Welcome!

• Welcome to the National High School Center’s Webinar, “The Complexity of College and Career Readiness”

• The Webinar will begin at 3:00 p.m. EDT

Before the Webinar:

• The line will be silent until 3:00 p.m., when the Webinar begins

• All lines will be muted during the presentation.

• If you experience technical problems, please use the chat feature to ask questions, or call 1-800-634-0503
The Complexity of College and Career Readiness

National High School Center at the American Institutes for Research

June 5, 2012
• First in a series of four National High School Center Webinars that examine major issues and practices associated with college and career readiness (CCR)

• Three additional Webinars to be held on each Tuesday in the month of June, from 3:00 pm – 4:30 pm EDT:
  – June 12, 2012: CCR and Linked Learning (co-hosted with the Alliance for Excellent Education)
  – June 19, 2012: CCR and Students with Disabilities

• Registration available for these upcoming Webinars at: http://www.surveymonkey.com/s/Y6KYYFYV
Webinar Agenda

- Introductions and Overview
  
  Joseph Harris, Director
  National High School Center

- The Complexity of College and Career Readiness
  
  David Conley, Professor, University of Oregon
  CEO, Educational Policy Improvement Center

- Questions/Comments

- Introduction to the National High School Center’s College and Career Readiness Community of Practice
  
  Helen Duffy, CCR Coordinator
  National High School Center

- Closing
CCR Technical Assistance Network At-a-Glance

Content Comprehensive Centers including the National High School Center

OSEP TA&D Centers

16 Regional Comprehensive Centers (RCCs)

IES Regional Labs

State Education Agencies

Local Education Agencies

Local High Schools

CCR High School Students

CCR TA and Service Providers, Resource Developers, and Stakeholder Groups
1. What it means to be college and/or career ready is neither explicit, shared, nor easily measurable.

2. The mission, organization, structures, and cultures of many high schools aren’t currently designed to support CCR for ALL students.

3. A wide variety of service providers and implementers are targeting specific components of the broader CCR landscape with only minimal alignment of their efforts.
CCR Definitions Word Cloud
College and Career Development Organizer

- **Goals and Expectations - College and Career Readiness**
  - Core Content
  - Pathways Content
  - Lifelong Learning Skills

- **Pathways and Supports - College and Career Preparation**
  - Personalized Learning Supports
  - Rigorous Programs of Study
  - Aligned Resources, Structures, and Supports

- **Outcomes and Measures - College and Career Success**
  - On-track Indicators
  - Attainment and Authentication
  - Accountability and Improvement Feedback
The Organizer and accompanying resources are located on the National High School Center’s Web site at:

http://www.betterhighschools.org/CCR/overview.asp

- College and Career Development Organizer [Brief]
- Goals and Expectations for College and Career Readiness: What Should Students Know and Be Able to Do?
- Pathways and Supports for College and Career Preparation: What Policies, Programs, and Structures Will Help High School Graduates Meet Expectations?
- Outcomes and Measures for College and Career Success: How Do We Know When High School Graduates Meet Expectations?
- College and Career Readiness Action Planning Template
- Defining College and Career Readiness: A Resource Guide
THE COMPLEXITY OF COLLEGE AND CAREER READINESS

David T. Conley, PhD
Professor, University of Oregon; CEO, EPIC
National High School Center at AIR
Washington, DC
National Webinar - June 5, 2012
We’re entering a POLICY ENVIRONMENT focused on *college and career readiness*.

+ NCLB waivers demand college/career readiness standards.
+ ESEA reauthorization elevates college and career readiness.
+ Individual states are setting college/career ready goals.
+ Common Core State Standards, consortia assessments are being developed, implemented.
+ Pressure grows to increase student success in college, in part due to mounting student debt
College and career readiness are major policy goals but we are unclear what we mean by the terms.

The authors of college and career readiness standards and assessments assume these mechanisms will, in and of themselves, drive changes in curriculum and instruction that result in many more students ready for postsecondary education.

College and career readiness is more than a single score on an English and math test.

College readiness and career readiness are similar but not the same.
Success in postsecondary educational settings is a function of *readiness across multiple dimensions*. Readiness can be thought of as the *alignment among student skills, interests, aspirations, and their postsecondary objectives*. Current measures of college and career readiness can be *insufficient for determining this alignment* for individuals although they may be adequate at the policy level.
WE FACE AN ASPIRATIONS GAP

+ We have gotten the message through to kids that they should *aspire to continue their education beyond high school*.

+ However the reality is that, for many students, *aspirations do not end up aligning with outcomes*.

