Using Data to Set Priorities for Teaching and Learning – Unwrapping the 2006 HSTW Assessment Report

Illinois Data Workshop
December 12-13, 2006
Using Data to Take Action
High School Reform from a National Perspective

- High school reform is a popular national focus

- How we keep score is changing
  - Student achievement
  - Student completion rate

- What we do will change as the way we keep score changes
How many 9th graders make it to, and through, college?

Missed Opportunities (2002): Of every 100 ninth graders, the percent who...

- Graduate from high school on time
- Immediately enroll in college
- Are still enrolled sophomore year
- Graduate from college on time

**Illinois**
- Graduate: 72%
- Enroll: 30%
- Still enrolled: 20%
- Graduate on time: 43%

**Nation**
- Graduate: 68%
- Enroll: 40%
- Still enrolled: 18%
- Graduate on time: 27%

**Top State**
- Graduate: 76%
- Enroll: 52%
- Still enrolled: 29%
- Graduate on time: 40%

Twenty Years of Study in the National Network:
Some HSTW Schools are Improving and Some are Not

● Closing the knowing and doing gap
  ● Why – before – how or what
  ● Knowing comes from doing
  ● Actions count more than plans
  ● There is no doing without mistakes
  ● Measure what matters
  ● What leaders do matters

● **HSTW** – Students Can’t Wait: High Schools Must Turn Knowledge into Action
Building District Capacity to Support Schools in Implementing the *HSTW* Design

- Vision that shows up in actions
- Use of data
  - Assess where we are
  - Set targets
- Align resources
  - Targeted PD for the school
  - Capacity within the district office
  - Making use of outside providers
- Measure progress and hold adults accountable
HSTW Key Practices

- High Expectations
- Program of Study
- Academic Studies
- Career/technical Studies
- Work-based Learning

- Teachers Working Together
- Students Actively Engaged
- Guidance
- Extra Help
- Culture of Continuous Improvement
The Degree of *HSTW* Design Implementation Makes a Difference for Students

- Comparison of two sets of 75 schools using 2002 and 2004 data
  - Similar ethnicity
  - Similar sizes
  - Similar locations – Urban, Suburban, Rural
  - Similar parent education

- One group made statistically significant gains in achievement, the other did not
### Implementation Differences Result in Achievement Differences

<table>
<thead>
<tr>
<th>Subject</th>
<th>Non-improved Schools</th>
<th>Most-improved Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>- 9</td>
<td>+ 11</td>
</tr>
<tr>
<td>Mathematics</td>
<td>- 7</td>
<td>+ 11</td>
</tr>
<tr>
<td>Science</td>
<td>- 11</td>
<td>+ 17</td>
</tr>
</tbody>
</table>

The Essential Question

Why do students at most-improved schools make greater gains in achievement than students at non-improved schools?
The Detailed Answer

More students at most-improved schools:

- Completed the *HSTW*-recommended curriculum in reading, math and science
- Experienced high expectations in the classroom
- Experienced reading, writing and math skills across the curriculum
- Were engaged in science
- Experienced quality career/technical studies and work-based learning
- Had access to quality extra help and guidance
- Understood the importance of learning and doing well in high school
The Short Answer

The most-improved schools more fully implemented the HSTW Design –

They *took action* to increase student achievement.
Workshop Objectives

- Beliefs: Understand that actions (degree of implementation) makes a difference
- Understand the *HSTW Assessment Report*
- Determine where we are and develop perspective
- Find positive trends and link to behaviors
- Find challenges and identify actions to take
- Identify strategies to roll data, strategies, plans, and targets out to the whole faculty
Workshop Deliverables

- Identify your school’s successes
- Identify your school’s challenges
- Link your data to your behavior
- Identify specific actions to address the challenges
- Draft an Action Plan (School Improvement Plan)
- Develop a communication plan for
  - Data
  - Targets
  - Action Plan (School improvement Plan)
Overview of the *HSTW* Assessment and Assessment Report
2006 HSTW Assessment

- NAEP-referenced subject tests
  - Reading, Mathematics, Science
  - Scale 0-500
- Student Survey
  - Course History
  - School and Classroom Experiences
- Teacher Survey
- Administered to all or a random sample of 60+ seniors in January/February 2006
- Reports produced by Educational Testing Service – Mailed August, 2006
- Data/Survey linked to HSTW Key Practices
2006 Assessment Participation

- **2006 HSTW Assessment**
  - 1,028 schools
  - 61,815 students
  - 50,439 teachers

- **2006 Middle Grades Assessment**
  - 226 schools
  - 14,678 students
  - 7,657 teachers

- **2006 Illinois Sites**
  - 21 schools
  - 1,318 All Students (completed all 3 assessments)
  - 830 CT Students
  - 1,631 Teachers
2006 *HSTW* Assessment Report

Contents

- Preface and Appendix
- Indices
- Benchmarks
- Student Tables
- Teacher Survey results
2006 *HSTW* Assessment Report

- Preface and Appendix
  - Key information on reading tables and interpreting results
    - Definition of high-scoring sites in your category
    - When data is not reported
  - Performance goals (p. iii)
  - *HSTW*-recommended curriculum
  - Proficiency levels (p. 230-233)
  - Detailed information on design and content of subject tests
2006 *HSTW* Assessment Report

- **Indices**
  - Clusters of related variables
  - Predictive of student achievement
  - Related to *HSTW* Key Practices
**Emphasis on High Expectations**

Students were asked to report on activities related to high expectations. The following five items were examined to produce a composite index.

Students report that:

- Their teachers clearly indicated the amount and quality of work that are necessary to earn a grade of "A" or "B" at the beginning of a project or unit **often**.
- Their teachers were **frequently** available before, during or after school to help them with their studies.
- They usually spent, overall, **one or more hours** on homework each day.
- They revised their essays or other written work several times to improve their quality **often**.
- They worked hard to meet high standards on assignments **often**.

