Race to the Top Assessment
Consortia & Technology

Jessica McKinney, U.S. Department of Education
Wes Bruce, PARCC
Brandt Redd, Smarter Balanced

April 10, 2014
Agenda

- Refresher on Race to the Top Assessment (RTTA) program
- PARCC Update
- Smarter Balanced Update
Race to the Top Assessment Goals

Support states in delivering a system of more effective, valid, and instructionally useful assessments that —

- Measure standards that are rigorous, globally competitive, and consistent across States
- Provide accurate information about what students know and can do, including for very high/low achievement:
  - Student achievement of standards
  - Student growth from year to year
  - College and career ready by the time of high school graduation
- Reflect and supports good instructional practice
- Are designed from the outset to be an effective measure for all students, including English learners and students with disabilities
Race to the Top Assessment Goals

- Assessments designed to support:
  - Determinations of individual student college and career readiness
  - Teaching, learning, and program improvement
  - Determinations of school effectiveness
  - Determinations of principal and teacher effectiveness for the purposes of evaluation and support
  - Present data to each audience – students, parents, teachers, administrators, policymakers – in ways that are clear, useful, and actionable
- Maximize the use of technology
Program Highlights

- Four year grants to two groups of States—
  - Partnership for Assessment of Readiness for College and Careers (PARCC)
  - Smarter Balanced Assessment Consortium (Smarter Balanced)
- Assessments in grades 3-8 and high school in English Language Arts and Mathematics
- Both consortia elected to develop the assessments against the Common Core State Standards
- Summative assessments operational by 2014-15 school year
- Common achievement standards (cut score) within a consortium
As of 4/10/14
PARCC Assessment Design

English Language Arts/Literacy and Mathematics, Grades 3-11

BEGINNING OF YEAR

2 Optional Assessments/Flexible Administration

ENDING OF YEAR

Diagnostic Assessment
• Early indicator of student knowledge and skills to inform instruction, supports, and PD
• Non-summative

Mid-Year Assessment
• Performance-based
• Emphasis on hard-to-measure standards
• Potentially summative

Performance-Based Assessment (PBA)
• Extended tasks
• Applications of concepts and skills
• Required

End-of-Year Assessment
• Innovative, computer-based items
• Required

Speaking And Listening Assessment
• Locally scored
• Non-summative
Smarter Balanced Design

English language arts and mathematics, grades 3-8 and 11

Digital Clearinghouse of formative tools, processes and exemplars; released items and tasks; model curriculum units; educator training; professional development tools and resources; scorer training modules; and teacher collaboration tools.

Optional Interim Assessment
- Computer Adaptive Assessment and Performance Tasks

Scope, sequence, number and timing of interim assessments locally determined

Summative Performance Tasks For Accountability
- Reading
- Writing
- Math

Summative End Of Year Adaptive Assessment for Accountability

Re-take option
Technology Readiness Tool

- Consortia used RTTA grant funds in 2011 to jointly procure a technology readiness tool
- Optional for states, districts, and schools
  - Not all States have opted to use the tool
- Collected inventory of technology in fall 2012
- As consortia defined minimum technology specifications, tool enabled to report on readiness
- Continuously available to states and provides on-demand report to schools, districts, and states
Tech Readiness Tool Sample Report

### Overall Readiness Indicators

Reports are updated hourly.
Data as of September 13, 2013 at 6:00 PM CT.

The TRT Overall Readiness Indicators report is not a guarantee of absolute readiness, and in particular may not reflect all software or hardware technology dependencies, such as required secure browsers, required accessory devices, or bandwidth constraints.

Please carefully consult published consortia communications regarding complete requirements. SBAC communications regarding technology and requirements can be found here.

