

# Evaluation of the Texas High School Project

Third Comprehensive Annual Report  
Executive Summary



SRI International

October 2011



# SRI International

October 2011

## **Evaluation of the Texas High School Project**

### **Third Comprehensive Annual Report Executive Summary**

SRI Project P18092

Submitted to:

Texas Education Agency  
William B. Travis Building  
1701 North Congress Avenue  
Austin, TX 78701

Prepared by:

SRI International

## Acknowledgements

### SRI International

#### Center for Education Policy

Education is critical to our nation’s ability to sustain innovation, and society can do more to prepare the next generation. The Center for Education Policy (CEP) evaluates the impact of a variety of educational programs, especially improvements designed to serve traditionally underrepresented students.

The Center studies new models for education reform, adult education systems, and initiatives to raise the quality of teaching. We conduct work for federal agencies, state departments of education, local school districts, private foundations, and not-for-profit groups.

For additional information about CEP research, please contact:

Patrick Shields, Center Director  
SRI International  
Center for Education Policy  
Room BS372  
333 Ravenswood Avenue  
Menlo Park, CA 94025-3493

Reports are available at <http://policyweb.sri.com/cep/>

### Contributing Authors

Viki Young, Nancy Adelman, Lauren Cassidy, Kyle Goss, Ann House, Kaeli Keating, Christina Park, David Sherer, Corinne Singleton, Victoria Tse, Haiwen Wang, and Kaily Yee, SRI International

Kristin Klopfenstein, University of Northern Colorado

Priyanka Singh, Texas Schools Project, University of Texas-Dallas

The authors especially thank Alison Hayward, Barbara O’Donnel, and Jan Lindsey at the Texas Education Agency for their guidance in preparing this report. The authors are also grateful to Eileen Behr, Veronica Brooks, Sylvia Rodezno, Naomi Tyler, and Kaitlin Welborn at SRI for supporting report production.

The evaluation team also included:

### SRI International

Nancy Bier, Catherine Hall, Paul Hu, Daniel Humphrey, Christine Padilla, and Barbara Means

### Copia Consulting

Rachel Howell and Angela Luck

### Texas A&M University

James Dyer, Trey Marchbanks, Arthur Castro, and Reede Sitton at the Public Policy Research Institute

### Triand Inc.

Dan Hansen, Nikolas White, and Britt Windler

---

Copyright © Notice: The materials are copyrighted © and trademarked ™ as the property of the Texas Education Agency (TEA) and may not be reproduced without the express written permission of TEA, except under the following conditions. (1) Texas public school districts, charter schools, and Education Service Centers may reproduce and use copies of the Materials and Related Materials for the districts’ and schools’ educational use without obtaining permission from TEA. (2) Residents of the state of Texas may reproduce and use copies of the Materials and Related Materials for individual personal use only without obtaining written permission of TEA. (3) Any portion reproduced must be reproduced in its entirety and remain unedited, unaltered and unchanged in any way. (4) No monetary charge can be made for the reproduced materials or any document containing them; however, a reasonable charge to cover only the cost of reproduction and distribution may be charged. Private entities or persons located in Texas that are not Texas public school districts, Texas Education Service Centers, or Texas charter schools or any entity, whether public or private, educational or non-educational, located outside the state of Texas *MUST* obtain written approval from TEA and will be required to enter into a license agreement that may involve the payment of a licensing fee or a royalty.

For information contact: Office of Copyrights, Trademarks, License Agreements, and Royalties, Texas Education Agency, 1701 N. Congress Ave., Austin, TX 78701-1494; email: [copyrights@tea.state.tx.us](mailto:copyrights@tea.state.tx.us).

***This third annual report of the evaluation satisfies Rider 79 of the General Appropriations Act of the 80th Texas Legislative Session pertaining to the Texas-Science, Technology, Engineering, and Mathematics (T-STEM), Early College High School (ECHS), and High School Redesign and Restructuring (HSRR) programs, which stipulates that those programs be evaluated by TEA.***

## Abbreviations

---

AA	Academically Acceptable
ACT	American College Test
AED	Area Executive Director
AEIS	Academic Excellence Indicator System
AISD	Austin Independent School District
AP	Advanced Placement
AU	Academically Unacceptable
AVID	Advancement Via Individual Determination
AYP	Adequate Yearly Progress
BA	Bachelor of Arts
Big 8 Council	Big 8 Urban Superintendents Council
BMGF	Bill & Melinda Gates Foundation
CDC	County/District/Campus Code
CIC	Campus Instructional Coordinators
CIS	Communities in Schools
CIT	Campus Integration Team
CFT	Communities Foundation of Texas
CMO	Charter Management Organization
CTE	Career and Technical Education
CRIS	College Readiness Indicator System
CRSS	Center for Reform of School Systems
CSGF	Charter Schools Growth Fund
CTE	Career and Technical Education
DATE	District Awards for Teacher Excellence
DISD	Dallas Independent School District
DIEN	District Engagement
DLD	District Leadership Development program
DMS	Data Management System
DSRD	District Redesign
ECHS	Early College High School
ECHSI	Early College High School Initiative
ELA	English Language Arts
ELI	Education Leadership Initiative
EOC	End-of-Course Exams
ERC	Education Research Center
ESC	Educational Service Center
GEAR UP	Gaining Early Awareness and Readiness for Undergraduate Programs
GPA	Grade Point Average
HB	House Bill
HISD	Houston Independent School District
HLM	Hierarchical Linear Modeling
HR	Human Resources
HSRD	High School Redesign

