

# Texas Regional Collaboratives for Excellence in Science and Mathematics Teaching

## FACT SHEET

### WHO WE ARE

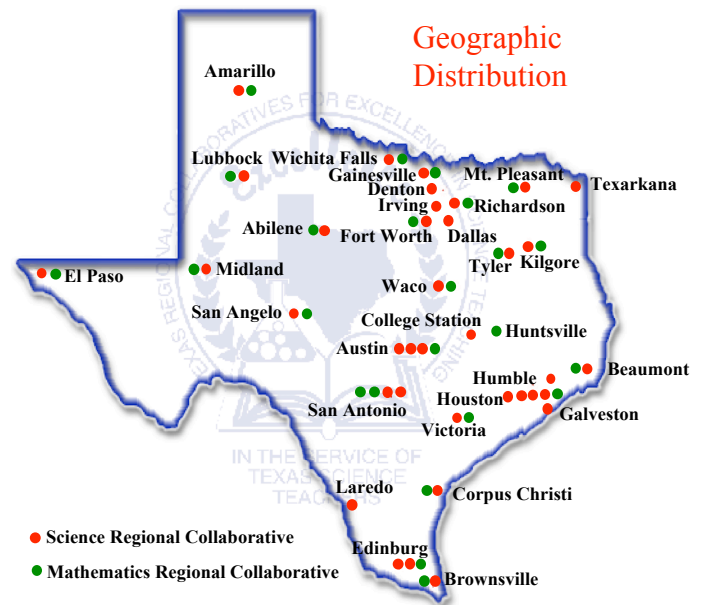
An award-winning statewide network of sixty-one P-16 partnerships that provide sustained and high intensity professional development to P-12 teachers of science and mathematics across the state. This infrastructure of over 33 institutions of higher education collaborating with the Texas Education Agency, education service centers, school districts, and business partners, has a 17-year track record of designing and implementing exemplary professional development using research-based instructional models, materials, and best practices.

### OUR MISSION

To provide Texas science and mathematics teachers with support systems of scientifically researched, sustained, and high intensity professional development and mentoring to assist them in the implementation of the Texas Essential Knowledge and Skills (TEKS). Our programs equip teachers with the necessary knowledge and skills to engage students in meaningful science and mathematics learning experiences. Activities are designed to improve students' scientific thinking, their mathematical and technological literacy, and interest to pursue science and engineering related careers.

### ACHIEVEMENTS

- Served over one million students across Texas through improved instruction and performance of participating teachers; developed the leadership capacity of over 14,000 Texas science teachers who in turn, shared their experiences with thousands of teachers through mentoring, peer coaching, and technical assistance. In addition, over 8,500 mathematics teachers have been served. Science and Mathematics teachers across 244 out of a total of 254 Texas Counties have been the beneficiaries of this extensive statewide support system.
- Received commendation from U.S. Department of Education, National Science Foundation, policy makers, legislators, and business partners; inducted into the *Texas Science Hall of Fame*, and recognized by the Governor, the Senate and House of Representatives for distinguished achievements and contributions to supporting science education.





### ACTIVITIES

- **Professional Development Academies (PDAs)** are provided to Instructional Teams that consist of professors of science, mathematics, and engineering education, instructional specialists and master teachers.
- **Professional Development Programs** designed by instructional teams at each Regional Collaborative provide 75 to 105 contact hours of TEKS-based professional development to prepare teachers to become Science Teacher Mentors (STMs), and Mathematics Teacher Mentors (MTMs).
- **Honoring the Teachers** events recognize and honor participating teachers and engage policy makers, legislators, and state leaders in the program.
- The **Annual Meeting** brings together teacher leaders, education and business leaders, policy makers, and legislators to share, network, communicate, and celebrate the achievements of the Collaboratives.