+ The students most likely to experience the aspirations gap are those from groups *traditionally underrepresented in postsecondary education*. 
Start with **100 middle school students**...
93 say they want to go college. (-7% from previous)
70 graduate from high school. (-22% from previous)
44 enroll in college. (-37% from previous)
26 earn a college degree within six years of enrolling. (-41% from previous)
TODAY’S TALK DRAWS FROM RESEARCH CONDUCTED BY THE PRESENTER AND THE EDUCATIONAL POLICY IMPROVEMENT CENTER OVER THE PAST 15 YEARS, AND ADDITIONAL SOURCES.

My experience being first-in-family to go to college also shapes my perspective.
THE CURRENT MODEL IS REALLY CONCERNED WITH *ELIGIBILITY* FAR MORE THAN *READINESS*.

Eligibility is based on completing a set of requirements.

- “College prep” courses
- Admissions test
- Placement test

Students are then admitted to college under a “hunting license” model.

WHAT IS NEEDED: A READINESS APPROACH TO COLLEGE AND CAREERS
A college and career ready student possesses the content knowledge, skills, and habits necessary to be successful in postsecondary education or training that leads to a family sustaining career.

While not every student needs exactly the same proficiency, a student’s interests influence the precise knowledge and skills necessary to be ready for postsecondary studies.
Prerequisite skills include:

• proficiency in reading a range of types of material, with an emphasis on informational texts

• fluent writing in several modes, most notably expository and descriptive

• quantitative literacy through algebra and including geometry, combined with the ability to understand and interpret data

• an understanding of the scientific method and some insight into the organization of knowledge in the sciences

• an awareness of how social systems operate and how they are studied

• basic proficiency in a second language and awareness that languages reflect cultures

• experiences in and appreciation of creative and expressive arts.
ALTHOUGH ALIGNED TO COLLEGE AND CAREER READINESS, THE CCSS ARE LESS CLEAR ON THE PRECISE DEFINITION OF COLLEGE AND CAREER READY:

The relationship of the English Language Arts/Literacy Standards to college and career readiness:

“the CCR standards anchor the document and define general, cross-disciplinary literacy expectations that must be met for students to be prepared to enter college and workforce training programs ready to succeed.” (Common Core State Standards in English Language Arts and Literacy in History/Social Studies, Science, and Technical Subjects, 2010).

Mathematics Standards are silent on relationship to college and career readiness beyond stating they are to enable students “to access the knowledge and skills necessary in their post-school lives.” (Common Core State Standards for Mathematics, 2010).
EPIC’S RESEARCH ON COMMON CORE AND COLLEGE READINESS

+ Common Core State Standard (CCSS) are applicable and important to success in a wide range of postsecondary courses.

+ Cognitive challenge level of the CCSS is sufficient.

+ CCSS are a coherent representation of the knowledge necessary for success in college courses.

+ The CCSS do not omit key knowledge and skills.

+ A core of knowledge and skill is common across general education and career oriented courses.

+ Career areas tend to have knowledge profiles that differ from general education.
## INSTRUCTORS FROM 1897 COLLEGE COURSES REVIEWED THE CCSS

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<th>Content area</th>
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OVERALL APPLICABILITY FOR ELA & LITERACY

- Percent of all respondents who rated at least one standard as either prerequisite, reviewed, introduced, or subsequent.

Figure 13. Percent of Respondents Rating at Least One Standard within the ELA and Literacy Strands as Applicable³ to their Course
OVERALL APPLICABILITY FOR MATHEMATICS

• Percent of all respondents who rated at least one standard as either prerequisite, reviewed, introduced, or subsequent.

Figure 33. Percent of Respondents Rating at Least One Standard within the Mathematical Conceptual Categories and Mathematical Practices as Applicable a to their Course

<table>
<thead>
<tr>
<th>Conceptual Category</th>
<th>All (1897 respondents)</th>
<th>Math (302 respondents)</th>
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<td>Algebra</td>
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<td>Functions</td>
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<td>50</td>
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<td>Geometry</td>
<td>18</td>
<td>40</td>
</tr>
<tr>
<td>Statistics and Probability</td>
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<td>49</td>
</tr>
<tr>
<td>Mathematical Practices</td>
<td>100</td>
<td>73</td>
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</tbody>
</table>

Note. The graphic shows ratings for the 302 respondents of mathematics courses separately.

aApplicable is considered a rating of prerequisite, reviewed, introduced, or subsequent.
COGNITIVE DEMAND OF CCSS SUFFICIENT FOR STUDENTS TO BE PREPARED TO SUCCEED?

Figure 52. Answer from Respondents (n = 1798) to Question "Do the Standards Reflect a Level of Cognitive Demand Sufficient for Students Who be Prepared to Succeed in Your Course?"