<table>
<thead>
<tr>
<th>Emphasis on High Expectations</th>
<th>All Assessed Students at Your Site</th>
<th>Assessed Students Attending High-scoring Sites in Your Category (2006)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>Mean Reading Score</td>
</tr>
<tr>
<td>Intensive</td>
<td>17</td>
<td>289</td>
</tr>
<tr>
<td>(4 to 5 of the above items)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate</td>
<td>44</td>
<td>281</td>
</tr>
<tr>
<td>(2 to 3 of the above items)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>38</td>
<td>272</td>
</tr>
<tr>
<td>(1 or none of the above items)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incomplete Data¹</td>
<td>1</td>
<td>---</td>
</tr>
</tbody>
</table>

¹Students did not respond to one or more of the components of the index.
2006 HSTW Assessment Report

• Benchmarks
  • Set goals
  • Document progress over time
  • SREB Publication: “Establishing Benchmarks for New and Maturing HSTW Sites”
<table>
<thead>
<tr>
<th>Indicators — High Expectations</th>
<th>Baseline</th>
<th>+2 Years</th>
<th>+4 Years</th>
<th>+6 Years</th>
<th>+8 Years</th>
<th>10-year Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. The percentage of student responses on five indicators that suggest the school has an intensive emphasis on high expectations. (four to five items)</td>
<td></td>
<td>35</td>
<td>40</td>
<td>45</td>
<td>50</td>
<td>55</td>
</tr>
<tr>
<td>8. Students report that their teachers often clearly indicated the amount and quality of work that are necessary to earn a grade of an A or a B at the beginning of a project or unit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Students report that their teachers were frequently available before, during or after school to help them with their studies.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Students report that they usually spend one or more hours on homework each day.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Students report that they often revise their essays or other written work several times to improve their quality.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Students report that they have worked hard to meet high standards on assignments often.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Students report that their teachers often set high standards and are willing to help them meet them.*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Benchmark Section of HSTW Assessment Report
Emphasis on High Expectations, Perceived Importance of High School Studies and Extra Help

- **High Expectations** -- Setting higher expectations and getting more students to meet them.
- **Perceived Importance of High School Studies** -- Helping students understand the importance of using high school to prepare for the future.
- **Extra Help** -- Providing a structured system of extra help to enable career-bound students to successfully complete an accelerated program of study that includes high-level academic content and a major.

<table>
<thead>
<tr>
<th>High Expectations</th>
<th>Table Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>The percentage of student responses on five indicators that suggest the school has an intensive emphasis on high expectations. (4 to 5 items)</td>
<td>Indices</td>
</tr>
<tr>
<td>Mean Score - Reading</td>
<td>289</td>
</tr>
<tr>
<td>Mean Score - Mathematics</td>
<td>309</td>
</tr>
<tr>
<td>Mean Score - Science</td>
<td>302</td>
</tr>
<tr>
<td>Students report that their teachers often clearly indicated the amount and quality of work that are necessary to earn a grade of &quot;A&quot; or &quot;B&quot; at the beginning of a project or unit.</td>
<td>Table 24</td>
</tr>
<tr>
<td>Mean Score - Reading</td>
<td>283</td>
</tr>
<tr>
<td>Mean Score - Mathematics</td>
<td>304</td>
</tr>
<tr>
<td>Mean Score - Science</td>
<td>297</td>
</tr>
<tr>
<td>Students report that their teachers were frequently available before, during or after school to help them with their studies.</td>
<td>Table 28</td>
</tr>
<tr>
<td>Mean Score - Reading</td>
<td>282</td>
</tr>
<tr>
<td>Mean Score - Mathematics</td>
<td>304</td>
</tr>
<tr>
<td>Mean Score - Science</td>
<td>297</td>
</tr>
</tbody>
</table>
2006 HSTW Assessment Report

- Student Tables
  - Summary of results
  - Reading, mathematics and science achievement
  - Achievement disaggregated by survey results
  - Grouped by HSTW Key Practices
### Table 1

**Summary of Mean Scores and Percentage of Students Meeting Performance Goals**

**The 2006 High Schools That Work Assessment**

<table>
<thead>
<tr>
<th></th>
<th>2006 Site</th>
<th>2004 Site</th>
<th>2006 High-scoring Sites in Your Category</th>
<th>2006 All Sites</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Students</td>
<td>CTE Students</td>
<td>All Students</td>
<td>All Students</td>
</tr>
<tr>
<td><strong>Reading Mean Score</strong></td>
<td>278 (0.1)</td>
<td>277 (0.2)</td>
<td>278 (0.1)</td>
<td>295 (0.5)</td>
</tr>
<tr>
<td><strong>Mathematics Mean Score</strong></td>
<td>300 (0.1)</td>
<td>298 (0.2)</td>
<td>299 (0.1)</td>
<td>318 (0.5)</td>
</tr>
<tr>
<td><strong>Science Mean Score</strong></td>
<td>292 (0.2)</td>
<td>290 (0.2)</td>
<td>291 (0.2)</td>
<td>313 (0.6)</td>
</tr>
</tbody>
</table>

**Percent Reaching Goal:**

<table>
<thead>
<tr>
<th></th>
<th>All Students</th>
<th>CTE Students</th>
<th>All Students</th>
<th>CTE Students</th>
<th>All Students</th>
<th>CTE Students</th>
<th>All Students</th>
<th>CTE Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading (279)</td>
<td>54%</td>
<td>53%</td>
<td>53%</td>
<td>51%</td>
<td>78%</td>
<td>75%</td>
<td>55%</td>
<td>53%</td>
</tr>
<tr>
<td>Mathematics (297)</td>
<td>60%</td>
<td>59%</td>
<td>58%</td>
<td>55%</td>
<td>84%</td>
<td>82%</td>
<td>61%</td>
<td>60%</td>
</tr>
<tr>
<td>Science (299)</td>
<td>47%</td>
<td>46%</td>
<td>47%</td>
<td>44%</td>
<td>71%</td>
<td>70%</td>
<td>48%</td>
<td>47%</td>
</tr>
</tbody>
</table>

Asterisks indicate that mean scores and standard errors of measurement were not computed for a given subject area in 2004.

