by the ADP deserves a much larger discussion and is not within the purview of this report (or timeline). By their nature, large-scale on-demand assessments such as NAEP cannot measure many of these skills—at least not easily—with existing technologies. They are currently better evaluated by other assessment methodologies.

The definition of reading for the purposes of the 2009 NAEP reading assessment should remain limited to understanding written text.

Given the timeframe for deliberations and the fact that reading is restricted to written text in Grades 4 and 8, panelists decided not to recommend an expansion of the reading definition at Grade 12 to include other media. Panelists were also persuaded by practicalities. Unlike written materials, media use sound and moving images. While they can convey information and persuade in ways that are distinct from the printed word alone, assessing media presents significant technological challenges. The 2009 Framework committee felt, and the Achieve panel concurred, that authentic reading of Internet materials could not be achieved by 2009, and printed versions of the same would prove a poor substitute.

NAEP may want to review the Information and Communications Technology literacy assessment, which was recently introduced at a couple of dozen colleges and universities, by the Educational Testing Service. It is intended to assess students' ability to make critical evaluations of resources on the Internet, including the "ability to manage exercises like sorting e-mail messages or manipulating tables and charts, and to assess how well they organize and interpret information from many sources and in myriad forms. Were NAEP to contemplate expanding into other dimensions of language arts, the Achieve panel recommends that media be one of the first domains considered. Because of their proliferation and accessibility, such discernment and interpretive capabilities are far more critical. In order to develop reasonable positions on matters of public policy and personal interests students, employees—all citizens—need to know how to analyze information coming from a wide variety of media.

For the purposes of this review, the term "preparedness" replaces the commonly used term reading "readiness."

The 12th Grade Commission refers to redesigning NAEP to report on "readiness" for college coursework, training for employment, and military service. In the area of literacy, the term "readiness" has certain meaning, so early in the deliberations, the Achieve panel wrestled with this terminology to ensure readers of this report did not misconstrue the intent of the assessment redesign. In the literacy field, "reading readiness" commonly

⁹ Tom Zellner. "Measuring Literacy in a World Gone Digital." *The New York Times*, 1/17/95.

refers to a basic skill that is taught (and learned) once and for all in the first few years of school. At the 12th grade level, reading is a complex process of problem-solving in which the reader works to make sense of a text not just from the words on the page but also by generating a framework for understanding parts of the text, paying heed to inconsistencies as they arise, and responding to voices and views of the author, of the reader, and of others the reader has encountered throughout life. Thus, the Achieve panel uses "preparedness" to describe the level of readiness high school students need to be successful.

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¹⁰ Ruth Schoenbach, Cynthia Greenleaf, Christine Cziko and Lori Hurwitz. *Reading for Understanding: A Guide to Improving Reading in Middle and High School Classroom.* The Strategic Literacy Initiative. (URL: http://www.wested.org/stratlit/pubsPres/RFU_Ch2.shtml)

RECOMMENDATIONS TO REDESIGN NAEP READING FRAMEWORK IN ORDER TO REPORT ON 12TH GRADERS' PREPAREDNESS FOR COLLEGE, WORKFORCE TRAINING, AND THE MILITARY

The Achieve panel, aided by input from business, research, and education policy experts, offers the following recommendations for the 2009 Reading Framework. Overall, panelists found the 2009 NAEP Reading Framework was a worthy statement of reading literacy and one that was generally aligned to the ADP benchmarks. These recommendations propose to add clarity and emphasis to specific 12th grade content within the Framework.

Issue 1. Determine how NAEP should define student preparedness in reading for college, training for employment, and entrance into the military. Should there be a single standard or multiple standards for college and work preparedness? How should that standard or set of standards be defined?

Recommendation 1.

Although the range of knowledge and skills necessary for success beyond high school is diverse—from low skill jobs to Ivy League educations—NAEP should adopt a single definition of preparedness for students based on the reading knowledge and skills defined in the American Diploma Project.

The 12th Grade Commission Report rightly points out that the demands among four year colleges range from highly selective to open enrollment. Additional variation exists between four-year and two-year colleges. When requirements of employment and the military are added to the mix – given the vast array of jobs that exist and the respective skills and knowledge required to perform them—the result is a dizzying array of standards. With over 6000 public and private institutions in the nation ranging from specialized institutes offering technical certificates to world-class research universities, and an economy that is even more diverse, defining preparedness for like institutions and each occupation within each sector of the economy would require a decade's worth of research – enormous effort for a very modest return.

Several researchers, Barton and Carnevale among them, underscore what they call an "emerging consensus" in the nation that high schools need to prepare students so they have the option of going either to postsecondary education or to work; as no one can be sure, ahead of time, which path students will choose. ¹¹ Many students who go immediately to work will enroll in college later so they need the same level of preparation as college bound students. A large percentage of students (41 percent) who start college will leave before they earn a degree. ¹² Those who are fortunate enough to secure jobs that offer upward mobility have opportunities for employer-provided training;

¹² Michael W. Kirst. "College Preparation and Grade 12 NAEP." Paper prepared for NAGB, September 2003, p. 2

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¹¹ Paul E. Barton. Grading the Twelfth Graders: More Useful and More Used NAEP Reporting? p. 11.

however, employers interviewed for the ADP disclosed that only employees with high enough levels of skill and achievement are selected for education and training and opportunities for advancement. Carnevale sums up the conditions: "Today, education and workforce preparedness are inextricably bound. Education and training beyond high school are inseparable from labor market concerns because without it, viable careers are difficult." Jobs that now require postsecondary education previously did not. Looking forward, the demand for skilled workers with education and training beyond high school is expected only to grow; the wage gap between those with some form of additional education and training and those with only high school degrees is expected to widen.

Achieve panelists felt that any attempt to correlate NAEP scores to college- or job-type could too easily lead to student tracking and a self-fulfilling prophecy of "expect a little, get a little." A definition of achievement should broaden, not narrow students' options. Relying on a central tenet of the ADP, panelists recommend that NAEP adopt a single set of preparedness benchmarks to represent a target that allows students the widest possible range of opportunities—for work or further training—upon graduation. Students who meet these standards will be prepared to handle the reading demands of any path they choose to pursue after graduation, including college without the need for remediation.

Throughout, NAEP has analyzed data and reported results in terms of three achievement levels: basic, proficient, and advanced. The Achieve panel supports a continuation of these levels in a redesigned NAEP: *Basic* would denote partial mastery of prerequisite reading knowledge and skills that are fundamental for college and work. *Proficient* would represent competency of analytical skills and the ability to apply such reading knowledge and skills to real-world situations. *Advanced* would represents superior performance and preparation.

Issue 2. Determine the extent to which the NAEP Framework embodies the imperatives of the American Diploma Project and what, if any, changes should be made to the Framework's knowledge and skills.

Recommendation 1.

