

**Texas High School  
Completion and Success  
Final Report on Performance of  
Programs Authorized by  
House Bill 2237**

*Submitted in fulfillment of HB 2237, Section 18 (80<sup>th</sup> Texas Legislature)*

**Prepared by  
Texas Education Agency  
Office for Planning, Grants, and Evaluation  
and  
ICF International**

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## Table of Contents

<b>Table of Contents</b> .....	<b>i</b>
<b>List of Tables</b> .....	<b>iii</b>
<b>Abbreviations</b> .....	<b>v</b>
<b>Executive Summary</b> .....	<b>vii</b>
<i>Purpose of Report</i> .....	<i>vii</i>
<i>Legislative Context</i> .....	<i>vii</i>
<i>Approach to Assessment of Program Impact</i> .....	<i>viii</i>
<i>Findings</i> .....	<i>ix</i>
<i>Student Academic Performance</i> .....	<i>ix</i>
<i>Teacher Effectiveness</i> .....	<i>xi</i>
<i>Cost Effectiveness</i> .....	<i>xii</i>
<b>Introduction</b> .....	<b>1</b>
<i>Purpose of Report</i> .....	<i>1</i>
<i>Why Focus on High School Completion and Success?</i> .....	<i>1</i>
<i>High School Completion and Success: Legislative Context</i> .....	<i>4</i>
78 <sup>th</sup> Texas Legislature .....	<i>4</i>
79 <sup>th</sup> Texas Legislature .....	<i>4</i>
80 <sup>th</sup> Texas Legislature .....	<i>6</i>
<i>High School Completion and Success Initiative Council</i> .....	<i>7</i>
<i>Five Key Strategies of the Council</i> .....	<i>7</i>
81 <sup>st</sup> Texas Legislature.....	<i>9</i>
<b>Approach to the Assessment of Program Impact</b> .....	<b>11</b>
<i>Comprehensive Evaluations vs. Impact Assessments</i> .....	<i>11</i>
<i>Factors to Consider</i> .....	<i>14</i>
<i>Descriptions of Programs</i> .....	<i>15</i>
<i>Comprehensive Whole School Reform</i> .....	<i>15</i>
<i>Targeted Student Interventions</i> .....	<i>17</i>
<i>Effective Teachers and Leaders</i> .....	<i>19</i>
<b>Findings from Impact Assessments and Comprehensive Evaluations</b> .....	<b>21</b>
<i>Student Academic Performance</i> .....	<i>21</i>
<i>Teacher Effectiveness</i> .....	<i>42</i>
<i>Cost Effectiveness</i> .....	<i>50</i>
<b>Conclusions</b> .....	<b>57</b>
<i>Student Academic Performance</i> .....	<i>57</i>
<i>Teacher Effectiveness</i> .....	<i>59</i>
<i>Cost Effectiveness</i> .....	<i>61</i>
<i>Building a Foundation</i> .....	<i>64</i>
<b>References</b> .....	<b>67</b>

<b>Appendix A: Grant Programs Included in This Report</b> .....	<b>71</b>
<b>Appendix B: Additional Data from Impact Assessments</b> .....	<b>73</b>
<i>Student Clubs</i> .....	73
<i>Methodology</i> .....	73
<i>Types of Clubs</i> .....	73
<i>Student Academic Performance</i> .....	74
<i>Teacher Effectiveness</i> .....	78
<i>Cost Effectiveness</i> .....	79
<i>SERVE</i> .....	81
<i>Student Academic Performance</i> .....	81
<i>Intensive Technology-Based Academic Intervention</i> .....	93
<i>Student Academic Performance</i> .....	93
<i>Teacher Effectiveness</i> .....	96

## List of Tables

Table 1: Programs Under Subchapter M, Chapter 39, TEC that Received a Comprehensive Evaluation or Impact Assessment .....	13
Table 2: Percentage of T-STEM Students Meeting or Exceeding TAKS Standards (Grades 9-11).....	33
Table 3: Percentage of T-STEM Students Meeting or Exceeding TAKS Commended Standards (Grade 11).....	33
Table 4: Percentage of ECHS Students Meeting or Exceeding TAKS Standards (Grades 9-11).....	37
Table 5: Percentage of ECHS Students Meeting or Exceeding TAKS Commended Standards (Grade 11).....	37
Table 6: Percentage of HSRR Students Meeting or Exceeding TAKS Standards (Grades 9-11).....	39
Table 7: Percentage of HSRR Students Meeting or Exceeding TAKS Commended Standards (Grade 11).....	39
Table 8: TDRPP Cycle 1 and Cycle 2 Enrollment and Program Status .....	42
Table 9: Summary of Effects by Program .....	64

## List of Tables in Appendices

Table A-1: Programs Included in this Report .....	71
Table B-1: Types of Clubs Funded by Student Clubs Grant .....	74
Table B-2: Cycle 1 Perceptions of Student Clubs' Influence on Student Performance on Assessments .....	75
Table B-3: Cycle 1 Perceptions of Student Clubs' Influence on High School Completion Rates.....	75
Table B-4: Cycle 1 Perceptions of Student Clubs' Influence on College Readiness of High School Students.....	76
Table B-5: Cycle 2 Perceptions of Student Clubs' Influence on Student Performance on Assessments.....	76
Table B-6: Cycle 2 Perceptions of Student Clubs' Influence on High School Completion Rates.....	77
Table B-7: Cycle 2 Perceptions of Student Clubs' Influence on College Readiness of High School Students.....	77
Table B-8: Cycle 1 Perceptions of Student Clubs' Influence on Teacher Effectiveness in Instruction.....	78
Table B-9: Cycle 2 Perceptions of Student Clubs' Influence on Teacher Effectiveness in Instruction.....	79
Table B-10: Cycle 1 Ratings of Student Clubs' Cost Effectiveness.....	79
Table B-11: Cycle 2 Ratings of Student Clubs' Cost Effectiveness.....	80
Table B-12: Pre- and Post-Test Differences in Students' Content Knowledge by JA Program .....	82
Table B-13: Pre- and Post-Test Differences in Levels of Agreement with Statements Indicating Level of School Engagement by JA Program .....	84
Table B-14: Pre- and Post-Test Differences in Levels of Agreement with Career Statements by JA Program.....	85
Table B-15: Pre- and Post-Test Differences in Self-Reported Knowledge of Personal Finance .....	87

Table B-16: Pre- and Post-Test Differences in Students' Knowledge of Key Personal Finance Concepts .....	88
Table B-17: Students that Increased Content Knowledge from Pre-Test to Post-Test by JA Program .....	89
Table B-18: Students with an Increased Level of School Engagement from Pre-Test to Post-Test by JA Program.....	90
Table B-19: Students with an Increased Level of College Readiness from Pre-Test to Post-Test by JA Program.....	92
Table B-20: Cycle 1 Grantees' Indication of Extent of Students' Demonstration of Successful Learning .....	94
Table B-21: Cycle 1 Grantees' Level of Agreement with Students' Demonstration of Successful Learning .....	95
Table B-22: Cycle 2 Grantees' Level of Agreement with Students' Demonstration of Successful Learning .....	96
Table B-23: Cycle 1 Grantees' Indication of Extent of Implementation of Lessons Requiring High Levels of Critical Thinking .....	97
Table B-24: Cycle 1 Grantees' Indication of Extent of Implementation of Lessons Requiring High Levels of Student Engagement .....	98
Table B-25: Cycle 1 Grantees' Level of Agreement Regarding Implementation of Lessons Requiring High Levels of Critical Thinking .....	99
Table B-26: Cycle 2 Grantees' Level of Agreement Regarding Implementation of Lessons Requiring High Levels of Critical Thinking .....	100

## Abbreviations

AEIS	Academic Excellence Indicator System	SERVE	Higher Education and Workforce Readiness Programs: Student Excellence and Readiness through Volunteers in Education
AP	Advanced Placement		
ASP	Approved Service Provider		
BIA	Banks in Action	SS	Success Skills
BMGF	Bill and Melinda Gates Foundation		Student Clubs Grants for Student Clubs
CDR	Collaborative Dropout Reduction Pilot Program	TA	Technical Assistance
CFT	Communities Foundation of Texas	TAKS	Texas Assessment of Knowledge and Skills™
Council	High School Completion and Success Initiative Council	TDRPP	Texas Dropout Recovery Pilot Program
CWAP	Careers With a Purpose	TEA	Texas Education Agency
ECHS	Early College High School	TEC	Texas Education Code
ELA	English Language Arts	THECB	Texas Higher Education Coordinating Board
ESC	educational service center	THSP	Texas High School Project
FL	Financial Literacy Program	TNGTI	Texas Ninth Grade Transition and Intervention Program
FY	fiscal year	TSI	Texas Success Initiative
GAA	General Appropriations Act	T-STEM	Texas Science, Technology, Engineering, and Mathematics Initiative
GED	General Educational Development certificate		
HB	House Bill	URL	Uniform Resource Locator
HSRR	High School Redesign and Restructuring		
IB	International Baccalaureate		
IHE	Institution of Higher Education		
ISP	Intensive Summer Programs		
JA	Junior Achievement		
MIC	Mathematics Instructional Coaches Pilot Program		
MSDF	Michael and Susan Dell Foundation		
NEFE	National Endowment for Financial Education		
PD	professional development		
R-Tech	Technology-Based Supplemental Instruction Pilot Program: Rural Technology		
SAT	Scholastic Aptitude Test		





## **Executive Summary**

### **Purpose of Report**

Section 18 of House Bill (HB) 2237 (80<sup>th</sup> Texas Legislature) directed the Texas Education Agency (TEA) to deliver to the legislature a preliminary report on December 1, 2008 (TEA, 2008), and a final report on December 1, 2010, regarding the impact of programs for which grants have been awarded under Subchapter M,<sup>1</sup> Chapter 39 of the Texas Education Code (TEC). This document constitutes the final report in fulfillment of this mandate. It begins with an explanation of the legislative context of the report and TEA's reporting approach. Then, descriptions of funded programs, evaluation findings, and conclusions regarding the performance of HB 2237 grant programs are provided. Appendix A provides a complete list of grant programs to be discussed in this report.

### **Legislative Context**

HB 2237 extended existing initiatives funded in the 78<sup>th</sup> and 79<sup>th</sup> Texas Legislatures that focused on dropout prevention and the promotion of college and career readiness. In addition, HB 2237 authorized the creation of new grant programs specifically designed to implement and support high school completion and college and career readiness initiatives.

Rider 53 of the General Appropriations Act (GAA, III, 80<sup>th</sup> Texas Legislature) provided significant funding for programs authorized by HB 2237 that focused on these two critical areas of need. A total of \$28.71 million per year for fiscal years (FYs) 2008 and 2009 was appropriated for high school reform strategies by Rider 53(a). An additional \$25 million per year for the same biennium was appropriated for programs that targeted

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<sup>1</sup> At the time HB 2237 was passed, the High School Completion and Success Initiative was written in Subchapter L. Subchapter L was later redesignated as Subchapter M by the 81<sup>st</sup> Legislature.

students at risk of dropping out of high school by Rider 53(b). In the 2010-11 biennium, HB 2237 grant programs were further funded by Rider 51 (GAA, III, 81<sup>st</sup> Texas Legislature). Rider 51 appropriated \$48.65 million in FY10 and \$37.33 million in FY11<sup>2</sup> to be used for such purposes as supporting research-based instructional support and professional development to secondary and middle schools with students at risk of dropping out of school, and for programs supporting the improvement of high school graduation rates and postsecondary readiness pursuant to HB 2237.

### **Approach to Assessment of Program Impact**

Under Section 18 of HB 2237, TEA was directed to assess the impact of programs for which grants were awarded under Subchapter M, Chapter 39, TEC, on three key outcomes: (1) student achievement, including student performance on the Texas Assessment of Knowledge and Skills (TAKS), high school completion rates, and college readiness; (2) teacher effectiveness; and (3) cost effectiveness. In addition to this requirement to assess program impact, TEA was also required under Rider 69 (GAA, III, 81<sup>st</sup> Texas Legislature)<sup>3</sup> to conduct an evaluation of all general revenue-funded programs. Given these requirements, an approach to allocating resources among performance assessments and grant program evaluations was developed. Criteria were established by which Subchapter M grant initiatives were identified for an impact assessment of relevant Section 18 outcomes or a more comprehensive evaluation.

Thus, grant-funded HB 2237 initiatives listed in this report fall into one of two categories:

(1) programs subject to the reporting requirements of Section 18 that received an impact

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<sup>2</sup> Originally, \$50.81 million was appropriated for each fiscal year of the biennium (2010 and 2011), but budget reductions subsequently reduced the amounts to \$48,647,833 for FY10 and to \$37,332,500 for FY11.

<sup>3</sup> Rider 69 (GAA, III, 81<sup>st</sup> Texas Legislature) was preceded by a similar requirement under Rider 79 (GAA, III, 80<sup>th</sup> Texas Legislature). Rider 69 clarified that final reports are to be delivered to the legislature after the fourth fiscal year of the program's implementation.

assessment, or (2) programs subject to the reporting requirements of Section 18 that received a comprehensive evaluation (with separate reports forthcoming to the legislature).

## **Findings**

Findings demonstrated that HB 2237 programs were associated with positive gains on student outcomes, teacher effectiveness, and cost effectiveness. It is worth noting that the majority of findings on student outcomes to date reflected outcomes related to positive student achievement gains on TAKS. Both dropout data and graduation data are not available for a given school year until the following November (school level data) and the following March (student level data). In addition, grant activities often targeted students in middle school and/or Grades 9 and 10, for whom graduation outcomes will remain unknown for several additional years. Finally, Scholastic Aptitude Test (SAT) and ACT data do not become available to TEA until after students complete their senior year. Together, these factors limited ability to provide results indicating the impact of programs on high school graduation and on college and career readiness for this report. However, TAKS achievement, as well as other data provided here, provided some early evidence that these grant programs are associated with positive impacts on student achievement and may, therefore, ultimately both prevent students from dropping out of school and improve graduation rates.

### **Student Academic Performance**

Six programs that underwent comprehensive evaluations demonstrated clear evidence of positive student academic performance: (1) Mathematics Instructional Coaches Pilot Program (MIC), (2) Collaborative Dropout Reduction Pilot Program (CDR), (3) TEA Intensive Summer Programs (ISP), (4) Texas Science, Technology, Engineering, and

Mathematics Academies (T-STEM), (5) Early College High Schools (ECHS), and (6) Texas Ninth Grade Transition and Intervention Program (TNGTI). For these six programs, the following findings reflect statistically significant differences between the outcomes of students in the given HB 2237 program and the outcomes of comparison students:

- All six programs were associated with significant gains in TAKS-Math.
- Four out of six programs (CDR, ISP, ECHS, and TNGTI) were associated with significant gains in TAKS-Reading/English Language Arts (ELA).
- Three programs (CDR, T-STEM, and ECHS) were associated with significant gains in TAKS-Science.
- One program (ECHS) was associated with significant gains in TAKS-Social Studies.
- Two programs (T-STEM and ECHS) were associated with significant improvement in attendance.
- One program (ECHS) was associated with significant improvement in the likelihood of being promoted to Grade 10.
- One program (ECHS) was associated with a significant increase in Grade 11 students' participation in accelerated learning courses (such as Advanced Placement (AP), International Baccalaureate (IB), or dual credit).

Additionally, within MIC schools, students who were taught for two years by teachers participating in MIC (and whose teacher in the second year had participated in MIC for two years) were more likely to meet TAKS commended status (a marker of college readiness) than students who had never had an MIC teacher as of 2009-10 (2.65 times more likely among middle school students and 1.61 times more likely among high school students). Finally, one program that underwent an impact assessment - Higher

Education and Workforce Readiness Program: Student Excellence and Readiness through Volunteers in Education (SERVE) - found progress in student achievement. Students in SERVE demonstrated significant gains from pre-test to post-test on three out of six areas of content knowledge. SERVE students also demonstrated a significant gain in attitudes and engagement for two out of six content areas.

### Teacher Effectiveness

Only one HB 2237 grant program (MIC) had the improvement of teacher effectiveness as a primary goal of the program, although four additional program evaluations included examination of teacher professional development (PD) opportunities. Of these five programs, four (MIC, Intensive Technology-Based Academic Intervention, ISP, and the Texas Dropout Recovery Pilot Program [TDRPP]) reported progress. One program, the Technology-Based Supplemental Instruction Pilot Program: Rural Technology (R-Tech), demonstrated mixed findings for teacher effectiveness. Teacher effectiveness findings included the following:

- MIC Cycle 1 and Cycle 2 teachers reported that the program increased their mathematics content knowledge, teaching knowledge, and feelings of effectiveness. The program appeared to be particularly effective in supporting new teachers. Greater exposure to MIC coaching (i.e., participating in MIC for two consecutive years) was associated with higher student achievement on TAKS-Math.
- Approximately 70% of Intensive Technology-Based Academic Intervention grantees reported that their teachers mostly or always used skills learned during PD to implement a technology-based lesson that would result in a high level of student engagement.

- All ISP administrators and 79% of teachers reported that ISP participation improved teacher effectiveness.
- The TDRPP evaluation included a survey on which teachers reported their levels of self-efficacy for influencing student motivation and achievement. On a 9-point scale, TDRPP teachers had an average of 6.94 on this measure, indicating that they perceived there was “quite a bit” that they could do as teachers to influence student motivation and achievement.
- R-Tech teachers indicated on surveys that they had a greater awareness of technology-based learning opportunities for students, were able to improve their technical skills and abilities, and had a better understanding of at-risk student needs as a result of participating in R-Tech. However, teacher surveys and focus groups of R-Tech grantees indicated that teachers lacked knowledge of R-Tech resources, and most grantees reported that they did not participate in R-Tech PD activities. Teachers also reported low levels of agreement with statements about R-Tech’s goals, which may indicate that most teachers lacked familiarity with the grant. R-Tech was intended to serve as a supplemental program and some schools hired staff, or involved only a limited number of teachers, to engage students in grant program activities.

### Cost Effectiveness

Many HB 2237 grant programs were still underway at the time of this report, and had not yet reported final expenditures, impeding the assessment of cost effectiveness. An additional challenge was linking cost per student to the impact on student outcomes because few consistent findings were observed for student outcomes in programs that also reported cost per student data. However, findings from two program evaluations

(TNGTI and MIC) that assessed the link between cost data and student achievement data suggested that these programs were cost-effective, as follows:

- In TNGTI, spending a greater portion of funds on the summer transition program than on the early warning data system or intervention was associated with greater gains on student TAKS performance.
- Students participating in MIC programs demonstrated strong student achievement outcomes, while the estimated cost per student (\$131 for Cycle 1 grantees) was lower than for most other HB 2237 programs that reported these data. Because a goal of MIC is to increase teacher content knowledge and instructional expertise, the benefits of MIC may spread across future years as MIC teachers continue to teach students, leveraging the state's initial investment.

SERVE had the lowest cost per student among all of the HB 2237 programs that reported these data, with an estimated average cost per student of \$29. Finally, TDRPP provided some initial base funding to grantees, but all additional grant dollars were awarded based solely on providing evidence of impacting students (a pay-for-performance model).