The scale for each subject is 0 to 500. The numbers in ( ) are the standard errors. Information about finding significant differences between scores can be found in the Appendix. All percentages have been rounded to whole numbers. Percentages less than .5 have been rounded to zero.
Table 24

Student Achievement by Perceptions of Schoolwork and Teacher Expectations

The 2006 High Schools That Work Assessment

<table>
<thead>
<tr>
<th>Report: 96001 - All HSTW Sites</th>
<th>Reading Goal: 279</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your School Category:</td>
<td>Mathematics Goal: 297</td>
</tr>
<tr>
<td>Group: All Students</td>
<td>Science Goal: 299</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Courses Have Been Exciting and Challenging</th>
<th>2006 Site</th>
<th>2004 Site</th>
<th>2006 High-scoring Sites in Your Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>Reading Mean</td>
<td>Mathematics Mean</td>
<td>Science Mean</td>
</tr>
<tr>
<td>--------------------------------------------</td>
<td>-----------</td>
<td>-----------</td>
<td>-------------</td>
</tr>
</tbody>
</table>
| All Students
| Never | 4 | 0.8 | 260 | 0.8 | 284 | 1.0 | 275 | 0.5 | 263 | 0.7 | 287 | 0.7 | 277 | 0.9 | 3 |
| Seldom | 19 | 0.3 | 275 | 0.3 | 299 | 0.4 | 291 | 0.4 | 275 | 0.3 | 298 | 0.3 | 291 | 0.4 | 16 |
| Sometimes | 59 | 0.2 | 280 | 0.2 | 302 | 0.2 | 295 | 0.2 | 280 | 0.2 | 301 | 0.2 | 294 | 0.2 | 59 |
| Often | 18 | 0.3 | 281 | 0.3 | 302 | 0.3 | 295 | 0.4 | 281 | 0.3 | 302 | 0.3 | 295 | 0.4 | 22 |
| CTE Students
| Never | 4 | 0.9 | 260 | 1.0 | 283 | 1.1 | 275 | 0.5 | 262 | 0.8 | 285 | 0.8 | 276 | 1.0 | 2 |
| Seldom | 19 | 0.4 | 274 | 0.4 | 298 | 0.4 | 290 | 0.5 | 273 | 0.4 | 296 | 0.3 | 289 | 0.5 | 16 |
| Sometimes | 58 | 0.2 | 279 | 0.2 | 300 | 0.2 | 293 | 0.3 | 278 | 0.2 | 299 | 0.2 | 292 | 0.3 | 58 |
| Often | 18 | 0.4 | 280 | 0.4 | 300 | 0.4 | 293 | 0.5 | 279 | 0.4 | 299 | 0.4 | 292 | 0.5 | 23 |

<table>
<thead>
<tr>
<th>Teachers Set High Standards and Were Willing to Help Me Meet Them</th>
</tr>
</thead>
</table>
| All Students
| Never | 5 | 0.6 | 265 | 0.6 | 288 | 0.6 | 279 | 0.8 | 6 | 265 | 0.6 | 288 | 0.6 | 279 | 0.8 | 3 |
| Seldom | 17 | 0.3 | 274 | 0.3 | 297 | 0.3 | 290 | 0.4 | 19 | 274 | 0.3 | 297 | 0.3 | 290 | 0.4 | 13 |
| Sometimes | 40 | 0.2 | 279 | 0.2 | 302 | 0.2 | 295 | 0.3 | 40 | 279 | 0.2 | 301 | 0.2 | 294 | 0.3 | 42 |
| Often | 38 | 0.2 | 282 | 0.2 | 303 | 0.2 | 296 | 0.3 | 36 | 282 | 0.2 | 302 | 0.2 | 295 | 0.3 | 42 |
| CTE Students
| Never | 5 | 0.7 | 264 | 0.8 | 286 | 0.8 | 278 | 1.0 | 6 | 264 | 0.7 | 287 | 0.7 | 278 | 0.9 | 3 |
| Seldom | 17 | 0.4 | 273 | 0.4 | 296 | 0.4 | 289 | 0.5 | 19 | 273 | 0.4 | 296 | 0.4 | 288 | 0.5 | 13 |
| Sometimes | 40 | 0.2 | 278 | 0.2 | 300 | 0.2 | 293 | 0.3 | 40 | 277 | 0.2 | 299 | 0.2 | 292 | 0.3 | 41 |
| Often | 37 | 0.2 | 280 | 0.2 | 301 | 0.3 | 294 | 0.3 | 35 | 280 | 0.2 | 300 | 0.3 | 293 | 0.3 | 43 |

The scale for each subject is 0 to 500. The numbers in () are the standard errors. Information about finding significant differences between scores can be found in the Appendix. All percentages have been rounded to whole numbers. Percentages less than .5 have been rounded to zero.
2006 *HSTW* Assessment Report

- Teacher Survey Results
  - Overview
  - Implementation Focus Level Summary
  - Results grouped by Key Practices
VIII. TEACHERS' PERCEPTIONS ON CONTINUOUS SCHOOL IMPROVEMENT

Providing staff development opportunities for teachers helps them to learn and master new research-based instructional practices, reflect on what they have learned and share responsibility in applying new knowledge as they plan meaningful assignments. In addition to the importance of staff development, teachers must also perceive that their school is engaging in continuous improvement. It is their belief in these school improvement methods that will make school improvement efforts successful.

