Report to the Board of Education
Virginia’s College and Career Readiness Initiative

November 18, 2010
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Virginia Department of Education
Virginia’s College and Career Readiness Initiative is designed to:

– Ensure that college-ready standards in reading, writing and mathematics are taught in each Virginia high school classroom.

– Strengthen students’ preparation for college and the work force before leaving high school.
The CCRI builds on 15 years of establishing, implementing, and revising learning standards and assessment-based accountability.

- Rigorous content standards were developed and implemented in the 1990s; tests are in place for mathematics, English, science, and history and social science.
- The Virginia Board of Education revised the mathematics and English standards twice since implementation.
- The most recent revisions (2009 and 2010) led to more rigorous content standards that are supported as college and career ready by nationally recognized organizations, the College Board, ACT, and Achieve.
Key Components

1. Defining college and career ready performance expectations.

2. Developing elective “capstone courses” for students who need additional support to be college ready.

3. Providing technical assistance and professional development to Virginia’s educators to support implementation of the revised Standards of Learning.
Key Components (cont’d)

4. Aligning the state assessments to measure student mastery of the more rigorous mathematics and English standards adopted in 2009 and 2010, and to include quantitative indicators of college readiness for certain high school end-of-course tests.

5. Identifying accountability measures and incentives for schools to increase the percentage of students who graduate high school having demonstrated the academic and career skills needed to be successful in postsecondary education programs.
Virginia’s CCRI Performance Expectations

- Define the level of performance students must reach to be academically prepared to enter and successfully complete credit-bearing courses in English and mathematics in college.
- Based on Virginia’s Validated Standards of Learning in mathematics and English, and:
  - The Common Core State Standards (CCSS)
  - The Virginia Community College System’s learning goals and student outcomes
  - Career and Technical Education competencies
  - Other standards identified as important or critical for success by faculty at Virginia’s two- and four-year colleges.
- Developed collaboratively with VCCS and SCHEV.
- Recommended English College and Career Ready Performance Expectations are complete; mathematics documents are in preparation.
Quantitatively defining college readiness

• Virginia is developing new SOL assessments that align to the revised mathematics and English Standards of Learning adopted in 2009 and 2010, respectively.

• New EOC mathematics assessments will be implemented in 2011-2012 and new reading and writing assessments will be implemented in 2012-2013.
Quantitatively defining college readiness

• The new assessments will be administered online, and include technology-enhanced items that require students to demonstrate content mastery in ways that were not possible with multiple-choice tests.

• The result of the standards revision will be that students will have to demonstrate mastery of more rigorous content in order to pass the revised SOL tests.
Quantitatively defining college readiness

• The tests are being developed to provide a college ready achievement level on certain end-of-course tests.
• On relevant tests, the college ready score will replace the current advanced proficient score.
• The test development process will be informed by:
  – VDOE’s research on the associations between SOL tests and postsecondary enrollment and outcomes; and
  – Results of a survey of higher education faculty who are identifying Standards of Learning that are essential for students to master to be prepared for entry-level, credit-bearing English and mathematics courses in college.
• Proficiency will continue to define the level of achievement needed to verify a course credit.
Developing Courses to Prepare More Students

- By the end of students’ junior year in high school, they have test-based indicators of their level of college and career readiness.

- VDOE is developing capstone courses in English and mathematics to support students who need to reach higher levels of achievement to be successful in entry-level credit-bearing courses in college.

- VDOE plans to work with at least two school divisions to develop course materials with the goal of piloting the capstone courses in the 2011-2012 school year.
Elective Capstone Courses

• Designed for students who:
  – Have participated in college-ready curriculum;
  – Passed courses but have not met college-ready performance expectations;
  – Require a refresher course to be successful in entry-level college courses; or
  – Require additional skills needed for postsecondary success.

• Will be based on the Virginia College and Career Ready Performance Expectations, being developed collaboratively with VCCS, SCHEV, and VDOE.

• Capstone courses will not be designed to provide remedial instruction.
Professional Development

• For the CCRI to be successful, educators must have access to and participate in appropriate professional development.

• VDOE has identified existing funds that allow VDOE to work with our partners—such as institutions of higher education—to develop and implement high quality professional development to support local educators to:
  – Implement the revised mathematics and English Standards of Learning.
  – Focus on the College and Career Ready Performance Expectations, and
  – Focus on the foundational standards that directly support college and career readiness.

• We will continue to work with partners to identify other opportunities to support implementation with fidelity.
Research Findings
Previous research

• VDOE identified associations between high school outcomes and enrollment in four-year institutions of higher education.
Indicators of College Readiness in Virginia*

<table>
<thead>
<tr>
<th>Coursework</th>
<th>Diploma type</th>
<th>SOL outcomes</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Algebra II and a lab science (e.g., chemistry)</td>
<td>• Advanced studies</td>
<td>• Reading: Advanced proficient</td>
<td></td>
</tr>
<tr>
<td>• Participation in college-level course work adds value</td>
<td></td>
<td>• Writing: Advanced proficient</td>
<td></td>
</tr>
<tr>
<td>- Dual enrollment</td>
<td></td>
<td>• Algebra I: Advanced proficient</td>
<td></td>
</tr>
<tr>
<td>- Advanced Placement courses</td>
<td></td>
<td>• Geometry: Advanced proficient</td>
<td></td>
</tr>
<tr>
<td>- IB programs</td>
<td></td>
<td>• Algebra II: Advanced or near advanced proficient</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• College ready on external assessments (e.g., SAT, ACT)</td>
</tr>
</tbody>
</table>

*Based on preparation for success in four-year schools. In Virginia, few students enrolled in four-year schools require remediation.
Results of new research*

• VDOE worked with SCHEV to link high school outcomes with postsecondary enrollment and outcomes.**

• These results represent the initial findings of an ongoing research project.