Overall, it is clear that participation in HB 2237 grant programs was associated with gains for students and schools. Although challenges remain, data on student performance, teacher effectiveness, and cost effectiveness to date suggest the positive impact of these initiatives as a whole. As TEA was successful at awarding HB 2237 grants to schools with high populations of students at risk for dropping out (as appropriate to the grant program's mission) and as grantees themselves appear to have been largely successful at targeting students at risk of dropping out, these indications of success occurred in a context of high risk. That is, the HB 2237 grant programs appear

to be making inroads at improving student achievement and teacher effectiveness among those schools and students most in need. A more complete picture of the impacts of these grant programs will be available by January 2013 (pending evaluation funding), as additional data for the programs undergoing comprehensive evaluations will be available for analysis.



## **Introduction**

### **Purpose of Report**

This report has been submitted in fulfillment of a reporting requirement under Section 18 of House Bill (HB) 2237 (80<sup>th</sup> Texas Legislature), which required the Texas Education Agency (TEA) to produce a report on grants that were awarded under Subchapter M,<sup>4</sup> Chapter 39 of the Texas Education Code (TEC). This report begins with a brief description of the issues related to high school completion and success, nationally and in the state of Texas. Then, an explanation of the approach taken by TEA to meet HB 2237 Section 18 reporting requirements is provided. Next, the report provides descriptions of the grant programs that have been authorized by HB 2237 and funded by Rider 53 (General Appropriations Act [GAA], III, 80<sup>th</sup> Texas Legislature) and Rider 51 (GAA, III, 81<sup>st</sup> Texas Legislature) that underwent either an impact assessment or comprehensive evaluation, and presents findings related to these programs. Finally, conclusions are drawn regarding the performance of the specified HB 2237 grant programs. See Appendix A for a complete list of these programs.

### **Why Focus on High School Completion and Success?**

The mission of TEA is to provide leadership, guidance, and resources to help schools meet the educational needs of all students and prepare them for success in the global economy. Success in the global economy is dependent upon success in education. Currently, between 50% and 80% of jobs in Texas require employees who have some college credits, and future prospects for students are just as demanding. Over the next

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<sup>4</sup> At the time HB 2237 was passed, the High School Completion and Success Initiative was written in Subchapter L. Subchapter L was later redesignated as Subchapter M by the 81<sup>st</sup> Legislature.

decade, eight out of every ten Texas jobs will require students to complete high school and acquire some postsecondary education (The Workforce Alliance, 2008).

Texas has made considerable strides in addressing both dropout rates and college and career readiness; however, challenges remain. The number of dropouts in Texas in Grades 7-12 decreased 10.6% from 45,796 students in 2007-08 to 40,923 students in 2008-09. Similarly, the longitudinal dropout rate was 10.5% for the class of 2008 and 9.4% for the class of 2009, although these numbers are not directly comparable (TEA, 2010a).<sup>5</sup> Out of 308,427 students in the class of 2009, approximately 91% graduated, continued in high school, or received a General Educational Development (GED) certificate, with the remaining approximately 9% dropping out (TEA, 2010a). While dropout numbers are smaller, striving to make additional gains remains important as there are still a significant number of students dropping out of school in Texas. Relative to college and career readiness, among the 30% of graduates of the class of 2009 who took the ACT, only 22% met all four ACT benchmarks of college readiness (ACT, 2009). So, among Texas' high school graduates, there is again room for real gains to be made regarding college and career readiness.

The cost to individuals, communities, and the state is high when students are not prepared for future employment. According to the Institute of Education Sciences (Dynarski et al., 2008), the following outcomes are associated with dropping out prior to high school graduation:

- limited to low-income employment and typically earn \$260,000 less than high school graduates over the course of a lifetime

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<sup>5</sup> Note that these two numbers are not directly comparable because the definition of *dropout* changed in 2005-06, and the change impacted these longitudinal statistics.

- four times more likely than college graduates to be unemployed
- three times more likely than high school graduates to receive public assistance
- less able to contribute to and participate in the education of their children than high school graduates
- more likely to be incarcerated compared to high school graduates
- more likely to have worse health outcomes and lower life expectancy rates than high school graduates

Through HB 2237, the Texas Legislature responded to this challenge with approximately \$192 million appropriated for fiscal year (FY) 08 through FY11<sup>6</sup> to implement and support dropout prevention/recovery and college and career readiness programs through Rider 53 (GAA, III, 80<sup>th</sup> Texas Legislature) and Rider 51 (GAA, III, 81<sup>st</sup> Texas Legislature). As a result of HB 2237, TEA has undertaken a number of initiatives that provide districts and/or schools with opportunities to participate in grant programs that were intended to assist grantees in preventing students from dropping out of high school, recover students who have dropped out, and/or improve students' college and career readiness. State investments to reduce dropouts and promote high school completion have enabled TEA to attract millions of dollars in matching funds through innovative partnerships among the public, private, and nonprofit sectors.<sup>7</sup> Collectively, these efforts have resulted in grant programs for districts and/or schools that are focused on the redesign of existing schools, the creation of new school models, and the implementation of promising strategies to increase high school completion and success.

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<sup>6</sup> Originally, approximately \$209 million was appropriated, but budget reduction subsequently reduced the amount for FY10 to \$48,647,833 and FY11 to \$37,332,500, leaving the total appropriated amount at approximately \$192 million.

<sup>7</sup> Private agency collaborators include the following: Bill and Melinda Gates Foundation (BMGF), Michael and Susan Dell Foundation (MSDF), Communities Foundation of Texas (CFT), Greater Texas Foundation, Wallace Foundation, National Instruments, and Meadows Foundation.

## **High School Completion and Success: Legislative Context**

### *78<sup>th</sup> Texas Legislature*

Several HB 2237 grant program initiatives were preceded by earlier legislation to address high school completion and success. In 2003, Rider 67 (GAA, III, 78<sup>th</sup> Texas Legislature) provided \$29 million in general revenue and \$1 million in federal funds for each year of the 2004-2005 biennium to support the establishment and implementation of comprehensive high school completion and success initiatives. The majority of this funding supported intervention grant programs for at-risk students that utilized strategies including tutoring, accelerated instruction, credit recovery, and counseling. Innovative models for high school reform for at-risk students were also created as part of the Texas High School Project (THSP), a public-private alliance committed to increasing high school graduation and college enrollment rates.<sup>8</sup>

### *79<sup>th</sup> Texas Legislature*

In 2005, the 79<sup>th</sup> Texas Legislature appropriated another \$29 million for each year of the 2006-2007 biennium through Rider 59 (GAA, III). Rider 59 supported innovative principal certification programs, as well as principal and teacher training for high-need high schools, and established support systems and technical assistance within educational service centers (ESCs) and other entities. In addition, Rider 59 funds were used to continue collaborative efforts through THSP to accomplish the following:

- Redesign existing low-performing high schools, and create and support innovative schools
- Assist schools in developing tutoring, online acceleration programs, counseling, and other intervention programs for students at risk of dropping out of school

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<sup>8</sup> For additional information on THSP, please see <http://www.tea.state.tx.us/index3.aspx?id=4215>.

- Increase access to dual-credit/Advanced Placement (AP)/International Baccalaureate (IB) programs
- Support the expansion and creation of Early College High Schools (ECHS) in partnerships with community colleges and 4-year colleges and universities
- Expand the Texas Science, Technology, Engineering, and Mathematics Initiative (T-STEM), including the following:
  - Create T-STEM Academies to act as demonstration schools and learning laboratories that develop innovative methods to improve science and mathematics instruction
  - Create T-STEM Centers across the state to support the transformation of teaching methods and instruction, linking classroom activities with the expectations and needs of industry and higher education
- Establish a statewide best practices network to provide schools access to relevant online professional development and promote broad dissemination and adoption of promising practices
- Establish a joint, public-private, multiyear (2007-2011) longitudinal evaluation of high school reform models created through THSP.

To date, four reports related to the evaluation of the impact of THSP grant programs from the 2007-08 through the 2008-09 school year have been published (SRI, 2010a; SRI, 2010b; SRI, 2010c; SRI, 2008). An additional report related to evaluation of the impact of THSP grant programs through the 2009-10 school year is anticipated in summer 2011.

### 80<sup>th</sup> Texas Legislature

In 2007, the 80<sup>th</sup> Texas Legislature passed HB 2237 and appropriated funds (Rider 53, GAA, III) to continue the High School Completion and Success Initiative begun by the 78<sup>th</sup> Legislature and supported by the 79<sup>th</sup> Legislature. The *Report on Implementation of House Bill 2237* (TEA, 2010b) provides the most recent list of programs authorized by HB 2237 and the funding amounts.

Rider 53 represented a substantial increase over previous appropriations in the total amount of funding for programs promoting high school completion and college and workforce readiness. The legislature appropriated \$28.71 million for each year of the 2008-2009 biennium for continuation of the innovative high school reform strategies created through THSP, as well as an additional \$25 million per year for development and implementation of programs for students at risk of dropping out of high school.

### HB 2237

HB 2237 is an omnibus bill that was created to initiate programs addressing high school/postsecondary success and dropout prevention. The bill authorized numerous programs, funded during the 2008-2009 biennium through Rider 53a and Rider 53b (GAA, III, 80<sup>th</sup> Texas Legislature; further funded by Rider 51, GAA, III, 81<sup>st</sup> Texas Legislature).<sup>9</sup> Grant programs funded through Rider 53a were designed to improve high school graduation rates and postsecondary readiness, and included innovative programs for at-risk students established through THSP, such as models to redesign high schools,

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<sup>9</sup> Although the majority of programs authorized by HB 2237 were funded through Rider 53, two programs were not. The Science Laboratory Grant Program (Section 7.062, TEC, added by HB 2237) provided funding for constructing and renovating high school science laboratories; it was funded with Foundation School Programs (FSP) funds. The Technology-Based Supplemental Instruction Pilot Program (Section 29.919, TEC, added by HB 2864) was funded through state administrative funds. The *Report on Implementation of House Bill 2237* (TEA, 2010b) provides a complete list of programs implemented under HB 2237.

ECHS, and T-STEM Academies, among others. Grant programs funded through Rider 53b (GAA, III, 80<sup>th</sup> Texas Legislature) authorized the creation of several research-based dropout prevention programs to provide instructional support and PD to high schools serving students at risk of dropping out. These grant programs directed funds to high schools exhibiting characteristics that strongly correlate with high dropout rates during each of the preceding 3 years.

### **High School Completion and Success Initiative Council**

Another important feature of HB 2237 was the creation of the High School Completion and Success Initiative Council (hereinafter referred to as “the Council”), which was charged with providing strategic direction for the state’s efforts to improve high school graduation and college and career readiness. The Council was composed of the Texas commissioner of education, the commissioner of higher education, and seven members appointed by the commissioner of education from a list of nominations provided by the governor, the speaker of the House of Representatives, and the lieutenant governor. In accordance with its charge, the Council developed and adopted a strategic plan on March 11, 2008.<sup>10</sup> The plan focused on economically disadvantaged students, gave priority to programs that were based on the best available research and could be replicated statewide, and relied on data- and research-driven decision-making regarding the continuation or expansion of programs.

#### **Five Key Strategies of the Council**

The Council’s strategic plan designated and recommended the use of federal and state funds for five key strategies: (1) Comprehensive Whole School Reform, (2) Targeted

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<sup>10</sup> The Council’s Strategic Plan can be found online at [http://www.tea.state.tx.us/index2.aspx?id=4856&menu\\_id=814](http://www.tea.state.tx.us/index2.aspx?id=4856&menu_id=814).

Student Interventions, (3) Effective Teachers and Leaders, (4) Technical Assistance, and (5) Research and Evaluation. Specifically, the five key strategies are as follows:

1. Comprehensive Whole School Reform models included grants awarded to secondary campuses and school districts to support innovative high school improvement programs that prepared students for postsecondary success. This key strategy included grants such as T-STEM, ECHS, and High School Redesign and Restructuring (HSRR).<sup>11</sup>
2. Targeted Student Interventions were designed to improve student outcomes by addressing a particular issue or providing services to a specific group of students with common characteristics or similar needs. This key strategy included programs such as Grants for Student Clubs (hereinafter referred to as “Student Clubs”), the Collaborative Dropout Reduction Pilot Program (CDR), Intensive Technology-Based Academic Intervention Pilot Program, Intensive Summer Programs (ISP), Higher Education and Workforce Readiness Program: Student Excellence and Readiness through Volunteers in Education (SERVE), Technology-Based Supplemental Instruction Pilot Program: Rural Technology (R-Tech), Texas Ninth Grade Transition and Intervention Program (TNGTI), and Texas Dropout Recovery Pilot Program (TDRPP).
3. Effective Teachers and Leaders programs addressed the shortage of highly effective educators and leaders trained and experienced in high school reform. Programs within this key strategy were targeted to provide teachers and leaders

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<sup>11</sup> HSRR was later expanded to include middle schools and was renamed Secondary School Redesign and Restructuring (SSRR). Findings in this report reflect high school grades only, therefore the name HSRR is used throughout in this report.



with the critical skills needed for transforming underperforming high schools. The Mathematics Instructional Coaches Pilot Program (MIC) is included in this strategy.

4. Technical Assistance grants provided support for grantees in the implementation of grant programs and were designed to ensure that grantees had access to research-based practices; technical assistance, such as coaching and training; professional development; and access to a professional learning community. ECHS Technical Assistance and Support, Supplemental and Continuation; T-STEM Technical Assistance and Support, Continuation Grant; HSRR Technical Assistance; and TDRPP Technical Assistance Support were all grants included in this key strategy. As such, these initiatives were not programs in and of themselves, but rather served as support for programs.
  
5. Research and Evaluation activities employed systematic, empirical methods to test hypotheses and justify general conclusions about HB 2237 initiatives. Because the focus of these activities was on HB 2237 programs, initiatives under the Research and Evaluation strategy were subsumed within the Council's four other key strategies and are not discussed separately in this report.

### 81<sup>st</sup> Texas Legislature

These programs and the funds appropriated to support them represented a substantial commitment by the state to improve high school graduation and college attendance rates. The 81<sup>st</sup> Texas Legislature continued funding into the 2010-11 biennium through Rider 51 (GAA, III), which appropriated \$48.65 million in FY10 and \$37.33 million in

FY11<sup>12</sup> to support research-based instructional support and professional development for high schools and middle schools and to support the improvement of high school graduation rates and postsecondary readiness pursuant to HB 2237.

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<sup>12</sup> Originally, \$50.81 million was appropriated for each fiscal year of the biennium (FY10 and FY11), but budget reductions subsequently reduced the amounts to \$48,647,833 for FY10 and to \$37,332,500 for FY11.

## **Approach to the Assessment of Program Impact**

Per HB 2237, Section 18, the assessment of the impact of grant programs authorized by HB 2237 was to include an investigation of the following outcomes:

- Student outcomes, including: student performance on assessment instruments administered under Subchapter B, Chapter 39, TEC (i.e., the Texas Assessment of Knowledge and Skills (TAKS)); college readiness of high school students; and high school completion rates
- teacher effectiveness in instruction
- cost effectiveness of the programs

Criteria were established by which Subchapter M grant initiatives were selected for either an impact assessment of relevant Section 18 outcomes or for a more comprehensive evaluation, as described in the following section. In addition, certain initiatives funded by Rider 53 (GAA, III, 80<sup>th</sup> Texas Legislature; further funded by Rider 51, GAA, III, 81<sup>st</sup> Texas Legislature) were excluded from impact assessment or evaluation efforts because they were either not subject to the reporting requirements of Section 18 (such as activities that were not programs, e.g., Study of Best Practices for Dropout Prevention), not programs that directly impacted teachers or students (such as technical assistance to districts), or were too limited in size to make reporting cost-effective. A list of these grants is included in Appendix A.

### **Comprehensive Evaluations vs. Impact Assessments**

For the purpose of this report, a comprehensive evaluation consists of investigating the implementation of program activities, the barriers to and facilitators of program activities, the program's impact on targeted populations (e.g., the effect on high school students' college readiness), and the cost effectiveness and sustainability of the program. TEA's

comprehensive evaluations generally involve a contract with an external evaluator, comparison groups, extensive data collection (e.g., site visits, surveys, and interviews), and data analysis procedures, and therefore, require evaluation funding. As appropriate, the comprehensive evaluations reported here will be continued beyond the HB 2237, Section 18 reporting requirements in order to meet the requirements of Rider 69 (GAA, III, 81<sup>st</sup> Texas Legislature) for evaluation reports of general revenue-funded programs after the fourth year of program implementation. Uniform resource locator (URL) links to reports already published on the comprehensive evaluations of HB 2237 grant programs can be found in Appendix A.

Some programs authorized by HB 2237 were not cost-effective candidates for comprehensive evaluations.<sup>13</sup> Because these programs are still subject to the reporting requirements of Section 18, these programs received an impact assessment. In contrast to comprehensive evaluations, which describe program implementation, barriers/facilitators to that implementation, and comparative analyses of outcome variables, impact assessments reported herein are more narrowly defined, consisting primarily of grantee self-reported performance on relevant outcome variables. Table 1 provides a list of programs within Subchapter M, Chapter 39, TEC, indicating whether an impact assessment or a comprehensive evaluation was utilized for meeting the reporting requirements of HB 2237, Section 18.

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<sup>13</sup> TEA has determined that the cost of conducting a comprehensive evaluation relative to program funding for certain programs outweighs the potential information gained, given the limited scope or nature of some of the programs.

**Table 1: Programs Under Subchapter M, Chapter 39, TEC that Received a Comprehensive Evaluation or Impact Assessment**

<b>TEC Section</b>	<b>Program</b>	<b>Received Either a Comprehensive Evaluation or Impact Assessment</b>
21.4541	Mathematics Instructional Coaches Pilot Program (MIC) <ul style="list-style-type: none"> <li>Cycles 1 and 2</li> </ul>	Comprehensive Evaluation
29.095	Grants for Student Clubs (Student Clubs) <ul style="list-style-type: none"> <li>Cycles 1 and 2, Cycle 1 Continuation</li> </ul>	Impact Assessment
29.096	Collaborative Dropout Reduction Pilot Program (CDR) <ul style="list-style-type: none"> <li>Cycles 1 and 2, Cycle 1 Continuation</li> </ul>	Comprehensive Evaluation
29.097	Intensive Technology-Based Academic Intervention Pilot Program (Intensive Technology-Based Academic Intervention) <ul style="list-style-type: none"> <li>Cycles 1 and 2</li> </ul>	Impact Assessment
29.098	TEA Intensive Summer Programs (ISP) <ul style="list-style-type: none"> <li>Cycles 1 and 2</li> </ul>	Comprehensive Evaluation
29.917	Higher Education and Workforce Readiness Program: Student Excellence and Readiness through Volunteers in Education (SERVE) <ul style="list-style-type: none"> <li>Cycles 1 and 2</li> </ul>	Impact Assessment
29.919	Technology-Based Supplemental Instruction Pilot Program: Rural Technology (R-Tech) <ul style="list-style-type: none"> <li>Cycle 1</li> </ul>	Comprehensive Evaluation
39.235	Innovation Grant for Middle, Junior High, and High School Campuses <ul style="list-style-type: none"> <li>Texas Science, Technology, Engineering, and Mathematics Academies (T-STEM) <ul style="list-style-type: none"> <li>Cycle 1 and Non-competitive, Continuation, Special Project Continuation—Manor Independent School District, Cycles 3 and 4, Implementation (Pre-Cycle 1) and Cycle 2 Continuation</li> </ul> </li> <li>Early College High School (ECHS) <ul style="list-style-type: none"> <li>Cycle 2 and Cycle 3 Expansion Grant</li> </ul> </li> <li>High School Redesign and Restructuring (HSRR) <ul style="list-style-type: none"> <li>Cycles 4 and 5</li> </ul> </li> </ul>	Comprehensive Evaluation  Comprehensive Evaluation  Comprehensive Evaluation
39.235	Texas Ninth Grade Transition and Intervention Program (TNGTI) <ul style="list-style-type: none"> <li>Cycle 1</li> </ul>	Comprehensive Evaluation
39.411	Texas Dropout Recovery Pilot Program (TDRPP) <ul style="list-style-type: none"> <li>Cycles 1 and 2</li> </ul>	Comprehensive Evaluation

Source: *Report on Implementation of House Bill 2237* (TEA, 2010b).

