# Texas Study of Students at Risk: Efficacy of Grants Supporting Academic Success from Elementary Through High School

#### **EXECUTIVE SUMMARY**

# **Texas Study of Students at Risk**

The Texas Study of Students at Risk (TxSSAR) is a comprehensive evaluation examining the effectiveness of three state-level programs with the common goal of helping students at risk of failure to achieve academically. The study comprises investigations of the Optional Extended Year Program (OEYP), the Texas After School Initiative (TASI), and the Ninth Grade Success Initiative (NGSI), and case studies of districts that received NGSI grants. The evaluation covers a four-year period between the 1999-2000 and 2002-03 school years.

#### OPTIONAL EXTENDED YEAR PROGRAM

First established by the 73rd Texas Legislature in 1993, the Optional Extended Year Program (OEYP) is a state-funded program with the goal of meeting the needs of elementary and middle school students (kindergarten through grade 8) who are at risk of not being promoted to the next grade level. Non-competitive grants allow districts to provide an extended-year program for up to 30 instructional days for eligible students, with the ultimate goal of reducing retention rates.

#### PROGRAM ELEMENTS

**Characteristics of districts.** Between 1999-2000 and 2002-03, the total number of districts receiving OEYP funds was 695, 682, 672, and 684, respectively. The average award actually paid to districts was between \$76,000 and \$80,000. Paid awards ranged from \$317 to over \$5,000,000.

**Characteristics of students.** About 190,000 students participated in the OEYP each year. Participants are distributed across grades 1 through 8, with the largest proportion being third graders. Compared to the state, OEYP served a greater proportion of Hispanic students (about 64%), slightly more African American students (about 18%), and substantially less White students (about 17%). OEYP students were also more likely to be economically disadvantaged (about 79%) and limited English proficient (about 31%).

**Program types.** About two-thirds of OEYP students participated in an extended-year or intercession program only, whereas about one-fourth only participated in an extended-day program. Across four school years, the prevalence of extended-day and extended-week programs increased, while the emphasis on extended-year or intersession programs decreased.

**Program activities.** OEYP instructional activities focused most often on reading/language arts and mathematics. Districts mainly focused their professional development opportunities for teachers and staff on instructional strategies and strategies for teaching students at risk. Districts most frequently planned to

instructional days) than extended-day (54% to 80% of days) or extended-week (62% to 70% of days) programs.

**Retention.** Districts are using student retention in the early grades as a means to support academic performance. Across four years, about 23% of OEYP first graders, 16% of second graders, and 9% of third graders were retained. In contrast, retention rates for students in grades 4 through 8 were typically less than 5%. Compared to state averages, retention rates for OEYP students in grades 1 to 3 are far higher (about 17, 12, and 6 percentage points, respectively) but only slightly higher for students in grades 4 to 8 (about 2 percentage points). For all grade levels, student retention rates tended to increase across the four OEYP program years.

**State-level assessments.** Passing rates on state assessments (TAAS reading, math, writing, science, social studies, and all tests) were well below state averages for the four OEYP student cohorts studied. For cohort 1 (1999-2000) and cohort 2 (2000-01) students, TAAS passing rate gains (from the year before to the year after full OEYP participation) exceeded state gains. However, the TAAS to TAKS passing rate gains for cohort 3 students (2001-02) were mostly less than state gains. Thus, the achievement gap between OEYP students and state averages was narrowed for cohorts 1 and 2, but not for cohort 3.

#### **IMPLICATIONS FOR ADDRESSING STUDENTS' NEEDS**

Enhancing the academic prospects of at-risk students hinges on overall improvement of learning opportunities in schools and classrooms. Findings reinforce the importance of improving the overall school environment as a means to enhance the learning opportunities of students at risk. Results for "value-added" modeling suggest that some districts and schools are more successful than others in supporting the academic performance of students at risk. Results for this study are consistent with other research citing the importance of the school context (Stringfield & Datnow, 2002; Bitting, Cordero, & Baptiste, 1992; Waxman, 1992).

Efforts directed at improving student attendance during the regular school year may have a greater effect on student achievement than remedial interventions. Results reinforce the importance of school attendance in the academic success of students in at-risk environments. School attendance was an important predictor of performance on state-level assessments, especially mathematics, and attendance was also associated with decreased chances of retention.

Low student attendance in extended-day, -week, and -year programs limits program effectiveness. Findings for four student cohorts suggest that student attendance in OEYP programs was sporadic (ranging from 54% to 90% of instructional days). Moreover, the number of available OEYP instructional days declined from 20 to 15 across four grant years. Thus, it is doubtful that the number of days available and attended is adequate to substantially impact either achievement or retention (e.g., Glass, 2002).