### SCIENCE

### MATHEMATICS

|   |                |   |                       |   |                |   |
|---|----------------|---|-----------------------|---|----------------|---|
|  | <b>35</b>      | ← | <b>COLLABORATIVES</b> | → | <b>20</b>      |  |
|   | <b>853</b>     | ← | <b>DISTRICTS</b>      | → | <b>957</b>     |   |
|   | <b>2,341</b>   | ← | <b>CAMPUSES</b>       | → | <b>2,663</b>   |   |
|   | <b>7,324</b>   | ← | <b>TEACHERS</b>       | → | <b>8,820</b>   |   |
|   | <b>590,000</b> | ← | <b>STUDENTS</b>       | → | <b>512,332</b> |   |

One Year Data: August 1, 2006 - July 31, 2007

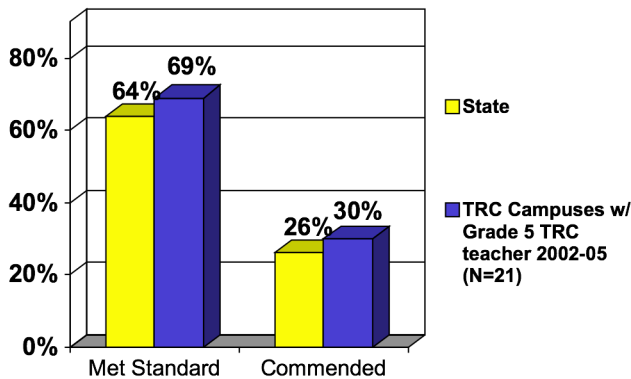
# INDICATORS OF SUCCESS: IMPACT ON STUDENTS AND TEACHERS OF SCIENCE

REGION  
MATHEMATICS (24)  
SCIENCE (37)

## Current Texas Regional Collaboratives

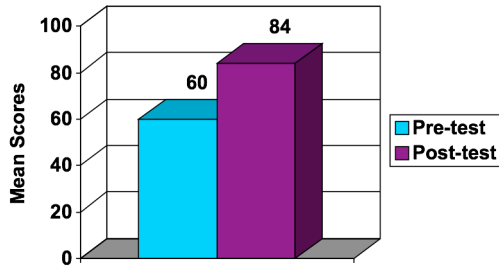
■ Elementary campuses with at least one Grade 5 TRC teacher each year during 2002-2005 scored higher on the Elementary Science TAKS (Texas Assessment of Knowledge and Skills), than the state average. Differences in student achievement were demonstrated both in the percentage of students that met state standards as well as the percentage of students that achieved a Commendable Performance rating.

Elementary Science TAKS (2005) - Three-Year Analysis



■ On average, scores for Collaborative teachers on tests of science content knowledge increased from a mean of 60 before TRC training to a mean of 84 after TRC participation.

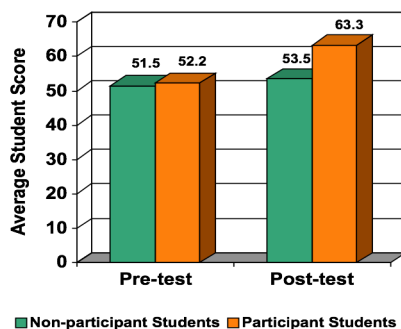
Average STM Science Content Knowledge Gains 2005-06



Summary of 21 different tests of science content knowledge administered to classroom teachers. Test content covered a range of topics including physics, chemistry, biology, earth science, and science process skills.

■ Students taught by teachers in the Rice University Regional Collaborative showed significant improvement as compared to non-participant teachers in the same school district on a test consisting of items from the Third International Math and Science Study (TIMSS), and released state test items.