HSRR	High School Redesign and Restructuring
HSTW	High Schools That Work [Enhanced Design Network]
IB	International Baccalaureate
IHE	Institution of Higher Education
ISD	Independent School District
JFF	Jobs for the Future
KIPP	Knowledge is Power Program
LEP	Limited English Proficient
MMGW	Making Middle Grades Work
MOU	Memorandum of Understanding
NCLB	No Child Left Behind Act
NMSI	National Math and Science Initiative
NSCS	New Schools/Charter Schools
PBL	Problem-Based Learning
PBMAS	Performance-Based Monitoring Analysis System
PD	Professional Development
PEIMS	Public Education Information Management System
PLC	Professional Learning Community
PLTW	Project Lead the Way
PSAT	Preliminary Scholastic Aptitude Test
RFA	Request for Application
SAISD	San Antonio Independent School District
SAT	Scholastic Aptitude Test
SB	Senate Bill
SE	Standard Error
SLC	Small Learning Community
SREB	Southern Regional Education Board
STEM	Science, Technology, Engineering, and Math
TA	Technical Assistance
TAKS	Texas Assessment of Knowledge and Skills
TCSR	Texas Consortium on School Research
TEA	Texas Education Agency
TEKS	Texas Essential Knowledge and Skills
TFA	Teach for America
THECB	Texas Higher Education Coordinating Board
THSP	Texas High School Project
TNT	Teach North Texas
TOC	Theory of Change
T-STEM	Texas Science, Technology, Engineering, and Math Initiative
UT	University of Texas
YES	Youth Engaged in Service

## Executive Summary

---

This report is the third and culminating report of the four-year longitudinal evaluation of the Texas High School Project (THSP). The evaluation examined reform implementation and effects on student performance for THSP-funded schools that began reforms in the 2006–07 school year through the 2009–10 school year. Drawing on qualitative and quantitative data, this report provides updated results for the 2009–10 school year and builds on prior findings (see Young et al., 2010a, 2010b). It is the first and only year for which twelfth-grade outcomes are available under the THSP evaluation, albeit for a small minority of schools funded under THSP. This final report addresses the following research questions:

- To what extent did THSP-supported schools implement key reform elements as designed or described by the THSP grant programs? What factors facilitated implementation, and what factors hindered it?
- How did reform model networks support schools in implementation?
- What effects did THSP and its individual grant programs have on selected ninth-, tenth-, eleventh-, and twelfth-grade student outcomes? Did these effects differ for different types of students?
- To what extent did variation in implementation relate to intermediate teacher and student outcomes such as teaching practices and attitudes and to student achievement and achievement-related outcomes?

THSP's mission, during the years of the evaluation, was to ensure that all Texas students graduate from high school ready to tackle college and/or careers successfully. The \$377.4 million investment<sup>1</sup> supported the redesign of existing high schools, as well as the start-up of new stand-alone schools and schools within schools (i.e., selected student population within a larger school). THSP was created in 2003 by a public-private alliance that included the Texas Education Agency (TEA), Office of the Governor, Texas Legislature, Texas Higher Education Coordinating Board (THECB), Bill & Melinda Gates Foundation (BMGF), Michael & Susan Dell Foundation, Communities Foundation of Texas (CFI), National Instruments, Wallace Foundation, Greater Texas Foundation, and Meadows Foundation.

To pursue its mission, THSP funded schools, districts, and charter management organizations (CMOs) across a range of grant programs, specifically as follows:

- Texas Science, Technology, Engineering, and Mathematics (T-STEM)
- Early College High School (ECHS)
- New Schools/Charter Schools (NSCS)
- High School Redesign Initiative including High School Redesign and Restructuring (HSRR), High Schools That Work Enhanced Design Network (HSTW), High School Redesign (HSRD), and District Engagement (DIEN)

The first three programs in the list featured newly opened stand-alone schools or schools within schools. Both these types of schools were schools of choice. The High School Redesign Initiative supported reforms at existing comprehensive high schools.

---

<sup>1</sup> As of June 2011.

These seven programs (T-STEM, ECHS, NSCS, HSRR, HSTW, HSRD, and DIEN) represented the main efforts of the THSP Alliance under the initial strategic plan and were included in the evaluation. In 2009, under its regular strategic planning cycle, CFT spearheaded the development of a new five-year plan for THSP. The plan eliminated the redesign model for comprehensive high schools in favor of greater focus on the T-STEM and ECHS programs. The Alliance began implementing the new strategic plan in 2009–10, while TEA continued supporting comprehensive high schools under HSRR. Although the evaluation team remained abreast of the changes resulting from the new plan, the evaluation and the grantees included in it reflected priorities expressed in the first strategic plan.

## Key Findings

- Schools under the NSCS and ECHS programs consistently performed better than comparison schools on a wide range of outcomes across grades nine through 11.
- T-STEM academies demonstrated stronger performance than comparison schools on several outcomes, while performing similarly on the majority of ninth- through twelfth-grade outcomes. Many other T-/STEM student outcomes such as 21st-century work skills were not measured in the available datasets, and there the relative performance of T-STEM academies and comparison schools on those outcomes is unknown.
- Comprehensive high schools funded under the High School Redesign Initiative programs performed similarly to comparison schools on virtually all of the outcomes investigated for ninth through twelfth grade. A much longer timeframe may be necessary before improved student results are evident.
- The new small schools or schools within schools under T-STEM, ECHS, and NSCS were able to establish a strong culture of high expectations, focus on academics, and close teacher- student relationships more easily than THSP comprehensive high schools could alter existing practices and norms.
- The few THSP comprehensive high schools that exhibited promising practices had sustained a related bundle of reform strategies focused on supporting teachers to improve instruction collaboratively, providing embedded PD focused on instructional strategies, and creating smaller units to better connect teachers and students. These schools also featured stable leadership over several years at least.