Because the reading demands that high school graduates face are overwhelmingly informational in nature and informational literacy is a vital 21st century skill, NAEP should increase the percentage of informational text on the new NAEP from 60 to 70 percent. At the same time, it should retain the percentage dedicated to fiction under Literary Text.

Increasing the percentage of informational text to 70 percent on NAEP acknowledges the heavy presence of informational text in the reading and educational experience of high school students, the predominant reading demands in the college classroom, and addresses as well the "world-of-work" imperative of both NAEP and the ADP. Studies

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¹³ Anthony P. Carnevale and Donna M. Desrochers. *Considerations in Using 12th Grade NAEP as a Prospective Indicator of Preparedness for College and Employment*. Educational Testing Service, August 22, 2003, p. 4.

conducted by the Educational Testing Service and others show that the reading demands of college, work and the military today are overwhelmingly informational in nature. ¹⁴ The ACT Reading Assessment reflects the predominance of informational text: it dedicates 75 percent of its test to informational text.

While the ADP does not recommend a specific ratio, it presents a heavy emphasis on informational reading because a majority of reading that adults must do is nonfiction. It should be stressed, however, that when the Achieve panel refers to "informational text," it does not have uninspired, low-level reading material in mind. Achieve panelists intend that the 70 percent informational texts consist of scholarly and literary informational reading, including classical essays; historical documents and speeches; complex political, social, historical and scientific essays; news and feature articles; research reports; and position and policy papers. This is consistent with the way informational reading is portrayed in the 2009 NAEP Reading Framework.

Various studies point out that Americans are deficient in informational literacy. One such study reported that nearly 44 million American adults were not able to extract even a single piece of information from a written text if any inference or background knowledge was required. 15 There is also a growing awareness among K-12 practitioners and educational researchers that reading skills (similar to writing and research skills) should not be practiced or taught only in the English language arts classroom; they are critical to student success in other disciplines as well. Richard Venesky, who examined the kind of reading that school age students must do, revealed that, "by sixth grade more than 75% of what the child must read within the school is not fiction...but rather non-narrative and non-fictional materials. By the middle grades the child must be able to gain meaning from a science text, a social studies text, a mathematics text, and a variety of other informational materials that begin to approximate the very materials that the average adult must cope with in what we call adult life." ¹⁶ Argumentation and persuasive texts are essential for the study of politics, government, and current events. Expository texts are authentic in the core domains of social studies and the sciences. Researchers Nell Duke and Venesky, among others, also argue that informational reading is the best means of increasing literacy among reluctant readers and students from low-income families.¹⁷

It is important to point out that by increasing the percentage of informational text to 70 percent on the 12th grade NAEP, the Achieve panel does not intend to threaten the centrality of literary studies in the English language arts classroom, nor disparage the importance of literature to the development of a critical mind, or one schooled in cultural literacy. Literary studies provide valuable learning—aesthetics, yes, but also skills in critical analysis, inferential reading, and linguistic acuity, skills which any employer or college professor will acknowledge are important components in postsecondary success.

¹⁴ Richard L. Venesky. "The origins of the present-day chasm between adult literacy needs and school literacy instruction." *Scientific Studies of Reading*, 4(1) (2000), p.21.

¹⁵ M. Levy. "Nearly half of U.S. population possesses poor reading, math skills, survey says." *Wall Street Journal*, September 9, 1993.

¹⁶ Venesky, *op. cit.*, p. 20.

¹⁷ Nell K. Duke. *The Importance of Informational Literacy*. (URL: http://teacher.scholastic.com/professional/literacypapers/duke.htm)

Literature remains essential in high school, and the literary text should remain the reading centerpiece of the English classroom. However, the NAEP reading assessment is not an "English" test in the traditional sense—it is a test of reading across the disciplines, and thus should reflect this attention to the broad spectrum of reading demands students will encounter. If NAEP were an end-of-course English test, panelists agreed that they would recommend a 50 percent or higher representation of literature.

In order to signal the continued importance of literature while at the same time giving greater emphasis to informational reading, the Achieve panel recommends that the emphasis given to fiction (20 percent) in the 2009 Framework be maintained, while poetry and literary nonfiction each receive slightly less attention (five percent respectively). As for the distribution of Informational text, the panel recommends: 30 percent Exposition, 30 percent Argumentation/Persuasion, and 10 percent Procedural. With the suggested move to 70 percent Informational text on the new assessment, the percentage of exposition would be boosted by 10 percentage points to equal the percentage dedicated to argument and persuasion.

Text Type	2009 Framework	Recommended
Informational Text	60%	70%
Exposition	20%	30%
Argumentation/Persuasion	30%	30%
Procedural	10%	10%
Literary Text	40%	30%
Fiction	20%	20%
Poetry	10%	5%
Literary Nonfiction	10%	5%
Total Percentage	100%	100%

Recommendation 2.

The 2009 Reading Framework reflects the American Diploma Project's concept of reading and reasoning preparedness, although NAEP should consider some enhancements to content in the sub-domains of reading.

The recommendations that follow in this section spring from the panel's comparison of ADP benchmarks with the 2009 NAEP Framework competencies. (See Appendix A for a side-by-side comparison of the ADP Benchmarks and 2009 NAEP Reading Frameworks) As NAGB moves forward there are several measures of applied literacy that also could be valuable in terms of item development. One is the Armed Services Vocational Aptitude Battery (ASVAB). All four services and their reserve components use the same instrument both for enlistment eligibility as well as placement of recruits into military occupation. It makes service specific person-job matches and evidence for the validity of

ASVAB as predictor of performance in postsecondary military careers is substantial. ¹⁸ Given the existing validation for military enlistment, it is possible that many reading items from ASVAB could be incorporated into a revised NAEP that has military service among its preparedness targets. Two other valuable measures of applied literacy skills in the context of work and citizenship are the NALS and PISA.

ADP's Language Benchmarks vs. 2009 Reading Framework's Vocabulary Competencies The ADP places a premium on vocabulary development. Whether presenting a marketing concept to a team of colleagues or clients or presenting an interpretation of several texts in a college seminar, students and employees who have facility with language will be prepared for the successful exchange of ideas and information. Research shows that deficits in vocabulary increase rather than decrease from first to twelfth grade: "A high-performing first grader knows about twice as many words as a low-performing one and, as these students go through the grades, the differential gets magnified. By 12th grade, the high performer knows about four times as many words as a low performer." The 2009 NAEP Reading Framework recommends a more systematic approach to vocabulary assessment than previous frameworks, which the Achieve panel endorses.

On the new NAEP, vocabulary assessment will occur in the context of a passage and will test readers' specific knowledge of a word's meaning as intended by the author. It will also assess the reader's overall comprehension of the passage. To a person, panelists expressed their appreciation for the Framework's new emphasis on vocabulary assessment. The only caution that panelists offer is that vocabulary is a domain that is maturing quickly and great care needs to be taken with test format and target word selection and treatment.

