



Achieve, Inc.

American Diploma Project Network

*An example of cross-state collaboration:
The American Diploma Project's
Algebra exams*

CCSSO

June 16, 2008

Who is Achieve, Inc.?



Created by the nation's governors and business leaders, Achieve, Inc., is a bipartisan non-profit organization that helps states raise academic standards, improve assessments and strengthen accountability to prepare all young people for postsecondary education, careers, and citizenship.

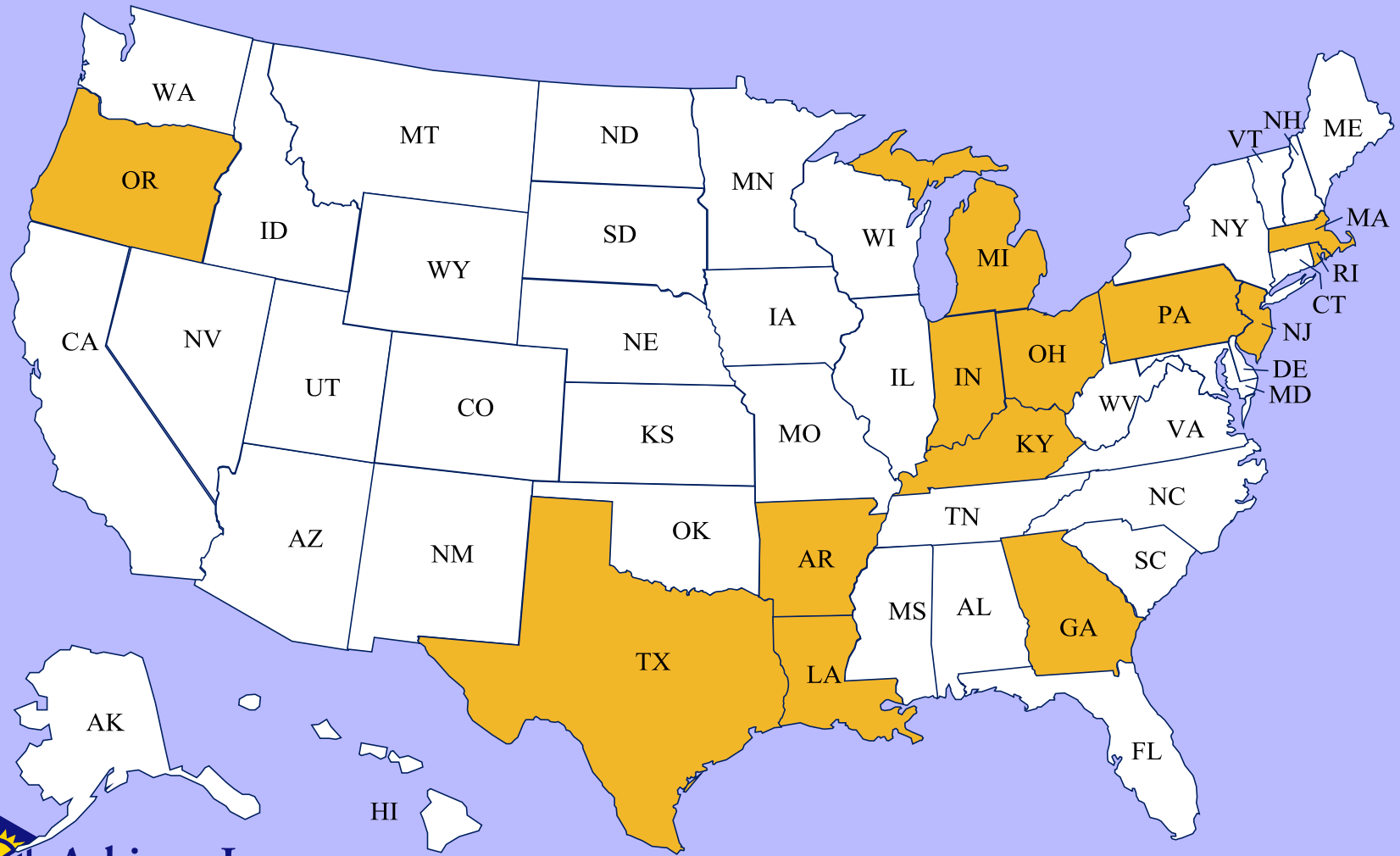


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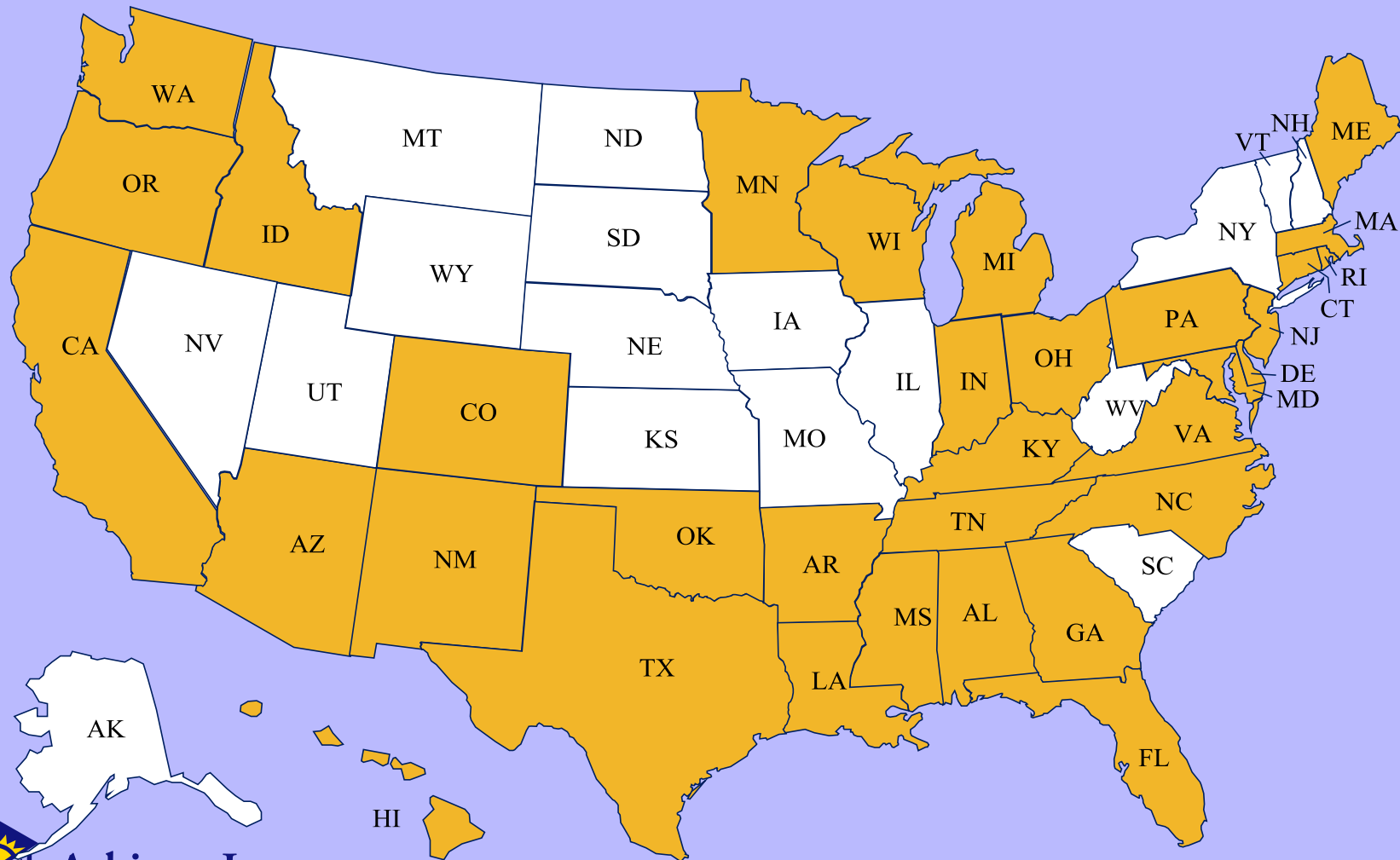
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In 2004, Achieve published, *Ready or Not*, English and mathematics benchmarks which reflect the knowledge and skills high school graduates need to have to be successful in college and career. In 2005, Achieve launched the American Diploma Project (ADP) network, a coalition of states committed to improving student preparation.