As with any study of this complexity, the evaluation has certain limitations. The evaluation team's mandate was to evaluate THSP as a whole and designed the study to do so. However, as noted in the prior evaluation reports, the various THSP programs differ in ways crucial to their implementation and success, with different approaches to increasing instructional rigor and as newly opened small schools (or schools-within schools) that families must choose or as existing comprehensive high schools. Moreover, this evaluation occurred during the early implementation years of most of the programs. Although the evaluation spanned four years, the THSP-funded schools included in the analysis ranged from one to four years of implementation. In effect, even the schools with four years of implementation only had one cohort of students complete their high school careers in that time and the rest of the schools did not yet have graduates under THSP reform implementation. Thus, these results still reflect schools' early implementation efforts. This study has limited statistical power to detect the true effects for programs with a small numbers of schools, especially for students at higher grade levels.

Furthermore this evaluation is only able to adjust for baseline differences between THSP schools and their comparison schools in observed characteristics. Any differences at baseline that are unobservable in the extant data have the potential to cause statistical bias in the results. While these challenges limited the causal interpretation of these results, the analyses indicate that the NSCS, ECHS, and, to a lesser extent, the T-STEM programs are impacting student performance in promising ways that warrant further study.

## Program Implementation and Outcomes

### NSCS Program

The NSCS program funded CMOs to replicate school models that had a history of achieving high academic performance with underserved populations and to build a network of such schools in areas of greatest need in Texas. The NSCS program differed from the other programs included under THSP because the grantees followed their respective CMO's school model rather than implementing an external model. Thus THSP technical assistance (TA) for this program focused on providing the CMOs with opportunities to network with each other and on engaging the central office in issues around supporting an expanded system of schools.

**CMOs started up new campuses that replicated their models' climate of high academic expectations, individualized student supports, and strong teacher-student relationships. CMO leaders tightly monitored new schools and grappled with tensions between centralization and decentralization to ensure quality as their systems of schools grew.**

The replicated campuses funded under the NSCS program generally featured healthy academic environments that were at the core of the CMOs' respective school models. The schools sustained high academic expectations by offering advanced coursework such as Advanced Placement (AP) and International Baccalaureate (IB) classes and by generally teaching content standards more rigorous than those assessed by the standardized state test, TAKS (Texas Assessment of Knowledge and Skills). To help students achieve these high expectations, the schools offered academic supports and college preparatory experiences. Teachers also used data routinely and frequently to monitor individual student performance. Coupled with the small school structure, which facilitated close teacher-student bonds, students were caught as soon as they began to show signs of slippage in effort or learning. Although instructional approaches varied from teacher to teacher, this emphasis on meeting individual needs as quickly as possible was the common thread. In addition, at least one CMO offered exemplary college preparatory experiences including internships, SAT preparation, college trips, career exploration, college, financial aid and scholarship application help, and parent education.

Because the NSCS program funded CMOs to replicate their respective school models on the basis of success at their founding schools, the CMOs tightly monitored that replication. Especially in the opening years of a new school, CMO leaders were primarily concerned with establishing the "right" culture—one that valued academic excellence and sending all students to college. Establishing this culture was facilitated by teacher and student choice. Teachers chose to work at NSCSs in large part because they believed in the schools' missions. They expressed commitment to providing a college preparatory program to underserved students and willingness to meet any academic or social needs that posed a barrier to students' succeeding in high school. Students or their families actively chose their schools, as well. Although families



chose the charter schools for a variety of reasons—including safety concerns about their neighborhood school, smaller environments, and college preparation—their desire to be there contributed to the schools’ ability to demand students’ consistent effort during school, after school, and on the weekends.

As the CMOs opened new schools each year, they continued to grapple with issues of centralization and decentralization—that is, identifying aspects of operating schools that should be decided centrally versus at the individual school level. On the one hand, the CMO leaders were committed to maintaining high performance across all of their campuses, to offering equitable opportunities to students across different schools, and to leveraging expertise, experience, and economies of scale. At the same time, the CMOs were rooted in the belief in school autonomy that undergirds the charter school movement. Thus, all of the CMO leaders faced the question of whether and how much to centralize a wide range of decisions. They were at different levels of development in understanding this issue and in being able to implement a strategy. The CMOs that were more effectively managing their growing systems of schools laid down parameters that defined the school model, within which schools had the autonomy to innovate or develop.

### **NSCS performed better than matched comparison schools across the majority of outcomes from grades nine through 11.**

NSCS students performed better than those in comparison schools across almost all ninth-, tenth-, and eleventh-grade outcomes analyzed, including TAKS scores in all of the tested subjects grades nine through 11 and scoring at the commended level on at least one TAKS subject in grades nine through 11. NSCS eleventh-grade students also performed better than comparison school peers in reaching the college readiness score<sup>2</sup> in at least one TAKS subject and were more likely than those in comparison schools to take advanced courses (AP, IB, or dual credit). Attendance was higher at NSCSs than at comparison schools across grades nine through 12 as well.