<table>
<thead>
<tr>
<th>Your Site</th>
<th>All Sites</th>
<th>Teachers reported that:</th>
</tr>
</thead>
<tbody>
<tr>
<td>40%</td>
<td>40%</td>
<td>They strongly agree that the goals and priorities for their school are clear.</td>
</tr>
<tr>
<td>34</td>
<td>34</td>
<td>They strongly agree that teachers in this school maintain a demanding yet supportive environment that pushes students to do their best.</td>
</tr>
<tr>
<td>40</td>
<td>40</td>
<td>The principal stresses that all students should be taught to the same high standards monthly.</td>
</tr>
<tr>
<td>42</td>
<td>42</td>
<td>They strongly agree that teachers in this school are continually learning and seeking new ideas on how to improve students' achievement.</td>
</tr>
<tr>
<td>37</td>
<td>37</td>
<td>They strongly agree that teachers and school administrators work as a team to improve student achievement at their school.</td>
</tr>
<tr>
<td>28</td>
<td>28</td>
<td>They strongly agree that teachers use data reports to continuously evaluate the school's academic and technical programs and activities.</td>
</tr>
</tbody>
</table>

¹This index is not included in the Implementation Focus Level Table on page 193.
Questions?

- Questions and/or suggestions for the report may be directed to:

Allison Yasitis, Coordinator of Assessment
allison.yasitis@sreb.org

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592 Tenth Street, NW
Atlanta, GA 30318-5776
Telephone: (404) 875-9211
Fax: (404) 872-1477
Actions to Advance Student Achievement
Activity

• What actions has your school, district or state taken in the last two years to advance student achievement?

• Go around the room and write down the one or two big things your school has done.
Activity - Categories

- Engaging the faculty
- Having more students complete a rigorous curriculum
- Having higher expectations and/or providing extra help
- Providing quality C/T studies and/or work-based learning
- Literacy across the curriculum
- Numeracy across the curriculum
- Engaging science practices
- Providing guidance and advisement
Painting a Picture of Student Learning
**HSTW Mean Test Scores**

- **Reading**:
  - 2004 IL Sites: 274
  - 2006 IL Sites: 286
  - 2004 All Sites: 277
  - 2006 All Sites: 291
  - 2006 High-scoring Sites: 299

- **Math**:
  - 2004 IL Sites: 279
  - 2006 IL Sites: 291
  - 2004 All Sites: 279
  - 2006 All Sites: 293
  - 2006 High-scoring Sites: 297

- **Science**:
  - 2004 IL Sites: 279
  - 2006 IL Sites: 293
  - 2004 All Sites: 279
  - 2006 All Sites: 299
  - 2006 High-scoring Sites: 313

Source: 2006 *HSTW* Assessment Report for All *HSTW* Sites
**HSTW Proficiency Levels – All Sites and IL Sites**

**Reading**
- Below Basic: 24
- Basic: 35
- Proficient: 33
- Advanced: 7

**Mathematics**
- Below Basic: 40
- Basic: 44
- Proficient: 13
- Advanced: 3

**Science**
- Below Basic: 53
- Basic: 28
- Proficient: 16
- Advanced: 3

**All Sites**

**Reading**
- Below Basic: 26
- Basic: 37
- Proficient: 30
- Advanced: 6

**Mathematics**
- Below Basic: 48
- Basic: 38
- Proficient: 11
- Advanced: 3

**Science**
- Below Basic: 60
- Basic: 26
- Proficient: 13
- Advanced: 2

**Illinois Sites**

Source: 2006 *HSTW* Assessment Report for All *HSTW* Sites and SC Sites
Meeting HSTW Performance Goals

Source: 2006 HSTW Assessment Report for All HSTW Sites
# IL Reading Mean Scores: Gender and Ethnic Groups

<table>
<thead>
<tr>
<th></th>
<th>% of Population</th>
<th>Mean Reading Score (Goal 279)</th>
<th>% Meeting Performance Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Students n=1,318</td>
<td>100%</td>
<td>277</td>
<td>52%</td>
</tr>
<tr>
<td>CT Students n=815</td>
<td>62</td>
<td>275</td>
<td>49</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td><strong>56</strong></td>
<td><strong>280</strong></td>
<td><strong>52</strong></td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td><strong>44</strong></td>
<td><strong>274</strong></td>
<td><strong>51</strong></td>
</tr>
<tr>
<td>White</td>
<td>31</td>
<td>292</td>
<td>74</td>
</tr>
<tr>
<td>African-American</td>
<td>38</td>
<td>268</td>
<td>36</td>
</tr>
<tr>
<td>Latino, Hispanic</td>
<td>25</td>
<td>275</td>
<td>49</td>
</tr>
<tr>
<td>Other Minority</td>
<td>2</td>
<td>273</td>
<td>48</td>
</tr>
<tr>
<td>Multiracial</td>
<td>3</td>
<td>270</td>
<td>41</td>
</tr>
</tbody>
</table>
## IL Mathematics Mean Scores: Gender and Ethnic Groups

<table>
<thead>
<tr>
<th></th>
<th>% of Population</th>
<th>Mean Math Score (Goal 297)</th>
<th>% Meeting Performance Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Students n=1,318</td>
<td>100%</td>
<td>295</td>
<td>52%</td>
</tr>
<tr>
<td>CT Students n=815</td>
<td>62</td>
<td>291</td>
<td>47</td>
</tr>
<tr>
<td>Male</td>
<td>44</td>
<td>294</td>
<td>51</td>
</tr>
<tr>
<td>Female</td>
<td>56</td>
<td>295</td>
<td>45</td>
</tr>
<tr>
<td>White</td>
<td>31</td>
<td>314</td>
<td>77</td>
</tr>
<tr>
<td>African-American</td>
<td>38</td>
<td>282</td>
<td>36</td>
</tr>
<tr>
<td>Latino, Hispanic</td>
<td>25</td>
<td>291</td>
<td>47</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>300</td>
<td>61</td>
</tr>
<tr>
<td>Multiracial</td>
<td>3</td>
<td>290</td>
<td>41</td>
</tr>
</tbody>
</table>
## IL Science Mean Scores: Gender and Ethnic Groups