Notes: The TEC code reference cited here reflects any redesignations made by the 81<sup>st</sup> Texas Legislature. For some listed programs, there were subsequent cycles that were implemented too late in the current biennium for the impacts to be included in this report. These additional cycles may be part of future comprehensive evaluations, and include MIC Cycle 3, CDR Cycle 3, ISP Cycle 1 Continuation, SERVE Cycle 3, R-Tech Cycle 2 and Cycle 3, HSRR Cycle 6, ECHS Cycle 4, T-STEM Cycle 3 Continuation and Cycle 5, TDRPP Cycle 3 and Cycle 1 Year 2, and TNGTI Cycle 1 Continuation.

### Factors to Consider

Several issues are worth noting concerning the evaluation findings related to the HB 2237 grant programs. First, evaluators generally agree that a program needs to be in place for at least three to five years in order for behavioral effects to be evident (Constas & Sternberg, 2006; U.S. Department of Education, 2007). Considering that it often takes up to a year to clarify the design of the grant program, issue a request for applications, and award the grants, implementation may not occur until a year or more after funds have been appropriated. To date, all HB 2237 programs subject to a comprehensive evaluation or an impact assessment have been in place for at least one year, but less than three years. As a result, the majority of the findings reported for HB 2237 grant program activities reflect data collected through the 2008-09 and 2009-10 school years, still relatively early in the life of these programs.

Secondly, in many cases the grant programs targeted middle school students or students in Grade 9 or 10. Important data such as graduation rates, SAT/ACT results, and advanced course completion are not available until these students have completed 11<sup>th</sup> and 12<sup>th</sup> grade. For participating students who have completed 11<sup>th</sup> and 12<sup>th</sup> grade, TEA data on dropout and graduation do not typically become available until the school year following the school year in which data was collected (November for school level data and March for student level data). Collectively, this means that while evaluation data were reported to identify early markers that might be associated with decreased likelihood of dropping out, increased likelihood of high school graduation and increased likelihood of college and career readiness, clear data on these outcomes were not yet available in most cases. A clearer picture of the full impact of HB 2237 grant programs will not be available until January 2013, pending funding.

Finally, it is also worth noting that TEA was successful at awarding HB 2237 grants to schools with high populations of students at risk for dropping out, as appropriate to the grant program's mission. Similarly, grantees themselves also appear to have been largely successful at targeting students at risk of dropping out. To the extent that the HB 2237 grant programs show indications of success, it is in this context of high risk.

The next two sections of this report provide brief descriptions of and findings from programs that underwent impact assessments or comprehensive evaluations. Following these findings, the report concludes with an overview of findings related to performance on each of the five areas of assessment outlined in HB 2237, Section 18, for all of the programs included in HB 2237 that received either a comprehensive evaluation or an impact assessment.

### **Descriptions of Programs**

Programs authorized by HB 2237 that underwent either a comprehensive evaluation or impact assessment are described in this section according to the Council's key strategy alignment system.

#### **Comprehensive Whole School Reform**

Programs within this key strategy incorporated school-wide improvements that were meant to induce whole school systemic reform. These improvements focused on the capacity and quality of campus leadership, campus instructional programs, campus climate and culture, and district support for the reform efforts. The following programs were part of comprehensive whole school reform and were included in a comprehensive

evaluation under the THSP evaluation, a longitudinal, comprehensive evaluation that was supported with public and private funds:

- **T-STEM:** T-STEM Academies continued model high schools created in partnership with a Texas Institution of Higher Education (IHE) with the intention of preparing students for the demands of 21<sup>st</sup> century Texas. T-STEM Academies were structured to increase student achievement by exposing students to rigorous and applied mathematics and science instruction, while simultaneously acting as demonstration sites to inform mathematics and science teaching and learning statewide. The purpose of T-STEM Academies was to provide a challenging, well-rounded education; establish a personalized culture with the expectation that all students would achieve postsecondary success; and provide teacher and leadership development. A comprehensive evaluation is being conducted on this grant program.
- **ECHS:** ECHS was designed to provide students at risk of dropping out of school, including traditionally underserved students, an opportunity to earn a high school diploma and 60 credit hours toward an associate's or a bachelor's degree in an academically supportive environment, at no cost to the student. A comprehensive evaluation is being conducted on this grant program.
- **HSRR:** The purpose of HSRR was to provide high school campuses with resources to implement research-based reform models and to create a demonstration project that supplied case studies and models for successful practices in turning around low-performing high schools. A comprehensive evaluation is being conducted on this grant program.



### Targeted Student Interventions

Targeted interventions included activities and programs designed to improve student achievement by addressing a particular issue or providing services to a specific group of students with common characteristics or similar needs. Eight HB 2237 grant programs were established to provide targeted student interventions to reduce the number of students who drop out of school and improve student outcomes such as academic performance, grade promotion, and college or career readiness. These programs included the following:

- **Student Clubs:** Student Clubs was a pilot program under which eligible public school districts and open-enrollment charter schools received funding to support academic or co-curricular club activities, other than athletics, in which at least 50% of participating students were identified as being at risk of dropping out of school. The goal of the program was to increase student participation in positive and structured club activities that reinforced academic goals, reduced truancy and disciplinary infractions, and increased student attachment to school in order to ultimately reduce the number of students who drop out. An impact assessment was conducted on this grant program.
- **CDR:** The purpose of CDR was to encourage eligible public school districts and open-enrollment charter schools to form partnerships with multiple community stakeholders, such as local businesses, local governments or law enforcement agencies, nonprofit organizations, faith-based organizations, and IHEs, to deliver proven, research-based dropout intervention services. Goals of the program included reducing the number of students who drop out of school within the community, and increasing job skills, providing employment opportunities, and continuing education opportunities of students who might otherwise have

dropped out of school. A comprehensive evaluation is being conducted on this grant program.

- **Intensive Technology-Based Academic Intervention:** Intensive Technology-Based Academic Intervention provided intensive technology-based supplementary instruction in English, mathematics, science, or social studies to students in Grades 9-12 identified as being at risk of dropping out of school. An impact assessment was conducted on this grant program.
- **ISP:** ISP established and implemented collaborations between districts and IHEs to provide intensive academic instruction during the summer semester to promote college and workforce readiness for middle school and high school students identified as being at risk of dropping out of school. A comprehensive evaluation is being conducted on TEA's portion of this grant program.<sup>14</sup>
- **SERVE:** The purpose of the Higher Education and Workforce Readiness Program was to provide classroom or after-school programs, using trained volunteers, to enhance college readiness, workforce readiness, dropout prevention, or personal financial literacy. Under this initiative, TEA established the SERVE program. An impact assessment was conducted on this grant program.
- **R-Tech:** R-Tech provided technology-based supplemental educational services, including distance learning opportunities, to students in Grades 6-12 in high-need, rural school districts. A comprehensive evaluation is being conducted on this grant program.

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<sup>14</sup> The Texas Higher Education Coordinating Board (THECB) was given responsibility for managing and evaluating a portion of the ISP (TEC §29.098(b) (2) and (3)). Evaluation outcomes were included in the *Consolidated Annual Program Evaluation Report, THECB Funded Programs, FY 2009*. The report can be found online at: <http://www.thecb.state.tx.us/reports/PDF/2007.PDF?CFID=12376937&CFTOKEN=61033120>.

- **TDRPP:** The purpose of TDRPP was to identify and recruit students who had already dropped out of Texas public schools and to provide them with services to enable them to earn a high school diploma or demonstrate college readiness. The program utilized a pay-for-performance approach, which linked grantee payments to student academic progress and program completion. A comprehensive evaluation is being conducted on this grant program.
- **TNGTI:** The purpose of TNGTI was to provide services that targeted students as they exited eighth grade, who were at risk of being retained in the ninth grade or dropping out. Grantees were required to provide a summer transition program, use an early warning data system to identify and monitor ninth-grade students who were off-track for graduation, and provide on-going interventions and activities throughout the school year to students identified through an early warning data system. A comprehensive evaluation is being conducted on this grant program.

### *Effective Teachers and Leaders*

One program was established under HB 2237 to provide professional development activities to Texas teachers and school leaders, as follows:

- **MIC:** The purpose of MIC was to establish a pilot program under which participating public school districts and open-enrollment charter schools received grants to develop the content knowledge and instructional expertise of mathematics teachers at the middle school, junior high school, or high school level. Grantees were required to contract with an approved service provider, which could have been an ESC, IHE, or private organization. A comprehensive evaluation is being conducted on this grant program.



## **Findings from Impact Assessments and Comprehensive Evaluations**

In this section, findings related to the five performance indicators required by HB 2237, Section 18 (80<sup>th</sup> Texas Legislature) (student performance, high school completion, college readiness, teacher effectiveness, and cost effectiveness) are presented.

Additional findings for programs that underwent comprehensive evaluations may be found in published evaluation reports (see Appendix A). In some cases, findings are reported here that are anticipated for publication by January 31, 2011. While this report focuses on outcomes, the published reports contain a broad range of both quantitative and qualitative data that may be of interest in order to better understand the outcomes presented here. For programs that underwent impact assessments, detailed findings may be found in Appendix B of this report.

### **Student Academic Performance**

Three out of the five HB 2237 performance measures are measures of student academic performance. Thus, findings related to these student outcome measures are presented together. While HB 2237 programs were designed to address specific student outcomes, not all programs were created to address all three of the student academic performance measures required by Section 18 (80<sup>th</sup> Texas Legislature). Furthermore, not all of the programs had data available for each student academic performance outcome. For example, some programs, such as TNGTI that targeted rising ninth-grade students, had not been in place long enough for the participants to graduate, resulting in a lack of data regarding high school completion rates.

The three performance measures making up student outcomes include the following:

- student performance on TAKS (including scale scores, meeting TAKS passing standards, and/or meeting TAKS commended standards)

- high school completion rates
- college readiness of high school students (e.g., meeting the TAKS commended standard, considered a marker of college readiness at all grade levels)

**MIC:** Participation in MIC was associated with student achievement gains on TAKS-Math for Cycle 1 middle schools and high schools.<sup>15</sup> The percentage of at-risk middle school students taught by teachers served through the MIC program who passed TAKS-Math increased from 55% in 2007-08 to 65% in 2009-10 (as compared to an increase of about six percentage points across the state during that time period). The percentage of at-risk high school students with MIC teachers passing TAKS-Math increased from 41% in 2007-08 to 59% in 2009-10 (as compared to an increase of about 14 percentage points across the state during that time period). Gains on TAKS-Math were greatest among students with MIC teachers who were taught for two years by teachers participating in MIC (with the teacher in the second year participating in MIC for two years), with scale score gains of about 0.3 standard deviations in middle school students and of about 0.2 standard deviations in high school students indicating the likelihood of a cumulative beneficial effect over time. Additionally, evaluators concluded that greater and more frequent exposure to PD for teachers was positively associated with student achievement at the high school level.

Evaluators cited preliminary evidence of MIC's importance in dropout reduction, improved high school graduation rates, and increased on-time promotion rates. In Cycle 1, students who were taught for two years by teachers participating in MIC (with the teacher in the second year participating in MIC for two years) were more likely to meet

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<sup>15</sup> For MIC, evaluators did not examine data for any relationships with gains on TAKS scores other than on TAKS-Math, as math was the focus of this grant program.

commended status on TAKS-Math (2.65 times more likely in *middle school* and 1.61 times more likely in *high school*) than students who were never taught by a teacher participating in MIC. Among *high school* students, having a teacher who participated in MIC was also associated with increased likelihood as compared to students not taught by MIC teachers of completing Geometry (1.34 times more likely), Algebra I (1.38 times more likely), and Algebra II (1.53 times more likely).

For Cycle 2 MIC grantees that just completed their first year of implementation, there was early evidence of positive gains on TAKS-Math as well. High amounts of instructional coaching, defined as 61 hours or more, were associated with positive student achievement gains on TAKS-Math at the *middle school* level. However, within Cycle 2, first-year findings on the benefits of MIC on student achievement and college readiness among *high school* students were inconclusive. Given the findings for Cycle 1 students, it may be that MIC teachers in Cycle 2 will continue to improve and will begin to positively impact students more consistently in the year following their first year of MIC participation.

**Student Clubs:** Survey responses from Student Clubs grant coordinators provided insight into the influence of the program on student outcomes in the areas of student performance on assessments, high school completion rates, and college readiness. Approximately 97% of both Cycle 1 and Cycle 2 clubs were rated as having a small or large positive impact on student performance on assessments, as compared to 3% that perceived the program as having no influence. Of the reporting Cycle 1 clubs, 93% were rated as having a small or large positive impact on high school completion rates, with 4% of the clubs rated as having no impact, and 3% rated as having a small or large negative impact. In comparison, 82% of Cycle 2 clubs were rated as having a small or large

positive impact on high school completion rates for participating students, with the remaining 18% rated as having no impact on completion rates. Nearly all Cycle 1 (98%) and Cycle 2 (84%) clubs were rated as having a small or large positive impact on the college readiness of participating high school students, with the remainder rated as having no impact. No clubs from either Cycle 1 or Cycle 2 were rated as having a negative impact on participating students' college readiness.

**CDR:** CDR students achieved gains in TAKS-Math, TAKS-Science, and, to a lesser extent, TAKS-Reading/English Language Arts (ELA). They also demonstrated progress in course completion, technical knowledge, oral and written communication skills, ethical behavior, and leadership skills after entering the program.

Proficiency in TAKS-Science increased significantly from the period before participation to the year after entry into the CDR program. Among Cycle 1 students, 35% met or exceeded TAKS-Science standards prior to program participation; yet this rate increased by 32 percentage points to 67% after a year in the CDR program. Progress was even greater for Cycle 2 students, as the number of students meeting or exceeding TAKS-Science standards increased by 37 percentage points. Grantee's reported focus on technical education may in part explain the significant improvements in science proficiency.

TAKS-Math scores indicated significant, but more moderate, progress. Among Cycle 1 students, 49% met or exceeded TAKS-Math standards after a year of participation, an increase from 44% for students prior to program enrollment. Cycle 2 students also demonstrated gains, achieving an increase of 10 percentage points in mathematics and an overall success rate of 58% of students meeting or exceeding TAKS-Math standards.



Students also achieved small gains in TAKS-Reading/ELA after entering the CDR program. Among Cycle 1 students, 76% met or exceeded TAKS-Reading/ELA standards after a year in the program, an increase of 2 percentage points compared to the period prior to participation. Cycle 2 students also achieved gains for TAKS-Reading/ELA of 2 percentage points after a year of participation. Among all students in both cycles, the gains were greater for at-risk students and economically disadvantaged students.

Descriptively, students participating in CDR reported that it was particularly effective in helping them attend class regularly, prepare for college, work well with others and learn independently. During Cycle 1, CDR participants were more likely to pass Algebra I, Algebra II, Geometry, English I, English II, and English III a year after program entry when compared to passing rates prior to the intervention. Evaluators indicated that this finding suggested that CDR may have helped students progress academically at a faster rate. The CDR program appeared to have a positive impact on high school completion rates for program participants when compared to the average completion rates for all students in the same school district. Among the 230 high school seniors served by the program in 2008-09, 160 graduated from high school. This 70% success rate was slightly above the district completion rate for five of the six Cycle 1 grantees (ranged from 58% to 68%). Almost half of Collaborative students (49%) indicated they plan to attend a 4-year college or university. In an analysis that compared CDR sites with matched comparison schools, CDR Cycle 1 schools had higher graduation rates, higher school completion rates, and lower dropout rates than comparison schools. Finally, both survey data and site visit data provided evidence that CDR was promoting both graduation and college and career readiness.

**Intensive Technology-Based Academic Intervention:** Progress reports submitted to TEA by grantees from Cycles 1 and 2 were used to better understand the effects of the Intensive Technology-Based Academic Intervention program on student outcomes. More than two-thirds (70%) of Cycle 1 grantees indicated on their first progress reports that the majority of the students taught by participating teachers had been able to demonstrate successful learning of important concepts through the use of technology-based intervention strategies. In subsequent reports, the majority of the Cycle 1 grantees (86% to 100%) indicated that they agreed or strongly agreed that the majority of the students had demonstrated successful learning of important concepts through the use of technology-based intervention strategies, or had mostly or always observed this successful learning (60%).<sup>16</sup> Similarly, according to both progress reports submitted to TEA, approximately 94% of Cycle 2 grantees indicated that they agreed or strongly agreed that the majority of their students had demonstrated successful learning of important concepts after using technology-based intervention strategies. Explanations provided by the few respondents who indicated either their disagreement with the assessment that their students had been able to learn successfully as a result of technology-based strategies, or indicated that this rarely occurred, mentioned delays in program implementation or initial resistance from students.

**ISP:** The evaluation to date addresses the outcomes of program implementation in summer 2008 (Cycle 1 projects) and summer 2009 (Cycle 1 and Cycle 2 projects).<sup>17</sup> Cycle 1 participants showed mixed results for progress on TAKS-Math. The percentage of ISP Cycle 1 *middle school* students who met or exceeded TAKS-Math standards did

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<sup>16</sup> The rating scale (Never, Seldom, Occasionally, Mostly, Always) provided to grantee respondents changed after the first progress report used by Cycle 1 grantees to one that was based on levels of agreement (Strongly Disagree, Disagree, Agree, Strongly Agree).

<sup>17</sup> Most ISP Cycle 1 grantees initiated program implementation in summer 2008, while some initiated program implementation in summer 2009. Cycle 1 grantees who initiated implementation in summer 2009 are included in the analysis with Cycle 2 programs that were also in their first year of implementation.

not increase after participation in ISP; however, more *high school* students participating in ISP met or exceeded TAKS-Math standards, and these gains were statistically significant. Both middle and high school students in Cycle 1 showed gains in achievement on TAKS-Reading/ELA after participating in ISP; high school students' results reached statistical significance. Cycle 2 students in middle school and in high school also improved their TAKS-Math and TAKS-Reading/ELA scores during participation in the program. However, ISP students classified as being at-risk were less likely to reach commended status on either TAKS-Reading/ELA or TAKS-Math after participation in ISP. Researchers noted that this finding simply may indicate that ISP alone is not sufficient to produce high scores for this population.