The Achieve panel agreed that the only additions or adjustments needed are ones concerning author's craft. Currently they appear only within the literary text matrices; they also apply to exposition. Attention to the author's craft reflects the ADP expectation that students understand the meaning of common idioms, as well as literary, classical, and biblical allusions, whether such words or phrases appear in literary or informational text.

The panel's recommended additions to the present draft framework are highlighted in bold in the following table.²⁰

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¹⁸ S.W. Sellman. "Predicting Readiness for Military Service: How Enlistment Standards are Established." Paper prepared for NAGB, September 2004.

¹⁹ E.D. Hirsch, Jr. *Reading Comprehension Requires Knowledge – of Words and the World.* American Educator, spring 2003, p. 16.

²⁰ All tables are taken from the National Assessment Governing Board, *Reading Framework for the 2009 National Assessment of Educational Progress*, U.S. Department of Education, September 2004.

Proposed Changes to Framework Exhibit 4: Informational Text Matrix: Exposition

(Proposed changes in bold.)

	Genre/Type of Text	Text Structures and Features	Author's Craft
GRADE 12	Essay (e.g., political, social, historical, scientific, natural science) Literary Analysis Plus Increasingly Complex Application of Grades 4 and 8	Increasingly Complex Application of Grade 4	Increasingly Complex Application of Grades 4 and 8 plus Denotation Connotation Complex Symbolism Extended Metaphor and Analogy

ADP's Informational Text Benchmarks vs. 2009 Reading Framework's Exposition and Document/Procedural Text Competencies

The demands of the ADP reflect the fact that literacy in today's workplace, as well as in postsecondary classrooms, requires that students read and interpret a wide range of informational text—periodicals, memoranda, essays, and other documents—that may contain technical information and intricate charts and graphs. College students and employees need to know how to comprehend, interpret and judge the quality of information and evidence presented in such texts. To a large extent, the priorities in the 2009 NAEP Framework and the ADP are similar. Still, panelists expressed apprehension that some of the knowledge and skills listed in the ADP are not well represented in the 12th grade Framework. While the Framework makes it clear that matrices are not meant to be an exhaustive listing of essential content, the Framework should be considerably more explicit. Possible additions are integrating, comparing or connecting ideas, problems, or situations across texts. (See discussion below on multiple texts.) Others are recognizing ambiguity, contradiction, paradox, and incongruity.

Proposed Changes to Framework Exhibit 4: Informational Text Matrix: Exposition

(Proposed changes represented in hold.)

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	Genre/Type of Text	Text Structures and Features	Author's Craft
GRADE 12	Essay (e.g., political, social, historical, scientific, natural science) Literary Analysis Plus Increasingly Complex Application of Grades 4 and 8	Increasingly Complex Application of Grade 4	Increasingly Complex Application of Grades 4 and 8 plus Paradox Contradictions/Incongruities Ambiguity (These are in addition to the proposed changes suggested on page 12 related to author's craft.)

The NAEP reading stimulus material has always been considered high quality. NAEP has a reputation for selecting authentic texts, "evidencing characteristics of good writing, coherence, and appropriateness for each grade level." Finding rich informational text and literary nonfiction text is challenging, however, so panelists offer these recommendations to assessment developers regarding sources:

- Historical essays and speeches
- Pulitzer Award-winning articles
- Selections from scientific journals that describe studies, such as <u>Scientific</u> <u>American, Science, Science News, and Natural History</u>
- Other magazines (Business Week, Consumer Reports, National Geographic, Newsweek, Popular Mechanics, Sports Illustrated, Audubon Magazine)
- Website materials such as the NASA website articles and Discovery website articles
- National Adult Literacy Survey documents

They also recommend the following sources of technical and practical documents that could qualify as document and procedural text:

- product manuals
- medical forms
- military enrollment forms
- lease/rental or; loan agreements
- travel schedules and itineraries
- voter registration and ballots
- corporate financial statements
- employment notices and application forms
- income tax filing instructions
- customer correspondence and responses
- procedure and policy memos and handbooks
- human resource manuals
- science lab experiments/procedures

ADP's Logic Benchmarks vs. 2009 Reading Framework's Argumentation/Persuasion Text Competencies

The ability to reason allows for the systematic development of ideas, the ability to make sound choices, and the ability to make and understand persuasive arguments. Argumentation and persuasion abound in our daily lives. Examples include political speeches, editorials, advertisements, and political and social commentary essays. Research papers—whether experimental or review—are also argumentation (as in "here are the facts that I think relevant and this is what I think they mean"). This structure is common not just to articles in scientific journals, but also reports, articles and books based on research in general.

²¹ National Assessment Governing Board. *Reading Framework for the 2009 National Assessment of Educational Progress*. U.S. Department of Education, September, 2004, p. 28.

The emphasis in the 2009 Framework on this essential ability represents a commendable shift from the 1992—2007 Framework: Argumentation and persuasion are called out specifically in the NAEP Framework. The ADP places a similar premium on logical thinking and the development and analysis of arguments. The major difference between the competencies contained within the ADP and new Framework is the degree of specificity. Panelists agreed that while the tables included within the Framework are meant to be illustrative and not exhaustive, some additional detail regarding the analysis of evidence and the identification of logical fallacies, false premises, and faulty reasoning would strengthen the document and provide clearer definition to assessment developers.

Proposed Changes to Framework Exhibit 4: Informational Text Matrix: Argumentation and Persuasive Text

(Proposed changes represented in bold)

	Genre/Type of Text	Text Structures and Features	Author's Craft
	Essay (e.g., political, social)	Increasingly Complex	Increasingly Complex
	Historical Account	Application of Grade 4 plus:	Application of Grades 4 and
~	Position Paper (e.g., persuasive	Structure of a given	8 plus
, 12	brochure, campaign literature,	argument	Range and quality of
GRADE	advertisements)	Connections among	evidence
$ar{\mathbf{A}}$		evidence, inferences and	Logical fallacies, false
J.B.	Plus Increasingly Complex	claims	assumptions/premises,
)	Application of Grades 4	Structure of a deductive	loaded terms, caricature,
	and 8	vs. inductive argument	leading questions, and
		_	faulty reasoning

ADP's Literature Benchmarks vs. 2009 Reading Framework's Literary Text Competencies

Practice in providing evidence from literary works to support an interpretation fosters the skill of reading any text closely and teaches students to think logically and coherently. Employers also report that employees who have considered the moral dilemmas encountered by literary characters are better able to tolerate ambiguity and nurture problem-solving skills in the workplace. Like the ADP, the NAEP emphasis is on assessing students' skills of analysis with respect to fiction, poetry, and literary nonfiction. This includes the analysis of the aesthetic and expressive elements of literature. The level of detail included in the Framework surpasses the detail of the ADP so there is no need to add any clarification. (See Appendix A for a side-by-side comparison of the ADP Benchmarks and 2009 NAEP Reading Frameworks.)