#### Requirements
Minimum

<table>
<thead>
<tr>
<th>Organization</th>
<th>Org Code</th>
<th>Completion Status</th>
<th>% Devices Meeting Minimum Requirements</th>
<th>% of Students that can be Tested on Existing Devices</th>
<th>% of Students that can be Tested with Existing Infrastructure</th>
<th>More Constrained By</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARBOUR COUNTY SCHOOLS</td>
<td>WV-WW02</td>
<td>92%</td>
<td>92%</td>
<td>97%</td>
<td>100%</td>
<td>Compliant Devices</td>
</tr>
<tr>
<td>BERKELEY COUNTY SCHOOLS</td>
<td>WV-WW04</td>
<td>91%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Both Equally</td>
</tr>
<tr>
<td>BOONE COUNTY SCHOOLS</td>
<td>WV-WW05</td>
<td>94%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Both Equally</td>
</tr>
<tr>
<td>BRAXTON COUNTY SCHOOLS</td>
<td>WV-WW06</td>
<td>94%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Both Equally</td>
</tr>
<tr>
<td>BROOKE COUNTY SCHOOLS</td>
<td>WV-WW08</td>
<td>38%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Both Equally</td>
</tr>
<tr>
<td>BUCKHANNON COUNTY SCHOOLS</td>
<td>WV-WV10</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Both Equally</td>
</tr>
<tr>
<td>CABBELL COUNTY SCHOOLS</td>
<td>WV-WV12</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Both Equally</td>
</tr>
<tr>
<td>CALHOUN COUNTY SCHOOLS</td>
<td>WV-WV14</td>
<td>75%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Both Equally</td>
</tr>
<tr>
<td>CLAY COUNTY SCHOOLS</td>
<td>WV-WW16</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Both Equally</td>
</tr>
<tr>
<td>clad district</td>
<td>WV-999</td>
<td>0%</td>
<td>6%</td>
<td>97%</td>
<td>100%</td>
<td>Network Bandwidth</td>
</tr>
<tr>
<td>DODDSDRIDGE COUNTY SCHOOLS</td>
<td>WV-WW18</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Both Equally</td>
</tr>
</tbody>
</table>

---

[Image of the website interface showing the data report]
PARCC Technology Update

National Forum on Education Statistics

Wes Bruce

April 10, 2014
Assessment Design
ELA/Literacy and Mathematics, Grades 3–11

- **Flexible administration**
  - **Diagnostic Assessment**
  - **Mid-Year Assessment**
  - **Performance-Based Assessment**
  - **End-of-Year Assessment**

- **Speaking and Listening Assessment**

**Key:**
- Optional
- Required
Some examples include:

- Text to Speech
- Speech to Text
- Magnification / Zoom
- Highlighting
- Customized colors
- Masking
- Graphic organizers or representations

- Captions for audio and video
- Descriptive video
- Native language supports/tools
- Braille (tactile/refreshable)
- Signing supports (ASL)
- Assistive technologies
<table>
<thead>
<tr>
<th>PARCC Technology Specifications</th>
<th>Desktops, Laptops, Tablets, Thin Client/VDI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minimum</strong></td>
<td><strong>Recommended</strong></td>
</tr>
<tr>
<td>Operating System</td>
<td><strong>Windows XP–SP3 (with caveats)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Windows 7 or newer</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Mac OS 10.6</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Mac OS 10.7 or newer</strong></td>
</tr>
<tr>
<td></td>
<td><em><em>Linux</em>: Ubuntu 9-10, Fedora 6</em></td>
</tr>
<tr>
<td></td>
<td>*<em>Linux</em>: Ubuntu 11.10, Fedora 16</td>
</tr>
<tr>
<td></td>
<td><strong>iOS6</strong></td>
</tr>
<tr>
<td></td>
<td><strong>iOS6 or newer</strong></td>
</tr>
<tr>
<td></td>
<td>*<em>Android 4.0</em></td>
</tr>
<tr>
<td></td>
<td>*<em>Android 4.0 or newer</em></td>
</tr>
<tr>
<td></td>
<td><strong>Chrome OS</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Chrome OS</strong></td>
</tr>
<tr>
<td><strong>Memory</strong></td>
<td><strong>By operating system</strong></td>
</tr>
<tr>
<td></td>
<td><strong>1 GB RAM</strong></td>
</tr>
<tr>
<td><strong>Processor</strong></td>
<td><strong>By operating system</strong></td>
</tr>
<tr>
<td></td>
<td><strong>1 GHz</strong></td>
</tr>
<tr>
<td><strong>Screen Size</strong></td>
<td><strong>9.5 “</strong></td>
</tr>
<tr>
<td></td>
<td><strong>9.5 “ or larger</strong></td>
</tr>
<tr>
<td><strong>Screen Resolution</strong></td>
<td><strong>1024 x 768</strong></td>
</tr>
<tr>
<td></td>
<td><strong>1024 x 768 or better</strong></td>
</tr>
<tr>
<td><strong>Bandwidth</strong></td>
<td><strong>5 kbps/ student using local caching</strong></td>
</tr>
<tr>
<td></td>
<td><strong>100 kbps/ student to support instruction and assessment</strong></td>
</tr>
<tr>
<td>External Connection to the Internet</td>
<td>Minimum With Caching</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td></td>
<td>5 kilobits per second (kbps)/student</td>
</tr>
</tbody>
</table>
PARCC Interoperability