- Yes: 95.7%
- No: 4.3%

$n = 1798$
ENGLISH STANDARDS A COHERENT REPRESENTATION OF NECESSARY KNOWLEDGE?

n = 1769

Survey results from respondents (n = 1769) to question "Are the English Standards, Taken as a Whole, a Coherent Representation of the Fields of Knowledge Necessary for Success in Your Field?"
Figure 50: Answer from Respondents (n = 1706) to Question "Are the Mathematics Standards Taken as a Whole, a Coherent Representation of the Knowledge and Skills Necessary for Success in Your Course?"
National Assessment Governing Board defines preparedness as a subset of readiness:

“Preparedness focuses on academic qualifications, which are measured by NAEP. Readiness includes behavioral aspects of student performance—time management, persistence, and interpersonal skills, for example—which are not measured by NAEP.” (Technical Panel on 12th Grade Preparedness Research Final Report, 2009).
DISTINGUISHING AMONG DIFFERENT TYPES OF READINESS

WORK Ready
Meets basic expectations regarding workplace behavior and demeanor

JOB Ready
Possesses specific knowledge necessary to begin an entry-level position

PATHWAY Ready
Possesses knowledge and learning skills necessary to begin to focus in an area of study or training

POSTSECONDARY Ready
Is prepared to succeed in a wide range of postsecondary courses

CAREER AND LIFE Ready
Can pursue a career and a fulfilling life as a productive citizen.
think:
Problem Formulation
Research
Interpretation
Communication
Precision & Accuracy

know:
Structure of Knowledge
Challenge Level
Value
Attribution
Effort

Key Cognitive Strategies
Key Content Knowledge
Key Transition Knowledge and Skills
Key Learning Skills and Techniques

go:
Postsecondary Awareness
Postsecondary Costs
Matriculation
Career Awareness
Role and Identity
Self-advocacy

act:
Ownership of Learning
Learning Techniques
THE KEY COGNITIVE STRATEGIES

- Hypothesize
- Strategize

- Identify
- Collect

- Organize
- Construct

- Monitor
- Confirm

- Analyze
- Evaluate
EXAMPLE OF A TASK REQUIRING KEY COGNITIVE STRATEGIES

Social Studies Task

Students study natural disasters, then choose one and write a policy paper (or an annotated outline for a policy paper) for the Conference on World Disaster Reduction. The paper (or oral presentation—individual or group):

+ Predicts reasons humans are affected by natural disasters
+ Researches a type of natural disaster
+ Outlines how to mitigate the impact of this type of disaster
+ Discusses the trade-offs associated with different policies that might mitigate the impact
KEY CONTENT KNOWLEDGE

Structure of Knowledge
- Facts
- Key Terms
- Linking Ideas
- Organizing Concepts

Student Relation to Content
- Attribution
- Effort vs. Aptitude
- Academic Value
- Challenge
Ownership of Learning

Know Yourself
• **Be self-aware**. Find out your interests, passions, skills, and ambitions.

Set Goals
• **Know what you need to achieve** based on self-awareness.

Be Motivated
• **Have the mindset** to achieve your goals.

Persist
• **Don’t give up**, especially when something does not come as easily to you.

Monitor Performance
• **Know how well you are really doing**. Gauge your true skill level.

Ask for Help
• **Know when you are stuck, then get help**. Don’t view this as a weakness.

Show Self-Efficacy
• **Learn how to control the things you can control**. Then, control them.
KEY LEARNING TECHNIQUES

- Manage Time
- Take Notes
- Study for Tests
- Memorize
- Read Strategically
- Learn Collaboratively
- Use Technology
KEY TRANSITION KNOWLEDGE & SKILLS

Postsecondary Awareness
- Postsecondary Aspiration
- Postsecondary Norms & Culture

Postsecondary Costs
- Tuition Awareness
- Financial Aid Awareness

Matriculation
- Postsecondary Eligibility
- Admissions Procedures
- Program Selection

Career Awareness
- Career Options
- Career Requirements
- Career Readiness

Role & Identity
- Role Identity
- Role Conflict
- Role Models

Self-Advocacy
- Resource Acquisition
- Institutional Advocacy
Increasingly, the academic skills and learning strategies required to pursue technical training are converging with those necessary to pursue a bachelor’s degree.

An example illustrates this convergence.

The example is from an O*NET Zone 3 job description.
Environmental Engineering Technicians

Example Tasks:
- Conduct pollution surveys, collecting and analyzing samples such as air and ground water.
- Perform statistical analysis and correction of air or water pollution data submitted by industry and other agencies.
- Review technical documents to ensure completeness and conformance to requirements.
- Provide technical engineering support in the planning of projects, such as wastewater treatment plants, to ensure compliance with environmental regulations and policies.

Necessary Skills:
- Critical thinking
- Reading comprehension
- Judgment and decision making
- Complex problem solving
- Quality control analysis

Degree and Certificate Pathways:
- Associate of Science—Environmental Engineering Technology
- Certificate of Geotechnical Engineering Technology
College readiness is a CONTINUUM.
The Range of Readiness?
What Is Sample Student A Ready For?