Beyond the development of analytical skills, the ADP recommends that students have familiarity with—know the content of—the foundational works of American literature and foundational U.S. documents such as the Declaration of Independence and the Preamble to the U.S. Constitution. While the new NAEP does not—and according to panelists should not—test knowledge of specific texts, a criterion for selecting texts for the National Assessment is that they "reflect our literary heritage by including significant works from varied historical periods." The panelists strongly support this criterion.

Panelists would like to ensure that much of the sort of material (and in some cases the skills) listed for earlier grades are well represented on the 12th grade assessment. For example, in terms of literary non-fiction, panelists recommend the inclusion of personal essays, speeches or autobiographies (currently listed at grade 4 Exhibit 4 Literary Nonfiction Framework Matrix) in the grade 12 matrix. The matrices make it clear that grade 12 will sample "increasingly complex applications at grades 4 and 8," so this is within the original intent of the 2009 Framework committee. For example, in terms of literary non-fiction, panelists recommend the inclusion of personal essays, speeches or autobiographies (currently listed at grade 4 Exhibit 4 Literary Nonfiction Framework Matrix) in the grade 12 matrix.

As for some of the specifics, the new NAEP includes Poetry at grade 12 as a "highly imaginative form of communication, in that poets try to compress their thoughts in fewer words than would be in ordinary discourse or in prose." Many specifics are included, reflecting well—and in many cases going beyond—the poetry benchmark in the ADP. While dramatic literature is not included in the new NAEP, dramatic irony, soliloquy and dialogue are mentioned under poetry, fiction and literary nonfiction, which is consistent with the imperatives of the ADP benchmarks.

ADP's Media Competencies vs. 2009 Reading Framework Competencies

The ADP dedicates a section to comprehending media, as television, radio, film, web sites and videos have become prominent modes of communication in our world. Students, employees—all citizens—need to analyze information coming from a wide variety of media to interpret political messages or product advertisements. These interpretive skills can help students and employees develop reasonable positions on matters of public policy and personal interest and recognize potential bias in new and mixed media markets. Panelists did not disagree, but adding to the 2009 NAEP Framework media competencies akin to those delineated in the ADP benchmarks goes beyond the scope of written text (the definition of reading discussed in an earlier section).

The 2009 Framework does not ignore visual and graphical features of text. It cites an understanding of graphic features such as captions, sidebars, photos and illustrations, and charts and tables and makes reference to how expository text, procedural text, and argumentation and persuasive text often contain graphic elements that augment text and contribute to their meaning. Graphical supports abound. The full meaning and import of text often depends on their interpretation. For that reason, panelists suggested that graphical features be highlighted in the 2009 assessment.

Recommendation 3.

To reflect a critical and frequent reading demand, NAEP should feature additional items that require students to read and compare the information in multiple texts.

So much of what students are going to be asked to do—likely already must do—in their lives involves comparing and synthesizing information from several sources. In the

workplace, employers depend heavily on employees' ability to draw information from multiple sources and to evaluate these sources for credibility to establish, reject, or refine a course of action. The Framework acknowledges the need to approximate the synthesis of actual texts by sampling pieces of paired text: "In consulting multiple texts, readers must engage in all the processes to read individual texts, but they must also engage in other processes to compare those texts on multiple dimensions and decide on the accuracy, bias, and credibility of the multiple texts. These skills need to be assessed to see how well students can read and comprehend texts that contain different information, reach different conclusions about the same material, or have different levels of credibility."

As noted above, panelists agree that investigating multiple texts is a critical life-skill and should be given prominence on the new national assessment, when assessing both literary text and informational text. Unfortunately, the Framework contains only a single section consisting of a single paragraph about the importance of multiple texts. As a result of this finding, panelists recommend some small, but important revisions in various matrices contained within the 2009 Framework. Following is a summary:

- In the various matrices (e.g., Exhibit 8 of the Framework), add an "s" to the word text that is printed in the first column, making the reference plural rather than singular.
- Drop the reference (e.g., Exhibit 12 of the Framework) to "across texts" in isolated bullets Otherwise it could appear that cross-text items are to be limited just to those few bullets.
- Add some wording about multiple texts to each heading within the Exhibit 8 of the Framework, Cognitive Targets.

Proposed Changes to Framework Exhibit 8 Cognitive Targets (**Proposed changes represented in bold**)

	Locate/Recall	Integrate/Interpret	Critique/Evaluate
Both Literary and Informational Texts	Identify textually explicit information and make simple inferences within and across texts, such as: Definitions Facts Supporting details	 Make complex inferences within and across texts to: Describe problem and solution, cause and effect Compare or connect ideas, problems, or situations within or across texts Determine unstated assumptions in an argument Analyze how an author uses literary devices and text features 	Consider text(s) critically to: • Judge authors' craft and technique • Evaluate authors' perspectives or points of view • Take different perspectives in relation to text(s)

Issue 3. Determine what changes NAEP should make to item construction and cognitive targets to better reflect postsecondary college and career demands.

Recommendation 1.

To reflect a measure of more applied and general cognitive critical skills, NAEP should include an expanded grade 12 Cognitive Target Matrix specific to informational text that would provides more detail for assessment developers.

Researchers Carnevale and Desrochers make the case that economic and demographic changes on the horizon suggest that it is vital for academic disciplines to include a larger component of general cognitive or reasoning skills. They identify reasoning and problem-solving skills as vital cognitive skills for success in life's endeavors:

There are new applied skill requirements that have emerged, in part, as a result of the changing occupational structure of the economy. Increasing productivity in manufacturing and other technology intensive industries means that fewer workers with specific technical skills are needed to do the same amount of work. And because most of the new positions are being created in business services, education, health care, and office jobs, fewer technical skills and more general skills typical of these jobs are required. Broader and more general skills also are required because of the spread of "high-performance work systems" that locate broader responsibilities to work teams at the point of production and service delivery.²²

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²² Anthony P. Carnevale and Donna M. Desrochers. *Considerations in Using 12th Grade NAEP as a Prospective Indicator of Preparedness for College and Employment.* Educational Testing Service, August 22, 2003, p. 10.

While not exhaustive, these cognitive skills include the ability to generalize, categorize, or extrapolate information from one source and apply it to another, as well as to use information to achieve a goal or overcome an obstacle, among other skills. Panelists understood that although the matrices are meant to be illustrative and not exhaustive, the Cognitive Targets at Grade 12 could be expanded to better reflect the demands of the ADP, particularly with respect to Informational Text, to ensure that skills of analysis and reasoning are well represented in all three categories: Locate/Recall Information, Integrate/Interpret Information, and Critique/Evaluate Information. Literal recall and simple inferences are important skills, but panelists felt strongly that such skills should not crowd out higher-level skills such as integration, interpretation, and critical reading and indeed, panelists felt they do not: Under the 2009 Framework, NAEP has dedicated 80 percent of its items to higher level cognitive targets As panelists discussed whether or not to reduce the 20 percent currently dedicated to the lowest cognitive level, i.e., Locate/Recall, they expressed their comfort with the percentage but felt that the Framework should be explicit in relevant matrices that simple inferences are included.