- Items
- Item Interactions
- Item Bank
- State, District and School Information
- Student Demographics
- Item Scoring
- Student Results
### 2014 Field Test & First Operational Year

<table>
<thead>
<tr>
<th>Assessment Component</th>
<th>Administration Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance-Based Assessment (PBA)</td>
<td>March 24- April 11, 2014</td>
</tr>
<tr>
<td>End of Year Assessment</td>
<td>May 5 – June 6, 2014</td>
</tr>
<tr>
<td>(EOY) Operational – ECA only</td>
<td>Dec. 2014 (Block Schedule)</td>
</tr>
<tr>
<td>Operational – all grades</td>
<td>March 2015</td>
</tr>
</tbody>
</table>
• Technology Readiness
  – School
  – District
• Student Readiness
• School & District Readiness for Online Admin (transition from paper)
• Parent and Public Awareness
Technology Readiness

• **System Check Tool**
  – Verifies that computer devices meet requirements for running TestNav 8
  – Completes bandwidth testing for Internet and Proctor Caching connections and provides volume estimates for capacity planning.

• **Network/Bandwidth Tools**
  – A mock form will be available with sample items that replicate form size equal to field test form sizes. Can be used locally to imitate simultaneous testing day volumes of students accessing TestNav.
  – Network monitoring will evaluate bandwidth constraints, wireless hotspot constraints, etc.
Technology Readiness

• **Proctor Caching Software**
  – “Proctor Caching” software will be available to all PARCC schools as part of the Pearson TestNav 8 delivery platform. Caching helps avoid potential bandwidth and network constraints. The Proctor Caching User Guide was available in December 2013.

• **Full-Scale Infrastructure Trial**
  – Designed to be a "dress rehearsal" exercise where LEAs will simulate their full testing environment before the operational test administration
  – Performed using a full size Infrastructure Trial test form and mock student information at the training site to simulate a full testing load at the school.

• **Pearson TestNav Qualified Program**
  – Allows schools and districts to prem qualify certain computer devices and virtualized network solutions, as well as assistive technologies.
Platform Readiness and Performance Monitoring

- **Systems Testing**
  - Pearson iterative internal testing during development
  - User Acceptance Testing with PARCC
  - End-to-End functional, performance, security, and load testing
  - Currently discussing options for a third-party review

- **Local Configuration Testing**
  - Analysis of issues reported to the Help Desk and results of local infrastructure trials
  - PARCC-wide *Infrastructure Trial* was conducted with LEAs across states running trials simultaneously

- **Live Field Test Monitoring and Alerting**
  - Developing plans for how issues and defect resolution will be monitored and communicated across PARCC during the Field Test window.
Student Preparedness