• Results support initial results and further validate Virginia’s indicators of college readiness.

*Analyses conducted by Garland, M., Ware, A., Dougherty, C., and Herrera, A.,

**Linking methods use secure a double de-identification process. No personally identifiable information is shared across agencies.
Nearly 60% of first-year students at Virginia public 2-year IHEs enrolled in a Developmental Course

- More students enrolled in developmental math than developmental English courses.
- No students participate in developmental coursework in Virginia’s four-year public IHEs.
Students who earned a Standard Diploma were more likely to enroll in a developmental course than students who earned an Advanced Diploma. Approximately 11% of students who earned an Advanced Diploma were placed in developmental courses.

<table>
<thead>
<tr>
<th>Diploma Type</th>
<th>Math developmental course</th>
<th>English developmental course</th>
<th>Any developmental course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Studies Diploma (n=22,157)</td>
<td>8%</td>
<td>6%</td>
<td>11%</td>
</tr>
<tr>
<td>Standard Diploma (n=8,886)</td>
<td>42%</td>
<td>35%</td>
<td>53%</td>
</tr>
<tr>
<td>Disabilities Diplomas (n=219)</td>
<td>63%</td>
<td>73%</td>
<td>83%</td>
</tr>
<tr>
<td>GED (n=171)</td>
<td>49%</td>
<td>33%</td>
<td>63%</td>
</tr>
</tbody>
</table>
Enrollment rates in developmental courses for students who earned advanced proficient scores on the respective SOL tests were markedly lower than those who passed or failed.

**Enrollment in developmental mathematics**

- **Advanced (n=7,488)**
  - Pass: 30%
  - Fail: 20%

- **Standard**
  - Pass: 45%
  - Fail: 21%

- **GED**
  - Pass: 52%
  - Fail: 25%

- **Disabilities**
  - Pass: 60%
  - Fail: 60%

**Enrollment in developmental English**

- **Advanced (n=7,488)**
  - Pass: 14%
  - Fail: 2%

- **Standard**
  - Pass: 16%

- **GED**
  - Pass: 34%

- **Disabilities**
  - Pass: 77%
SOL performance is strongly related to the likelihood of enrolling in either developmental English or a mathematics courses.

<table>
<thead>
<tr>
<th>Respective SOL quartile</th>
<th>Math developmental course</th>
<th>English developmental course</th>
<th>Any developmental course*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom quartile</td>
<td>38.3%</td>
<td>39.5%</td>
<td>47.5%</td>
</tr>
<tr>
<td>Second quartile</td>
<td>20.9%</td>
<td>12.3%</td>
<td>26.6%</td>
</tr>
<tr>
<td>Third quartile</td>
<td>10.1%</td>
<td>4.2%</td>
<td>14.4%</td>
</tr>
<tr>
<td>Top quartile</td>
<td>3.8%</td>
<td>1.2%</td>
<td>5.5%</td>
</tr>
<tr>
<td>Total</td>
<td>18.6%</td>
<td>14.6%</td>
<td>23.9%</td>
</tr>
</tbody>
</table>

*Note: Quartile segments are SOL quartiles by the respective SOL subject area for each type of developmental course. Algebra I SOL quartile used for segmenting this category.
Whether a student took a Chemistry or Algebra II SOL was a statistically significant predictor of whether the student enrolled in a Math DC.

---Taking both a Chemistry and Algebra II SOL was associated with a lower probability of enrolling in a Math DC.

<table>
<thead>
<tr>
<th>SOL test status</th>
<th>Took Chemistry SOL</th>
<th>Did not take Chemistry SOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Took Alg. II SOL</td>
<td>9%</td>
<td>13%</td>
</tr>
<tr>
<td>Did not take Alg. II SOL</td>
<td>14%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Predicted probability of enrolling in a developmental math course
Ongoing work on the CCRI

- Continue research activities
  - Better understand variability in developmental course enrollment patterns that exist across two-year institutions;
  - Analyze data disaggregated by other variables (e.g., race/ethnicity, LEP status; disability status);
  - Other priorities established in partnership with VCCS and SCHEV.
- Finalize the College and Career Ready Performance Expectations in mathematics.
- Implement professional development and technical assistance activities.
- Complete the design of Capstone Courses, work with partners to development materials, and support implementation.
- Establish college and career ready cut scores on certain end-of course tests (for new tests implemented in 2012 and 2013).
- Continue to identify accountability measures and incentives for schools to increase the number of students graduating high school who meet or exceed college and career ready performance expectations.
CONTACT INFORMATION

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