Although many aspects of the 2009 Framework cognitive targets are in line with the intent of ADP, some recommendations in this area are proposed in the following table to more closely reflect the ADP college and workplace reading demands.

Grade 12 Proposed Supplement to Framework Exhibit 8 Cognitive Targets (Proposed additions represented in bold)

•	Locate/Recall	Integrate/Interpret	Critique/Evaluate
Specific to Informational Texts	Identify textually explicit information and make simple inferences within and across texts to: • Identify topic sentence and/or determine main idea • Identify the thesis of the speech and the essential elements that elaborate it • Determine author's purpose • Determine causal relations • Identify or infer specific information in text or graphics • Follow instructions in informational or technical texts to perform specific tasks, answer questions, or solve problems.	 Make complex inferences within and across texts to: Summarize major ideas Draw conclusions and provide supporting information Find evidence in support of an argument Distinguish facts from opinions, and evidence from inferences Analyze the importance of the information Interpret and use graphical information embedded in texts Synthesize information from multiple sources Infer meaning of unfamiliar words and phrases, including figurative language Identify interrelationships between and among ideas and concepts 	Consider text(s) critically to: Critique the presentation of information, including: Structure of a given argument Connections among evidence, inferences and claims How two or more authors reach similar or different conclusions Ways in which the style and organizational structures of texts support or confound their meaning or purpose The clarity, simplicity, and coherence of texts and the appropriateness of their graphics and visual appeal

Grade 12 Proposed Supplement to Framework Exhibit 8 Cognitive Targets, cont'd

(Proposed additions represented in bold)

(220)	Locate/Recall	Integrate/Interpret	Critique/Evaluate
			Consider text(s) critically to: • Evaluate the way the author selects language to influence readers such as ambiguity, paradox, irony
Specific to Informational Texts			 Evaluate the strength and quality of evidence used by the author to support his or her position, including the analysis of: false premises/assumptions
ecific to Ir			 faulty reasoning loaded terms, caricatures, and/or sarcasm
Spe			Critique the quality of counterarguments within and across texts
			• Judge the coherence, logic, or credibility of an argument, including identifying and analyzing logical fallacies

Connected to the issue of cognitive targets is how NAEP will test those performances, for example, through multiple-choice or constructed-response items (both short and extended response). The 2009 Framework committee recommended that 60 percent of the items consist of short or extended constructed response. Despite the fact that there is some indication that grade 12 students do not always take the time needed to answer these item types, the Achieve panel was firm in its support of this emphasis. Many high-growth, high skill jobs demand that employees demonstrate the ability to apply their reading skills to solve problems, to reason, and to report their evaluations, interpretations and judgments in ways that will advance scholarship or contribute to workplace productivity. Constructed responses can showcase these competencies and more easily assess content and skills prioritized in the ADP benchmarks. Multiple-choice questions need not be dull or address only low-level thinking; the development of multiple-choice items that address

more complex reasoning skills is difficult. The Advanced Placement test—one of the most exacting high school assessments used today—and a growing number of state standards-based assessments include substantive multiple-choice components, proof that rigor and multiple-choice items are not mutually exclusive. Still, there is no substitute for asking a student to think about and provide an answer in his or her own words, with supporting evidence from the text.

Issue 4. Determine what changes should be made to the achievement level descriptions in reading to enable meaningful reporting of student preparedness.

Recommendation 1.

In the next iteration of the achievement level definitions, NAEP should develop definitions that recognize the link between the content expectations (exposition, poetry, literary nonfiction, etc.), the cognitive targets (recall, interpret, evaluate, etc.), and the complexity of the reading passage.

As discussed earlier, the panel recommends that NAEP establish a single set of achievement levels for college and career purposes: Basic, Proficient, and Advanced. The 2009 Framework includes preliminary definitions of these reading achievement levels. Before they can be finalized, assessment items must be developed and piloted and those involved in the development of the assessment must balance empirical evidence against desired levels of success. Even though this work will not be completed for months, the Achieve panel does have guidance for subsequent drafts: the achievement levels need to reveal the link between the content expectations, the cognitive targets, and the passage complexity of items because it is the interaction of these three elements that contributes to the challenge of an item, and in the aggregate, separates an advanced reader from a more basic reader. For example, an informational passage could be complex or easy and the questions of low or high cognitive demand. Students who answer items that include high cognitive demand (Critique/Evaluate) of difficult passages are more skilled readers than students who can only answer items that include low cognitive demand (Locate/Recall) of easy passages. When NAEP shifts from reporting proficiency in meeting the goals of a standards-based curriculum to reporting preparedness for college and careers, NAEP should review the performance descriptors for NALS. For example, the definition for NALS Level 1 is, "Read a short passage and locate a single piece of information that is identical to or synonymous with the information given in the question. If plausible but incorrect information is present in the text, it is not located near the correct information." Contrast this with NALS Level 4 that states, "Search through text and match multiple features, and *integrate or synthesize* multiple pieces of information from complex or lengthy passages. More complex inferences are required, and conditional information has to be taken into consideration for these tasks."

There was some suggestion that NAEP rely further on the NALS Reading assessments to assess students as 17-year-olds and young adults on similar materials. Given the

"prospective" nature of this new NAEP assessment, the NALS sample could provide information on the extent to which these skills are present later on in life.

CONCLUSION

The Achieve panel endorses the idea of a redesigned NAEP to focus on reading "preparedness" for college, work, and entrance to the military. Such an assessment will provide the nation with significant trend data as well as state comparisons on college and career preparedness that could inform policymakers and educators as they engage in high school reforms efforts.

That said, any assessment that focuses on college and career preparedness faces a daunting challenge of validation, since the only way to be certain that indicators of preparedness (or lack thereof) are valid is to wait long enough to see if they actually do (validate preparedness). Testing experts Porter, Carnevale, and Roeber suggest several different ways in which a revised NAEP might be validated as an indicator of preparedness for college and careers. ²³ These include:

- A longitudinal study following NAEP cohorts through their college and early working years to measure the share of 12th graders who immediately qualify for credit-bearing courses or jobs in particular occupations, the trajectory of their earnings, and labor market prospects.
- For college readiness, administer NAEP as part of placement procedures when students begin college. (This will make it easier to track student performance.)
- Establish links between NAEP 12th grade score distributions and other longitudinal assessments that already have information on education and labor market outcomes. In this context, other commonly used indicators could be a check on the predictive validity and reliability of NAEP such as college readiness tests (ACT and SAT), the military placement test (ASVAB), and measures of applied literacy skills in the context of work and citizenship (NALS and PISA).
- Use a "bookmark" standard-setting process with experts to set cut scores. (Instead of "proficiency," the standard for such a process would be college or workplace preparedness.)
- Use a content analysis to match NAEP items with what experts believe is needed for college or work place (an extension of the ADP work and research).