ADP Network launched at 2005 Summit: 13 states committed to improving student preparation



ADP Network today: thirty-three states now committed to improving student preparation



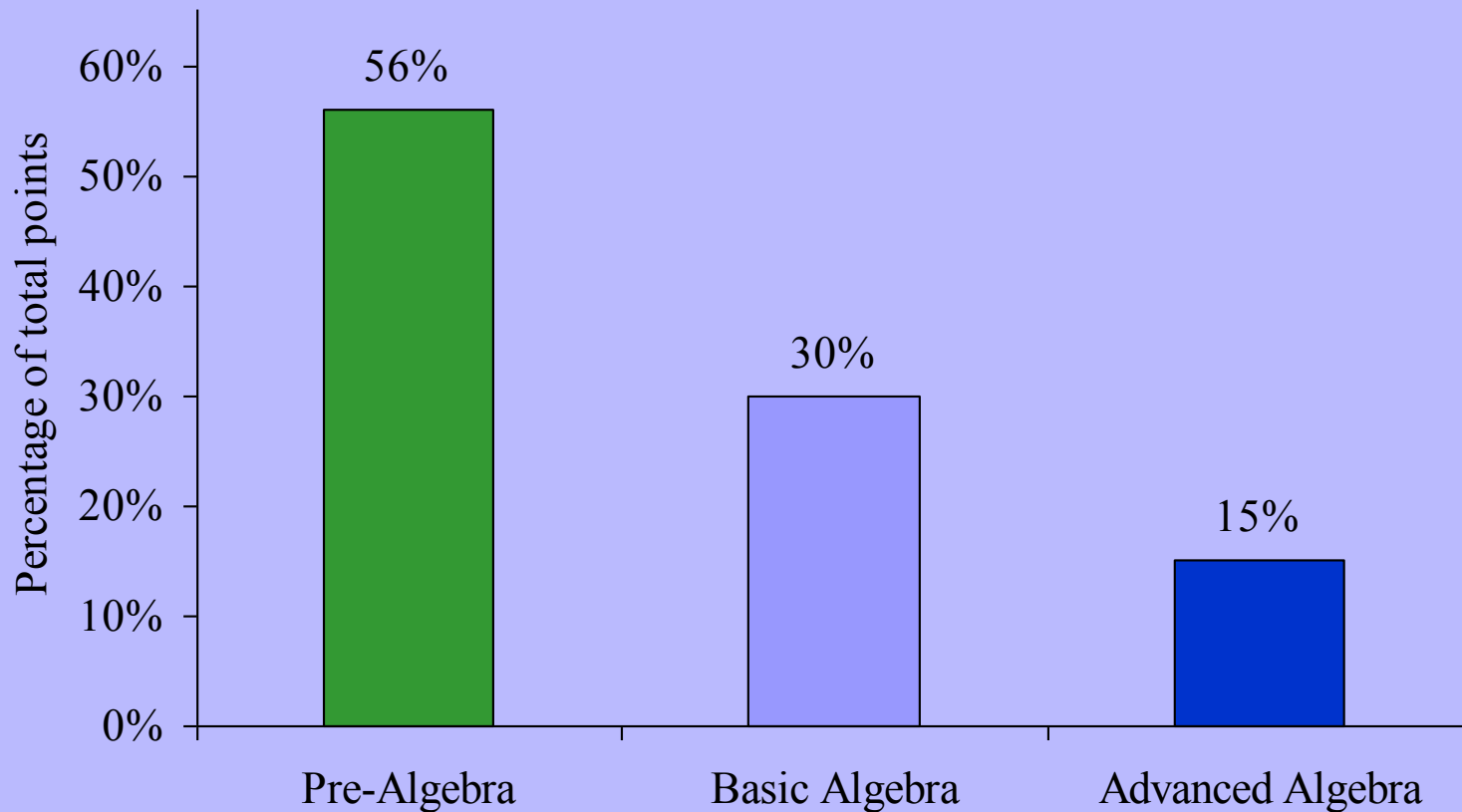
Closing the Expectations Gap: ADP Network Policy Agenda

