WHO WE ARE
The Texas Regional Collaboratives for Excellence in Science and Mathematics Teaching (TRC) is an award-winning statewide network of 57 P-16 partnerships (Regional Collaboratives) that provide sustained and high intensity professional development to P-12 teachers of science and mathematics across the state. Funded by the Texas Education Agency and other organizations and foundations, this infrastructure of over 40 institutions of higher education collaborating with the Education Service Centers, school districts, and business partners, has a 24-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 successful implementation of the Texas Essential Knowledge and Skills (TEKS). TRC programs equip teachers with the knowledge and skills to engage students in meaningful science and mathematics learning experiences. Activities are designed to improve students’ scientific, mathematical and technological literacy, and inspire them to pursue science and engineering related careers.

ACTIVITIES
• Professional Development Academies (PDAs) are provided to Instructional Teams that consist of professors of education, science, mathematics, and engineering; instructional specialists; and master teachers.
• Professional Development Programs (PDPs) are designed by instructional teams at each Regional Collaborative to provide 100 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 partners, policy makers, and legislators to share, network, communicate, and celebrate the achievements of the Collaboratives.

<table>
<thead>
<tr>
<th>SCIENCE</th>
<th>2014-2015</th>
<th>MATHEMATICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>33</td>
<td>COLLABORATIVES</td>
<td>24</td>
</tr>
<tr>
<td>644</td>
<td>DISTRICTS</td>
<td>528</td>
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<tr>
<td>1,547</td>
<td>CAMPUSES</td>
<td>1,098</td>
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<td>1,203</td>
<td>TEACHER MENTORS</td>
<td>853</td>
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<td>4,528</td>
<td>TOTAL EDUCATORS</td>
<td>3,287</td>
</tr>
<tr>
<td>384,880</td>
<td>STUDENTS</td>
<td>279,395</td>
</tr>
</tbody>
</table>

One Year Data: May 1, 2014 - July 31, 2015
Student numbers based on an average student/teacher ratio of 85:1

ACHIEVEMENTS
• Over four million students across Texas have benefited from the improved instruction and performance of participating teachers. The program has developed the knowledge, skills, and leadership capacity of approximately 46,000 teachers of science and mathematics through sustained and high intensity professional development. Many of these teachers serve as Science Teacher Mentors (STMs) and Mathematics Teacher Mentors (MTMs), and share their experiences with other teachers through mentoring, peer coaching, technical assistance, and workshops at the campus, district, and regional levels. Teachers of science and mathematics in almost all of the state’s 254 counties have been the beneficiaries of this extensive statewide network.
• 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 excellence in science education.

www.theTRC.org
Recognizing the deep disparity between the capacity of the Texas K-12 education system to teach computer science and the demands of the innovation economy, the TRC has begun to build partnerships that will train and support computer science (CS) teachers. Through collaboration with Oracle Academy, IBM, the Texas Computer Education Association, and the Texas Advanced Computing Center, the TRC has supported training in computer science and computational thinking, reaching approximately 150 Texas educators since July 2014.

In October 2014, the TRC convened the Texas Computer Science Task Force in partnership with the Austin Chamber of Commerce to identify key barriers to building a robust CS pipeline in Texas. From this Task Force, along with input from numerous other stakeholders, a white paper titled “Building the Texas Computer Science Pipeline: Strategic Recommendations for Success” was released. The whitepaper outlines four primary barriers and makes specific recommendations for addressing those barriers to improve CS education in Texas.
TRC vs. State Science STAAR Data (2013)
Notable differences were found between TRC teacher self-reported scores on the Chemistry EOC (108 TRC teachers, 7,395 students), the Physics EOC (24 TRC teachers, 1,334 students), and the State of Texas overall. The data indicate that Chemistry and Physics students of TRC teachers exceeded state Level II Met Standard rates.

Teacher Impact – Science (2013-14)
TRC science teachers completed both a pre-test and post-test in Middle School (927 teachers) and High School (87 teachers).
Both groups showed significant gains in content knowledge at the p<0.001 level based on a paired t-test analysis. In Middle School, the overall effect size was d=0.34 In High School, the overall effect size was d=0.23.

Teacher Impact – Math (2013-14)
In 2013-14 program year, the mean of teachers’ pre-scores was -0.2201 with a 0.985 standard deviation. For the post-assessment, scores show a mean of 0.0592, (0.965 SD) which indicates an overall average gain of 0.2793 or a 0.28 (d) effect size. A paired t-test indicated significant positive difference between pre- and post- means, t (794) = -8.655, p<0.001.

TRC vs. State Math STAAR Data (2013)
A total of 617 mathematics teachers self-reported STAAR test results. Teachers who did not teach in a tested grade level, or those who serve as non-teaching instructional coaches did not have data to report. Since Algebra and Algebraic Readiness were the focal areas for the TRC, Grade 7 STAAR, Grade 8 STAAR, and Algebra EOC are reported below, representing data from 314 teachers and 25,265 students. The data indicate that students of TRC teachers generally outperformed students of non-TRC teachers, most notably in Algebra I.

STUDENT IMPACT
Regional Mathematics and Science Collaboratives (2015-16)

<table>
<thead>
<tr>
<th>R</th>
<th>M</th>
<th>S</th>
<th>REGIONAL COLLABORATIVES</th>
</tr>
</thead>
</table>
| 1 | 1 | 1 | Region 1 Collaborative/Edinburg  
  UT Brownsville Regional Collaborative/Brownsville  
  TAMU International Regional Collaborative/Laredo |
| 2 | 1 | 1 | Region 2 Collaborative/Corpus Christi  
  Texas State Aquarium Regional Collaborative/Corpus Christi |
| 3 | 1 | 1 | Region 3 Collaborative/Victoria |
| 4 | 1 | 1 | Region 4 Collaborative/Houston  
  Rice University Regional Collaborative/Houston  
  Galveston County Regional Collaborative/Galveston  
  Lake Houston Regional Collaborative/Humble  
  UH Regional Collaborative/Houston |
| 5 | 1 | 1 | Region 5 Collaborative/Beaumont |
| 6 | 1 | 1 | Region 6 Collaborative/Huntsville  
  TAMU-College Station Regional Collaborative/College Station |
| 7 | 1 | 1 | Region 7 Collaborative/Kilgore  
  UT Tyler Regional Collaborative/Tyler |
| 8 | 1 | 1 | Region 8 Collaborative/Mount Pleasant |
| 9 | 1 | 1 | Region 9 Collaborative/Wichita Falls |
| 10 | 1 | 1 | Region 10 Collaborative/Richardson  
  UT Dallas Regional Collaborative/Dallas |
| 11 | 1 | 1 | Region 11 Collaborative/Fort Worth  
  North Central Texas College Regional Collaborative/Gainesville  
  University of North Texas Regional Collaborative/Denton |
| 12 | 1 | 1 | Region 12 Collaborative/Waco |
| 13 | 1 | 1 | Region 13 Collaborative/Austin  
  UTeach Primary Regional Collaborative/Austin |
| 14 | 1 | 1 | Region 14 Collaborative/Abilene |
| 15 | 1 | 1 | Region 15 Collaborative/San Angelo |
| 16 | 1 | 1 | Region 16 Collaborative/Amarillo |
| 17 | 1 | 1 | Region 17 Collaborative/Lubbock |
| 18 | 1 | 1 | Region 18 Collaborative/Midland |
| 19 | 1 | 1 | Region 19 Collaborative/El Paso |
| 20 | 1 | 1 | Region 20 Collaborative/San Antonio  
  OLLU Regional Collaborative/San Antonio |

R: Region  M: Mathematics  S: Science