### **ECHS Program**

The ECHS program sought to increase high school completion rates and encourage college enrollment among students traditionally underrepresented in the college-going population. The program does so by providing the students with the opportunity to simultaneously attain a high school diploma and a significant number of college credit hours (up to and including a 60-credit associate’s degree) during a four- or five-year high school program. To offer college credit, ECHSs had to partner with local institutions of higher education (IHEs) and establish a joint agreement that specified both the courses that were eligible for dual credit and the respective responsibilities of the high school and IHE partners. The ECHS network provided TA on implementing the model and professional development (PD) on key instructional strategies called the Common Instructional Framework.

---

<sup>2</sup> The college readiness score is set at a scaled score of 2,200, compared to a scaled score of 2,100, which indicates that a student has met TAKS standards.

**ECHSs made progress in implementing key elements of the school model, most notably in using the Common Instructional Framework. Other elements were more challenging to implement or were implemented with less depth.**

The primary experience for ECHS students was taking college-level courses in high school. That experience was intended to create an identity of being a college-goer among students from backgrounds that traditionally have been underrepresented in higher education. Obtaining dual credit also reduced the cost of college and time to completion for students who might otherwise have foregone higher education for financial reasons. To that end, in 2009–10 ECHS students were taking college courses, many starting with transitional non-academic courses in their freshman year and progressing to core academic courses in eleventh and twelfth grade. As expected, ECHS students reported taking more dual credit courses than students in other THSP programs.

The foundation for a successful ECHS rested in part on the strength of the school-IHE relationship. While all ECHSs were required to establish such partnerships to be able to offer dual credit courses, the ECHS-IHE relationships were not deeply collaborative. In 2009–10, ECHS leaders reported meeting regularly with their IHE liaisons, but ECHS teachers and IHE instructors rarely collaborated on curriculum and strategies for supporting students. Recognizing the importance of deeper IHE participation, the ECHS network leaders began in winter 2011 to provide more support to IHE liaisons, bringing them together to better understand the importance of the collaboration.

At the high school level, ECHSs received significant TA on the Common Instructional Framework, a series of six key strategies designed to integrate college-level expectations into the high school curriculum. This TA resulted in greater use of those strategies among the site-visited ECHSs. In comparison to teachers at other THSP schools, ECHS teachers surveyed also reported more frequently using advanced instructional activities such as problem-solving as a reflection of the academic focus of the schools. Together, these findings indicated the high academic expectations that were part of ECHSs' culture. They also pointed to ECHSs' concerted efforts to raise the level of consistency in instruction across teachers.

Recruiting new students was a critical function for all schools of choice, including ECHSs. ECHSs also sought students with the desire and maturity to take college courses during high school, while targeting traditionally underserved students who might have been poorly prepared at lower grades. Some site-visited ECHSs had to adjust their recruiting and application processes as their reputations became more established and more students wanted to attend. They used letters of recommendation and student and parent interviews to assess student motivation, which had been an issue in the first ECHS cohorts when all interested students were accepted to fill the seats. It will be important for these ECHSs to consider whether using more involved application processes, which at-risk students are less likely to complete, limits access for those students who could benefit from the program the most. To ensure that students from the target population continued to apply, school leaders heightened outreach to middle schools, with some including the middle school grades in their programs.

Because ECHS students were generally the first in their families to attend college, various supports were crucial to students' seeing themselves as capable of college-level work, as well as boosting their performance to a level that matches that vision. Most of those supports were informal, facilitated by the small school size. ECHS teachers knew their students sufficiently well to have college-focused discussions frequently. ECHSs also supported their students in passing

the college placement test, without which students could not take college-level classes. They further provided other college preparatory activities such as preparing for the SAT, touring college campuses, and monitoring students' college application processes. ECHS students were engaged in dual credit college courses, were exposed to college life, and gaining experiences that built their college-going identity.

### **ECHS students performed better than similar students at matched comparison schools on several outcomes in grades nine through 12.**

Although the ECHSs had not deeply implemented all of the design elements, they arguably had implemented the essential ones along with enough of the peripheral elements to establish relatively strong schools. This level of implementation may be maturing over time, as reflected by the ECHS effects on student outcomes.

ECHS students in ninth through eleventh grade performed better than peers in matched comparison schools on several TAKS outcomes, including ninth-grade meeting or exceeding TAKS in both reading and math; tenth-grade TAKS-Social Studies scores and meeting or exceeding standards on TAKS in math, science, and all subjects; and eleventh-grade meeting or exceeding standards in all TAKS. Reflecting ECHSs' emphasis on preparing students for college and providing them with college experiences during their high school years, ECHS eleventh- and twelfth-grade students had higher likelihoods of taking advanced courses (AP, IB, and dual credit). Twelfth-grade students in ECHS also earned more cumulative Carnegie units<sup>3</sup> in dual credit-eligible courses than those at comparison schools. ECHS ninth-, tenth-, and eleventh-grade students also had higher attendance rates than those in comparison schools.

### **T-STEM Program**

The T-STEM program established a new network of schools that offered STEM-focused education and a statewide infrastructure of regional centers to provide TA and PD to these schools. The T-STEM initiative ultimately aimed to improve math and science achievement overall and to stimulate students' interest in STEM careers. T-STEM academies were new small schools or schools within schools. The T-STEM Academies Design Blueprint (2010)<sup>4</sup> guided the schools' development and implementation.