Students in Cycle 1 passed Algebra I, Algebra II, English I, and English II courses at higher rates in 2009-10 compared to their rates in 2007-08. Likewise, larger percentages of Cycle 2 high school students passed Algebra I, Algebra II, Geometry, English I, and English II courses following ISP participation. Nearly three-quarters of Cycle 1 ISP students (72%) gained promotion to the next grade level for the 2008-09 school year. This positive trend was also evident among students in Grade 12, as 48% of those retained in 2007-08 graduated in 2008-09. The percentage of ISP students in Grade 11 viewed as college ready<sup>18</sup> based on TAKS-Mathematics rose significantly from 2007-08 and 2008-09. However, there was no difference in college readiness based on TAKS-Reading/ELA scores.

The evaluation also included comparisons of ISP and similar non-ISP students. When compared to nonparticipants, ISP students in Grade 7 posted stronger mathematics

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<sup>18</sup> In the ISP evaluation, *college ready* was defined per the TEA Academic Excellence Indicator System (AEIS) as scoring 2200 scale score points or higher on TAKS-Mathematics or TAKS-Reading/ELA.

outcomes. The same finding was not evident for participating students in Grade 9. ISP students also posted higher TAKS-Reading outcomes in both Grades 7 and 9. ISP students from these grades also were more likely to gain promotion to the next grade than students from the comparison group.

School-level variables, such as the grade levels served by a grantee, did not consistently affect attainment of TAKS-Math or TAKS-Reading/ELA standards. However, sites with stronger program implementation characteristics, as determined by program evaluators, were more likely to have students who earned commended status on TAKS-Reading/ELA. High schools were more likely than middle schools to report students earning commended status.

With regard to college readiness, lower percentages of Cycle 2 students met the college ready standard as compared to Cycle 1 students. However, Cycle 2 students did realize gains over time, as the percentage of students who were college ready in mathematics increased from 16% in the 2008-09 school year to 39% in the 2009-10 school year. In TAKS-Reading/ELA, 54% of Cycle 2 students were college ready in 2009-10, compared to 44% the previous year.

**SERVE:** An independent impact assessment commissioned by Junior Achievement (JA) and the National Endowment for Financial Education (NEFE) provided insight into the effects of SERVE on student outcomes. To assess SERVE's impact on JA participants' academic performance, JA participants' responses (pre- and post-test) to a series of statements testing their knowledge of program concepts, mostly focused on financial literacy, were examined. Students were assessed with a survey that tested their knowledge specific to program concepts, mostly focused on financial literacy. Over the

course of both Cycle 1 and Cycle 2, student performance increased across most SERVE/JA programs. About 81% of the surveyed Cycle 1 students (720 out of 884) in four out of six JA programs answered more questions correctly after participation in JA, with students in the JA Financial Literacy (FL) program demonstrating improvement in seven out of the nine key personal finance concepts on which they were tested. Fifty-two percent of surveyed Cycle 2 students (855 out of 1,659) in the seven JA programs exhibited improvement in their content knowledge.

Although data were not available for determining the high school completion rates of JA participants, survey responses that indicated the students' level of agreement with statements about school were used. Findings from both cycles suggested a high level of agreement with statements that illustrated either a positive attitude toward school or active engagement during school hours. During Cycle 1, while the mean of the students' responses in six programs had increased, this increase was shown to be statistically significant only for participants in two out of the six JA programs. In Cycle 2, 73% of JA participants across all programs indicated a heightened level of school engagement.

To assess SERVE's impact on JA participants' college readiness, JA participants' responses (pre- and post-test) to a series of statements indicating awareness and/or knowledge of the importance of education and its relationship to postsecondary opportunities were examined. While the statements do not necessarily indicate the level of college readiness in terms of the measurable skills themselves, the attitudes reflected in the ratings provided by students provided a topical understanding of students' readiness for postsecondary opportunities and the role of education in those opportunities. Responses provided by JA participants during both Cycle 1 and Cycle 2 appeared to indicate an "improved knowledge of postsecondary career options along

with an increased appreciation for how school relates to those options and the real world” (Schneider, et al., 2009, p. i). Although ratings for four out of the six JA programs evaluated increased (the other two decreased), only the average rating for one JA program was shown to be statistically significant. Sixty-nine percent of all Cycle 2 JA participants indicated an increased level of college readiness.

**R-Tech:** Comparisons of changes in the percentages of R-Tech participants and non-participants<sup>19</sup> who met TAKS passing standards from 2008 (the year prior to R-Tech implementation) to 2010 (the grant’s final year) indicate that R-Tech participation was associated with larger gains in TAKS-Math and TAKS-Science passing rates than those experienced by nonparticipants. These differential gains were not found on TAKS-Reading/ELA or TAKS-Social Studies.

Students with more semesters in R-Tech did not demonstrate improved testing outcomes compared to students enrolled in the program for shorter amounts of time. However, evaluators cautioned that they were not able to control for unobserved student differences that may have affected outcomes. They noted that students who spent a longer time in R-Tech may have faced greater academic risks and required more remediation than students who spent less time in the program. As a result, the results associated with longer participation in R-Tech may be due to the characteristics of the students identified for such intensive support.

While the original intention of R-Tech was for all grantees to focus on using R-Tech to supplement regular classroom instruction, in reality the majority of grantees implemented programs during regular classroom time, mostly to overcome challenges related to

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<sup>19</sup> Nonparticipants are students who attended R-Tech campuses but did not receive R-Tech services.

involving students in supplemental programs occurring outside of regular school hours (e.g., transportation). Students receiving R-Tech services outside of the regular school day generally scored lower on TAKS-Reading/ELA and TAKS-Math compared to students who participated in R-Tech during the regular school day. As a result of this finding, evaluators suggested that R-Tech services delivered as part of regular instruction may be associated with improved TAKS outcomes. However, researchers again cautioned that students who participated during the regular school day may have had less academic need than those who received R-Tech services through a supplementary component.

**T-STEM:** For the 2007-08 school year, students in Grade 10 in T-STEM Academies had, on average, a scale score that was 49 points higher on TAKS-Math than students from comparison schools. These results were only from the first two T-STEM Academies that opened in 2006-07 and may not represent the larger program as additional Academies were opened. For 2008-09, T-STEM data were available for more schools and students, including ninth-grade students, tenth-grade students in the same school for 2 consecutive years, and eleventh-grade students in the same school for 3 consecutive years. Students in Grade 9 showed particularly impressive gains compared to their counterparts at matched nonparticipating schools. Overall, T-STEM students scored 27 scale score points higher on TAKS-Math compared to their peers from comparison schools. T-STEM students in Grade 10 had scores that were, on average, 21 scale score points higher on TAKS-Math than those from the comparison schools. Science gains also were evident, as students in Grade 10 scored 29 scale score points higher on TAKS-Science than students from the comparison schools. However, T-STEM students showed no difference from their peers on ninth grade TAKS-Reading, tenth grade TAKS-ELA, and TAKS-Social Studies, or any eleventh grade TAKS subject.

Overall, T-STEM also appeared to be associated with a higher likelihood of students meeting or exceeding TAKS standards, based on 2008-09 data. Students in Grade 9 were 1.8 times more likely to meet or exceed TAKS-Reading and TAKS-Math standards compared to their peers, and students in Grade 10 were 1.5 times more likely to meet or exceed standards on all four TAKS subject areas. At the two T-STEM Academies serving students in Grade 11, there was no difference between T-STEM students and students in comparison schools in the likelihood of meeting or exceeding standards on any Grade 11 TAKS subjects. T-STEM participation in 2008-09 was also positively associated with student attendance, but only in Grade 9 (T-STEM students were 80% less likely to be absent from school than those from comparison schools).

Table 2 provides the percentage of T-STEM students meeting or exceeding TAKS standards for each school year from 2007-08 through 2009-10. T-STEM students improved in the 2008-09 school year on TAKS-Math and TAKS-Reading/ELA. T-STEM students showed a slight decline in the 2009-10 school year for TAKS-Math and TAKS-Reading/ELA. However, more T-STEM students met or exceeded TAKS standards in 2009-10 over the 2007-08 school year for both TAKS-Math and TAKS-Reading/ELA.



**Table 2: Percentage of T-STEM Students Meeting or Exceeding TAKS Standards (Grades 9-11)**

	<i>2007-08 Percentage of Students meeting or exceeding TAKS Passing Standards</i>	<i>2008-09 Percentage of Students meeting or exceeding TAKS Passing Standards</i>	<i>2009-10 Percentage of Students meeting or exceeding TAKS Passing Standards</i>
TAKS-Mathematics	78.8%	84.5%	83.6%
TAKS-Reading/ELA	92.0%	95.2%	94.6%
TAKS-Science	89.8%	87.6%	89.1%

Source: TEA 2010 student assessment data.

Table 3 provides the percentage of T-STEM students in Grade 11 meeting or exceeding TAKS commended standards for each school year from 2007-08 through 2009-10. The percentage of T-STEM students earning commended TAKS status improved in the 2008-09 school year, but slightly declined during the 2009-10 school year. However, more students earned commended status on TAKS in the 2009-10 school year when compared to the 2007-08 school year.

**Table 3: Percentage of T-STEM Students Meeting or Exceeding TAKS Commended Standards (Grade 11)**

	<i>2007-08 Percentage of Students meeting or exceeding TAKS Commended Standards</i>	<i>2008-09 Percentage of Students meeting or exceeding TAKS Commended Standards</i>	<i>2009-10 Percentage of Students meeting or exceeding TAKS Commended Standards</i>
TAKS, All Subjects	10.2%	13.5%	11.0%

Source: TEA 2010 student assessment data.

Based on survey data, evaluators reported major efforts underway at T-STEM Academies to instill a college-going culture through school-level strategies and courses, and through partnerships with colleges and universities. Additionally, survey findings culled from the first comprehensive annual report (SRI, 2010a) addressed students' attitudes toward learning, their teachers, and their schools. Overall, surveys

administered to students in Grade 9 in the 2007-08 school year showed benefits for students, who reported a climate of respect with regard to the adults in their schools and personal connections with one or more teachers. For example, students who reported these conditions had more positive attitudes toward academic improvement, effort-based learning, the importance of school, and their intention to graduate from high school and attend college.

T-STEM students also had more positive attitudes toward learning at schools where principals cited many structures in place to promote consistent contact between students and teachers. This consistent contact took many forms, but included policies such as students having the same teacher for two or more years. At schools with frequent student-teacher contact, students had more positive attitudes toward effort-based learning, or policies that encouraged students to get help or spend more time on difficult school work.

The surveys also demonstrated general student satisfaction with many of their teachers. For example, 87% of students said that teachers were willing to give them extra help and 77% said that teachers treated them with respect. In addition, 70% said that they felt safe and comfortable with their teachers, while 73% said that teachers could be trusted. More than 80% of T-STEM students reported that teachers work hard to make sure that students are learning.

Additionally, the surveys indicated that greater parental involvement was strongly related to positive student attitudes about school and academic improvement. T-STEM students who cited parental involvement also were more likely to have positive views on graduating from high school and attending college. Conversely, student reports of low

parental involvement were strongly related to less positive student attitudes about school.

There currently are limited data on high school graduation and postsecondary enrollment because students were in Grades 9-11 at the time of data collection and evaluation efforts. However, student surveys do suggest some positive findings in student attitudes toward high school graduation and college enrollment. For example, students expressed a stronger willingness to stay in school at sites where teachers reported opportunities to collaborate with their colleagues in a meaningful way. As noted in the evaluation report, “Although not statistically significant, this relationship between teachers’ instructionally focused collaboration and students’ expectations to graduate high school may be a trend worth following in subsequent years of the evaluation” (SRI, 2010a).

In addition, students were asked in the surveys about the level of support that they received in moving toward postsecondary education. Overall, students who cited high levels of such support had more positive attitudes toward academic achievement, effort-based learning, and the importance of school. Conversely, students who said that they received low levels of such support were not as likely to have positive attitudes toward their education.

**ECHS:** Based on 2007-08 data, TAKS-Social Studies scores were 25 points higher for ECHS students than for those students who attended comparison schools. In addition, ECHS students were twice as likely to meet or exceed TAKS standards in all four core subject areas (Mathematics, Reading/ELA, Science, and Social Studies) and 2.2 times more likely to pass Geometry or Algebra II by Grade 10. On a more cautionary note, however, data indicated that students who were repeating ninth grade at ECHS schools

were 1.5 times more likely to be absent from school compared to students repeating ninth grade at the comparison schools.

For the 2008-09 school year, students in Grade 9 in ECHS scored an average of 24 scale score points higher on TAKS-Math and 14 scale score points higher on TAKS-Reading than students at matched comparison schools. Among students in Grade 10, those in ECHS scored 24 scale score points higher on TAKS-Math compared to students from comparison schools. Students in ECHS also showed progress on TAKS-Social Studies and TAKS-Science, as ECHS students scored 28 and 21 scale score points higher, respectively, than students at matched comparison schools. As a result of these gains, students in Grade 9 in ECHS were twice as likely to meet or exceed both TAKS-Reading and TAKS-Math standards, while students in Grade 10 were 2.3 times more likely to meet or exceed TAKS standards on all subject areas. There were no statistically significant differences between ECHS and comparison school students at Grade 11 and no differences in the likelihood of students meeting or exceeding TAKS standards based on their program participation. Table 4 provides the percentage of ECHS students meeting or exceeding TAKS standards for each school year from 2007-08 through 2009-10. ECHS students improved in both the 2008-09 school year and the 2009-10 school year on all subjects.

**Table 4: Percentage of ECHS Students Meeting or Exceeding TAKS Standards (Grades 9-11)**

	<i>2007-08 Percentage of Students meeting or exceeding TAKS Passing Standards</i>	<i>2008-09 Percentage of Students meeting or exceeding TAKS Passing Standards</i>	<i>2009-10 Percentage of Students meeting or exceeding TAKS Passing Standards</i>
TAKS-Mathematics	77.7%	84.0%	89.3%
TAKS-Reading/ELA	92.9%	94.8%	96.0%
TAKS-Science	72.5%	80.9%	91.1%

Source: TEA 2010 student assessment data.

Table 5 provides the percentage of ECHS students in Grade 11 meeting or exceeding TAKS commended standards for each school year from 2007-08 through 2009-10. The percentage of ECHS students meeting commended TAKS standards increased in both the 2008-09 and 2009-10 school years.

**Table 5: Percentage of ECHS Students Meeting or Exceeding TAKS Commended Standards (Grade 11)**

	<i>2007-08 Percentage of Students meeting or exceeding TAKS Commended Standards</i>	<i>2008-09 Percentage of Students meeting or exceeding TAKS Commended Standards</i>	<i>2009-10 Percentage of Students meeting or exceeding TAKS Commended Standards</i>
TAKS, All Subjects	2.9%	11.3%	11.4%

Source: TEA 2010 student assessment data.

Evaluators conducted several visits to ECHS sites and found that many sites had established the foundation to offer programming designed to help students earn extensive college credits while in high school. Such programming was supported by requirements that ECHS sites must have partnerships with IHEs, provide dual enrollment (high school and college credit) to students who are traditionally underserved in higher education, and offer a rigorous curriculum that offers students an opportunity to earn up to 60 college credits, or the equivalent of an associate’s degree. To further

prepare students for college-level work, one ECHS site offered tutoring at multiple times (before and after school, on Friday nights, and on Saturdays), along with a “Career Connections” class, college placement test preparation, study skills classes, and an SAT/ACT preparation class.

Findings with regard to ECHS students’ attitudes toward learning, teachers, school, high school completion, and college enrollment based on surveys administered during 2007-08 to ninth grade students were similar to those discussed earlier for T-STEM.

**HSRR:** Students in HSRR schools were three times more likely during 2007-08 to gain promotion to tenth grade than students at comparison schools. The HSRR program emphasizes the need to create personalized environments for students as part of an effort to keep students in school and on track for graduation. However, similar to ECHS, students repeating ninth grade in HSRR schools had much higher rates of absence than similar students at comparison high schools.

For the 2008-09 school year, student achievement measures for students in Grades 9-11 showed few differences in TAKS achievement between HSRR students and their peers in matched comparison schools. Participation in the program did appear to have a marginally negative impact on students repeating ninth grade, a finding that evaluators considered unexpected. Evaluators noted that one possible explanation might be that with the many reforms and grant programs now underway statewide, the comparison schools also are implementing educational improvement strategies, serving to decrease the relative success of HSRR that could be measured by the statistical analysis (SRI, 2010c). Table 6 provides the percentage of HSRR students meeting or exceeding TAKS standards for each school year from 2007-08 through 2009-10. Despite not having

surpassed students in matched comparison schools, HSRR students improved in both the 2008-09 school year and the 2009-10 school year for each subject.

**Table 6: Percentage of HSRR Students Meeting or Exceeding TAKS Standards (Grades 9-11)**

	<i><b>2007-08 Percentage of Students meeting or exceeding TAKS Passing Standards</b></i>	<i><b>2008-09 Percentage of Students meeting or exceeding TAKS Passing Standards</b></i>	<i><b>2009-10 Percentage of Students meeting or exceeding TAKS Passing Standards</b></i>
TAKS-Mathematics	53.4%	61.3%	67.4%
TAKS-Reading/ELA	77.9%	82.3%	86.6%
TAKS-Science	57.5%	64.1%	73.4%

Source: TEA 2010 student assessment data.

Table 7 provides the percentage of HSRR students in Grade 11 meeting or exceeding TAKS commended standards for each school year from 2007-08 through 2009-10. The percentage of HSRR students meeting commended TAKS standards improved in the 2008-09 school year, but declined slightly during the 2009-10 school year. However, more students earned commended status on TAKS in the 2009-10 school year when compared to the 2007-08 school year.

**Table 7: Percentage of HSRR Students Meeting or Exceeding TAKS Commended Standards (Grade 11)**

	<i><b>2007-08 Percentage of Students meeting or exceeding TAKS Commended Standards</b></i>	<i><b>2008-09 Percentage of Students meeting or exceeding TAKS Commended Standards</b></i>	<i><b>2009-10 Percentage of Students meeting or exceeding TAKS Commended Standards</b></i>
TAKS, All Subjects	2.1%	4.2%	3.9%

Source: TEA 2010 student assessment data.

Survey findings on students' attitudes toward learning, teachers, and schools, as well as toward high school graduation and college enrollment, were similar to those discussed for T-STEM and ECHS.

**TNGTI:** TNGTI program staff reported that the summer program was effective for students who had struggled in Grade 8. Most grantees stated that the TNGTI grant allowed them to implement transition and intervention activities that had not previously been offered (64%) or supplemented activities that the schools were already offering students (59%). Overall, program staff indicated that TNGTI students began the school year with increased confidence, which translated into fewer office referrals, higher attendance rates, stronger interaction with other students, and higher levels of engagement in class. Teachers with TNGTI students indicated that students from this program were more likely to ask questions in class than other students (72%) and had higher attendance rates than other ninth grade students (78%).

A majority of TNGTI students earned passing grades in core subjects in their first semester of high school. More than 80% of students had grades of C or above for the first semester in social studies and ELA, while 79% of students had a C or above in science and 76% met a similar benchmark in mathematics.