<table>
<thead>
<tr>
<th></th>
<th>% of Population</th>
<th>Mean Science Score (Goal 299)</th>
<th>% Meeting Performance Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Students n=1,318</td>
<td>100%</td>
<td>284</td>
<td>40%</td>
</tr>
<tr>
<td>CT Students n=815</td>
<td>62</td>
<td>281</td>
<td>36%</td>
</tr>
<tr>
<td>Male</td>
<td>44</td>
<td>284</td>
<td>45</td>
</tr>
<tr>
<td>Female</td>
<td>56</td>
<td>283</td>
<td>36</td>
</tr>
<tr>
<td>White</td>
<td>31</td>
<td>308</td>
<td>70</td>
</tr>
<tr>
<td>African-American</td>
<td>38</td>
<td>268</td>
<td>20</td>
</tr>
<tr>
<td>Latino, Hispanic</td>
<td>25</td>
<td>281</td>
<td>35</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>286</td>
<td>42</td>
</tr>
<tr>
<td>Multiracial</td>
<td>3</td>
<td>269</td>
<td>37</td>
</tr>
</tbody>
</table>
Activity

- Using your school’s data, complete tables under “Topic Three: Painting a Picture of Student Learning” in your participant guide.

- Using your results, answer the questions in Handout 1.
Establishing a Need for Change
Key Practice: Continuous Improvement

Use student achievement and program evaluation data to continuously improve school culture, organization, management, curriculum and instruction to advance student learning.
Focusing on the Continuous Improvement Cycle

- Establish a consensus about the need to change (assess)
- Set interim targets to close the gap between current and desired practices (plan)
- Engage and support faculty to reach the targets (do)
- Assess progress in terms of targeted goals (evaluate)
- Celebrate successes frequently
- Repeat the cycle
Setting a Clear Mission and Vision for Success

- Preparing all students is the most important goal of their HS:
  - 37% (2006 IL Sites)
  - 50% (2006 All Sites)
  - 60% (HSTW Goal)

- Goals and priorities for their school are clear:
  - 22% (2006 IL Sites)
  - 40% (2006 All Sites)
  - 60% (HSTW Goal)

- Community supports school's goals:
  - 5% (2006 IL Sites)
  - 19% (2006 All Sites)
  - 60% (HSTW Goal)

Source: 2006 HSTW Assessment Teacher Survey Report for Illinois and All HSTW Sites
To Begin the Focus and Sustain Efforts Teams Are a MUST

Five Focus Teams (included in overall school improvement team):

1. Curriculum leadership team
2. Professional development leadership team
3. Guidance and public information leadership team
4. Transitions leadership team
5. Evaluation leadership team
Activity

- Using your school’s data, complete tables under “Topic Four: Establishing a Need for Change” in your participant guide.

- Using your results, answer the questions in Handout 2.
Review

- Does your school have active focus teams?
- What is working?
- What is not working?
Getting Students to Take a Rigorous Curriculum
Key Practice: Program of Study

Have students complete a challenging program of study with an upgraded academic core and a concentration.
**HSTW Recommended Curriculum**

- Four credits in college-prep/honors English
  - Students read 8-10 books a year
  - Students write weekly
  - Students complete at least one major research paper

- Four mathematics credits – Algebra I, geometry, Algebra II and above

- Three lab-based science credits at the college-prep level; four credits with a block schedule

- Three credits of social studies; four credits with a block schedule

- Mathematics and Science in the Senior Year
Recommended Concentrations

- **Mathematics and science concentration** – four credits in each field, with at least one at the Advanced Placement level

- **Humanities concentration** – four credits each in college-prep level language arts and social studies, with at least one at the college level and four additional credits from foreign language, fine arts, journalism, debate, music, etc.

- **Career/technical concentration** – four credits in a planned sequence of courses within a broad career field – pre-engineering, health/medical science, construction, etc.
# HSTW-Recommended Curriculum and Academic Achievement

<table>
<thead>
<tr>
<th>Status</th>
<th>%</th>
<th>Mean Reading Score</th>
<th>Mean Math Score</th>
<th>Mean Science Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully Completed (all 3 subjects)</td>
<td>25</td>
<td>291</td>
<td>317</td>
<td>310</td>
</tr>
<tr>
<td>Partially Completed (1 or 2 subjects)</td>
<td>50</td>
<td>279</td>
<td>301</td>
<td>294</td>
</tr>
<tr>
<td>Did Not Complete (0 subjects)</td>
<td>25</td>
<td>264</td>
<td>283</td>
<td>276</td>
</tr>
</tbody>
</table>

**HSTW Goal**

<table>
<thead>
<tr>
<th>%</th>
<th>Mean Reading Score</th>
<th>Mean Math Score</th>
<th>Mean Science Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>85</td>
<td>279</td>
<td>297</td>
<td>299</td>
</tr>
</tbody>
</table>

Source: 2006 HSTW Assessment Report for All Sites – Based on students who completed the student survey and all three subject tests.
Student Completion of *HSTW* Recommended Curriculum

- Fully completed recommended curriculum.
- Completed 4 or more credits in college-preparatory English/language arts.
- Completed 4 or more credits in mathematics.
- Completed three or more credits in science.

**Percentage of Students**

- **IL Sites 2006**
- **All HSTW Sites 2006**
- **HSTW Goal 2006**
Which Actions Can you Take to Get Students to Take the Right Courses?