- Align high school standards with college and career expectations.
- Require all students to take curriculum aligned with standards.
- **Include “college-ready” tests, aligned with state standards, in high school assessment system.**
- Hold high schools accountable for graduating students college- and career-ready, and hold postsecondary institutions accountable for student success.

An Expectations Gap

- Historically, we haven't expected all students to graduate from high school college- and career-ready
 - State standards reflect consensus about what is desirable, not what is essential
 - Few states required Algebra II or its equivalent for graduation
 - State tests measure 8th and 9th grade knowledge and skills
 - High school accountability rarely focuses on graduation rates or on college- and work-readiness

Existing state exit tests tend to measure lower-level content



Source: Achieve, Inc., *Do Graduation Tests Measure Up? A Closer Look at State High School Exit Exams*, 2004.



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Closing the Mathematics Expectations Gap

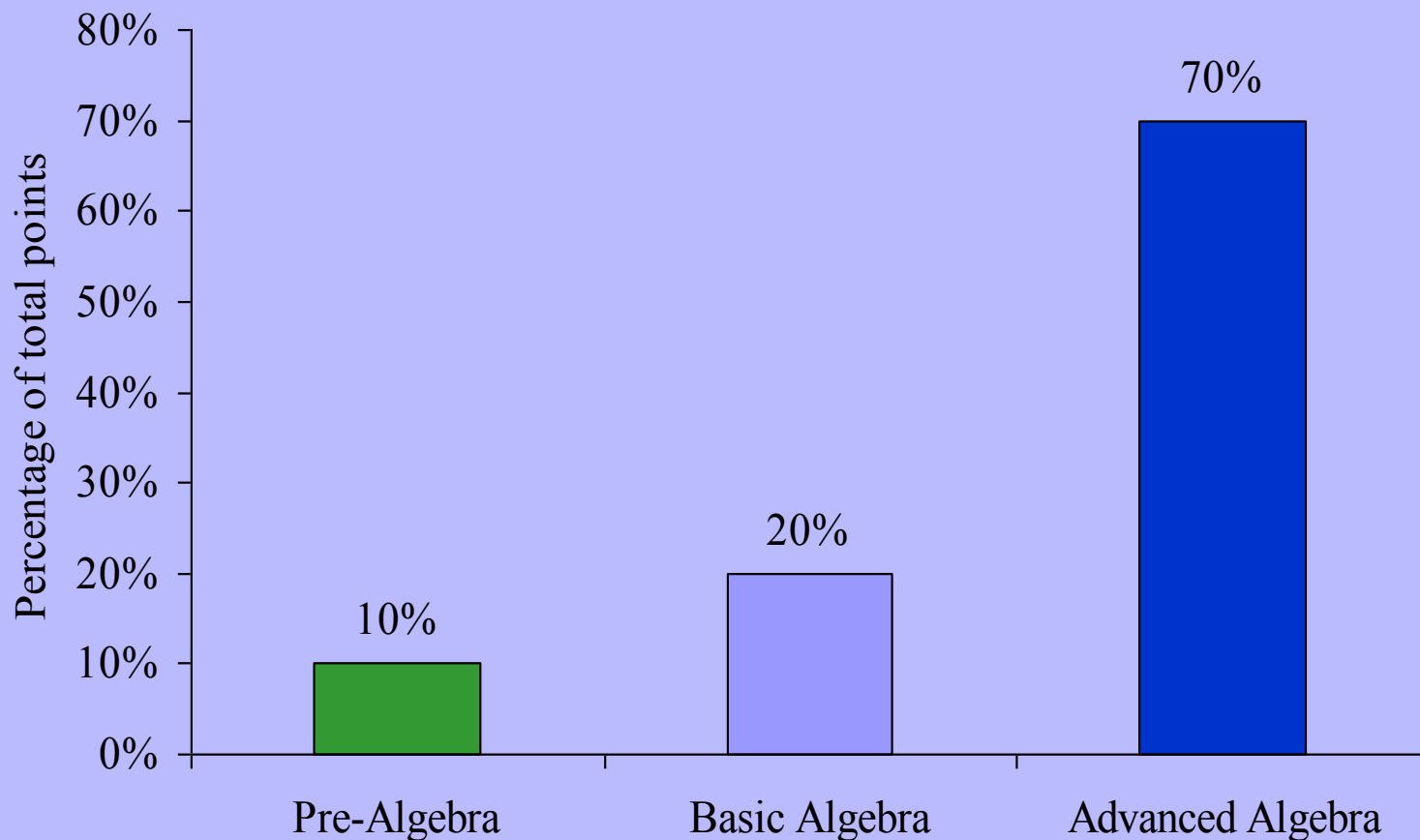
American Diploma Project (ADP)
Algebra II End-of-Course Exam