These approaches have different purposes, advantages, and liabilities. For example, equating NAEP 12th grade score distributions with similar assessments administered to students in existing longitudinal surveys would eliminate the need for following NAEP students directly and thus, huge costs. On the other hand, equating tests is no simple task. NAGB will want to weigh all of these considerations as it moves forward but the proposed change in NAEP fills a crucial need and is worth every effort.

Considerations in Using 12th Grade NAEP as a Prospective Indicator of Preparedness for College and Employment Educational Testing Service, August 22, 2003; Ed Roeber, A Report to the Achieve Panel, January 2004.

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²³ Andrew Porter. "Twelfth Grade NAEP as an Indicator of College Readiness: Validity Issues and Methodological Options." Paper prepared for NAGB, November 2004; Anthony P. Carnevale and Donna M. Desrochers. Considerations in Using 12th Grade NAEP as a Prospective Indicator of Preparedness for College and Employment.

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Appendix A: Side-by-Side Chart American Diploma Project (ADP) Benchmarks and NAEP Reading Framework 2009

American Diploma Project Benchmarks	NAEP Reading Framework 2009
A. Language	
A2. Use general and specialized dictionaries, thesauruses and glossaries (print and electronic) to determine the definition, pronunciation, etymology, spelling and usage of words.	Not addressed in the NAEP Framework.
A3. Use roots, affixes and cognates to determine the meaning of unfamiliar words.	These are not specifically addressed in the NAEP Framework. However, understanding the meaning of roots, affixes, and cognates could assist immeasurably in students discerning the meaning of vocabulary in context.
A4. Use context to determine the meaning of unfamiliar words.	The new Framework adopts a systematic approach to vocabulary assessment with potential for a vocabulary sub score that was not possible before (Framework, p. 14). Context is the selected means of assessing vocabulary in the NAEP Reading Assessment: "Vocabulary items will be developed about the meaning of words as they are used in the context of the passages that students read" (Framework, p. 34). In addition, identifying definitions is included under the Locate/Recall Cognitive Targets Matrix of NAEP (Framework, p. 40).
A5. Identify the meaning of common idioms, as well as literary, classical and biblical allusions; use them in oral and written communication.	The NAEP Framework expects students to understand what it calls, "the unconventional use of language," figurative language, diction, and word choice. Literary fiction, literary nonfiction, and poetry all refer to the use of language and word choice, and particularly figurative language. With respect to poetry, the emphasis is on picturesque and evocative words, devices that convey the symbolic nature of ideas, emotions, and actions, and the abstraction of language as a means to assess critical thinking skills not found in other types of literary works (Framework, p. 9). Identifying figurative language is also included under the Locate/Recall

Achieve, Inc. 2005

American Diploma Project Benchmarks	NAEP Reading Framework 2009
	Cognitive Targets Matrix with respect to literary text (Framework, p.40). Additionally, author's craft and technique are included as part of the Critique/Evaluate Cognitive Targets Matrix pertaining to informational text (Framework, p. 40). It was the intent of the ADP that this benchmark cover the use of these devices in informational text, in addition to literary text.
A6. Recognize nuances in the meanings of words; choose words precisely to enhance communication.	Obviously, only the first clause is applicable to the NAEP Reading Framework. The importance of recognizing the nuances in the meanings of words comes clear in the NAEP Framework under the discussion on poetry and the use of picturesque and evocative words, a high level of abstraction in language, etc. (Framework, p. 9). Denotation and connotation (corresponding to nuances in the meaning of words) are mentioned with respect to assessing literary nonfiction (Framework, p. 21). Again, the intent of the ADP is that this benchmark cover the use of these devices in informational text, in addition to literary text.
A7. Comprehend and communicate quantitative, technical and mathematical information.	This vocabulary benchmark is not specifically addressed in NAEP Reading Framework; however, students could be asked to determine the meaning of such words in context, especially when reading procedural text.
B. Communication	
B4. Identify the thesis of a speech and determine the essential elements that elaborate it.	Works of literary nonfiction such as speeches are included in the NAEP Framework, p. 9. Included within the matrices for cognitive targets and reading achievement levels (at the proficient level) are the abilities to summarize major ideas and to find evidence in support of an argument (Framework, p. 40, 45). Thesis is not mentioned per se.

American Diploma Project Benchmarks	NAEP Reading Framework 2009
B5. Analyze the ways in which the style and structure of a speech support or confound its meaning or purpose.	With respect to speeches, the Framework (p. 9) states that, "The Gettysburg Address, for example, might be viewed simply as an argumentative text, but it is more appropriately viewed as a sophisticated literary text. Readers approach texts of this type not only to gain enjoyment but also to learn and to appreciate the specific craft behind author's choices of words, phrases, and structural elements." Under the Critique/Evaluate Cognitive Targets Matrix (p. 41), students are expected to "analyze the presentation of information" which gets a step closer to understanding how "the style and structure of a speech support or confound its meaning or purpose."
C. Writing	
Not applicable	
D. Research	
Not applicable	

E. Logic	
E1. Distinguish among facts and opinions, evidence and inferences.	Identifying facts is included under the Locate/Recall Cognitive Targets Matrix of the NAEP Framework (p. 40); distinguishing facts from opinions is included under the Integrate/Interpret Cognitive Targets Matrix (Framework, p. 40).
E2. Identify false premises in an argument	Argumentation and persuasive text are called out specifically in the NAEP Framework. This is a new emphasis and represents a shift from the 1992-2007 Framework (p. 14). The Framework does not address specifically the ability "to identify false premises." However, the Framework includes broader language in the Critique/Evaluate cognitive targets: Judge the coherence, logic, or credibility of an argument" (Framework, p.41).
E3. Describe the structure of a given argument; identify its claims and evidence; and evaluate connections among evidence, inferences and claims.	Under Literary Nonfiction, which includes speeches and classical essays, the NAEP Framework identifies supporting ideas, logical connections, and transitions as being important features that students should be able to recognize and evaluate (Framework, p. 30). Under Exposition and Argumentation, the Framework includes logical arguments, and the use of examples, quotations, and transitional and signal words (Framework, p. 23, 25). Under Argumentation, the Framework specifically mentions the presentation of the argument, including "issue definition, issue choice, stance, relevance" (Framework, p. 25). Evaluating the way the author selects language to influence readers is included under the Integrate/Interpret Cognitive Targets Matrix of NAEP (Framework, p. 40). Another is judging the coherence, logic, or credibility of an argument.
E4. Evaluate the range and quality of evidence used to support or oppose an argument.	The NAEP Framework states that authors of persuasive writing must "establish their credibility and authority if their writing is to be successful" (Framework, p. 10). The use of examples, quotations, supporting ideas and evidence are included under content features and the rhetorical structure of argumentation and persuasive speech of the Exposition Matrix (Framework, p. 23). One of the principal cognitive targets on the NAEP test is evaluating "the strength and quality of evidence used by the author to support his or her position" (Framework, p. 41). Another cognitive target is judging "the coherence, logic, or credibility of an argument" (Framework, p. 41).