- Enroll ALL students in the Core
- Eliminate 15-20 percent of low-level courses/sections annually to enroll more students in higher level courses
- Investigate alternative schedules to allow more time for students to take critical courses
- Use the core as the default curriculum
- Get guidance staff on board
Which Actions Can you Take to Get Students to Take the Right Courses?

- Raise graduation requirements
- Strengthen guidance and advisement - involve parents
- Develop student handbook with career pathways and related course of study
- Eliminate smorgasbord scheduling
- Use guest speakers, hold career expos and college fairs
- Establish small learning communities
Standards-Based Reform

- The quality and intensity of the high school curriculum are powerful predictors of success in college.
- Preparedness for postsecondary education depends on:
  - specific courses taken
  - rigor of the curriculum
  - quality of the instruction
  - effort of the student
Activity

- Using your school’s data, complete tables under “Topic Five: Getting Students to Take a Rigorous Curriculum” in your participant guide.

- Using your results, answer the questions in Handout 3.
High Expectations and Extra Help
**HSTW Key Practices:**

Motivate more students to meet **high expectations** by integrating high expectations into classroom practices and giving students frequent feedback.

Provide a structured system of **extra help** to enable students to meet higher standards.
Agreeing on A-, B- and C-level Work – Suggested Strategies

- Use basic, proficient and advanced NAEP National Readiness Standards

- Use select universities, regional universities, community college and high school graduation

- Use procedural/comprehension, application/analysis, and synthesis/evaluation Intellectual (Webb/Bloom)
Emphasize College Readiness Requirements

- SAT scores
  - 500 or higher = ready for college level work
  - Below 450 = remediation
  - Select universities (1100 score for acceptance)

- ACT College-readiness Benchmarks:
  - English 18
  - Reading 21
  - Mathematics 22
  - Science 24
Actions for Defining the Amount and Quality of Work Expected

- Benchmark assignments and assessment to proficient level/grade level
- Develop common course syllabi, rubrics and end-of-course exams
- A, B, C, Not-yet grading scale
High Expectations

- Teachers clearly indicate the amount and quality of work that are necessary to earn a grade of “A” or “B” at the beginning of a project or unit often.
- Teachers are frequently available before, during or after school to help them with their studies.
- Usually spend one or more hours on homework each day.
- Revise essays or other written work several times to improve quality often.
- Work hard to meet high standards on assignments often.
Sticking to Expectations—
Actions for Revising Work

- Three-week assessment
- Requiring extra help for those not meeting standards
- Teachers do not let students get by without doing work
Extra Help

- Often able to get extra help from teachers when needed without difficulty.
- Teachers are frequently available before, during or after school to help them with their studies.
- Extra help received often helps them to understand their schoolwork better.
- Extra help received often helps them get better grades.
Extra Help

Source: 2006 HSTW Assessment Report for All HSTW Sites
A Comprehensive Extra Help Program Must Include:

- Continuous extra help to meet standards
- Middle grades actions
- Ninth-grade transition
- High school, postsecondary and careers transitions
- Develop independent learners
Activity

- Using your school’s data, complete tables under “Topic Six: High Expectations and Extra Help” in your participant guide.

- Using your results, answer the questions in Handout 4.
Review

- What actions can be taken to increase the expectations of students and the numbers of students receiving quality extra help?
Quality Career/technical Studies and Work-based Learning
**HSTW C/T Key Practices:**

Provide more students access to intellectually challenging career/technical studies in high-demand fields that emphasize the higher-level mathematics, science, literacy and problem-solving skills needed in the workplace and in further education.

Enable students and their parents to choose from programs that integrate challenging high schools studies and work-based learning and are planned by educators, employers and students.
Mean Scores by Broad C/T Field

Source: 2006 HSTW Assessment Report for All HSTW Sites
Curriculum Goals by Broad C/T Field

Source: 2006 HSTW Assessment Report for All HSTW Sites
Quality C/T Studies

- Spent one or more hours reading non-school materials outside of class in a typical week.
- Used math to complete challenging assignments in C/T area at least weekly.
- Read and interpret technical books/manuals in CT at least monthly.
- Read a career-related article and demonstrated understanding at least monthly.
- Used computer skills to do assignments in CT at least monthly.
- Had challenging assignments in CT at least monthly.
- Completed a project requiring research and plan.
- Had to meet standards on a written exam to pass CT course.
- Required to complete a senior project.
- Spoke or visited with someone in a career to which they aspire.
- Spent 30 minutes or more on CT homework each day.
Integration Indicators for Higher Achievement

- Students believe their teachers work together.
- Mathematics and science teachers use real-world problems.
- Career/technical teachers require students to read, write and use mathematics.
- Students complete a senior project.
- Students receive work-site instruction on communications and mathematics.
Conditions for Supporting Integration

- Common planning time
- Standards-based, not activity-based
- Create organizational structure that will support teacher collaboration
- Provide large blocks of instructional time for completion of complex tasks
- Provide professional development to support teachers
- Establish clear expectations for teachers—Collaboration by invitation does not work
Quality Work-based Learning

- Observed veteran workers perform certain jobs.
- Had someone teach them how to do the work.
- Employers encouraged them to develop good work habits at least monthly.
- Employers encouraged them to develop good customer relations skills at least monthly.
Quality Work-based Learning

Source: 2006 HSTW Assessment Report for All HSTW Sites
Activity

- Using your school’s data, complete tables under “Topic Seven: Quality C/T Studies and Work-based Learning” in your participant guide.

- Using your results, answer the questions in Handout 5.
Review

- What actions can be taken to increase the quality of C/T studies and work-based learning?
Day 1 Review:

- List possible actions steps identified by your team on day 1 (use flip chart paper)
The Education Pipeline

Source: The Bridge Project Stanford University
What Groups Are We Failing?

