Algebra I has the highest failure rate of any high school course nationally, and many urban districts identify algebra as their top mathematics improvement priority.

**Intensified Algebra I** was developed to help districts address the high cost of re-teaching students and the negative consequences (including high absenteeism and dropout rates) associated with chronic failure in gateway courses to advanced mathematics.

The program offers schools and districts a comprehensive, extended-period intervention that helps students who are one to two years behind in mathematics succeed in Algebra I within one academic year. The intervention equips educators with cohesive, integrated resources for struggling students, including a challenging curriculum, a program to effectively utilize the additional instructional time, and strategies to build students’ engagement, confidence, and commitment to learning.

**Intensified Algebra I** is a major research and development initiative of the Charles A. Dana Center at The University of Texas at Austin, the Learning Sciences Research Institute at the University of Illinois at Chicago, and Agile Mind. The organizations continue to use intensive feedback from participating educators and students, expert advice, classroom observations, and impact data to make regular, empirically-based enhancements to the program’s content and delivery. Major funders of the research effort include the National Science Foundation, the Searle Funds of the Chicago Community Trust, the Bill and Melinda Gates Foundation, and the Carnegie Corporation of New York.

**Improvements in Student and Teacher Achievement, Attitudes, Behaviors, and Beliefs**

**Intensified Algebra I** leads to significant improvement in student achievement. It is also effective in changing attitudes, beliefs, and behaviors among students and teachers, according to studies by prominent researchers Susan Goldman and James Pellegrino of the University of Illinois at Chicago and by Inverness Research, Inc., an independent educational research organization. The research on student achievement, conducted in 2011, examined results of an assessment modeled on the Acuity™ Algebra Proficiency Assessment. While students scored poorly on the test prior to taking the course, after completing the course they scored at the high mastery range on three out of six objectives and at the moderate mastery range on the remaining three.

The researchers also found significant changes in the way students viewed themselves as learners, validating the program’s ability to help struggling students change their attitudes toward learning and build positive academic identities. The evaluations found statistically significant gains in:

- Students’ confidence in their ability to succeed in math class
- Students’ attitudes about the relevance of math
- Students’ attitudes about sharing ideas and working with peers
- Students’ beliefs in their own effort
Equally significant, teachers surveyed said they believe the Intensified Algebra I program helps students who traditionally have not been successful in mathematics. A sizable majority of the teachers reported their students’ math skills and understanding benefitted from the curriculum, as did students’ confidence in and attitudes toward mathematics. *

Nearly all teachers surveyed said their participation changed how they teach mathematics because of the program’s focus on conceptual development, problem solving and critical thinking tasks, communication in the classroom, and the importance of engaging students in the learning process.

Case Studies of Success in Schools and Districts
This innovative approach to helping struggling students succeed in Algebra I has helped a large number of schools and districts using Intensified Algebra I make remarkable improvements in student achievement after even a short period of time. Following are reports of promising outcomes from district partners based on their student outcome data:
Duval County Public Schools, Duval County, FL

Duval County Public Schools is the country’s 22nd largest school district, with more than half of their students qualifying for free or reduced lunch. In 2011-2012, the district implemented Intensified Algebra I (IA) for a group of rising 9th grade students who had scored at the lowest level (Level 1) on the previous year’s state mathematics assessment. The achievement of the Intensified Algebra I students was dramatic. Eighty-four percent of the Level 1 students with teachers who fully implemented Intensified Algebra I achieved an improvement of one or more levels on the 2012 Florida Algebra End-of-Course exam and 40% of the students improved two or more levels. In contrast, only 15% of the Level 2 students, who were not enrolled in Intensified Algebra I, gained one level, and none gained more than one level.

Glacier Peak High School, Snohomish, WA

Glacier Peak High School, located in the small town of Snohomish, serves more than 1,400 students. In an effort to address students’ low performance in mathematics, school officials introduced the Intensified Algebra I program for the school’s lowest performing students. At the end of the 2010-2011 school year, students who participated in the IA program had a pass rate of 77.3%, slightly outperforming the other Algebra I students who took the exam (76.6% pass rate).
Bronx High School for Law and Community Service, Bronx, NY

The student body of this school-within-a-school is 64.4% Hispanic and 30.4% Black, with one in five students classified as English Language Learners. To address low performance in mathematics, school officials implemented the Intensified Algebra I curriculum during the 2009-2010 school year—and experienced remarkable success. Prior to its implementation, 90% of BHS LCS students scored in the bottom third of New York City’s academic performance rankings and only 31% of the BHS LCS students passed the Regents exam, New York’s state assessment in mathematics. One year later, students who had been enrolled in the Intensified Algebra I program had a 73% pass rate on the Regents exam, an increase of 136% and above the state average.

Galveston Independent School District, Galveston, TX

The Galveston Independent School District, located on a barrier island in the Gulf of Mexico, serves 6,400 students, of whom 72.8% were classified as Economically Disadvantaged, 45.9% Hispanic, and 23.6% African American in 2011-2012. GISD enacted Intensified Algebra I for 8th graders in two middle schools, with impressive results. Of the 8th grade students enrolled in the IA program in the 2011-2012 school year, 76.9% passed the district’s End-of-Course exam in Algebra I, while only 51% of the mostly 9th grade students enrolled in a non-IA Algebra I course passed the district exam. These results are even more notable given that these are the scores of 8th graders on a test they would not have had the opportunity to take until after completing 9th grade.