- **Sample Items**
  - Sample items will be re-released on TestNav 8
  - Familiarize students with new item types (PCRs, EBSRs, Type II, Type III, and item functionalities (drag and drop, hot spots, equation builder)

- **TestNav8 Tutorial**
  - Familiarize students with how to navigate in the computer-based environment (going forward and back, tool bar, embedded supports and accommodations)
  - Allow students to practice with the embedded tools

- **Practice Tests**
  - The practice test will enable all students and teachers to become familiar with the full length PARCC assessments and to practice with the different types of technology functionalities.
School and District Personnel Preparedness for Online Assessment

- **Regional Trainings**
  - 2-3 per state, December-February, 4 hours in duration
  - Primarily for LEA personnel responsible for setting up and supporting computer-based testing. Some focus on paper-based testing

- **Training Modules (December/January)**
  1. Device/Network check, Infrastructure trial, and site readiness
  2. Technology set-up (Proctor Caching)
  3. Test administrator training
  4. Accommodations with computer-based testing

- **LEA Site Visits**
  - Several per state, November-February
  - Opportunity to have local infrastructure evaluated, identify risks

- **Scaling for Operational - PARCC & States**
**PARCCONLINE.ORG**
(Public)
- General Information
- Organized descriptions and links to all resources

**FIELD TEST RESOURCES SITE**
(Public – Pearson Operated)
- Training Manuals
- User Guides
- PDFs of Sample Items
- Links to Training Modules
- Links to Tutorial
- Links to Practice Test

**PEARSON TRAINING MANAGEMENT SYSTEM**
(public but must register)
- Training Modules

**PEARSON ACCESS ADMINISTRATIVE PORTAL**
(Public)
- Test Nav Tutorial
- PARCC Sample Items

(Password Protected)
- Registration
- Order additional paper materials
- Launch the field test
- Infrastructure trial form
<table>
<thead>
<tr>
<th></th>
<th>Test Administrators</th>
<th>Technology Coordinators</th>
<th>Students</th>
<th>Public</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manuals and User Guides</td>
<td>• TestNav 8</td>
<td>• TestNav 8</td>
<td></td>
<td>Manuals are accessible to the public</td>
</tr>
<tr>
<td></td>
<td>• Pearson Access</td>
<td>• Pearson Access</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Test Coordination</td>
<td>• Proctor Caching</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Test Administration</td>
<td>• System Check</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Infrastructure Trial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training Modules</td>
<td>• CBT Test Admin</td>
<td>• Technology Set-Up</td>
<td></td>
<td>Modules are accessible to the public</td>
</tr>
<tr>
<td></td>
<td>• Paper Test Admin</td>
<td>• Systems Check</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Accessibility and Accom</td>
<td>• Infrastructure Trial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Registration</td>
<td>• Proctor Caching</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Emerging Tech and Security</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Set-Up Tools</td>
<td>• Registration upload</td>
<td>• Systems Check</td>
<td></td>
<td>varies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bandwidth Check</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Infrastructure Trial</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Proctor Caching Set-Up</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hands-On Practice</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Tutorial</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Sample Items</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Sample Items</td>
<td></td>
</tr>
</tbody>
</table>
Key Information

- PARCC Technology Specifications
  - http://parcconline.org/technology
- Sample Items, Tutorials & Practice Tests
  - http://practice.parcc.testnav.com
- Wes Bruce
  - wesbruce3@gmail.com
Smarter Balanced Update
Brandt Redd, CTO

National Form on Educational Statistics
10 March 2014
The Purpose of the Consortium

• To develop a comprehensive and innovative assessment system for grades 3-8 and high school in English language arts and mathematics aligned to the Common Core State Standards, so that...

• ...students leave high school prepared for postsecondary success in college or a career through increased student learning and improved teaching.

[The assessments shall be operational across Consortium states in the 2014-15 school year]
A National Consortium of States

- 24 member states and territories representing 39% of K-12 student
- 22 Governing States, 1 Advisory State, 1 Affiliate Member
- Washington state is fiscal agent
- UCLA Graduate School of Education will be permanent home.
A Balanced Assessment System

Common Core State Standards specify K-12 expectations for college and career readiness.