Graduation Rates by Race and Gender (2003)

- Black male: 45% (U.S.), 40% (GA)
- Hispanic male: 50% (U.S.), 37% (GA)
- White male: 76% (U.S.), 58% (GA)
- Black female: 59% (U.S.), 54% (GA)
- Hispanic female: 61% (U.S.), 37% (GA)
- White female: 83% (U.S.), 56% (GA)

Source: Urban Institute
Percent of Students Who Take Remedial Courses

• 63% at two-year institutions

• 40% at four-year institutions

Source: The Bridge Project Stanford University
More Graduation Statistics

- In the 35 largest American cities, fewer than 50% of 9th graders complete high school.
- 30% of college freshmen do not make it to their sophomore year, and less than 50% receive a diploma.
- An African American male born today is twice as likely to go to prison as college

Source: National High School Alliance
African American Male Students

- A multi-year study of the Current Population Survey (1996-2001) found that 16% of all male high school drop-outs (ages 18-24) were in prison, jail or on parole
- For African American male drop-outs, the chance of being in jail, prison or on parole was 3 in 10

Source: The State of the South, 2004
In Illinois…

- The prison population has grown by more than 60 percent since 1990.
- Two thirds of the state’s more than 44,000 prisoners are African-American.
- 1 in 5 Black Cook County (which contains Chicago and some of its suburbs) men in their 20s are either in prison or jail or on parole.
- For Cook County whites of the same gender and age, the corresponding ratio is 1 in 104.
- Illinois has 115,746 more persons enrolled in its 4-year public universities than in its prisons.
- When it comes to Blacks, however, it has 10,000 more prisoners.
- For every African-American enrolled in those universities, two and a-half Blacks are in prison or on parole in Illinois.

Source: Paul Street, Research Director, Chicago Urban League.
Fastest Growing Jobs Require Some Education Beyond High School

- First-professional degree: 18
- Doctoral degree: 24
- Master’s degree: 23
- Bachelor’s or higher + work exp: 19
- Bachelor’s degree: 23
- Associate degree: 11
- Work experience: 8
- Long-term OJT: 11
- Moderate-term OJT: 15
- Short-term OJT: 14
- Total: 32

Percent of Employment Growth
Quality Instruction
HSTW Key Practices:

- Engage students in academic and career/technical classrooms in rigorous and challenging assignments using research-based instructional strategies and technology.
Engaging Students in Relevant Instruction

- Provide teams of teachers from several disciplines the time and support to work together to help students succeed in challenging academic and career/technical studies.
- Integrate reading, writing and speaking as strategies for learning in all parts of the curriculum and integrate mathematics and science in career/technical classrooms.
SREB’s Literacy Goals

• Students will read the equivalent of 25 books per year across the curriculum.
• Students will write weekly in all classes.
• Students will use reading and writing strategies to help them understand and use the content of all classes.
• Students will write investigative research papers in all classes.
• Students will be taught as if they were in honors language arts classes.
Literacy Across the Curriculum

- Use word-processing to complete assignments often.
- Revise written work to improve quality often.
- Write in-depth explanations about projects sometimes or often.
- Discuss or debate with others about what they read at least monthly.
- Read and interpret technical books at least monthly in CT.
- Read an assigned book outside of class and demonstrate understanding at least monthly.
- Read non-school materials outside of class for two or more hours in a week.
- Complete graded short writing assignments in English at least monthly.
- Complete graded short writing assignments in science at least monthly.
- Complete graded short writing assignments in social studies at least monthly.
Literacy Across the Curriculum

Source: 2006 HSTW Assessment Report for All HSTW Sites
Standards Based Units that Address Numeracy Across the Curriculum

- Teachers create units of study aligned to standards in all classes
- Unit plans should include the following:
  - Standard or standards addressed
  - Level of intellectual demand—move beyond recall & procedural skills to analysis and application
  - Major assignments to be given
  - Outline the major study skills addressed: literacy skills and the research-based instructional strategies
Standards Based Units that Address Numeracy Across the Curriculum

- Increase student use of math skills in all content areas—with special emphasis in science, CT courses, physical education, & athletics

For example:
- Students orally defend a process they used to solve a math problem
- Students work in groups to solve math problems
Numeracy Across the Curriculum

- Took a math class during the senior year.
- Took at least four math courses in grades 9-12.
- Math teachers *sometimes or often* show how math concepts are used to solve problems in real life.
- Use a graphing calculator to solve a problem at least monthly.
- Complete a math project at least monthly using math in a way that would be used in a work setting.
- Orally defend a process used to solve a problem at least monthly.
- Worked with other students at least monthly on a challenging math assignment – group and individual grade.
- Worked in groups to brainstorm how to solve a problem at least monthly.
- Solved math problems with more than one possible answer at least monthly.
- Solved non-textbook math problems at least monthly.
- Used math to complete CT assignments at least monthly.
Numeracy Across the Curriculum

Source: 2006 HSTW Assessment Report for All HSTW Sites
Engaging Science Experiences

- Completed three or more: CP physical science, CP biology/biology 2, anatomy, CP chemistry, physics or AP science
- Science teachers show them how concepts are used to solve problems in real life often.
- Took a science class during the senior year.
- Use science equipment to do science activities in a laboratory with tables and sinks at least weekly.
- Read an assigned book (other than textbook) or article dealing with science at least monthly.
- Use science equipment to do science activities in a classroom at least monthly.
- Work with other students on a challenging science assignment at least monthly.
- Prepare a written report of lab results in science at least monthly.
Engaging Science Experiences

- Low (0-2 Items): 31% (2006 All Sites), 18% (2006 High-scoring Sites)
- Moderate (3-5 Items): 47% (2006 All Sites), 48% (2006 High-scoring Sites)
- Intensive (6-8 Items): 20% (2006 All Sites), 32% (2006 High-scoring Sites)

Source: 2006 HSTW Assessment Report for All HSTW Sites
Actions for Engaging Students in Research-Based Instructional Strategies

- Project-based learning
- Cooperative learning
- Student-designed research
- Integrated, interdisciplinary studies
- Integrating Technology
- Effective direct instruction
How will you improve the quality of instruction?