ADP Algebra II End-of-Course Exam

In 2005, ADP states began to explore possibility of collaborating on common assessment goals:

- To measure “college-ready” content (i.e., to set higher bar than most current assessments)
- To improve curriculum and instruction
- To ensure consistency of content and rigor in Algebra II courses within and among states
- To enable comparisons in performance among the states
- To reduce test development costs by working together
- To be considered as an indicator of readiness for postsecondary credit bearing math courses

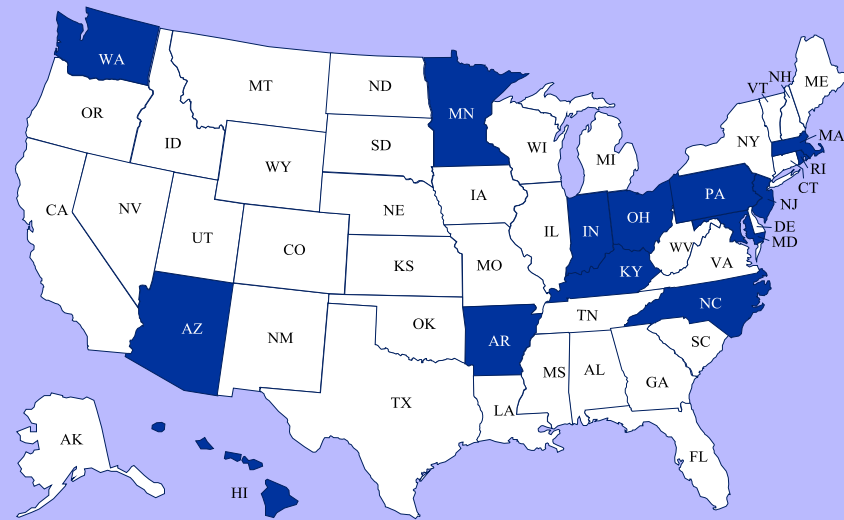
Goal: an Algebra II end-of-course exam that emphasizes higher level content



ADP Algebra II End-of-Course Exam

In summer 2006, nine states issued RFP for development of Algebra II: AR, IN, KY, MD, MA, NJ, OH, PA, RI

- Ohio acted as “lead state” in unprecedented multi-state procurement arrangement
- Vendor (Pearson) selected in Feb, 2007
- Five additional states join in 2007: AZ, HI, MN, NC, WA
- Exam was administered to 114,000 students from 12 states this spring
- Subset of state now working on Algebra I exam



Exam Core Content

Operations on Numbers and Expressions

- Real numbers
- Complex numbers
- Algebraic expressions

Equations and Inequalities

- Linear equations and inequalities
- Nonlinear equations and inequalities

Polynomial and Rational Functions

- Quadratic functions
- Higher-order polynomial and rational functions

Exponential functions

- Exponential functions

Function Operations and Inverses

- Function operations and composition
- Inverse functions
- Piecewise functions

Exam Core Design

- 57 operational items
- Two untimed sessions (approximately 45-60 minutes each)
- One with calculator/one without
- Multiple choice, short answer & extended response items
- At least 30% of points from non-multiple choice items
- Paper & Pencil/Online format



Algebra II Exam: Modules to extend rigor and scope

Items for modules have been field tested.