### **Overall, T-STEM academies were implementing the critical elements of the T-STEM Blueprint. They varied in how effectively they implemented some program elements, like project-based learning (PBL), and often prioritized elements that needed to be in place based on the grades they were serving.**

Across the initiative, T-STEM academies implemented certain key elements in the Blueprint more consistently than they did others. Focusing on leadership and a coherent school vision, providing students with a rigorous academic curriculum and experiences relevant to work and careers, supporting instruction with consistent data use, and providing students with adequate academic and social supports through advisory were all Blueprint components that were relatively consistently implemented by T-STEM academies in 2009–10.

---

<sup>3</sup> A standard measure that specifies the minimum amount of time required to earn credit. It is the standard unit used in American high schools to track student credit.

<sup>4</sup> <http://nt-stem.tamu.edu/Academies/blueprint.pdf>

At the site-visited T-STEM academies, school and district leadership expressed direct support for the T-STEM vision. School leaders reported using the T-STEM Blueprint to guide their schools' development. T-STEM teachers surveyed also reported that school leaders and teachers shared common beliefs and school vision and they reported generally feeling well supported by their leadership. District leaders too promoted T-STEM implementation by giving school leaders the autonomy and flexibility to implement Blueprint-specific elements, such as PBL and advisory, which might not have been featured elsewhere in the district.

T-STEM academies ensured rigor through their curricular programming, for example requiring AP, IB, or dual credit courses. Other aspects of instructional rigor incorporated in the Blueprint, namely PBL, still varied widely in whether and how teachers integrated PBL into daily instruction. At many schools, PBL meant one major project or several projects each year. At a small minority of T-STEM academies, PBL served as daily instruction across the core academic subjects. Notably, T-STEM teachers at site-visited schools reported a desire for more PD in PBL to improve their understanding of how to plan for and execute lessons that use real-world problems as the vehicle by which students learn and apply high content standards. Increasing consistency in implementing PBL was the motivation, in part, for the T-STEM centers to offer foundational courses in the PBL approach and for external coaches advising T-STEM academies on implementation to focus on how academies use PBL.

Prior to 2009–10, interviewees at site-visited T-STEM academies reported that the academies purposefully delayed setting up the systems to offer internships and dual credit courses because those services targeted eleventh- and twelfth-grade students, whereas other school processes, practices, and expectations necessary to serve the entering ninth-grade students were more urgent. As schools matured, they did indeed put in place more internship opportunities and established partnerships with community colleges to offer dual credit courses. Schools were challenged, however, in finding enough community and business partners to provide a significant proportion of students with meaningful internships, and the economic downturn further limited the availability of those positions and other in-kind support from private industry. College partners also varied in how willing they were to work with the school to align curriculum and how flexible they were in certifying high school teachers with credentials in related disciplines or offering the dual credit course at the high school, as requested by some T-STEM academies.

The site-visited T-STEM academies implemented many of the student supports enumerated in the T-STEM Blueprint, but to varying degrees of depth. As at other THSP schools, academic tutoring was a major component of student support services. Advisory, a dedicated time for teachers to interact with students in a small-class setting outside of regular instruction, was included in the Blueprint as the primary avenue for social-emotional support. However, it was not consistently implemented across the academies. The small school structure, combined with the strong academic culture, afforded many opportunities for T-STEM teachers and students to develop positive and supportive relationships. Teachers and students reported that this culture was a distinctive feature of T-STEM.

**The T-STEM academy students outperformed those in matched comparison schools on several outcomes and performed similarly on the majority of outcomes studied.**

With Blueprint implementation being a work-in-progress, T-STEM students performed better than comparison school peers on a small number of outcomes. They performed similarly on a majority of the outcomes studied. T-STEM academy students exceeded their comparison school peers in passing Algebra I by ninth grade, on tenth-grade TAKS-Math and meeting or exceeding TAKS in all subjects, attendance, and promotion to the eleventh-grade. However, T-STEM students performed at the same levels as similar students in comparison schools across the majority of outcomes examined for grades nine through 12.

In considering the T-STEM effect on student outcomes, it is worth noting that a wide variety of outcomes intended by the T-STEM initiative and pursued by the academies could not be measured well or at all with state data. Developing students' 21st-century work skills such as collaborating, using multidisciplinary approaches, problem-solving, and applying technologies were some of the key T-STEM outcomes that were not captured by the outcomes included in this evaluation. Longer-term outcomes such as college enrollment, persistence, graduation, and STEM major completion require linking high school to postsecondary data and are not easily tracked with the existing datasets.

## **High School Redesign Initiative**

The High School Redesign Initiative supported the redesign of existing comprehensive high schools.<sup>5</sup> This initiative was created to transform large, low-performing high schools into places that provided personal attention and guidance to all students, offered students a challenging curriculum with real-life applications, and encouraged all students to succeed. Each of the four grant programs that comprised the initiative (HSRR, HSTW, HSRD, and DIEN) included TA that targeted needs assessment, leadership coaching, or content-specific PD. HSRR grantees also received case management to align TA and PD needs with providers' services, and HSTW grantees received PD specifically on the HSTW elements.