- Peer Observations
- Demonstration Classrooms
- Marzano’s *Classroom Instruction that Works*
- Kagan Strategies
- Team Teaching/Buddy Teaching
- Teacher Teams
- Student Work Review
Activity

- Using your school’s data, complete the tables under “Topic Eight: Quality Instruction” in your participant guide.

- Using your results, answer the questions in Handout 6.
Review

- What actions can be taken to increase the quality of instruction?
Supporting Students – Guidance and Transitions
Key Practice: Guidance and Advisement

Involve students and parents in a guidance and advisement system designed to ensure that students complete an accelerated academic program of study and a major.
A Good Guidance and Advisement Program Includes:

- Assisting students in planning their high school program of study by the end of grade nine
- Having teachers or counselors talk with students individually about plans for careers or further study
- Helping students review their programs of study at least annually
- Providing each student with an adult mentor throughout high school
A Good Guidance and Advisement Program Includes:

- Providing students with opportunities to speak with persons in careers to which they aspire
- Providing information on college and postsecondary studies to all students and parents
- Assisting students and parents with the postsecondary application process
Providing Timely Guidance

- Met with a teacher or counselor to help them review the sequence of courses they planned to take throughout high school at least once a year.
- Received the most help in planning a high school program of studies by the end of grade nine.
- Before and during high school, have talked to their parents or other adults they live with at least once a year about planning their four-year high school course plan.
- During high school, a teacher or counselor talked to them individually about plans for a career or further education after high school.
- Spoke with or visited someone in a career they aspire to.
- Someone from a college talked to them about going to college.
- Received information or assistance from someone at school about selecting or applying to college.
- Had an adult mentor or adviser work with them all four years of high school.
Providing Timely Guidance

Source: 2006 HSTW Assessment Report for All HSTW Sites
Why target middle school transition?

- The transition point from middle school to high school has the highest percentages of dropouts nation wide.
- The highest failure rate occurs in grade nine.
- Preparing students for high school work, directly impacts retention.
How can school leaders make sure that students are ready for rigorous high school studies?

District, high school and middle school leaders can:

- Establish readiness indicators for challenging high school English, mathematics and science courses;
- Align curriculums, teacher assignments and assessments to the readiness indicators; and
- Set goals to annually increase the percentages of students having successfully completed Algebra I by the end of grade eight.
Actions for Transition from Middle Grades to High School

- Structured extra help programs in grades 7 and 8
- 4 to 6 week summer bridge program for students who need accelerated instruction in math, English and reading
- Develop courses in grades seven and eight to give extended time to read, write and do math
Actions for Transition from Middle Grades to High School 
Continued...

- Orient students and parents to high school expectations
- Reduce the ratio of students to teachers in grade nine
- Get a master teacher to lead a team of teachers in core academic courses in grade nine
What makes a ninth-grade catch-up program high-quality?

- Early identification of students
- A lower student-teacher ratio in grade nine
- Qualified teachers with depth of content knowledge teach challenging content
- School schedules are modified to allow students to be double-dosed – English/reading and mathematics
What makes a ninth-grade catch-up program high-quality?

- Standard-based Curriculum with unit planning by teachers
- Teachers are organized into planning teams so they can plan together
- Recruit the best teachers to lead the ninth-grade teams
- Move beyond remedial instructional
- Comprehensive evaluation plan
Why target postsecondary transition?

- Senior year not taken seriously
- Low ACT and SAT scores
- High remedial rate in English and mathematics
- Students unprepared for workforce
- National completion rate for college only 39.9%
Research Based Strategies for Postsecondary Transition

- Students earn college credit while in high school.
- Enroll unprepared students in transition mathematics and English courses.
  - Courses aligned to college and career readiness standards
- Ensure that students who do not plan to go on to further study are in a CT program.
- Develop extra help for students having trouble graduating.
Additional Actions for Making the Senior Year Count

- Have community college administer placement exam during 11th grade
- ACT Test for everyone in 11th grade
- Reality check prior to the senior year with parents, adviser and counselor
- Enroll seniors in upper-level courses
- Enroll all seniors in at least three academic courses
- Consider requiring a senior project that includes a research paper, a product or service, an oral presentation and a power point
Activity

- Using your school’s data, complete the tables under “Topic Nine: Supporting Students – Guidance and Transitions” in your participant guide.

- Using your results, answer the questions in Handout 7.
Review

- What does this type of data tell us about guidance opportunities in our schools?

- How can this data be used to impact student achievement?

- What actions can be taken to increase the guidance provided to students?
Developing an Action Plan
Next Steps: Identify and Prioritize Actions

- List areas in need of improvement
  - Rank items based on impact on student achievement and completion rates.

- Identify short-term goals
  - Implementation in the first year
  - Have one item in each of the four areas of structural, instructional, support and leadership change

- Identify long-term goals
  - Implementation in years two and three
  - Have one item in each of the four areas of structural, instructional, support and leadership change

- Create a communication plan

- Use Pages 38-40 of Participant Guide
4-2-1 Free Write

Individually: Four Ideas

Pairs: 2 Central Ideas

Groups of 4: One Big Idea
Write for 5 minutes

Wrapping it all up--
Remember…

All schools want to improve but few want to change. The fact remains that to improve, one MUST change.
Gay Burden, Ph.D.
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Southern Regional Education Board
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