E5. Recognize common logical fallacies, such as the appeal to pity (argumentum ad misericordiam), the personal attack (argumentum ad hominem), the appeal to common opinion (argumentum ad populum) and the false dilemma (assuming only two options when there are more options available); understand why these fallacies do not prove the point being argued.	The NAEP Framework includes emotional appeal, exaggeration, and tone under Argumentation and Persuasive Text Matrix but does not deal with logical fallacies precisely (Framework, p. 25).
E6. Analyze written or oral communications for false assumptions, errors, loaded terms, caricature, sarcasm, leading questions and faulty reasoning.	Under Exposition and Argumentation, the Framework includes understanding sarcasm (Framework, p. 23). Under Argumentation and Persuasive Text Matrix, "exaggeration and emotional appeal" are added (Framework, p. 25). Under the Integrate/Interpret Cognitive Targets Matrix, determining "unstated assumptions" (rather than false assumptions as in the ADP) in an argument is included (Framework, p. 40).
E7. Understand the distinction between a deductive argument (where, if the premises are all true and the argument's form is valid, the conclusion is inescapably true) and inductive argument (in which the conclusion provides the best or most probable explanation of the truth of the premises, but is not necessarily true).	Not addressed by the NAEP Framework.
E8. Analyze two or more texts addressing the same topic to determine how authors reach similar or different conclusions. F. Informational Text	The NAEP Framework speaks of a common task for readers being the ability "to compare texts "on multiple dimensions and decide on the accuracy, bias and credibility of multiple texts" when looking for answers (Framework, p. 12). "These skills need to be assessed to see how well students can read and comprehend texts that contain different information, reach different conclusions about the same material, or have different levels of credibility" (Framework, p. 12). "Contrasting viewpoints and perspectives" is included under the Argumentation and Persuasive Text Matrix (Framework, p. 25). In addition, under the Integrate/Interpret Cognitive Targets Matrix, "comparing or connecting ideas, problems, or situations across texts" is mentioned (Framework, p. 40).
r. informational Text	
F1. Follow instructions in informational or technical texts to perform specific tasks, answer questions or solve problems.	The NAEP Framework includes procedural text that conveys information in the form of directions for accomplishing a task. A distinguishing characteristic of such text is that it is composed of

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	discrete steps to be performed in a strict sequence, with an implicit end product or goal. After reading the text, the reader should be able to reach a goal or complete a product (Framework, p. 5).
F2. Identify the main ideas of informational text and determine the essential elements that elaborate them.	The NAEP Framework expects students to identify, explain and evaluate themes or central ideas in literary nonfiction (speeches, classical essays) and exposition (Framework, p. 19). The NAEP Framework also mentions supporting ideas and evidence (Framework, p. 23). The NAEP Framework mentions the importance of ancillary aids such as titles, headings, bolded text, or bulleted lists as specific components of text that reinforce authors' messages (Framework, p. 10). Other textual features are categorized as reflecting author's craft, i.e., the use of transitional words, signal words, voice, figurative language, and rhetorical structures (Framework, p. 24). Under the Locate/Recall Cognitive Targets Matrix, identifying supporting details and making simple inferences are included (Framework, p. 40).
F3. Summarize informational and technical texts and explain the visual components that support them.	Under Integrate/Interpret Cognitive Targets Matrix, summarizing major ideas is included (Framework, p. 40). Identifying topic sentence or main idea is included under the Locate/Recall Cognitive Targets Matrix (Framework, p. 40). The NAEP Framework also includes an understanding of graphic features such as captions, sidebars, photos and illustrations, and charts and tables (Framework p. 23).
F4. Distinguish between a summary and a critique.	The NAEP Framework does not specifically address this benchmark, but it does include both summarizing text and evaluating text, representing these two types of writing (Framework, p.41).
F5. Interpret and use information in maps, charts, graphs, time lines, tables and diagrams.	The NAEP Framework makes reference to the fact that expository text, procedural text, and argumentation and persuasive text "often contain pictures, charts, tables, and other graphic elements that augment text and contribute to its meaning" (Framework, p. 10). In another paragraph, NAEP makes it clear that documents that include graphical representations will be represented on the NAEP Reading Assessment (Framework, p. 10). Under the Locate/Recall Cognitive Targets Matrix, locating specific information in text or graphics is included. In addition to maps, charts, etc. that are embedded in other text, the 12 th grade NAEP will also include "stand-alone" materials such as manuals and applications (Framework, p. 11).

F6. Identify interrelationships between and among ideas and concepts within a text, such as cause-and-effect relationships.	Understanding the interrelationships between and among ideas is referenced in part in the NAEP Framework under the discussion about the structural elements of text, including causation (Framework, p. 15). In addition, under the Integrate/Interpret Cognitive Targets Matrix, comparing or connecting "ideas, problems, or situations within texts" is mentioned (Framework, p. 40). Under the Locate/Recall Cognitive Targets Matrix, causal relations are included (Framework, p. 40). Under the Critique/Evaluation Cognitive Targets Matrix, evaluating "the author's perspective or point of view within or across texts" is cited as is determining "the quality of counter arguments within and across texts" (Framework, p. 40).
F7. Synthesize information from multiple informational and technical sources.	The NAEP Framework highlights the need for readers to integrate information across a set of texts and states, "Continuing the use of intertextual passage sets as part of the NAEP Reading Assessment is recommended to approximate the authentic task of reading and comparing multiple texts" (Framework, p. 12). In addition, under the Integrate/Interpret Cognitive Targets Matrix, comparing or connecting "ideas, problems, or situations within or across texts" is included (Framework, p. 40). Determining "the importance of the information within and across texts," is also included. (Framework, p.40)
F8. Draw conclusions based on evidence from informational and technical texts.	The NAEP Framework addresses drawing conclusions as a behavior under the Integrate/Interpret Cognitive Targets Matrix: "This aspect of the reading is critical to comprehension and can be considered the stage in which readers really move beyond the discrete information, ideas and so forth presented in text and extend their initial impressions by processing information logically and completely" (Framework, p. 38). Drawing conclusions and providing supporting information is mentioned specifically under the Integrate/Interpret Cognitive Targets Matrix (Framework, p. 40).
F9. Analyze the ways in which a text's organizational structure supports or confounds its meaning or purpose.	The NAEP Framework goes to some lengths to describe the distinct structural features of informational text, including, description, sequence, causation, comparison, and problem/solution. It also mentions these structural features as they relate to literary nonfiction