Compared to nonparticipants, students in Grade 9 in the TNGTI summer program scored statistically significantly higher on TAKS-Reading (14.3 scale score points) and TAKS-Math (10.8 scale score points). However, the program did not have a significant impact on the percentage of students who received passing scores or commended ratings on TAKS.



**TDRPP:** During the period from August 2008 to May 2010, Cycle 1 grantees enrolled 2,657 students and Cycle 2 grantees enrolled 1,484 students, for a total of 4,141. Of the total number of students enrolled in TDRPP as of May 2010, 1,286 (31%) had completed their TDRPP goal of either high school graduation or college readiness, 524 (13%) had reached one or more benchmarks by the time of data collection and were continuing to work toward their TDRPP goals, and 846 (20%) had not yet reached a benchmark<sup>20</sup> at the time of data collection but were continuing their TDRPP efforts. The remaining 36% had left TDRPP for a variety of reasons (e.g., childcare or work issues).

Table 8 presents a breakdown of TDRPP Cycle 1 and Cycle 2 students' progress on meeting TDRPP benchmarks. In May 2010, 34% of the Cycle 1 enrollees had successfully completed the program by reaching their TDRPP goals, while 31% were continuing to work toward their respective TDRPP goals, with 9% of these students having already achieving one or more benchmarks during their participation in TDRPP. Similarly, as of May 2010, 29% of Cycle 2 enrollees had successfully completed the

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<sup>20</sup> TDRPP benchmarks include the following: Advanced grade; Passed TAKS; Earned college credit for a dual-credit course that was established through an articulation agreement with an IHE or a private or independent IHE as defined in TEC §60.003(15); Earned college credit for a college course that was within an IHE's approved core curriculum, in accordance with 19 TAC §4.28, or an equivalent course offered by a private or independent IHE as defined in TEC §61.003(15); Earned college credit for advanced technical credit, defined for this solicitation as credit earned by a high school student that meets established guidelines for successful completion of an articulated content-enhanced technical course included on the list of courses in the Statewide Articulated Crosswalk established by the Advanced Technical Credit program; Met or exceeded the minimum passing standards on all portions of a Texas Success Initiative (TSI)-approved instrument; Earned a GED; Enrolled in a Texas IHE, including developmental education and certificate program courses (alternate benchmark may be used if applicant requests and receives approval), enrollment is defined as students enrolled in higher education on the 12<sup>th</sup> day of class and in official enrollment reports submitted to the THECB by IHEs; Advanced from High Intermediate Basic Education (or below) to Low Adult Secondary Education and/or Low Adult Secondary Education (or below) to High Adult Secondary Education on all three portions of the Test of Adult Basic Education (TABE) as demonstrated by pre- and post-test data; Other interim benchmarks proposed by applicant and approved by the commissioner; Other payment; Demonstrated progress on assessment instrument (IHEs, private nonprofit schools, ESCs, and departments of education only); Completion—Earned high school diploma; Completion—Demonstrated college readiness (including (1) GED, (2) TSI passing score or exemption based on SAT or ACT, and (3) credit earned for either a college course that is within an IHE's approved core curriculum, in accordance with 19 TAC §4.28, or an equivalent course offered by a private or independent IHE as defined in TEC §61.003(15), or credit earned for advanced technical credit, defined as credit earned by a high school student that meets established guidelines for successful completion of an articulated content-enhanced technical course included on the list of courses in the Statewide Articulated Crosswalk established by the Advanced Technical Credit program.

program by reaching their TDRPP goals and 38% of the enrollees were continuing to work towards their respective TDRPP goals, with a substantial portion of these students (18%) already achieving one or more benchmarks during their participation in TDRPP. The slight tendency for more students participating in Cycle 2 grantees to have met a benchmark but not yet completed the program, as compared to Cycle 1, was likely related to timing of the two grants.

**Table 8: TDRPP Cycle 1 and Cycle 2 Enrollment and Program Status**

<i>Description</i>	<i>Cycle 1 Number of Students</i>	<i>Cycle 1 Percentage of Students</i>	<i>Cycle 2 Number of Students</i>	<i>Cycle 2 Percentage of Students</i>
Students continuing with at least one benchmark	251	9.4%	273	18.4%
Students continuing with no benchmarks	570	21.5%	276	18.6%
Total number of “completers” (students graduating from high school or achieving college readiness)	889	33.5%	397	26.8%
Students who dropped out	947	35.6%	538	36.3%
Total number of enrollees	2,657	100%	1,484	100%

Source: Student upload data and grantee progress reports provided to IEA, 2009 and 2010.

### **Teacher Effectiveness**

The report now turns from a discussion of the findings related to the first potential area of impact required to be examined in the present report (student outcomes), to the second potential area of impact under examination: teacher effectiveness. MIC was the only HB 2237 grant program designed with the primary, explicit goal of improving teacher effectiveness. However, most of the HB 2237 grant programs were permitted to use funds to support teacher PD opportunities related to the grant. The positive student outcomes for HB 2237 grant program participants described in the section above may be one indicator of improved teacher effectiveness as a result of HB 2237 grant programs. That is, PD opportunities provided in some grant programs may have led to more

effective teaching, which then may be associated with positive student achievement gains. The majority of findings related to teacher effectiveness reported in this section of the report are based on perceptions of teachers, school/district administrators, and/or grant coordinators.

**MIC:** Most teachers participating in MIC Cycle 1 reported that MIC increased their effectiveness (75%), increased their mathematics content knowledge (65%), increased their teaching knowledge (62%), and broadened their use of various assessment and instructional strategies (66%). The program appeared to be particularly effective in reaching and supporting new teachers, who were more likely than veteran teachers to cite MIC as having a positive impact on their effectiveness and their perceptions of improving student outcomes. Based on focus groups conducted during site visits, evaluators also concluded that Cycle 1 schools were meeting key implementation goals, increasing teacher content knowledge in mathematics, and helping teachers to gain new and varied instructional strategies. Collectively, results indicate that access to a non-evaluative, mentoring relationship, along with instructional tips and content-oriented PD may particularly benefit new teachers.

Similar to the feedback provided by Cycle 1 teachers, feedback from Cycle 2 teachers also indicated that the program improved their feelings of effectiveness, mathematics content knowledge, and teacher knowledge and skills. New teachers and teachers with bachelor's degrees were most likely to cite the beneficial effects of the program. Compared to their Cycle 1 counterparts, Cycle 2 teachers were more uniformly positive about the effects of MIC coaching, a factor that may be attributed to the increased experience of service providers as they delivered MIC related coaching services. Among

teachers in both cycles, the greatest barrier to implementation reported was the amount of time needed for coaching, professional development, and planning.

**Student Clubs:** According to the results of the Student Clubs Grant Coordinator Survey, the majority of the clubs funded by the program during both Cycles 1 and 2 were perceived to have had a positive impact on teacher effectiveness in instruction. Grant coordinators reported that 92% of Cycle 1 clubs had either a small or large positive impact on teacher effectiveness, while 83% of Cycle 2 clubs were perceived to have had a small or large positive impact on teacher effectiveness. The remaining grant coordinators in both Cycle 1 (8%) and Cycle 2 (17%) reported that the grant had no influence on teacher effectiveness.

**CDR:** The purpose of this program was to build collaborations among local businesses, governments or law enforcement agencies, nonprofit organizations, colleges and universities, and faith-based organizations to provide dropout prevention services. As a result, teacher effectiveness was a very limited focus of the program and evaluation. However, during site visits, all five Cycle 1 grantees reported that they provided teachers with some PD to enhance their skills and better prepare them to work with students in the program.

**Intensive Technology-Based Academic Intervention:** Progress reports submitted to TEA by Cycle 1 and Cycle 2 grantees throughout the grant period provided information regarding the impact of the Intensive Technology-Based Academic Intervention program on teacher effectiveness. Approximately 80% of Cycle 1 grantees indicated on their first progress report that participating teachers mostly or always successfully implemented, through the use of technology, content-related lessons requiring high levels of critical

thinking on the part of students. Additionally, 70% of Cycle 1 grantees indicated on their first progress report that participating teachers mostly or always used skills learned during PD to implement a technology-based lesson that would result in a high level of student engagement. Cycle 2 grantees who submitted progress reports were nearly unanimous<sup>21</sup> in their agreement that participating teachers had, through the use of technology, successfully implemented content-related lessons that required high levels of critical thinking by students.

**ISP:** The ISP evaluation included surveys, interviews, and classroom observations to determine the perceived effect of ISP on teacher effectiveness and the activities designed to influence effectiveness. Most ISP teachers reported high levels of confidence in their abilities and substantial satisfaction with the ISP grant program. They viewed ISP training as helpful, reporting that program activities improved their professional skills.

Overall, 62% of surveyed teachers said that they received training prior to ISP implementation. Among these teachers, 61% found the training to be very helpful, while 38% called it somewhat helpful. The majority of teachers (79%) and 100% of administrators reported that ISP participation improved teacher effectiveness, including instruction and assessment skills. Middle school teachers were more likely than high school teachers to report that the program had a positive impact on their instructional skills (59% and 47%, respectively) and assessment skills (51% and 37%, respectively).

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<sup>21</sup> With the exception of one grantee that did not provide a response, all other progress reports submitted by Cycle 2 grantees indicated their agreement or strong agreement with the successful implementation of content-related lessons.

**R-Tech:** All Cycle 1 districts had a goal of expanding teacher access to technology-based professional development activities. However, teacher surveys and focus group discussions showed that many teachers lacked knowledge of R-Tech resources and few reported participation in R-Tech PD. Not surprisingly, teachers in districts that had incorporated R-Tech as part of regular instruction used resources to a greater extent than did teachers in districts that focused solely on providing supplemental programming. Teachers who provided R-Tech to students during regular school hours said that they used program resources to differentiate instruction, provide remediation and support for struggling learners, and reinforce concepts taught in class.

**T-STEM, ECHS, and HSRR:**<sup>22</sup> The evaluation of T-STEM, ECHS, and HSRR included intermediate outcomes for teachers based largely on online surveys given to a sample of Grade 9 English, mathematics, and science teachers in spring 2008. Overall, evaluators found that when teachers had high levels of trust and respect with regard to students, they also reported higher responsibility for student learning and making a commitment to help students do well academically. Conversely, low levels of trust and respect were associated with a lower sense of teacher responsibility for student learning. As noted in the evaluation report, “A school climate of mutual trust and respect and close personal connections was positively linked to teacher and student outcomes” (SRI, 2010a).

PD was a focus of T-STEM, ECHS, and HSRR, and teachers who had opportunities to attend high-quality PD<sup>23</sup> exhibited positive trends. Teachers who reported attending high-quality PD also reported implementing a higher frequency of academically rigorous

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<sup>22</sup> These findings were reported for all of the programs included in THSP collectively. Thus, these findings are representative of the T-STEM, ECHS, and HSRR programs, as well as four other programs included in THSP.

<sup>23</sup> High-quality PD was defined as PD that was: sustained and coherent, rather than short term and disconnected; was closely connected to the school’s improvement plan; built on previous knowledge; and/or was subject-matter specific.

classroom activities that required critical thinking skills. It is also noteworthy that students who had these teachers tended to report having more positive attitudes toward academics on a survey.

One drawback found in the evaluation over the first one to three years of the grant programs is that services may not have reached all teachers, thereby limiting effectiveness. As noted in the evaluation report, the spring 2008 survey suggested that high-quality PD was not “strategically offered” throughout T-STEM, ECHS, and HSRR schools. In addition, interview data suggested that the programs did not effectively communicate to teachers how program goals aligned with high school reform. As reported by evaluators, “District and school leaders recognize the broad goals that THSP subscribes to, but moving closer to the classroom, teachers have less perspective on the broad strokes of high school reform” (SRI, 2010a). Evaluators observed progress towards addressing these issues during site visits that occurred in spring 2008 and spring 2010.

Also, data indicated the following emerging trends on teacher outcomes within individual grant programs and schools:

- At T-STEM, ECHS, and HSRR schools that actively promoted teacher collaboration with colleagues, more students reported that they planned to graduate from high school.
- In comparison to comprehensive high schools, teachers at smaller or charter schools involved in ECHS and T-STEM were more likely to agree that their students were more engaged in learning.

- In comparison to comprehensive high schools, teachers and students at smaller and charter schools supported by T-STEM and ECHS reported having higher expectations for students.

More than 70% of teachers and 85% of administrators reported that they had high expectations for student learning and a commitment to develop strong relationships with students. A solid majority of teachers agreed that most instructors at their schools believed that all students can perform well academically. Nonetheless, 62% indicated that some students weren't capable of performing college-level work, and 55% of teachers believed that student success or failure was beyond a teacher's control.

Later site visits conducted in fall 2008 and spring 2009 also yielded information on teacher effectiveness. At T-STEM sites, for example, site visitors found that effectively implementing project-based learning—one component of the T-STEM Academy approach—had proven to be challenging. Teachers at most Academies lacked a consistent understanding of this concept and the tools necessary for effective implementation. Similarly, during site visits of schools participating in the ECHS program, evaluators found that the level of support received by teachers varied substantially across schools. However, at sites where teachers said that they had adequate supports, there were strong professional learning communities that had ample common planning time and opportunities for teacher PD.

Site visits under the High School Redesign initiative<sup>24</sup> in 2008-09 also examined the goals of that program to impact teacher effectiveness by strengthening teacher-student

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<sup>24</sup> The High School Redesign Initiative included four grant programs (HSRR, High School Redesign, High Schools That Work, and District Engagement) that were all aimed at comprehensive high school reform.



relationships. Overall, schools that made the most progress on reforms were those that focused on instructional improvement, teacher PD, stronger teacher-student relationships, and greater use of data by teachers to determine student needs. “In almost all cases,” evaluators reported, “teachers are on the frontlines not just of instruction as traditionally defined, but also as the key providers of the student supports as envisioned in the reforms.” At the most promising sites, “teachers received data and dedicated time to get to understand individual students as learners” (SRI, 2010c).

**TNGTI:** More than two-thirds of the teachers interviewed and surveyed for the evaluation believed that they had improved their own teaching abilities after involvement in the program. They also cited more positive energy at the start of the school year, as well as more opportunities, provided through TNGTI, to collaborate with other teachers. Most respondents said that the program improved their interaction with students because teachers were able to meet incoming ninth grade students and develop positive relationships with them. Teachers reported that both PD activities and participating in the summer program helped teachers to better evaluate students’ academic backgrounds and to support students in working toward their goals.

**TDRPP:** Data from teachers in TDRPP consisted primarily of survey responses from staff on their background, experience, and belief systems. Of the 137 teachers who responded to spring 2009 surveys, 53% said that they had less than one year of experience working directly with students in dropout recovery programs.

The teachers surveyed had high levels of self-efficacy, which was defined as a teacher’s belief in his or her capability to influence student motivation and achievement. On a nine-point scale, teachers who responded to the survey had an average score of 6.94 in this

area, indicating that they perceived there was “quite a bit” that they could do as teachers to influence student motivation and achievement. Nonetheless, teachers were in less agreement with statements indicating that they believed that they could assist families in promoting student motivation and achievement. Sixty-two percent of teachers also indicated that lack of parental involvement was a problem for students in the program.

### **Cost Effectiveness**

Cost effectiveness proved challenging to define as an outcome related to HB 2237 grant programs. One context for considering cost effectiveness is program cost relative to the cost of dropping out. The cost to individuals, communities, and the state, as detailed in the introduction to this report, is high when students are not prepared for future employment (Dynarski et al., 2008). Data presented here reflect what was known at the time of this report regarding costs associated with any given program, most typically as a cost-per-student analysis. As reported earlier, most of the programs provided some evidence of positive associations between participation in the grant program and student outcomes, with most also providing evidence of positive associations with teacher effectiveness. While the costs clearly vary by program, it may oversimplify matters to simply compare programs dollar for dollar. Generally, as suggested by the data reported for each program in the following section, it can be argued that the HB 2237 programs were cost effective.

**MIC:** MIC is unique as it was the only HB 2237 program that set out to improve high school graduation rates and college and career readiness by providing PD to teachers. Program evaluators concluded that MIC was a cost-effective program that benefitted teachers and students at Cycle 1 and Cycle 2 schools. As indicated in the findings presented for MIC student outcomes, novice teachers were particularly likely to benefit

from MIC participation. This benefit should continue to reap long-term returns as these teachers continue in their careers. Participation also was, in many cases, stronger than originally anticipated; for example, Cycle 1 grantees had many more teachers participating than envisioned during the planning process, suggesting that grantees were able to successfully find ways to stretch their grant funds as far as possible. The average grantee served 42 teachers with available funding even though they originally budgeted for only 15. As a result, the average cost per teacher was less than \$7,000. In MIC, the estimated cost per student was \$131 for Cycle 1 grantees, with 87% of their allotted funds spent at the time that data was collected for the evaluation. The cost per student was not reported for Cycle 2 grantees because only 1 year of cost data was available at the time of this report. It is important to note that one benefit of focusing grant program activities on PD opportunities for teachers is that to the extent that teachers become more effective through their participation (as appears to be the case in MIC), they will likely continue to positively impact students for years to come, further capitalizing on the initial expenditure of funds.

**Student Clubs:** In the absence of data on the total number of students who participated during both cycles, information regarding grant coordinators' perceptions of a club's cost effectiveness is provided instead. Approximately three-quarters (76%) of Cycle 1 clubs were rated by grant coordinators as being very cost-effective, with 20% rated as somewhat cost-effective, and the remaining 4% rated as not cost-effective. More than two-thirds (71%) of Cycle 2 clubs were rated as being very cost-effective, with 27% rated as somewhat cost-effective, and the remaining 2% rated as not cost-effective.

**CDR:** Because this program promoted partnerships with colleges and universities, nonprofits, businesses, and other community partners, there were opportunities to

provide cost-effective services. However, CDR grantees indicated that they had to re-assess the services offered to participants because of poor state economic conditions that limited partner involvement. One grantee noted that the economic climate limited the ability of partners to participate in activities such as providing mentoring and employment opportunities to students.

Nonetheless, Cycle 1 grantees reported evidence of cost effectiveness. Overall, they reported serving 1,507 students during the first 2 years of the grant award period, with an average cost of \$673 per student. These grantees had estimated that they would serve 1,355 students, with an average cost of \$834 per student, which is higher than the actual amount expended during implementation. The cost per student was not reported for Cycle 2 grantees because only 1 year of cost data was available at the time of this report. Both Cycle 1 and Cycle 2 grantees reported enough confidence in the program that they were seeking ways to sustain the program once the grant funding period ended.

**Intensive Technology-Based Academic Intervention:** During Cycle 1, 11,660 students were served by grant funds, with an average cost of \$53 per student. During Cycle 2, approximately 12,741 students were served by grant funds, with an average cost of \$111 per student. The higher cost per student in Cycle 2 may be due to the fact that the total number of students was drawn from the last available progress report, and the figures reported by the districts may not have been indicative of all of the students who had participated throughout the funding period.

**ISP:** Cycle 1 and Cycle 2 grantees allotted the largest portion of their budgets to payroll costs; however, they reported spending slightly more than expected on capital outlays

and substantially more on administrative costs than originally anticipated. Cycle 1 grantees reported an estimated cost of \$973 per student (based on 83% of expended funds). The cost per student was not reported for Cycle 2 grantees because only 1 year of cost data was available at the time of this report.