**Little is known about the quality of programs funded by OEYP**. A review of district proposals revealed that OEYP programs focus primarily on reading and mathematics and many districts use computer-assisted programs to deliver instruction (usually learning systems for basic skill acquisition). Beyond this, there is little available evidence on program quality.

Student retention rates increased across four years, especially for first, second, and third graders. OEYP was unsuccessful in achieving its primary goal—the reduction of student retention. Retention rates for students at risk increased across four years as districts increasingly retained students in first, second, and third grade. Retention also increased slightly for grades 4 to 8 students (about 1 percentage point). Increased retention of at-risk students is troubling in light other studies showing detrimental effects on students (e.g., Nagaoka & Roderick, 2004).

The cost-effectiveness of the OEYP is questionable. Associations between OEYP funding levels and both student achievement and retention suggest there was no significant relationship between OEYP dollars spent per pupil and academic achievement or reduced retention. Findings raise questions about the cost-effectiveness of the initiative statewide.

State-level initiatives aimed at improving instruction and learning for students at risk should be accompanied by evaluations to study program effectiveness. Conducting scientifically rigorous evaluations of statewide initiatives relies on designing and conducting studies at the onset of funding and program implementation. Funding for future initiativ

# **TEXAS AFTER SCHOOL INITIATIVE**

In 1999, the Texas Legislature created the Texas After-School Initiative. The program funds after-school programs targeting middle school students, ages 10 to 14, who are at risk of academic failure and/or atrisk of committing juvenile offenses. This study includes 60 districts and 194 campuses receiving both original and continuation TASI funding.

comparison group of non-TASI students (about 95%). TASI students who are in grade for the first time have higher attendance rates than students repeating a grade level. Although attendance rates for students repeating a grade level declined over time, a slightly positive change was observed during the program implementation year for three cohorts.

**State-level assessments.** TASI students had lower TAAS passing rates for both reading and mathematics compared to non-TASI students, but the achievement gap between groups narrowed slightly for three student cohorts. Despite apparent progress, the achievement gap between TASI and non-TASI students increased in both reading and mathematics for students who completed the TAKS assessments (cohort 4). For the small number of students repeating their grade level, the passing rate gap on state-level assessments was narrowed between TASI and non-TASI student cohorts.

**Retention.** Retention rates for TASI students declined across cohorts (3% to 2.2%), and in cohort 3, TASI students had slightly lower retention rates than a comparison group of non-TASI students (2.2% compared to 2.5%). For the small number of students repeating their grade level, across-cohort trends showed that TASI students had slightly lower retention rates (3%, 2.9%, 2.2%) than non-TASI students over time (2.5%, 3%, 2.5%).

#### **ASSOCIATION BETWEEN PROGRAM ELEMENTS AND OUTCOMES**

Researchers used hierarchical linear modeling (HLM) to further explore the association between TASI student and district characteristics and academic achievement. Analyses involved participants in 2000-01 (cohort 2) and 2001-02 (cohort 3). Separate analyses were also conducted for retention.

**Instructional days.** After controlling for the effect of student characteristics (academic and social background), there was no positive relationship between the number of instructional days students spend in TASI (up to 189 days) and TAAS scores. Thus, the academic component was not optimally effective in improving student academic performance. In contrast, more instructional days in TASI were associated with a marginally decreased chance of retention for cohort 2 students (2001-02). In general, TASI appears to have had little or no impact on achievement but may have been somewhat effective in reducing student retention.

**Attendance.** A student's school attendance rate was a significant predictor of academic performance. Higher school attendance rates were associated with higher TAAS reading and mathematics scores. In addition, for otherwise similar students, an increase in a student's school attendance rate decreased the chances of retention.

**Per-pupil expenditures.** Consistent with findings for the OEYP, there was no significant relationship between TASI dollars per pupil and TAAS reading and mathematics scores. Likewise, there was no significant relationship between dollars per pupil and retention rates.

### **IMPLICATIONS FOR ADDRESSING STUDENTS' NEEDS**

After-school programs, as they are currently designed, appear only marginally successful in improving the academic performance of the majority of student participants. For students in their grade for the first time (the majority of TASI participants), program participation had no discernable relationship to improved school attendance rates and only a modest correlation with increased TAAS

Reducing student retention through participation in an after-school program does not necessarily translate into improved academic achievement. Results show that retention rates were slightly					

attendance rates (about 92% to 96%) than repeat ninth graders (about 83% to 93%). NGSI first-time ninth graders had slightly lower attendance rates than their non-NGSI peers (about 0.5 to 2.0 percentage points). Attendance rates for repeat NGSI ninth graders, however, were typically near or surpassed non-NGSI comparison groups. Attendance rates for both first-time and repeat NGSI students declined across time.