	(speeches, classical essays) (Framework, p. 9). Analyzing the presentation of information is included under the Critique/Evaluation Cognitive Targets Matrix (Framework, p. 40). Describing problem and solution and cause and effect is included under the Integrate/Interpret Cognitive Targets Matrix (Framework, p. 40). Identifying the author's purpose is included under the Locate/Recall Cognitive Targets Matrix (Framework, p. 40).
F10. Recognize the use or abuse of ambiguity, contradiction, paradox, irony, incongruities, overstatement and understatement in text and explain their effect on the reader.	While the Framework does not address all aspects of the ADP benchmark, contained under literary text (which includes Literary Nonfiction), NAEP expects students to know and understand exaggeration and irony (Framework, p. 19). Under Exposition, the NAEP Framework includes irony and sarcasm (Framework, p. 23). Analyzing how an author uses literary devices and text features is included under the Integrate/Interpret Cognitive Targets Matrix (Framework, p. 40). Within the Achievement Level Matrix, the ability to "evaluate the quality of supporting evidence" and to "critique the presentation of information" are aspects of the advanced reader of informational text (Framework, p. 43).
F11. Evaluate informational and technical texts for their clarity, simplicity and coherence and for the appropriateness of their graphics and visual appeal.	The NAEP Framework makes reference to the graphic features and visual appeal of the three forms of informational text (exposition, procedural, and argumentation), including "titles, labels, headings, subheadings, sidebars, photos and illustrations, charts and graphs, and legends." (Framework, p. 28) Judging author's craft and technique is included under the Critique/Evaluate Cognitive Targets Matrix. (Framework, p.40) Analyzing how an author uses literary devices and text features is included under the Integrate/Interpret Cognitive Targets Matrix. (Framework, p. 40)
G. Media Not applicable	
H. Literature	
H1. Demonstrate knowledge of 18th and 19th century foundational works of American literature.	While 18 th and 19 th century works of American literature are not called out specifically, criterion for selecting text is that they will "reflect our literary heritage by representing many historical periods." (Framework, p. 18) Literary heritage is defined as, "works

	by authors whose writing influenced and continues to influence the thinking, history, and politics of the nation. These works comprise the literary and intellectual capital drawn on by later writers." (Framework, A-3)
H2. Analyze foundational U.S. documents for their historical and literary significance (for example, <i>The Declaration of Independence</i> , the Preamble to the <i>U.S. Constitution</i> , Abraham Lincoln's "Gettysburg Address," Martin Luther King's "Letter from Birmingham Jail").	While NAEP does not mention these foundational documents by name, they could be and likely would be included under the category of literary nonfiction. Speeches are also included as literary informational texts.
H3. Interpret significant works from various forms of literature: poetry, novel, biography, short story, essay and dramatic literature; use understanding of genre characteristics to make deeper and subtler interpretations of the meaning of the text.	NAEP goes into some detail about the genre or type of text that students should be familiar with, including various types of fiction, folktales, fantasy or science fiction, satire, parody, allegory and monologue (Framework, p. 17). Understanding the characteristics of biographies, autobiographies, character sketches, and memoirs are also included (Framework, p. 17). With respect to poetry, the following genres are included: narrative poem, lyrical poem, humorous poem, free verse, ode, song (including ballad) epic, sonnet and elegy (Framework, p. 21).
H4. Analyze the setting, plot, theme, characterization and narration of classic and contemporary short stories and novels.	Under the description of types of text to be included, the NAEP Framework mentions the structural patterns of narrative short stories and novels as including setting or settings, simple or complex plot, characters' challenges and feelings, and themes or major ideas that are stated implicitly or explicitly (Framework, p. 8). It also speaks to how these elements relate to one another, i.e., how the plot that consists of a series of episodes and delineates a problem to be solved requires characters to change, revise plans, or face challenges (Framework, p. 8). In the Narratives Matrix, students are expected to be able to discern themes, morals, and lessons; plot, conflict, flashback, foreshadowing, and resolution; and parallel and circular plots (Framework, p. 17). They are also expected to be able to work with setting, characterization, and point of view. (Framework, p. 17) The NAEP Framework calls out interior monologue, unreliable narrators and multiple points of view (Framework, p. 17).

 Examine relations between theme and setting or characters Evaluate the role of literary devices in conveying meaning Determine the degree to which literary devices enhance a literary work Evaluate a character's motivations and decisions Analyze the point of view used by the author
The NAEP Framework makes specific reference to poetry as a "highly imaginative form of communication, in that poets try to compress their thoughts in fewer words than would be in ordinary discourse or in prose" (Framework, p. 9). The emphasis is on picturesque and evocative words, devices that convey the symbolic nature of ideas, emotions and actions, and the abstraction of language as a means to assess critical thinking skills not found in other types of literary works (Framework, p. 9). The Framework also mentions rhyme scheme, rhythm, line organization, alliteration, patterns, repetition, stanza, use of white space, Iambic Pentameter under the Poetry Matrix (Framework, p. 20). Under the Integrate/Interpret Cognitive Targets Matrix, explaining how rhythm, rhyme, or form in poetry contributes to meaning is included (Framework, p. 40).
Dramatic literature is not included in NAEP but dramatic irony, soliloquy and dialogue are mentioned under poetry, fiction and literary nonfiction (Framework, pp. 17, 19, 21).
This is not specifically addressed by NAEP although autobiographies and biographies are called out in some detail and it is hard to imagine not including some understanding of the historical period (politics, social

H8. Analyze the moral dilemmas in works of literature, as revealed by characters' motivation and behavior.	customs, major events) in which such a work was written as one is asked to interpret such a piece of writing. A criterion for selecting text is that they will "reflect our literary heritage by representing many historical periods" (Framework, p. 18). While moral dilemmas are not directly referenced, the Framework discusses how the plot requires "characters to change, revise plans, or face challenges" as they move toward resolution, and consists of "a reaction that expresses the protagonist's feeling about his or her goal attainment or relates to the broader consequences of the conclusion of the story" (Framework, p. 8).
H9. Identify and explain the themes found in a single literary work; analyze the ways in which similar themes and ideas are developed in more than one literary work.	Under the Advanced Achievement Level, explaining thematic connections across literary texts is included (Framework, p. 47), but it is not included under the Proficient Achievement Level.

NAEP FRAMEWORK BENCHMARKS NOT INCLUDED IN ADP:

Determine the quality of counterarguments within and across texts

Under Argumentation and Persuasive text:

- Figurative language and rhetorical structure, including parallel structure and repetition
- Voice

Under Exposition:

• Figurative language and rhetorical structures, including parallel structure and repetition

Under Poetry:

- Tone
- Complex symbolism
- Extended metaphor and analogy

Under Literary Nonfiction:

- Voice
- Tone

Under Narratives:

- Character Foils
- Comic relief
- Mood
- Flashback
- Foreshadowing