Collaborative Vs. Non-Collaborative Teachers



|    |   |
|----|---|
| 1  | <ul style="list-style-type: none"> <li>✓ ✓ Region 1 Collaborative/Edinburg</li> <li>✓ UT-Pan American Regional Collaborative/Edinburg</li> <li>✓ ✓ UT-Brownsville Regional Collaborative/Brownsville</li> <li>✓ TAMIU Regional Collaborative/Laredo</li> </ul>  |
| 2  | <ul style="list-style-type: none"> <li>✓ ✓ TAMU-CC/ESC 2 Regional Collaborative/Corpus Christi</li> </ul>   |
| 3  | <ul style="list-style-type: none"> <li>✓ ✓ Region 3 Collaborative/Victoria</li> </ul>   |
| 4  | <ul style="list-style-type: none"> <li>✓ ✓ Region 4 Collaborative/Houston</li> <li>✓ Rice University Regional Collaborative/Houston</li> <li>✓ Galveston County Regional Collaborative/Galveston</li> <li>✓ Lake Houston Regional Collaborative/Humble</li> <li>✓ UHCL/EIH Regional Collaborative/Houston</li> <li>✓ Aldine ISD Regional Collaborative/Houston</li> </ul> |
| 5  | <ul style="list-style-type: none"> <li>✓ ✓ Region 5 Collaborative/Beaumont</li> </ul>   |
| 6  | <ul style="list-style-type: none"> <li>✓ Region 6 Collaborative/Huntsville</li> <li>✓ TAMU-College Station Regional Collaborative/College Station</li> </ul>  |
| 7  | <ul style="list-style-type: none"> <li>✓ ✓ Region 7 Collaborative/Kilgore</li> <li>✓ ✓ UT-Tyler/East Texas STEM Regional Collaborative/Tyler</li> </ul>   |
| 8  | <ul style="list-style-type: none"> <li>✓ ✓ Region 8 Collaborative/Mount Pleasant</li> <li>✓ TAMU-Texarkana Regional Collaborative/Texarkana</li> </ul>  |
| 9  | <ul style="list-style-type: none"> <li>✓ ✓ Region 9 Collaborative/Wichita Falls</li> </ul>  |
| 10 | <ul style="list-style-type: none"> <li>✓ ✓ Region 10 Collaborative/Richardson</li> <li>✓ UT-Dallas Regional Collaborative/Dallas</li> <li>✓ University of Dallas Regional Collaborative/Irving</li> </ul>   |
| 11 | <ul style="list-style-type: none"> <li>✓ ✓ Region 11 Collaborative/Fort Worth</li> <li>✓ ✓ North Central Texas College Regional Collaborative/Gainesville</li> <li>✓ University of North Texas Regional Collaborative/Denton</li> </ul>   |
| 12 | <ul style="list-style-type: none"> <li>✓ ✓ Region 12 Collaborative/Waco</li> </ul>  |
| 13 | <ul style="list-style-type: none"> <li>✓ ✓ Region 13 Collaborative/Austin</li> <li>✓ Capital City Regional Collaborative/Austin</li> <li>✓ ACC Regional Collaborative/Austin</li> </ul>   |
| 14 | <ul style="list-style-type: none"> <li>✓ ✓ Region 14 Collaborative/Abilene</li> </ul>   |
| 15 | <ul style="list-style-type: none"> <li>✓ ✓ Region 15 Collaborative/San Angelo</li> </ul>  |
| 16 | <ul style="list-style-type: none"> <li>✓ ✓ Region 16 Collaborative/Amarillo</li> </ul>  |
| 17 | <ul style="list-style-type: none"> <li>✓ ✓ Region 17 Collaborative/Lubbock</li> </ul>   |
| 18 | <ul style="list-style-type: none"> <li>✓ ✓ Region 18 Collaborative/Midland</li> </ul>   |
| 19 | <ul style="list-style-type: none"> <li>✓ ✓ Region 19 Collaborative/El Paso</li> </ul>   |
| 20 | <ul style="list-style-type: none"> <li>✓ ✓ Region 20 Collaborative/San Antonio</li> <li>✓ ✓ OLLU Regional Collaborative/San Antonio</li> </ul>  |

• Two Louisiana Regional Collaboratives, *LSU/Southern University Regional Collaborative*, and *Louisiana Tech University/Grambling State University Regional Collaborative*, are supported by the Shell-TRC Partnership.



**Texas Regional Collaboratives**  
**for Excellence in Science and Mathematics Teaching**  
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