<table>
<thead>
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<th>KCS</th>
<th>KCK</th>
<th>KLTS</th>
<th>KTKS</th>
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<td>Y</td>
<td>Y</td>
<td>N</td>
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<tr>
<td>Job Ready</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
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<tr>
<td>Career Ready</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>College Ready</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Life Ready</td>
<td>??</td>
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</tbody>
</table>

Each Student’s Readiness Profile Varies in Relation to Life Goals
The Challenge Is for All Students to Have High Goals
While English and math content standards are clearly necessary for postsecondary readiness, they may not be fully sufficient for postsecondary success.

Curriculum and instruction still need to incorporate much more than a set of math and English content standards.

Among these are cognitive strategies development, learning skills and techniques, specific information about the process of transitioning to postsecondary education, and learning experiences in the sciences, social sciences, second languages, and the arts.

OBSERVATIONS REGARDING COLLEGE AND CAREER READINESS STANDARDS
EXAMPLE FROM COMMON CORE STATE STANDARDS: ELA ANCHOR STANDARD 1:

Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.

What does competence in this standard look like?
How might competence be different with different types of texts?
How is this standard best assessed?
What does the performance standard look like across grades?
No single test can gauge all of what is necessary for college and career readiness.

Cut scores for college and career readiness are appropriate at a system level but become more error-prone and inappropriate at each subsequent sublevel, i.e., state, district, school, classroom, individual.

The likelihood that scores from a single measure of college and career readiness will be misused is high.
Given the complexity of college and career readiness, we should think in terms of **systems of assessment**, rather than one test or score that determines readiness for everything for everyone.

- Grades, student self-reports, complex curriculum-embedded performance tasks, behavioral assessments, non-content-based measures

The result would be **profiles of readiness in relation to goals** and **recommendations on how to improve readiness** in relation to goals.

“**Badge” systems** are potentially a step in this direction.
Monitor student aspirations more closely
   Who’s aspiring to what future?

Infuse curriculum with full range of Common Core Standards
   Reading informational texts, reading strategically
   Speaking and listening
   All Standards for Mathematical Practice

Assess with methods that are college and career-like
   Performances, demonstrations, simulations, projects, presentations, team exercises, critiques

Help students develop profiles of their readiness
   Where do they stand in relation to their goals?
Syllabi in high school are vastly underdeveloped

How can students or parents know expectations?

A syllabus is far more than a list of activities and due dates

Alignment of course to key standards, challenge level, relation to college and career readiness, relation to prior and subsequent courses in the subject area

The process of creating syllabi facilitates necessary conversations about coverage, challenge level, alignment, and sequencing

Common formats for syllabi also create a level of accountability schoolwide
Questions/Comments

David T. Conley, Ph.D., EPIC
Joseph R. Harris, Ph.D., National High School Center
Introduction to the College and Career Readiness Community of Practice

Helen Duffy, Ph.D.
CCR Coordinator
National High School Center
College and Career Readiness Community of Practice

• Launches TODAY: June 5th

• Open online community for technical assistance (TA) providers and education stakeholders interested in college and career readiness implementation.

• Members of this interactive group can:
  – Interact with college and career readiness resources and tools as “social objects”
  – Participate in discussions around college and career readiness resources, strategies, and initiatives
  – Learn about upcoming events

www.betterhighschools.org
http://community.betterhighschools.org/
• If you are already a member of the National High School Center’s EWS group and/or High School Tiered Interventions group, login with your username.

• Once logged in, click on the College and Career Readiness group logo.

• To join the community, click the ‘Join’ button to the right of the group title in the middle of the page.
If you are new to the National High School Center’s Community of Practice, select “sign up” in the upper right corner of the page and complete the registration.

You should receive an email with your password which you can then use to login and follow the instructions from the previous slide.

*NOTE: If you do not receive this email, please email the NHSCCommunity@air.org for assistance.
• Use the navigation buttons on the group’s main page to:
  – Interact with college and career readiness resources
    ![Read & Comment](image)
    on Resources and Publications
  – Interact with other members in discussion forums
    ![Start a discussion](image)
  – Get information on college and career readiness events
    ![Upcoming Events](image)
  – Get tips for participating with the community
    ![Guidelines](image)
  – Ask for support
    ![Support](image)
Closing

Joseph R. Harris, Ph.D.
Director
National High School Center
Upcoming June Webinars

• **June 12, 2012:** College and Career Readiness and Linked Learning (co-hosted with the Alliance for Excellent Education)

• **June 19, 2012:** College and Career Readiness and Students with Disabilities

• **June 26, 2012:** Aligning Resources, Structures and Supports for Actualizing College and Career Readiness

• Register now for these upcoming Webinars: http://www.surveymonkey.com/s/Y6KYYFV
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www.betterhighschools.org

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