**SERVE:** During Cycle 1, 7,180 new students were served by grant funds, with an average cost of \$70 per student. During Cycle 2, 27,202 new students were served, with an average cost of \$18 per student. Across both Cycles, the average cost per student was \$29. It is important to note that these students were served exclusively by SERVE funds, and no other funds were used to support their participation in JA programming.

**R-Tech:** There was a broad range of variability in costs per student among R-Tech grantees. School districts that implemented R-Tech for larger numbers of students experienced the lowest costs per student, suggesting that economies of scale led to greater cost effectiveness in the program. In Cycle 1 districts, the average cost per student of providing R-Tech was \$294. Districts with programs serving 1,000 or more students had an average cost per student of \$141, while districts serving fewer than 100 students had a much higher average cost of \$774 per student.

Districts implemented R-Tech in one of two ways: either as a supplemental program offered outside of the regular school day, or as part of regular classroom instruction. Districts with supplemental programs served fewer students, an average of 346 across a 2-year period, than districts with services during regular classroom instruction, who averaged 693 students during the same time period. Thus, districts that implemented R-Tech as part of regular classroom instruction had substantially lower costs per student than districts with a supplemental program model. Those that incorporated the model

into regular instruction had typical costs of \$212 per student, compared to \$353 per student for the other districts.

Principals at participating R-Tech schools cited insufficient resources as a moderate or substantial barrier to continuing the services after grant funds were depleted in May 2010. Overall, 58% cited lack of funds as a barrier to continuation, and 60% indicated that they would seek additional funding to continue the R-Tech grant program.

**T-STEM, ECHS, and HSRR:**<sup>25</sup> One advantage of these three grant programs is their public-private partnership approach. Unlike many educational grant programs at TEA that are funded by taxpayer dollars alone, T-STEM, ECHS, and HSRR have received support from both public sector and private sector funds. The \$346 million<sup>26</sup> budget included funding approved by the state legislature, as well as contributions from the Bill and Melinda Gates Foundation (BMGF), the Michael and Susan Dell Foundation (MSDF), and Communities Foundation of Texas (CFT), among others.

This public-private approach yielded potentially cost-effective practices. For example, in 2007, a multifaceted District Leadership Development program formed by a partnership of TEA and CFT, with funding from BMGF and the Wallace Foundation, was launched. When selecting districts for this initiative, CFT selected districts for funding, in part, based on their ability to leverage existing grant funds and build on current district efforts at transformation.

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<sup>25</sup> These findings were reported for all of the programs included in THSP collectively. Thus, these findings are representative of the T-STEM, ECHS, and HSRR programs, as well as four other programs included in THSP.

<sup>26</sup> This amount was accurate as of August 2010.

While this public-private collaboration has the potential to be very cost effective, data on the actual costs per student have not been collected to date and the evaluation does not directly link costs to outcomes. Instead, much of the work for evaluations of these programs to date consisted of teacher, student, and administrator surveys of perceived program effectiveness and implications for student behavior and achievement.

Early findings indicating that students in many schools with T-STEM, ECHS, and HSRR scored higher than students in matched comparison schools on TAKS-Math and other TAKS subject areas suggest a possible positive trend in cost effectiveness. Because such comparisons may continue in the future, there may be opportunities for more extensive cost-effectiveness data over time.

**TNGTI:** TNGTI per-student costs varied greatly among grantees, with an average cost of \$781 per student, which was lower than the anticipated cost of \$1000 per student.

Comparing the costs to the program impact, it was evident that grantees that devoted more funds to summer transition programs had the greatest impact on students' TAKS performance.

The typical grantee spent most of its funds on summer programs and intervention services, and spent only a small share of funds on an early warning data system. Many grantees supplemented TNGTI grants with other funds, with Title I and American Recovery and Reinvestment Act funds representing the most popular sources.

**TDRPP:** As of May 2009, average TDRPP funding was \$2,929 per participant, an amount that is expected to fluctuate until final performance figures are available. The amount of performance pay awarded per grantee averaged 11% of available

performance funds, with a range of 0% - 63%, as of May 2009. TDRPP grantees were provided with initial “start-up” funding, but beyond that additional funding was provided only after grantees provided evidence that students either reached a TDRPP benchmark or successfully completed the program. As a pay-for-performance model, it can be argued that by definition TDRPP is cost effective. In this case, since students who had already dropped out were being recovered, it is also likely that TDRPP will realize lasting future economic impacts.



## **Conclusions**

This report has provided a detailed review of findings from programs authorized by HB 2237, with an emphasis on TAKS data, survey findings, and other indicators reported by independent evaluators from their examination of these initiatives. HB 2237 grant programs focused on supporting student performance, teacher effectiveness, and quality schools through innovative initiatives such as STEM, dropout prevention and recovery, teacher PD, and college preparation. Based on the results in this report for student achievement, teacher effectiveness, and cost effectiveness, these grant programs provide a road map for student success in Texas. Given the multiple challenges that contribute to students not graduating from high school or not graduating ready for college and/or career success, it is likely that schools will need to provide a spectrum of programs such as those authorized by HB 2237 in order to make significant impacts on improving the graduation rate in the state of Texas (ICF, International & National Dropout Prevention Center/Network, 2008). Three years after passage, HB 2237 can point to some widespread successes, highlights of which are summarized in the following narrative.

### **Student Academic Performance**

Most HB 2237 programs showed positive results related to student achievement gains and related to perceived readiness for college and career with little change in other measures such as graduation rates and independent markers of college and career readiness. This result is likely because a number of students participating in HB 2237 programs have yet to begin high school or are still in the early years of their high school careers. As students continue through high school, indicators of performance related to college and career readiness such as SAT scores, ACT scores, percentage of students graduating high school, and percentage enrolling in college or career programs post-

high school will be available. In the limited time that the HB 2237 programs have been implemented, there has been some evidence of promising progress in the measures that indicate “on-track to graduate.” All findings presented in the student academic performance section that follows reflect statistically significant differences between program participants and a comparison group.

Six programs that underwent comprehensive evaluations (MIC, CDR, ISP, T-STEM, ECHS, and TNGTI) demonstrated clear evidence of gains in student achievement in at least one grade level and one subject, particularly in TAKS-Math. All six demonstrated gains in student achievement in TAKS-Math over and above the gains achieved by students in a comparison group. Four out of the six programs (CDR, ISP, ECHS, and TNGTI) demonstrated gains in TAKS-Reading/ELA, three out of the six (CDR, T-STEM, and ECHS) demonstrated gains in TAKS-Science, and one (ECHS) demonstrated gains in TAKS-Social Studies over and above those of students in comparison groups.

In several cases, results included significantly greater increases in the percentage of students meeting or exceeding TAKS passing standards relative to increases among comparison groups. Specifically, MIC participation was associated with gains in TAKS-Math, both at the passing level and the commended level, especially when students had MIC participating teachers for two consecutive years. CDR participation was associated with gains in TAKS-Science, R-Tech participation was associated with gains in TAKS-Math and TAKS-Science, T-STEM was associated with gains in TAKS-Reading/ELA and TAKS-Math, and ECHS was associated with gains in TAKS-Reading/ELA, TAKS-Math, TAKS-Science and TAKS-Social Studies relative to meeting or exceeding TAKS passing standards.

Additionally, evaluations reported gains in several markers of student achievement, such as attendance rates. For example, the evaluation for ECHS reported that ninth grade students in ECHS were more likely to be promoted to tenth grade than students in Grade 9 at matched comparison schools that were not participating in the program. The ECHS program was also linked to an increase in the amount of participation in accelerated learning courses (such as AP, IB, or dual credit) for students in Grade 11 when compared to eleventh grade students in matched comparison schools. CDR was associated with perceived gains in attendance, preparedness for college, working well with others and learning independently. Finally, TNGTI was associated with higher attendance and fewer behavioral problems.

One program that underwent an impact assessment (SERVE) also showed moderate gains in students' understanding of financial matters covered by JA. Students demonstrated significant gains from pre-test to post-test evaluations on three out of six areas of content knowledge. SERVE students also demonstrated a significant gain in engagement for two out of six content areas.

### **Teacher Effectiveness**

The MIC program had the improvement of teacher effectiveness as a primary goal and examined this outcome in conjunction with an examination of student performance. Three other HB 2237 programs that underwent comprehensive evaluations (Intensive Technology-Based Academic Intervention, ISP, and TDRPP) suggested gains in teacher effectiveness. Findings related to one grant program, R-Tech were mixed regarding gains in teacher effectiveness.

As noted earlier in the report, students who had a teacher who participated in MIC for two consecutive years (and whose teacher in the second year had participated in MIC for two years), were associated with the most positive gains. This suggests that MIC participation was associated with improved teacher effectiveness, particularly when allowed to continue for two consecutive years. It may be that in the first year of participation, MIC challenges teachers to try new skills. By the second year, MIC participating teachers may be more consistently and effectively implementing new strategies gained from participation. MIC and ISP evaluations also included survey questions that specifically asked teachers to report whether the programs helped increase their teaching effectiveness. Cycle 1 teachers reported that participation in MIC increased their mathematics content knowledge, teaching knowledge, and feelings of effectiveness. The MIC program appeared to be particularly effective in supporting new teachers, who were more likely to cite the program's positive effects. MIC Cycle 2 teachers also expressed similar levels of satisfaction.

Approximately 70% of Intensive Technology-Based Academic Intervention grantees reported that teachers mostly or always used skills learned during PD to implement a technology-based lesson that would result in a high level of student engagement. As for ISP grantees, all administrators and 79% of teachers said that ISP participation improved teacher effectiveness. Sixty-one percent of teachers also said that training prior to ISP implementation was particularly helpful. Another program (TDRPP) surveyed teachers to determine their level of self-efficacy, defined as a teacher's belief in his or her capability to influence student motivation and achievement. On a 9-point scale, teachers who responded to the survey had an average score of 6.94 in this area, indicating high self-efficacy.

Teacher surveys and focus groups of R-Tech grantees indicated that teachers lacked knowledge of R-Tech resources and most reported that they did not participate in R-Tech PD activities. Only 28% of teachers (392 individuals) who responded to the survey reported that they had participated in R-Tech training during the 2009-10 school year, while 39% of teachers were unsure of their participation. Teachers also reported low levels of agreement with statements about R-Tech's goals, which may indicate that most teachers lacked familiarity with the grant. Evaluators suggested that these findings were most likely associated with the focus of R-Tech on supplemental programs and/or on a narrow focus within schools. That is, it may be that teachers who were aware of R-Tech and actively engaged in participating in the program were positively impacted while other teachers remained unaware of the program (and, therefore, were not impacted by it).

### **Cost Effectiveness**

While some HB 2237 programs remained in operation after the conclusion of the evaluation reports summarized here, making final cost estimates not yet available, there were interim indicators to examine cost effectiveness that were included for this report. One such indicator was average cost per student. In addition, for several programs, there was the ability to track actual spending per student in comparison to initial grantee projections. Two programs (MIC and TNGTI) juxtaposed cost data and student achievement data to determine if cost was related to student achievement outcomes. The evaluation of TNGTI reported that the grantees that devoted more funds to the summer transition program (relative to the early warning data system and later intervention) had the greatest positive impact on student TAKS performance. Students who participated in MIC programs demonstrated high student achievement, while the estimated cost per student was low, indicating high cost effectiveness.

One common thread in the cost data analysis was that many programs served more students or teachers than originally envisioned, suggesting that grantees were doing their best to utilize grant dollars efficiently. In CDR, 1,507 students were served during the first 2 years of the program, more than 10% above the original projections. As a result, the cost per student was \$673 instead of the initial projection of \$834. In MIC, the average grantee served 42 teachers, more than twice the original forecast. As a result, the average cost per teacher was under \$7,000. The estimated average cost per student was \$131 for Cycle 1 grantees (who had used approximately 87% of their funding). Importantly, as MIC participating teachers stay in the classroom, they will continue to impact future classes of students, further reducing the cost of this program.

Still, evaluators reported some unexpected outcomes. While CDR grantees served more students than expected, they also cited difficulty in attracting partners originally envisioned for the initiative. Grantees said that they had to re-assess their services because poor local economic conditions limited the involvement of expected partners in business, higher education, and the nonprofit community.

Distinguishable differences were found between two different types of implementation in the R-Tech program. Districts that implemented services as part of regular classroom instruction had a substantially lower cost per student than those that used R-Tech as a supplemental program. Schools with R-Tech in the regular classroom had a cost per student of \$212, compared to \$353 per student for the other districts.

SERVE had the lowest cost per student of all of the HB 2237 programs. In Cycle 1, 7,180 new students received services with an average cost of \$70 per student. Cycle 2

served 27,202 new students with an average cost of \$18 per student. Across both years, the cost per student was \$29.

Finally, TDRPP utilized a pay-for-performance model that, arguably, was by definition cost effective. Since students who had already dropped out were being targeted for recovery, it is also likely that TDRPP will realize lasting future economic impacts.

Table 9 provides a summary of findings for HB 2237 grant programs that received either an impact assessment or comprehensive evaluation. All evaluation findings indicated an association of program participation with positive or neutral results. That is, none of the grant programs was associated with negative outcomes.

**Table 9: Summary of Effects by Program**

<i>Program</i>	<i>Student Outcomes</i>	<i>Teacher Effectiveness</i>	<i>Approximate Cost per Student (unless otherwise noted)</i>
<b>Comprehensive Whole School Reform</b>			
T-STEM	↑	↑	Unknown*
ECHS	↑	↑	Unknown*
HSRR	↑	↑	Unknown*
<b>Targeted Student Interventions</b>			
Student Clubs	↑	↑	\$5,716 per club (Cycle 1) \$2,176 per club (Cycle 2)
CDR	↑	N/A	\$673 (Cycle 1)
Intensive Technology-Based Academic Intervention Pilot Program	↑	↑	\$53 (Cycle 1) \$111 (Cycle 2)
ISP	↑	↑	\$973 (Cycle 1)
SERVE	↑	N/A	\$71 (Cycle 1) \$18 (Cycle 2)
R-Tech	+/-	+/-	\$294 (Cycle 1)
TDRPP	↑	↑	\$2,929 (May 2009)
TNGTI	↑	↑	\$781
<b>Effective Teachers and Leaders</b>			
MIC	↑	↑	\$131 (Cycle 1)

Source: Program evaluation reports of HB 2237 programs that underwent comprehensive evaluations; progress reports of HB 2237 programs that underwent impact assessments.

\*The cost per student was not calculated for individual THSP programs because cost data was not reported for individual programs within THSP. The potential for cost effectiveness is high, particularly for state-awarded funds, due to the inclusion of funds from private organizations.



Statistically significant findings in a positive direction suggest a positive program effect.



Trends (quantitative and/or qualitative) in a positive direction suggest a positive program effect.

+/-

Both positive and negative results were identified.

N/A

No information was available for the outcome.

## **Building a Foundation**

Looking across all five core objectives—student academic performance, high school completion, college readiness, teacher effectiveness, and cost effectiveness—it is clear that HB 2237 grant programs have produced gains for at-risk students and schools.



While challenges remain, data on student performance were positive in many respects. The higher TAKS scores in many programs provided evidence that more at-risk students were achieving benchmarks indicating they were “on track” to graduate high school. While data on high school completion and college readiness were not extensive, there were many proxy measures that signified student progress. There were no indications of poor-performing programs; as a result, it is reasonable to expect additional positive outcomes should HB 2237 grant programs continue. In addition to providing evidence of positive outcomes, the grant programs under HB 2237 served as a laboratory for school and student success that may be replicated at other sites in the future. Interested readers are again encouraged to examine full evaluation reports associated with comprehensive evaluations of HB 2237 grant programs for additional information.



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## Appendix A: Grant Programs Included in This Report

Table A-1 includes a listing of HB 2237 grants, as well as the URL (Uniform Resource Locator) to the published evaluation reports associated with each program that underwent a comprehensive evaluation. Results for programs that underwent impact assessments are included in Appendix B.

**Table A-1: Programs Included in this Report**

<i>Program</i>	<i>Location of Evaluation Report</i>
<b>Comprehensive Whole School Reform</b>	
T-STEM	<a href="http://www.tea.state.tx.us/index2.aspx?id=2904&amp;menu_id=949">http://www.tea.state.tx.us/index2.aspx?id=2904&amp;menu_id=949</a>
ECHS	<a href="http://www.tea.state.tx.us/index2.aspx?id=2904&amp;menu_id=949">http://www.tea.state.tx.us/index2.aspx?id=2904&amp;menu_id=949</a>
HSRR	<a href="http://www.tea.state.tx.us/index2.aspx?id=2904&amp;menu_id=949">http://www.tea.state.tx.us/index2.aspx?id=2904&amp;menu_id=949</a>
<b>Targeted Student Interventions</b>	
Student Clubs	See Appendix B of this report
CDR	<a href="http://www.tea.state.tx.us/index2.aspx?id=2898&amp;menu_id=949">http://www.tea.state.tx.us/index2.aspx?id=2898&amp;menu_id=949</a>
Intensive Technology-Based Academic Intervention	See Appendix B of this report
ISP	<a href="http://www.tea.state.tx.us/index2.aspx?id=2908&amp;menu_id=949">http://www.tea.state.tx.us/index2.aspx?id=2908&amp;menu_id=949</a>
SERVE	See Appendix B of this report
R-Tech	<a href="http://www.tea.state.tx.us/index4.aspx?id=2926&amp;menu_id=949">http://www.tea.state.tx.us/index4.aspx?id=2926&amp;menu_id=949</a>
TDRPP	<a href="http://www.tea.state.tx.us/index2.aspx?id=2898&amp;menu_id=949">http://www.tea.state.tx.us/index2.aspx?id=2898&amp;menu_id=949</a>
TNGTI	<a href="http://www.tea.state.tx.us/index2.aspx?id=2898&amp;menu_id=949">http://www.tea.state.tx.us/index2.aspx?id=2898&amp;menu_id=949</a>
<b>Effective Teachers and Leaders</b>	
MIC	<a href="http://www.tea.state.tx.us/index2.aspx?id=2914&amp;menu_id=949">http://www.tea.state.tx.us/index2.aspx?id=2914&amp;menu_id=949</a>

The following list consists of HB 2237 grants that were either not subject to the reporting requirements of Section 18, were not programs that directly impacted teachers or students, or were too limited in size to make reporting cost-effective. The following grants were not directly evaluated or assessed for impact and therefore are excluded from this report, although, in some cases, the primary program with which they were associated was evaluated (e.g., T-STEM):

- Study of Best Practices for Dropout Prevention
- Professional Activities for Teachers and Administrators
- Teacher Reading Academies
- Mathematics, Science, and Technology Teacher Preparation Activities
- District-wide College and Career Pathways
- Campus Turnaround Team Support

- ECHS Special Project, San Antonio Independent School District
- ECHS Small and Rural District Planning Grants
- ECHS Professional Development Training Grants
- ECHS Professional Development Network
- ECHS Site Design Coaching
- Ignite/SystemsGo Aerospace Program
- Middle-school Students in Texas: Algebra Ready (MSTAR) Pilot Project
- P-16 Early Warning System Platform
- THSP Network/Exemplar Activities Program, Continuation
- T-STEM Early Innovator, Waco Independent School District
- T-STEM Co-curricular Engineering Activities/Robotics
- T-STEM Pre-Service Teacher Preparation Program
- Intensive Summer Programs to Facilitate Transition from High School to Postsecondary Institution<sup>27</sup>
- Mathematics, Science, and Technology Teacher Preparation Academies<sup>28</sup>
- Statewide Tools for Teaching Excellence<sup>29</sup>

Technical assistance grants are also excluded from this report.