**State-level assessments.** NGSI students had lower TAAS passing rates for both reading and math compared to non-NGSI students, but the achievement gap between groups narrowed (to 3.7 points in reading and 6.6 points in math). Despite encouraging results for TAAS, the achievement gap widened substantially for students in cohorts 3 and 4 who completed the TAKS (to about 18 percentage points for math). NGSI repeat ninth graders had similar passing rates on state assessments compared to non-NGSI students for both reading and mathematics. However, for both student groups, passing rates declined substantially for TAKS reading and math.

**Retention rates.** Although NGSI student retention rates remain high (21.8% in 2002-03), evidence for four program years reveals that NGSI retention ra

with teachers, and high school orientation. Although educators viewed programs as worthwhile and effective, few students participated and most programs were discontinued.

# **Programs for First-Time and Repeat Ninth Graders**

Districts invested the bulk of NGSI resources in services for ninth graders who were at-risk of not earning sufficient credit or had not earned sufficient credit to advance to grade 10.

**Computer-assisted instruction.** Most districts invested a substantial proportion of grant funds in technology for computer-assisted instruction. Instructional technology most frequently included comprehensive programs supporting self-paced credit recovery or skill remediation (e.g., PLATO, NovaNET). A few districts purchased programs for comprehensive coursework or supplemental instruction.

retention. Some educators believe ninth graders are carrying forward organizational habits and responsible behaviors developed in the school-within-a-school.

"Enhancement of core-subject courses and professional development. Core-subject course enhancement occurred infrequently through NGSI grants. Educators in two districts used computer-assisted instruction to enhance Algebra I coursework for ninth graders. Similarly, professional development was used in only a few districts as a means to improve teaching and learning in coresubject area classrooms.

# **EFFECT ON STUDENTS**

Research design and confounding factors make causal inferences about NGSI effects on the case-study districts impossible; however, data trends across the grant period reveal some increases in student attendance, decreases in retention rates, and improved algebra performance. Despite improvements, student attendance rates are generally less than 95% (No Child Left Behind

**Teachers and teaching.** Ninth-grade teachers are fairly experienced, but a substantial proportion (about 40%) comes to teaching through non-traditional certification. Educators raise concerns about the assignment of new and inexperienced teachers to ninth-grade courses.

"Perceptions of effective Instruction. Beliefs about teaching practices vary widely among high school teachers, with some advocating learner-centered approaches and others favoring traditional methods. Students who are at risk say good teachers rovide clear explanations, encourage active and meaningful learning, make class interesting, establish personal relationships, use small-group activities, and offer individual help. Both teachers and students advocate active and meaningful learning experiences, varied (or interesting) instructional approaches, and positive interpersonal relationships.

"Teachers' classroom practices. Teachers expressed opinions on effective instruction, as cited above, differ from observed practice. High school classrooms are organized most often for whole-class instruction. Students seldom work collaboratively with peers. Teachers spend the greatest proportion of class time providing whole-group instruction and monitoring students as they work independently on assignments. Teachers seldom ask mentally challenging questions or questions that help at-risk students see the relevance of subject matter to their lives. Since teachers have little access to technology in classrooms, it is seldom used to support instruction and learning.

**Students and learning.** Students considered at risk spend the greatest part of their time listening to teacher presentations or independently completing short-answer activities or worksheets. Most class discussions are teacher controlled question and answer exchanges. Overall, observed practices raise questions about teachers' understanding of students as learners, especially research-based conceptions (e.g., Bransford, Brown, & Cocking, 2002).

"Disengagement from high school and learning . Evidence from various sources points to at-risk students' disengagement. Poor attendance, lack of motivation, disruptive behavior, irresponsibility regarding homework and grades are all symptoms of larger problems. Findings throughout this study point to such issues as: boring and repetitive instruction that fails to engage students intellectually; limited use of technology in classrooms to support engaged learning; expectations to attend tutorials outside the school day; repeated course failure, which narrows educational choices and opportunities; and poor access to advisement to help students set goals and see how current investments in learning yield future benefits.

### IMPLICATIONS FOR GRANT AWARDS AND MANAGEMENT

Recommendations concerning grant management typically related to the timing of grant awards and funding. Many grantees appreciated efforts in later terms to streamline the evaluation process. Findings to follow relate to grant development, implementation and monitoring, and sustainability.

Grant development. Grant applications should put greater emphasis on identifying problems, determining the root causes, and articulating how the project will alleviate those problems. NGSI grant development primarily involved campus and district administrators. F-5(m0.0009 Tc 0.0005 Tw -30.12.um306 N.0007 -uccountsimldeni-d(it -20.7NGSIoni-')6(1.14751 Tdss to advigrades are me Tw 20.opt 153epriot3 Td—thus,o grant development, C 579SI -

**Grant Implementation and monitoring.** Grants should require or strongly encourage the addition of dedicated program leaders. Schools with dedicated program management at both the district and campus level appeared to have the greatest success implem