■ **Content:**

- Data & Statistics
- Probability
- Trigonometric Functions
- Logarithmic Functions
- Matrices
- Conic Sections
- Sequences & Series

■ **Design:**

- 8 items each
- 20-25 minute session
- All with calculator
- Multiple choice, short answer & extended response items
- 30% of points from non-multiple choice items
- Paper & Pencil/Online format

Algebra II Exam: Milestones

- Field Test 1: October 2007
- Field Test 2: February 2008
- First Operational Pencil & Paper: Spring 2008
- First Operational Online: Winter 2008/09
- Validity and Research Studies with Colleges and Universities: 2008 - 2009
- Standard Setting: Summer 2009

How Will States Use the Exam?

- This exam is still in the early stages of implementation
- States still contemplating how to use the exam in the context of their systems
- **Current Plans**
 - Some states will require all students who take Algebra II to take the Exam
 - Some states will allow districts to make decisions about whether to require the Exam
 - Some states will make the Exam optional, allowing students to decide whether to take it
 - Some states will make the Exam part of certain state initiatives

Collaborative elements

- **Shared purpose/s:** Chiefs agreed on purposes & committed their states (political will critical to success)
- **Agreement on content/design:** Assessment & content leads worked together to develop test content and design specifications
- **K-12/Higher ed articulation:** Involved high school teachers and higher education mathematics faculty from each state
- **Common performance levels:** Standards will be set collaboratively so they will be the same across states



Key players

- Coordination and Direction Team (CDT) – Decision making group
- Content Leadership
- Research Alliance – TAC + (includes individuals w/ technical, policy, higher education backgrounds). Advises on:
 - how to interpret the results of the comparability study between the paper and online assessments
 - what accommodations need to be considered
 - what validity studies are required so that the exam gains credibility among postsecondary faculty
 - how to ensure the standard setting process produces standards that truly indicate college readiness and support the other purposes

Achieve's role:

■ Convener

- ◆ At Chiefs request, Achieve convened states & facilitated development of standards/test blueprint

■ Quality Control

- ◆ Reviews forms to ensure alignment w/ standards

■ The "Glue"

- ◆ Act as go-between between states and vendor (multiple groups involved)
- ◆ Engage higher ed leaders
- ◆ Keep Chiefs informed

■ Reporter of annual results



Challenges ahead

- Communication within and across states (multiple entities need to stay connected)
- Capacity
- Resources
- Keeping an eye on the big picture
- Maintaining political will
- Integrating college/career ready measures into broader system



Developing other tests?

ACHIEVE, INC.
Created by the nation's governors and business leaders, Achieve helps states raise academic standards and achievement so that all students graduate ready for college, work and citizenship.

OUR GOAL
Over the past decade, states have led the national movement to raise standards, improve teaching and learning, and hold schools more accountable. Standards are in place in every state, but far too many young people leave our schools today without the skills they need to compete in college or the workplace. Achieve's goal is to help every state close the expectations gap so that all students graduate ready for success.

AMERICAN DIPLOMA PROJECT NETWORK
PLEASE SELECT A STATE

ALGEBRA II
ADP multistate test

Link for Algebra II information

More Information

For more information on Achieve,
please visit Achieve, Inc., on the Web at
<http://www.achieve.org>

For more information on ADP Algebra II End-of-Course Exam,
please visit Achieve, Inc., on the Web at
<http://www.achieve.org/AlgebraIITestOverview>

Contact Achieve:
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