**Comprehensive high schools funded under the High School Redesign Initiative faced struggles typical of urban and rural schools in Texas. Some schools included in the High School Redesign Initiative exhibited promising practices. Most schools, however, pursued reforms that did not match the scale of challenges they faced.**

The grant programs under the High School Redesign Initiative provided reform model guidelines that were much less specific than the T-STEM Blueprint or the ECHS design elements. The High School Redesign programs called for grantees to improve student achievement through a variety of strategies that included providing PD and teacher collaboration opportunities, using data, reorganizing into smaller learning communities (SLCs), and making more connections between academic work and real-world applications. Schools chose which reform strategies to pursue, and—with a few exceptions—grantees across the THSP High School Redesign Initiative programs struggled to put in place those strategies. With school

---

<sup>5</sup> “Comprehensive” high schools refer to the traditional American high school, one that typically offers a wide range of academic and elective courses, athletics, and other extracurricular activities.

leadership and staff turnover, the definition of those reforms often changed, further undermining any reform momentum. Schools were often more successful in focusing on structural changes such as providing teachers with team planning time or breaking the school into SLCs or academies. However, most site-visited schools were unable to build systems capable of leveraging these structural changes to create lasting improvements.

Instructionally, the Redesign comprehensive high schools strove to offer more demanding coursework by offering AP and dual credit courses to more students. Teachers within the same school, however, lacked a common understanding of instructional rigor and curricular relevance, with most teachers following their own professional sense of what rigor and relevance meant. Redesign comprehensive high schools did provide some teacher supports, with surveyed teachers reporting frequent collaboration and using a range of data for instructional planning, which might eventually form the basis for conversations around common instructional expectations.

Supporting students academically was a high priority for the Redesign comprehensive high schools, especially at those schools under or close to falling below the Academically Acceptable (AA) standard in the state accountability system. Schools devoted much effort to preparing students for TAKS, through tutoring during and after school and on the weekends. Students' needs for social supports were also pressing, which schools met with a patchwork of services such as counseling, nursing, and social work. College readiness supports were traditional, with overloaded counselors doing their best to review transcripts to make sure students had the necessary credits and computer-based resources for students to research universities and career options. No site-visited Redesign comprehensive high school offered students college preparatory experiences that were as diverse and individualized for students as those offered by the new small schools and schools within schools under THSP. Redesign comprehensive high schools also did not develop the informal relationships between teachers and students that commonly supported students in the small schools.

In practice, the difference between those schools that used different reform structures to strengthen instruction over time and those that implemented structures superficially was stable school leadership capable of clearly articulating the rationale for particular reforms and providing follow-up support for teachers. This follow-up often included facilitators to model how professional collaboration can be focused on data analysis and instruction or to guide conversations around the needs of common students in SLCs. Such facilitation was necessary until a broad segment of the staff bought in to the practices and until those practices became routine. Such tenacity over time, especially in the face of staff turnover, district policy changes, and state accountability pressures, was rare among the Redesign comprehensive high schools. It is notable that the few site-visited Redesign comprehensive high schools that were able to maintain their reform momentum had stable leadership for four or more years.

**Across the vast majority of outcomes examined, high schools in each of the programs in the High School Redesign Initiative performed similarly to comparison schools. Given the challenges of changing an existing school culture as compared to creating one of high expectations in a new school, the High School Redesign Initiative schools will likely require much more time to demonstrate positive effects on a range of student outcomes.**

Given the challenges associated with reform at the Redesign comprehensive high schools, it is not surprising that the programs under the High School Redesign Initiative did not perform

differently from matched comparison schools across almost all outcome measures across grades. The exceptions were isolated and did not represent a consistent pattern. Specifically, HSRR eleventh-grade students had a higher likelihood of taking advanced courses (AP, IB, and dual credit). However, at DIEN schools, students repeating ninth grade had lower attendance than peers in comparison schools, and tenth-grade students scored lower on TAKS-Social Studies and had a lower likelihood of reaching commended levels in at least one TAKS subject than comparison school peers. HSTW students in the ninth grade in 2006–07 had a lower likelihood of dropping out by twelfth grade than those in comparison schools. HSRD students in the ninth grade in 2007–08 had a higher likelihood of dropping out by eleventh grade than those in comparison schools. Taken together, these results indicate that THSP comprehensive high schools did not pursue reforms distinctive enough from those at comparison schools that would affect the primarily achievement-related outcomes included in the evaluation.

## Implications

THSP was far-reaching and ambitious in trying to address a broad set of needs through both opening new small schools and reforming the comprehensive high schools that a vast majority of Texas youth attends. As other initiatives have also discovered, it is easier to start up new schools than to reform existing ones (AIR/SRI, 2003). Without diminishing the tremendous effort required to start a new school, new schools had the advantage of being able to put in place over a short period of time a bundle of features that were closer to the ideal rather than trying to change one area of practice or culture at a time in existing schools. For example, the new small schools started up under the T-STEM, ECHS, and NSCS programs all selected teachers based on their understanding of the schools' mission and commitment to improving the academic preparation of underrepresented students so that they could attend college. The new schools established rules and procedures for both students and staff that instantiated and reinforced the culture they were trying to achieve. The existing schools under the High School Redesign Initiative programs had entrenched norms and practices that needed to be altered over a longer period of time to foster the high expectations culture they were aiming for. Indeed, recent case studies indicated that improved student outcomes at comprehensive high schools may not be detected for some time, in some cases after approximately 10 years of consistently implementing a coherent set of reforms.<sup>6</sup> It may be that sustaining reforms for that length of time is imperative to see student learning improve consistently—a time frame made more difficult by fiscal reductions, political cycles, and short-term needs to serve the students they have.