- **Summative assessments**
  - Benchmarked to college and career readiness

- **Teachers and schools have information and tools they need to improve teaching and learning**

- **Teacher resources for formative assessment practices**
  - to improve instruction

- **Interim assessments**
  - Flexible, open, used for actionable feedback

- **All students leave high school college and career ready**
A Balanced Assessment System

ELA/Literacy and Mathematics, Grades 3-8 and High School

School Year

Last 12 weeks of the year

DIGITAL LIBRARY of formative tools, processes and exemplars; released items and tasks; model curriculum units; educator training; professional development tools and resources; scorer training modules; and teacher collaboration tools.

Optional Interim Assessment
Computer Adaptive Assessment and Performance Tasks

Optional Interim Assessment
Computer Adaptive Assessment and Performance Tasks

Summative Assessment for Accountability

- Performance Tasks
  - ELA/literacy
  - Mathematics
- Computer Adaptive Assessment
  - ELA/literacy
  - Mathematics

Scope, sequence, number and timing of interim assessments locally determined

Re-take option available

*Time windows may be adjusted based on results from the research agenda and final implementation decisions.
Using Computer Adaptive Technology for Summative and Interim Assessments

<table>
<thead>
<tr>
<th>Increased precision</th>
<th>Provides accurate measurements of student growth over time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tailored for Each Student</td>
<td>Item difficulty based on student responses</td>
</tr>
<tr>
<td>Increased Security</td>
<td>Larger item banks mean that not all students receive the same questions</td>
</tr>
<tr>
<td>Shorter Test Length</td>
<td>Fewer questions compared to fixed form tests</td>
</tr>
<tr>
<td>Faster Results</td>
<td>Turnaround time is significantly reduced</td>
</tr>
<tr>
<td>Mature Technology</td>
<td>GMAT, GRE, COMPASS (ACT), Measures of Academic Progress (MAP)</td>
</tr>
</tbody>
</table>
Source code and specifications for all components will be released under open licenses.
Timeline

Formative Processes, Tools, and Practices Development Begins

- Writing and Review of Pilot Items/Tasks (including Cognitive Labs and Small-Scale Trials)
- Field Testing of Summative and Interim Items/Tasks Conducted

- Content and Item Specifications Development
- Pilot Testing of Summative and Interim Items/Tasks Conducted
- Preliminary Achievement Standards (Summative) Proposed and Other Policy Definitions Adopted
- Operational Summative Assessment Administered

- Summative Master Work Plan Developed and Work Groups Launched
- Writing and Review of Field Test Items/Tasks (throughout the school year)
- Final Achievement Standards (Summative) Verified and Adopted

Procurement Plan Developed
Timeline

SmarterApp.org Website Launch

Reference Items Posted in Smarter Balanced Format

Assessment Item Metadata and Packaging Specification

Field Testing of Summative and Interim Items/Tasks Conducted

Preliminary Achievement Standards (Summative) Proposed and Other Policy Definitions Adopted

Operational Summative Assessment Administered

Summative Assessment test packages released to member states

Interim Assessment test packages released to member states

Final Achievement Standards (Summative) Verified and Adopted

Winter 2014

Test Delivery Certification Package Released

IMS Begins Work on Smarter Balanced Profile of APIP

Spring

Full Source Code Release

Summer

Preliminary Achievement Standards (Summative) Proposed and Other Policy Definitions Adopted

Winter 2015

Smarter Assessment test packages released to member states

Spring

Item Format Specification Posted

Winter 2014

Operational

Smarter

Summative

Assessment

Administered

Test Delivery Certification Package Released
For More Information

- SmarterBalanced.org
  - Test Blueprints
  - Tech Requirements
  - Practice and Training Tests
- SmarterApp.org
  - Tech Requirements and Specifications
    (Progressively released through winter and spring 2014)
  - Source Code
    (Released early fall 2014)