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<sup>27</sup> This program is being evaluated by THECB and therefore is excluded from this report.

<sup>28</sup> This program is being evaluated by THECB and therefore is excluded from this report.

<sup>29</sup> This program is being evaluated by the Michael and Susan Dell Foundation and therefore is excluded from this report.



## **Appendix B: Additional Data from Impact Assessments**

### **Student Clubs**

#### Methodology

Surveys were distributed to grant coordinators for each of the grantees. Each grant coordinator was asked to provide information on each of the clubs from his/her district that had received funding from TEA, including the following:

- Name of club
- Type of club
- Influence on student performance on assessments, high school completion, college readiness of high school students, and teacher effectiveness
- Rating of club's cost effectiveness

Of the 59 Cycle 1 grantees, 33 returned surveys, yielding a response rate of 56%. A total of 12 out of the 15 Cycle 2 grantees returned surveys, yielding a response rate of 80%.

#### Types of Clubs

As indicated in Table B-1, clubs funded by the Student Clubs grant were categorized as one of four different types: (1) academic, (2) career, (3) co-curricular, or (4) other. About 20% of the clubs reported by Cycle 1 grant coordinators were academic, approximately 32% were career related, 42% were co-curricular, and 5% were classified as other.

Approximately 34% of Cycle 2 clubs were academic, 16% were career, 39% were co-curricular, and 11% were classified as other.

**Table B-1: Types of Clubs Funded by Student Clubs Grant**

<b>Category</b>	<b>Cycle 1 Number of Clubs</b>	<b>Cycle 1 Percentage of Clubs</b>	<b>Cycle 2 Number of Clubs</b>	<b>Cycle 2 Percentage of Clubs</b>
Academic	42	20.3%	21	33.9%
Career	67	32.4%	10	16.1%
Co-curricular	87	42.0%	24	38.7%
Other	11	5.3%	7	11.3%
Total	207	100%	62	100%

Source: Student Clubs Grant Coordinator Survey, 2010.

### *Student Academic Performance*

Ratings provided by Cycle 1 and Cycle 2 grant coordinators were used to gauge student outcomes in the areas of student performance on assessments, high school completion rates, and college readiness. In each of these areas, grant coordinators were asked to rate the amount of change caused by clubs funded by Student Clubs, based on the following scale:

- 1: Large negative change
- 2: Small negative change
- 3: No influence
- 4: Small positive change
- 5: Large positive change

### *Cycle 1 Findings*

Of the clubs reported on by grant coordinators for Cycle 1, 97% were rated as having a small or large positive impact on student performance on assessments, as indicated in Table B-2. The remaining 3% were rated as having no impact on student performance. None of the clubs were rated as having either a small or large negative impact on student performance.

**Table B-2: Cycle 1 Perceptions of Student Clubs' Influence on Student Performance on Assessments**

<i>Rating</i>	<i>Number of Clubs</i>	<i>Percentage of Clubs</i>
Large negative change	–	–
Small negative change	–	–
No influence	6	3.0%
Small positive change	95	47.5%
Large positive change	99	49.5%
Total	200	100%

Source: Student Clubs Grant Coordinator Survey, 2010.

As demonstrated in Table B-3, the vast majority of clubs (93%) were rated as having a small or large positive impact on high school completion rates among club participants, with 4% rated as having no impact, and the remaining 3% rated as having a small or large negative impact on completion rates.

**Table B-3: Cycle 1 Perceptions of Student Clubs' Influence on High School Completion Rates**

<i>Rating</i>	<i>Number of Clubs</i>	<i>Percentage of Clubs</i>
Large negative change	3	1.6%
Small negative change	2	1.0%
No influence	8	4.0%
Small positive change	65	32.8%
Large positive change	120	60.6%
Total	198	100%

Source: Student Clubs Grant Coordinator Survey, 2010.

As demonstrated in Table B-4, the vast majority of Cycle 1 clubs (98%) were rated as having a small or large positive impact on the college readiness of participating high school students, with the remaining 2% rated as having no impact. None of the clubs were rated as having either a small or large negative impact on the college readiness of high school students.

**Table B-4: Cycle 1 Perceptions of Student Clubs' Influence on College Readiness of High School Students**

<i>Rating</i>	<i>Number of Clubs</i>	<i>Percentage of Clubs</i>
Large negative change	–	–
Small negative change	–	–
No influence	5	2.5%
Small positive change	68	34.0%
Large positive change	127	63.5%
Total	200	100%

Source: Student Clubs Grant Coordinator Survey, 2010.

### *Cycle 2 Findings*

Cycle 2 grant coordinators who responded to the survey indicated that 97% of their clubs had either a small or large positive impact on student performance on assessments, with the remaining 3% rated as having no impact, as shown in Table B-5. As reported for Cycle 1, no Cycle 2 clubs were rated as having a small or large negative impact on student performance on assessments.

**Table B-5: Cycle 2 Perceptions of Student Clubs' Influence on Student Performance on Assessments**

<i>Rating</i>	<i>Number of Clubs</i>	<i>Percentage of Clubs</i>
Large negative change	–	–
Small negative change	–	–
No influence	2	3.2%
Small positive change	22	35.5%
Large positive change	38	61.3%
Total	62	100%

Source: Student Clubs Grant Coordinator Survey, 2010.

While 82% of clubs were rated as having a small or large positive impact on the high school completion rates of participating students, 18% were rated as having no impact on high school completion rates. As Table B-6 demonstrates, none of the clubs were rated as having either a small or large negative impact on high school completion rates.

**Table B-6: Cycle 2 Perceptions of Student Clubs' Influence on High School Completion Rates**

<i>Rating</i>	<i>Number of Clubs</i>	<i>Percentage of Clubs</i>
Large negative change	–	–
Small negative change	–	–
No influence	11	17.7%
Small positive change	16	25.8%
Large positive change	35	56.5%
Total	62	100%

Source: Student Clubs Grant Coordinator Survey, 2010.

As shown in Table B-7, Cycle 2 grant coordinators indicated that 84% of clubs had either a small or large positive impact on the college readiness of their participating high school students, with the remaining 16% having no impact on college readiness.

**Table B-7: Cycle 2 Perceptions of Student Clubs' Influence on College Readiness of High School Students**

<i>Rating</i>	<i>Number of Clubs</i>	<i>Percentage of Clubs</i>
Large negative change	–	
Small negative change	–	
No influence	10	16.1%
Small positive change	24	38.7%
Large positive change	28	45.2%
Total	62	100%

Source: Student Clubs Grant Coordinator Survey, 2010.

## Teacher Effectiveness

### *Cycle 1 Findings*

Grant coordinators were asked to rate the impact of student clubs on teacher effectiveness in instruction based on the following scale:

- 1: Large negative change
- 2: Small negative change
- 3: No influence
- 4: Small positive change
- 5: Large positive change

The majority of Cycle 1 clubs (92%) were rated as having either a small or large positive impact on teacher effectiveness in instruction, with the remaining 8% rated as having no impact on teacher effectiveness. As shown in Table B-8, none of the clubs were rated as having either a small or large negative impact on teacher effectiveness in instruction.

**Table B-8: Cycle 1 Perceptions of Student Clubs' Influence on Teacher Effectiveness in Instruction**

<i>Rating</i>	<i>Number of Clubs</i>	<i>Percentage of Clubs</i>
Large negative change	–	–
Small negative change	–	–
No influence	16	8.2%
Small positive change	76	39.0%
Large positive change	103	52.8%
Total	195	100%

Source: Student Clubs Grant Coordinator Survey, 2010.

### *Cycle 2 Findings*

Eighty-three percent of Cycle 1 clubs were rated as having a small or large positive impact on teacher effectiveness in instruction, while the other 17% were rated as having

no impact on teacher effectiveness. As shown in Table B-9, none of the clubs were rated as having either a small or large negative impact on teacher effectiveness in instruction.

**Table B-9: Cycle 2 Perceptions of Student Clubs' Influence on Teacher Effectiveness in Instruction**

<i>Rating</i>	<i>Number of Clubs</i>	<i>Percentage of Clubs</i>
Large negative change	–	–
Small negative change	–	–
No influence	10	17.0%
Small positive change	13	22.0%
Large positive change	36	61.0%
Total	59	100%

Source: Student Clubs Grant Coordinator Survey, 2010.

### Cost Effectiveness

#### *Cycle 1 Findings*

As demonstrated in Table B-10, approximately 76% of Cycle 1 clubs were rated as being very cost-effective, with about 20% rated as somewhat cost-effective, and the remaining 4% rated as not cost-effective.

**Table B-10: Cycle 1 Ratings of Student Clubs' Cost Effectiveness**

<i>Rating</i>	<i>Number of Clubs</i>	<i>Percentage of Clubs</i>
Not cost-effective	9	4.3%
Somewhat cost-effective	41	19.8%
Very cost-effective	157	75.8%
Total	207	100%

Source: Student Clubs Grant Coordinator Survey, 2010.

#### *Cycle 2 Findings*

As demonstrated in Table B-11, 71% of Cycle 2 clubs were rated as being very cost-effective, with 27% rated as somewhat cost-effective, and the remaining 2% rated as not cost-effective.

**Table B-11: Cycle 2 Ratings of Student Clubs' Cost Effectiveness**

<i>Rating</i>	<i>Number of Clubs</i>	<i>Percentage of Clubs</i>
Not cost-effective	1	1.6%
Somewhat cost-effective	17	27.4%
Very cost-effective	44	71.0%
Total	62	100%

Source: Student Clubs Grant Coordinator Survey, 2010.



## **SERVE**

### *Student Academic Performance*

The Higher Education and Workforce Readiness Programs were implemented through grants to the Association of Junior Achievement Areas of Texas (JA) to establish the SERVE program. In the absence of TAKS data for participating students and in light of JA's programmatic focus on financial literacy, survey responses indicating student comprehension of a variety of these financial concepts were used to gauge SERVE's impact on student performance. Improved comprehension was defined by an increased percentage of correctly answered questions pertaining to the concepts covered by JA.

### *Cycle 1 Findings: All JA Programs*

The responses used to identify improvement in financial literacy among 81% of the participants were provided for the Content construct of a survey as part of the report, *An Evaluation of the Student Excellence and Readiness through Volunteers in Education Project*, JA's independently conducted program evaluation in 2009. The Content construct comprised survey questions that tested students on curriculum knowledge specific to the program in which they participated, all of which generally centered on financial literacy.

Observed improvements in students' results from pre- and post-tests for four of the six programs yielded the finding that 720 of the 884 surveyed students made progress in their understanding of financial matters covered by JA (representing 81% of the surveyed students). These improvements were represented by percentage increases in the number of questions answered correctly, as illustrated in Table B-12. With the exception of students in the Economics and Titan programs, whose performance fell by

3 percentage points and 2 percentage points, respectively, all other JA participants demonstrated statistically significant improvement in their content knowledge. Although a seventh program, JA Business Ethics (BE) was offered to students, the program's small sample size and absence of matched pre- and post-tests precluded it from being included in the analyses.

**Table B-12: Pre- and Post-Test Differences in Students' Content Knowledge by JA Program**

<i>Program</i>	<i>Pre-Test</i>	<i>Post-Test</i>	<i>Difference</i>
JA Banks in Action (BIA)	63.9%	77.6%	13.7*
JA Careers With a Purpose (CWAP)	65.2%	70.4%	5.2**
JA Financial Literacy (FL)	67.7%	71.9%	4.2*
JA Success Skills (SS)	79.8%	92.5%	12.7*
JA Titan	58.6%	56.5%	-2.1
JA Economics	66.6%	63.5%	-3.1

\* $p < 0.05$

\*\* $p < 0.10$

Source: An Evaluation of the Student Excellence and Readiness through Volunteers in Education Project, 2009.

To determine which increases in school engagement were statistically significant by program, all JA program participants were asked to select one of four levels of agreement with a series of statements that sought to discern participants' engagement and attitudes towards school. The Likert-scale levels of agreement were as follows:

- 1: Strongly Disagree
- 2: Disagree
- 3: Agree
- 4: Strongly Agree

The statements comprised the following:

- I frequently ask questions during class.
- I regularly work with other student collaboratively in class.
- I come to class ready to participate.

- Normally in class I watch the clock.<sup>30</sup>
- School is interesting.
- School is fun.

Although the average ratings for the entire set of statements increased anywhere from 0.04 to 0.15 between pre- and post-tests across the six evaluated programs, only the JA FL and the JA Titan programs' differences were statistically significant.

Prior to their participation in JA FL, the mean rating of student agreement with statements in the School construct was 2.7, suggesting that students did not necessarily agree that they were engaged in their schooling. Subsequent to the completion of JA FL, however, the mean rating rose to 2.8, a statistically significant ( $p < 0.00$ ) increase of 0.1. Similarly, the mean rating of student agreement with the statements was 2.6 prior to participation in JA Titan; subsequently, however, it rose to 2.7. The difference of 0.1 was statistically significant ( $p < 0.07$ ). These increases seem to indicate a more positive attitude as a result of participation in JA FL and JA Titan for each program's participants. Additionally, these increases were notable because the mean ratings for the other four programs' participants did not demonstrate any statistically significant changes between pre- and post-testing. The differences for each of the six programs evaluated are detailed in Table B-13.

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<sup>30</sup> This represented the only negative statement, with a higher level of agreement indicating a lower level of engagement or less positive attitude toward school.

**Table B-13: Pre- and Post-Test Differences in Levels of Agreement with Statements Indicating Level of School Engagement by JA Program**

<i>Program</i>	<i>Pre-Test</i>	<i>Post-Test</i>	<i>Difference</i>
JA FL	2.66	2.81	0.15*
JA Economics	2.44	2.57	0.13
JA CWAP	2.71	2.82	0.11
JA Titan	2.58	2.67	0.09*
JA SS	2.75	2.80	0.05
JA BIA	2.61	2.65	0.04

\*Indicates statistical significance (JA FL:  $p < 0.00$ , JA Titan:  $p < 0.07$ ).

Source: An Evaluation of the Student Excellence and Readiness through Volunteers in Education Project, 2009.

To measure their level of college readiness, participants were asked to indicate their level of agreement with a series of statements that made up the Career construct of the survey used in the SERVE 2009 Evaluation. The levels of agreement were as follows:

- 1: Strongly Disagree
- 2: Disagree
- 3: Agree
- 4: Strongly Agree

The statements in the Career construct, which sought to elucidate students' awareness of careers and the ways that school would factor into those careers, included the following:

- I am aware of my career/work options after high school.
- I am aware of my education options after high school.
- My classes connect what I am learning to real life.
- I know how to manage my money.
- I know the importance of staying in school.

While there were increases in the average ratings for career statements by participants in JA CWAP, JA BIA, JA SS, and JA Titan, the only program whose participants' results were statistically significant was CWAP and is thus discussed further in detail. The pre-test mean of students' level of agreement with Career statements was 3.0 and rose to 3.2 following the end of JA CWAP, indicating a statistically significant ( $p < 0.04$ ) difference of 0.2. When taken in combination with open-ended responses to the question "List two things learned from the Junior Achievement program that you think are important"—90% of which were "Choosing a career" and the "Knowledge and skills needed to pursue a career" (Schneider et al., 2009)—JA CWAP students appeared to have increased their understanding of and appreciation for the importance of a relationship between school and postsecondary career options. The differences for each of the six programs evaluated are detailed in Table B-14.

**Table B-14: Pre- and Post-Test Differences in Levels of Agreement with Career Statements by JA Program**

<i>Program</i>	<i>Pre-Test</i>	<i>Post-Test</i>	<i>Difference</i>
JA CWAP	3.02	3.17	0.15*
JA BIA	3.27	3.33	0.06
JA SS	3.27	3.31	0.04
JA Titan	3.27	3.29	0.02
JA FL	3.31	3.27	-0.04
JA Economics	3.27	3.11	-0.16

\* $p < 0.04$

Source: An Evaluation of the Student Excellence and Readiness through Volunteers in Education Project, 2009.

### *Cycle 1 Findings: JA Financial Literacy*

An in-depth understanding of student performance was provided for the JA FL program, also known as JA Presents: The National Endowment for Financial Education (NEFE) High School Financial Planning Program, through an examination of students' self-reported and actual knowledge of personal finance on pre- and post-test assessments in the report *Evaluation of the Junior Achievement Presents: The NEFE High School*

*Financial Planning Program* (Harder & Company Community Research, 2009). JA FL participants' responses were compared to those of non-JA FL participants in order to determine whether changes were correlated with JA participation.

To measure self-perceptions of personal finance knowledge, students were asked to indicate how much they knew about nine different personal finance management and protection topics (listed in Table B-15). Responses for those who "Know some" or "Know a lot" about each specified topic were used for analyses, yielding the finding that both students who had and had not participated in JA FL felt that their understanding of all the specified topics had increased.

Across all nine personal finance topics, the percentage increases of JA FL students who reported that they knew some or a lot about the area ranged from 15% to 47% between the administration of the pre- and post-tests. The greatest increase was for "The difference between high risk and low risk investments," with only 22% of JA FL students indicating that they had some knowledge prior to participating in the program, and 69% of students reporting increased knowledge after participation. The next greatest increases were for "How to protect myself from identity theft" (45 percentage point increase) and "How to protect myself from credit card fraud" (42 percentage point increase).

While responses from both groups of participants indicated perceived increases in financial knowledge, the aforementioned increases among JA FL participants were much more pronounced than for their non-JA FL counterparts. The average difference in percentages of JA FL participants who felt that they knew some or a lot about all the topics was 34 percentage points, whereas the average for non-JA FL participants was

only 15 percentage points. One of the clearest examples of the disparity in pre-test and post-test results was for “Different types of insurance to protect myself”: 80% of JA FL students reported that they were familiar with the different types after having participated in JA FL, as opposed to 41% prior to participation in the program. In contrast, there was only a 10 percentage point difference between the 39% reported on the pre-test and the 49% post-test results for non-JA FL participants.

**Table B-15: Pre- and Post-Test Differences in Self-Reported Knowledge of Personal Finance**

<i>Concept</i>	<i>JA Financial Literacy Participants</i>			<i>Non-JA Financial Literacy Participants</i>		
	<i>Pre-Test</i>	<i>Post-Test</i>	<i>Difference</i>	<i>Pre-Test</i>	<i>Post-Test</i>	<i>Difference</i>
The difference between high risk and low risk investments	22.2%	69.4%	47.2	18.4%	43.3%	24.9
How to protect myself from identity theft	44.0%	88.6%	44.6	37.3%	55.1%	17.8
How to protect myself from credit card fraud	38.9%	80.5%	41.6	30.7%	45.7%	15.0
The difference between long-term and short-term investments	30.0%	69.4%	39.4	37.2%	48.3%	11.1
Different types of insurance to protect myself	41.3%	80.3%	39.0	39.2%	49.3%	10.1
The impact of credit charge finance charges	42.3%	72.2%	29.9	41.5%	62.6%	21.1
How to develop a savings plan	46.9%	74.6%	27.7	41.7%	57.4%	15.7
How to create a budget	50.7%	74.2%	23.5	46.5%	65.2%	18.7
The difference between cash and credit	75.1%	89.6%	14.5	77.6%	81.2%	3.6

*Note:* The *n* for the intervention group ranged from 205 to 211, and the *n* for the control group ranged from 205 to 219.  
Source: Evaluation of the Junior Achievement Presents: The NEFE High School Financial Planning Program, Regional Report: Local JA Sites in Texas, 2009.