In the end, the THSP-funded schools demonstrated multiple approaches to reforming high school education. The new school models defined elements that encompassed many dimensions of schooling such as curriculum, instruction, teacher supports, leadership, student supports, parent and community engagement, and so on. Yet the comprehensive high school remains the place most students attend. Among the Redesign comprehensive high schools, those exhibiting promising practices were the ones able to put in place several reform strategies across a range of teachers for multiple years. Those schools were able to provide teachers with time and supports to analyze data to identify individual student needs and to continue to hone their instructional strategies together. At the same time, those schools also pursued efforts to raise teachers' and students' overall expectations for academic performance and to foster a culture

---

<sup>6</sup> [http://blogs.edweek.org/edweek/futures\\_of\\_reform/](http://blogs.edweek.org/edweek/futures_of_reform/)

where students felt safe and comfortable talking with teachers about both academic and nonacademic issues. Because none of those strategies stand on their own, they likely need to be integrated together for any reform initiative to lead sustained improvements in student learning.

Although fiscal constraints add pressure to identify the effective and efficient practices, it may be more fruitful to look for opportunities to assemble and stage a set of tested reforms that can be adapted to middle school grades and to other high school contexts. The findings from the evaluation point to several potential priorities, including a critical attention to instruction; sustaining PD embedded within schools that expands teachers' instructional toolkit; grounding students in smaller units within schools so they have a strong sense of belonging and connection to their teachers and their learning environments; and focusing on developing strategic human capital—principals who organize the school for instructional excellence and teachers who are versatile in designing engaging and rigorous lessons that promote learning for all students. These priorities are by no means easy or narrow, but they may provide a center of gravity for school practices that can so often be pulled in differing directions while trying to satisfy state policies, district initiatives, external grant requirements, and community interests.



## References

---

- Allensworth, E., & Easton, J. (2007, July). *What matters for staying on-track and graduating in Chicago public high schools*. Chicago, IL: Consortium on Chicago School Research.
- Allinder, R. M. (1994). The relationship between efficacy and the instructional practices of special education teachers and consultants. *Teacher Education and Special Education, 17*(2), 86–95.
- American Institutes for Research (AIR)/SRI International (SRI). (2003). *High time for high school reform: Early findings from the evaluation of the National School District and Network Grants Program*. Washington, DC, and Menlo Park, CA: Authors.
- American Institutes for Research (AIR)/SRI International (SRI). (2009). *Six years and counting: The ECHSI matures*. Washington, DC: AIR.
- Anderson, R., Greene, M., & Loewen, P. (1988). Relationships among teachers' and students' thinking skills, sense of efficacy and student achievement. *Alberta Journal of Educational Research, 34*(2), 148–165.
- Antonio, A., Venezia, A., & Kirst, M. (2004). *Addressing the development of college knowledge: Concepts to improve student transitions from high school to college*. Retrieved from <http://www.stanford.edu/group/bridgeproject/EAQ%201-31-04.pdf>
- Boaler, J. (1997). *Experiencing school mathematics; Teaching styles, sex, and settings*. Buckingham, UK: Open University Press.
- Boaler, J. (1998). Open and closed mathematics: Student experiences and understandings. *Journal for Research in Mathematics Education, 29*(1), 41–62.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Conley, D. (2008). *College knowledge: What it really takes for students to succeed and what we can do to get them ready*. San Francisco, CA: Jossey-Bass.
- Corcoran, T. B., Shields, P. M., & Zucker, A. A. (1998). *SSIs and professional development for teachers*. Menlo Park, CA: SRI International.
- Darling-Hammond, L., & Sykes, G. (1999). *Teaching as the learning profession*. San Francisco, CA: Jossey-Bass.
- Datnow, A. (2001, April). *The sustainability of comprehensive school reform in changing district and state contexts*. Paper presented at the annual meeting of the American Educational Research Association, Seattle, WA.
- Fishman, B. J., Marx, R., Best, S., & Tal, R. (2003). Linking teacher and student learning to improve professional development in systemic reform. *Teaching and Teacher Education, 19*(6), 643–658.
- Florian, J. (2000). *Sustaining education reform: Influential factors*. Aurora, CO: Mid-Continent Regional Education Laboratory.
- Gallagher, S. A., Stepien, W. J., & Rosenthal, H. (1992). The effects of problem-based learning on problem solving. *Gifted Child Quarterly, 36*(4), 195–200.