To gauge actual personal financial knowledge, students were asked to match nine key concepts covered during JA sessions (listed in Table B-16) with the correct definitions. Improved knowledge of seven of these terms was illustrated by increases ranging from 3 percentage points to 17 percentage points in the percentages of students who correctly matched the terms and definitions. The greatest observed increases in student understanding of financial concepts were for “Principal” (17 percentage points) and “Expense” (10 percentage points). The two concepts students seemed to understand less after the program were “Credit” (-0.2 percentage points) and “Liability Insurance”

(-0.2 percentage points). In contrast, control group students' scores nearly all decreased, with the exception of a 0.4 percentage point increase for "Budget." The differences between pre- and post-test results for each concept and group of participants are listed in the Table B-16.

**Table B-16: Pre- and Post-Test Differences in Students' Knowledge of Key Personal Finance Concepts**

<b>Concept</b>	<b>JA Financial Literacy Participants</b>			<b>Non-JA Financial Literacy Participants</b>		
	<b>Pre-Test</b>	<b>Post-Test</b>	<b>Difference</b>	<b>Pre-Test</b>	<b>Post-Test</b>	<b>Difference</b>
Principal	25.8%	43.0%	17.2	31.3%	28.4%	-2.9
Expense	67.7%	78.0%	10.3	67.6%	63.9%	-3.7
Budget	80.8%	86.0%	5.2	82.9%	83.3%	0.4
Variable	56.9%	60.5%	3.6	53.7%	48.2%	-5.5
Installment Loan	28.1%	31.7%	3.6	33.8%	29.5%	-4.3
Mortgage	60.1%	63.1%	3.0	73.5%	52.4%	-21.1
Interest	38.0%	41.0%	3.0	44.6%	37.7%	-6.9
Liability Insurance	87.2%	87.0%	-0.2	89.7%	81.3%	-8.4
Credit	22.1%	21.9%	-0.2	28.0%	22.4%	-5.6

Note: The *n* for the intervention group ranged from 192 to 207, and the *n* for the control group ranged from 193 to 211. Source: Evaluation of the Junior Achievement Presents: The NEFE High School Financial Planning Program, Regional Report: Local JA Sites in Texas, 2009.

### *Cycle 2 Findings: All JA Programs*

The gains in content knowledge made by 52% of JA participants were measured by determining how many students had increased the percentage of correct content items on their post-tests in comparison to their pre-tests. As with the surveys administered at the end of Cycle 1 to determine how many students had improved, the items were part of the content construct, which tested students on material covered during their specific JA program, all of which focused on financial literacy. The findings discussed in the following sections are drawn from those presented in the SERVE 2010 Evaluation.



Overall, 855 of the 1,659 students demonstrated improvement in the number and percentage of content-specific questions that they responded to correctly across all seven programs. However, while all programs had students who increased their understanding of the material covered by JA, the percentage of students with increased comprehension fluctuated among the programs, as demonstrated in Table B-17. For instance, while 100% of JA BE students improved their performance, only 34% of JA Titan students showed improvement. The next two programs that exhibited improvement in financial literacy comprehension were JA CWAP (63%) and JA SS (57%).

**Table B-17: Students that Increased Content Knowledge from Pre-Test to Post-Test by JA Program**

<i>Program</i>	<i>Number of Students with Increased Content Knowledge</i>	<i>Percentage of Students with Increased Content Knowledge</i>
JA BE ( <i>n</i> = 143)	143	100%
JA CWAP ( <i>n</i> = 43)	27	63%
JA SS ( <i>n</i> = 296)	170	57%
JA BIA ( <i>n</i> = 120)	58	48%
JA FL ( <i>n</i> = 970)	426	44%
JA Economics ( <i>n</i> = 14)	6	43%
JA Titan ( <i>n</i> = 73)	25	34%
Total ( <i>n</i> = 1,659)	855	52%

Source: An Evaluation of the Student Excellence and Readiness through Volunteers in Education Project, 2010.

The percentages indicating increased levels of school engagement were calculated based on the number of students who had indicated an increased level of agreement with at least one of four statements presented as part of the Student Engagement portion of their surveys. Similar to the surveys administered the previous year to the Cycle 1 cohort, students were asked to what extent they agreed with each of the following statements:

- I frequently ask questions during class.
- I come to class ready to participate.

- Normally in class I watch the clock.<sup>31</sup>
- School is interesting.

Overall, 1,212 out of the 1,659 surveyed JA participants indicated an increase in school engagement (representing 73% of all participants) with their responses to at least one question being higher. Among all seven programs, JA CWAP participants demonstrated the highest percentage of increased school engagement at 84%, followed by JA SS at 82%, and JA BE at 76%. The differences for each of the seven programs evaluated are detailed in Table B-18.

**Table B-18: Students with an Increased Level of School Engagement from Pre-Test to Post-Test by JA Program**

<i>Program</i>	<i>Number of Students with Increased School Engagement</i>	<i>Percentage of Students with Increased School Engagement</i>
JA CWAP ( <i>n</i> = 43)	36	84%
JA SS ( <i>n</i> = 296)	242	82%
JA BE ( <i>n</i> = 143)	109	76%
JA BIA ( <i>n</i> = 120)	89	74%
JA Economics ( <i>n</i> = 14)	10	71%
JA Titan ( <i>n</i> = 73)	52	71%
JA FL ( <i>n</i> = 970)	674	69%
Total ( <i>n</i> = 1,659)	1,212	73%

Source: An Evaluation of the Student Excellence and Readiness through Volunteers in Education Project, 2010.

<sup>31</sup> This was the only negative statement among the others, with a higher level of agreement indicating a lower level of engagement in school.

To gauge the percentage of students who seemed to exhibit improved college readiness, students were asked to rate their level of agreement with a set of statements about their familiarity with postsecondary career and educational options, among other key topics. Their choices for level of agreement were the following:

- 1: Strongly Disagree
- 2: Disagree
- 3: Agree
- 4: Strongly Agree
- 5: I Don't Know

The statements that sought to ascertain JA participants' attitudes, which were part of Program Impact and School, comprised the following:

- I am aware of my career/work options after high school.
- I am aware of my education options after high school.
- My classes connect what I am learning to real life.
- I know how to manage my money.
- I know the importance of staying in school.

As demonstrated in Table B-19, 68% of all JA participants, representing 1,121 of the 1,659 surveyed students, demonstrated an increased level of college readiness from their pre- to post-test responses. Across all of the surveyed participants, the highest rate of increased college readiness and awareness was among JA CWAP students at 79%, followed by JA BIA at 78%, and JA SS and JA Titan (both at 71%).

**Table B-19: Students with an Increased Level of College Readiness from Pre-Test to Post-Test by JA Program**

<i>Program</i>	<i>Number of Students with Increased College Readiness</i>	<i>Percentage of Students with Increased College Readiness</i>
JA CWAP ( <i>n</i> = 43)	34	79%
JA BIA ( <i>n</i> = 120)	93	78%
JA SS ( <i>n</i> = 296)	210	71%
JA Titan ( <i>n</i> = 73)	52	71%
JA FL ( <i>n</i> = 970)	638	66%
JA BE ( <i>n</i> = 143)	86	60%
JA Economics ( <i>n</i> = 14)	8	57%
Total ( <i>n</i> = 1,659)	1,121	68%

Source: An Evaluation of the Student Excellence and Readiness through Volunteers in Education Project, 2010.

## **Intensive Technology-Based Academic Intervention**

### *Student Academic Performance*

In the absence of TAKS data with which to assess student performance and outcomes, district grantees' progress reports submitted to TEA throughout the life cycle of the grant were used to assess student outcomes. The progress reports included different critical success indicators, one of which was the following: "The majority of students in participating teachers' classrooms were able to demonstrate successful learning of an important concept through the use of a technology-based intervention strategy."

Grantees' responses were then used to better understand how the Intensive Technology-Based Academic Intervention program had influenced student performance. The progress reports examined included four<sup>32</sup> that were submitted by Cycle 1 grantees and three<sup>33</sup> that were submitted by Cycle 2 grantees. Findings for each cycle are further examined in the following sections.

### *Cycle 1 Findings*

The first progress report for the period of September 1, 2008 to December 31, 2008 asked grantees to what extent the following statement was accurate: "As a whole, the majority of students in participating teachers' classrooms were able to demonstrate successful learning of an important concept through the use of a technology-based intervention strategy." As illustrated in Table B-20, 60% of the respondents indicated that the majority of the students mostly or always demonstrated successful learning of

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<sup>32</sup> Cycle 1 Progress Report 1 covered the period of September 1, 2008 to December 31, 2008. Progress Report 2 covered the period of January 1, 2009 through July 31, 2009. Progress Report 3 covered the period of August 1, 2009 through December 31, 2009. Progress Report 4, which was also the Final Evaluation, covered both the period of January 1, 2010 through May 31, 2010, and the entire duration of the grant (from September 1, 2008 through May 31, 2010).

<sup>33</sup> Cycle 2 Progress Report 1 covered the period of March 1, 2009 through July 31, 2009, but included no statements for which grantees indicated their level of agreement. Cycle 2 Progress Report 2 covered the period of August 1, 2009 through December 31, 2009. Cycle 2 Progress Report 3 was for the period of January 1, 2010 through July 31, 2010.

important concepts through the use of technology-based intervention strategies.

Remaining grantees' explanations attributed the infrequency to a delay in the implementation of professional development that would allow for program implementation, delays in the installation of program software, and an absence of motivation and participation on the part of students.

**Table B-20: Cycle 1 Grantees' Indication of Extent of Students' Demonstration of Successful Learning**

<i>Frequency</i>	<i>Progress Report 1 Number of Grantees</i>	<i>Progress Report 1 Percentage of Grantees</i>
Never	1	10.0%
Seldom	1	10.0%
Occasionally	2	20.0%
Mostly	4	40.0%
Always	2	20.0%
Total	10	100%

Source: Cycle 1 Progress Report submitted to TEA, 2008.

In subsequent progress reports, grantees were asked to indicate their level of agreement with statements, rather than indicate the extent to which it occurred in their districts.

Consequently, the rating scale changed (from Never, Seldom, Occasionally, Mostly, and Always) to the following levels of agreement:

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

Across the three subsequent progress reports, at least three-fourths of the respondents indicated that they agreed with the statement "The majority of students in participating teachers' classrooms were able to demonstrate successful learning of an important concept through the use of a technology-based intervention strategy." Reasons for

grantees' agreement that students had demonstrated successful learning included observations of increased student engagement through increased note taking, clarifying questions that were asked, and a willingness to work with teachers outside of school hours to receive additional training. As highlighted in Table B-21, all grantees who submitted Progress Reports 3 and 4 agreed or strongly agreed that most students had the ability to demonstrate successful learning through the use of technology-based intervention strategies.

**Table B-21: Cycle 1 Grantees' Level of Agreement with Students' Demonstration of Successful Learning**

<i>Level of Agreement</i>	<i>Progress Report 2 Number of Grantees</i>	<i>Progress Report 2 Percentage of Grantees</i>	<i>Progress Report 3 Number of Grantees</i>	<i>Progress Report 3 Percentage of Grantees</i>	<i>Progress Report 4 Number of Grantees</i>	<i>Progress Report 4 Percentage of Grantees</i>
Strongly Disagree	–	–	–	–	–	–
Disagree	–	–	–	–	–	–
Agree	6	85.7%	8	88.9%	9	75.0%
Strongly Agree	–	–	1	11.1%	3	25.0%
Not Provided <sup>34</sup>	1	14.3%	–	–	–	–
Total	7	100%	9	100%	12	100%

Source: Cycle 1 Progress Reports submitted to TEA, 2009-10.

### *Cycle 2 Findings*

More than 90% of Cycle 2 grantees who submitted their second and third progress reports either agreed or strongly agreed with the statement “The majority of students in participating teachers’ classrooms were able to demonstrate successful learning of an important concept through the use of a technology-based intervention strategy.”

Increased student engagement due to technology-based strategies was commonly cited as an explanation for why grantees agreed that students had been able to demonstrate

<sup>34</sup> Although not included on the scale listed on the progress reports that grantees were asked to complete, “Not Provided” indicates that a grantee submitted a progress report and elected not to select a choice.

successful learning, with a few grantees noting that students enjoyed using iPod® and iPod Touch® devices during their lessons. The one grantee who disagreed with the statement noted that in the absence of full implementation from teachers, it was difficult to attribute improvement entirely to the intervention and subsequently measure that improvement. The distribution of grantees' levels of agreement for Progress Reports 2 and 3 are shown in Table B-22.

**Table B-22: Cycle 2 Grantees' Level of Agreement with Students' Demonstration of Successful Learning**

<i>Level of Agreement</i>	<i>Progress Report 2 Number of Grantees</i>	<i>Progress Report 2 Percentage of Grantees</i>	<i>Progress Report 3 Number of Grantees</i>	<i>Progress Report 3 Percentage of Grantees</i>
Strongly Disagree	–	–	–	–
Disagree	–	–	1	5.9%
Agree	11	68.7%	12	64.7%
Strongly Agree	4	25.0%	5	29.4%
Not Provided	1	6.3%	–	–
Total	16	100%	18	100%

Source: Cycle 2 Progress Reports submitted to TEA, 2009-10.

### Teacher Effectiveness

#### *Cycle 1 Findings*

The first progress report submitted by Cycle 1 grantees included two critical success indicators that examined to what extent participating teachers had successfully implemented lessons that resulted in high levels of critical thinking and student engagement.

Eighty percent of Cycle 1 grantees who submitted Progress Report 1 indicated that they mostly or always observed that “As a whole, participating teachers successfully implemented, through the use of technology, a content-related lesson requiring a high level of critical thinking on the part of students.” The two grantees who either never or



occasionally witnessed successful implementation resulting in high levels of critical thinking by students cited initial resistance, insufficient knowledge about the technology, and delays that prevented teachers from receiving the requisite professional development for program implementation. The distribution of grantees' levels of agreement for Progress Report 1 is shown in Table B-23.

**Table B-23: Cycle 1 Grantees' Indication of Extent of Implementation of Lessons Requiring High Levels of Critical Thinking**

<i>Frequency of Implementation</i>	<i>Progress Report 1 Number of Grantees</i>	<i>Progress Report 1 Percentage of Grantees</i>
Never	1	10.0%
Seldom	–	–
Occasionally	1	10.0%
Mostly	6	60.0%
Always	2	20.0%
Not Provided	–	–
Total	10	100%

Source: Cycle 1 Progress Reports submitted to TEA, 2008.

Seventy percent of Cycle 1 grantees who submitted Progress Report 1 indicated that they mostly or always observed that “As a whole, the participating teachers successfully implemented a lesson using a strategy on including the use of technology learned during professional development training, resulting in a high level of student engagement.” Among the explanations provided by other grantees that selected never, seldom, or occasionally were delays in the implementation of the intervention, a hesitation to state high levels of student engagement despite some overall successes, and one-on-one guidance rather than whole-class lessons that would make it difficult to state that there was widespread student engagement. The distribution of grantees' levels of agreement for Progress Report 1 is shown in Table B-24.

**Table B-24: Cycle 1 Grantees' Indication of Extent of Implementation of Lessons Requiring High Levels of Student Engagement**

<i>Frequency of Implementation</i>	<i>Progress Report 1 Number of Grantees</i>	<i>Progress Report 1 Percentage of Grantees</i>
Never	1	10.0%
Seldom	1	10.0%
Occasionally	1	10.0%
Mostly	6	60.0%
Always	1	10.0%
Not Provided	–	–
Total	10	100%

Source: Cycle 1 Progress Reports submitted to TEA, 2008.

In subsequent progress reports, grantees were asked to indicate their level of agreement with statements, rather than indicate the extent to which the lessons occurred in their districts. Consequently, the rating scale changed (from Never, Seldom, Occasionally, Mostly, and Always) to the following levels of agreement:

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

Among the progress reports submitted for the remainder of Cycle 1, more than two-thirds of the grantees (Progress Report 2: 86%, Progress Report 3: 90%, Progress Report 4: 73%) agreed that “As a whole, participating teachers successfully implemented, through the use of technology, a content-related lesson requiring a high level of critical thinking on the part of students.” Moreover, all respondents (100%) for both Progress Reports 3 and 4 indicated either their agreement or strong agreement that participating teachers had successfully implemented a content-related lesson that required high levels of critical thinking by students. The distribution of grantees' levels of agreement for Progress Report 2, 3, and 4 is shown in Table B-25.

**Table B-25: Cycle 1 Grantees' Level of Agreement Regarding Implementation of Lessons Requiring High Levels of Critical Thinking**

<i>Level of Agreement</i>	<i>Progress Report 2 Number of Grantees</i>	<i>Progress Report 2 Percentage of Grantees</i>	<i>Progress Report 3 Number of Grantees</i>	<i>Progress Report 3 Percentage of Grantees</i>	<i>Progress Report 4 Number of Grantees</i>	<i>Progress Report 4 Percentage of Grantees</i>
Strongly Disagree	–	–	–	–	–	–
Disagree	–	–	–	–	–	–
Agree	6	85.7%	9	90.0%	8	72.7%
Strongly Agree	–	–	1	10.0%	3	27.3%
Not Provided	1	14.3%	–	–	–	–
Total	7	100%	10	100%	11	100%

Source: Cycle 1 Progress Reports submitted to TEA, 2009-10.

### *Cycle 2 Findings*

With the exception of one grantee that did not provide a response on the progress report, all Cycle 2 grantees who submitted Progress Reports 2 and 3 agreed or strongly agreed that “As a whole, participating teachers successfully implemented, through the use of technology, a content-related lesson requiring a high level of critical thinking on the part of students.” Some of the ways in which teachers used lessons that required high levels of critical thinking included the incorporation of computer programs in mathematics laboratories and biology classes, fact finding and research applications for reports in World Geography, and programs that allowed English as a Second Language students to check word pronunciation and practice their listening proficiency. The distribution of grantees’ levels of agreement for Progress Report 2 and 3 is shown in Table B-26.

**Table B-26: Cycle 2 Grantees' Level of Agreement Regarding Implementation of Lessons Requiring High Levels of Critical Thinking**

<i>Level of Agreement</i>	<i>Progress Report 2 Number of Grantees</i>	<i>Progress Report 2 Percentage of Grantees</i>	<i>Progress Report 3 Number of Grantees</i>	<i>Progress Report 3 Percentage of Grantees</i>
Strongly Disagree	–	–	–	–
Disagree	–	–	–	–
Agree	12	75.0%	12	70.6%
Strongly Agree	3	18.7%	5	29.4%
Not Provided	1	6.3%	–	–
Total	16	100%	17	100%

Source: Cycle 2 Progress Reports submitted to TEA, 2009-10.