- Garet, M. S., Porter, A. C., Desimone, L., Birman, B. F., & Yoon, K. W. (2001). What makes professional development effective? Results from a national sample of teachers. *American Education Research Journal*, 38(4), 915–945.
- Gibson, S., & Dembo, M. (1984). Teacher efficacy: A construct validation. *Journal of Educational Psychology*, 76(4), 569–582.
- Gorsuch, R. L. (1983). *Factor analysis* (2nd ed.). Hillsdale, NJ: Erlbaum.
- Guskey, T. R. (1988). Teacher efficacy, self-concept, and attitudes toward the implementation of instructional innovation. *Teaching and Teacher Education*, 4(1), 63–69.
- Honig, M. (2009). “External” organizations and the politics of urban educational leadership: The case of new small autonomous schools initiative. *Peabody Journal of Education*, 84, 394–413.
- Keating, K., Cassidy, L., Tse, V., & Yee, K. (2008). Study of the state context for policy reform. State policy review. Austin, TX: Texas Education Agency.
- Kubitskey, B., Fishman, B., & Marx, R. (2004). *Impact of professional development on a teacher and her students: A case study*. Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA.
- Lesnick, J., Jiang, J., Sparte, S., Sartain, L., & Hart, H. (2010, November). *A study of Chicago New Teacher Center induction coaching in Chicago Public Schools, 2009-2010*. Chicago, IL: Consortium on Chicago School Research. Retrieved from [http://ccsr.uchicago.edu/downloads/8380ccsr-cntc\\_final\\_report\\_-\\_nov\\_2010\\_%282%29.pdf](http://ccsr.uchicago.edu/downloads/8380ccsr-cntc_final_report_-_nov_2010_%282%29.pdf)
- Little, J. W. & McLaughlin, M. (Eds.). (1993). *Teachers' work: Individual, colleagues, and contexts*. New York, NY: Teachers College.
- Marzano, R., Pickering, D., & Pollock, J. (2001). *Classroom instruction that works: Research-based strategies for increasing student achievement*. Alexandria, VA: Association for Supervision and Curriculum Development
- McLaughlin, M. W., (1993). What matters most in teachers' workplace context? In J. W. Little & M. W. McLaughlin (Eds.), *Teachers' work: Individual, colleagues, and contexts* (pp. 79–103). New York, NY: Teachers College.
- McLaughlin, M. W., & Mitra, D. (2002). Theory-based change and change-based theory: Going broader and going deeper. *Journal of Educational Change*, 2, 1–24.
- Means, B., Penuel, W. R., & Padilla, C. (2001). *The connected school: Technology and learning in high school*. San Francisco, CA: Jossey-Bass.
- Meijer, C. J. W., & Foster S. F. (1998). The effect of teacher self-efficacy on referral chance. *Journal of Special Education*, 22(3), 378–385.
- Moore, W., & Esselman, M. (1992). *Teacher efficacy, power, school climate and achievement: A desegregating district's experience*. Paper presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA.
- Penuel, W. R., Means, B., & Simkins, M. B. (2000). The multimedia challenge. *Educational Leadership*, 58(2), 34–38.

- Podell, D. M., & Soodak, L. C. (1993). Teacher efficacy and bias in special education referrals. *Journal of Educational Research*, 86(4), 247–253.
- Rhodes, D., Smerdon, B., Burt, W., Evan, A., Martinez, B., & Means, B. (2005). *Getting to results: Student outcomes in new and redesigned high schools*. Washington, DC: American Institutes for Research and SRI International.
- Ross, J. (1992). Teacher efficacy and the effects of coaching on student achievement. *Canadian Journal of Education*, 17(1), 51–65.
- Shear, L., Song, M., House, A., Martinez, B., Means, B., & Smerdon, B. (2005). *Creating cultures for learning: Supportive relationships in new and redesigned high schools*. Washington, DC: American Institutes for Research and SRI International.
- Shepherd, (1998).
- Shiffman, C., Massell, D., Goldwasser, M., & Anderson, J. (2006). *Design as intended, design as enacted: External assistance providers and high school reform*. Paper presented at the annual meeting of the American Education Research Association in San Francisco, CA.
- Sindelar, P., Shearer, D., Yendol-Hoppey, K., & Liebert, T. (2006). The sustainability of inclusive school reform. *Exceptional Children*, 72(3), 317-331.
- Smylie, M., Allensworth, E., Greenberg, R., Harris, R., & Luppescu, S. (2001). *Teacher professional development in Chicago: Supporting effective practice*. Chicago, IL: Consortium on Chicago School Research. Retrieved from <http://ccsr.uchicago.edu/publications/p0d01.pdf>
- Stein, M., & Wang, M. (1988). Teacher development and school improvement: The process of teacher change. *Teaching and Teacher Education*, 4(2), 171–187.
- T-STEM Academy Design Blueprint. (2010). Retrieved from <http://nt-stem.tamu.edu/Academics/blueprint.pdf>
- Taylor, J. E. (2005). *Sustainability: Examining the survival of schools' comprehensive school reform efforts*. Paper presented at the 2005 annual meeting of the American Educational Research Association, Montreal, Canada.
- Vargas, J. (2004). *College knowledge: Addressing information barriers to college*. Boston, MA: The Education Resources Institute.
- Weinbaum, E. H. & Supovitz, J. A. (2010). Planning ahead: Make program implementation more predictable. *Phi Delta Kappan*, 91(7), 68–71.
- Woodworth, K. R., David, J. L., Guha, R., Wang, H., & Lopez-Torkos, A. (2008). *San Francisco Bay Area KIPP schools: A study of early implementation and achievement. Final report*. Menlo Park, CA: SRI International.
- Young, V., Adelman, N., Bier, N., Cassidy, L., House, A., Keating, K., et al. (2010a). *Evaluation of the Texas High School Project. First comprehensive annual report*. Austin, TX: Texas Education Agency.
- Young, V., Adelman, N., Bier, N., Cassidy, L., Keating, K., Padilla, C., et al., (2010b). *Evaluation of the Texas High School Project. Second comprehensive annual report*. Austin, TX: Texas Education Agency.

Young, V., Humphrey, D., Wang, H., Bosetti, K., Cassidy, L., Wechsler, M., et al. (2009, April). *Renaissance Schools Fund-supported schools: Early outcomes, challenges, and opportunities*. Menlo Park, CA and Chicago, IL: SRI International and Consortium on Chicago Schools Research.

To download the complete report, including appendices, please go to  
[http://www.tea.state.tx.us/index4.aspx?id=2904&menu\\_id=949](http://www.tea.state.tx.us/index4.aspx?id=2904&menu_id=949)