



The University of Texas at Austin Charles A. Dana Center

Dismantling Barriers in Math & Science Education

CHARLES A. DANA CENTER

TRANSFORMING THE WAYS STUDENTS ENGAGE IN MATH AND SCIENCE

How can we ensure that all students have equitable access and paths to success in math and science? At the Dana Center, this question has inspired our work for nearly 30 years.

From kindergarten through postsecondary education, we believe that every student deserves the same opportunity to experience the joy of learning math and science that are relevant to their futures—and sets them on paths toward upward social and economic mobility.

Every day, we bring this passion to life through research-based best practices to support the transformation of education systems at scale through pedagogy, curriculum, instruction, and professional learning. And we do so in a spirit of collaboration, partnership, and innovation—knowing that together, we can make a difference

MEET OUR TEAM

Our staff of more than 70 professionals bring an equity-minded focus and passion to everything we do.

Housed within The University of Texas at Austin's College of Natural Sciences, the Dana Center works across every level of the education system—from local K–12 systems and two- and four-year institutions, all the way through statewide education systems, advocacy organizations, and legislative policy.

With our deep experience in K–12 and higher education, we understand what it takes to create effective alignment and relevant curriculum, instruction, policy, and practices. We support instructors, administrators, and policymakers to create better access to and through math and science education for all students.

“**Math and science are central to student success, social mobility, and economic security. As we improve public education at scale, we are preparing a STEM-literate and STEM-ready population that looks like America.**”

Uri Treisman
Executive Director
The Charles A. Dana Center

Explore Our Work

Overview

K-12 MATHEMATICS & SCIENCE

We work across all aspects of K-12 education—from inside individual classrooms through national organizations—to strengthen teaching and learning in math and science.

K-12 TO HIGHER EDUCATION MATHEMATICS TRANSITION

Drawing upon K-12 and higher education expertise, we are reimagining the critical “launch years” from students’ junior year of high school through their first year of postsecondary education.

HIGHER EDUCATION MATHEMATICS

We work with two- and four-year institutions, college and university systems, and state and national policymakers to provide professional learning, customized consulting and facilitation, and resources.

LAUNCH YEARS

The current state of mathematics education blocks too many of our students from reaching their full potential. In fact, the Mathematical Association of America calls mathematics “the most significant barrier” to finishing a degree.

Through Launch Years, we are reimagining high school mathematics education while simultaneously updating outdated math policies and practices that traditionally created barriers for students.

The Launch Years collaborative—led by the Dana Center along with Education Strategy Group, Achieve, Community College Research Center, and the Association of Public and Land-grant Universities—coordinates engagement at the local and regional levels, which in turn informs our state- and national-level work.

Learn more: utdanacenter.org/launchyears



Launch Years initiative brings the voices and leadership of more than 135 experts from K-12, higher education, and business and industry to work together in transforming math education for the 21st-century economy.

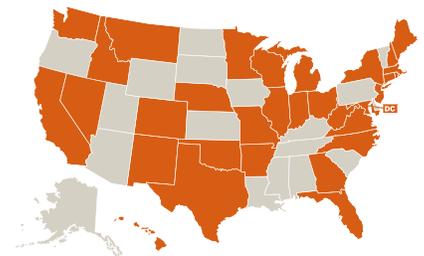
DANA CENTER MATHEMATICS PATHWAYS

Students need the right math at the right time to achieve their educational goals—and to succeed in their chosen career paths. Mathematics pathways are a rapidly growing national movement in colleges and universities that better support student learning and success.

By working at all levels of the system, we are able to provide faculty, staff, administrators, and policy representatives the resources, tools, and services necessary to implement mathematics pathways at scale.

Since 2012, Dana Center Mathematics Pathways has contributed to the implementation of mathematics pathways in higher education systems, institutions, and campuses in over 30 states.

Learn more: dcmathpathways.org



Dana Center Mathematics Pathways has contributed to the implementation of mathematics pathways in higher education systems, institutions, and campuses in 32 states and the District of Columbia.

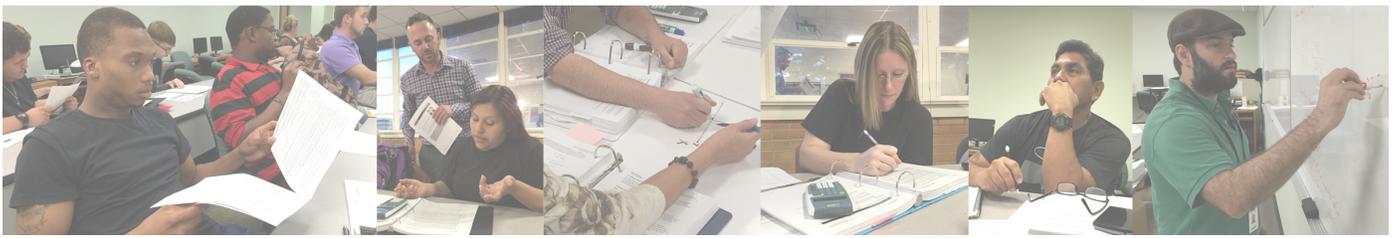
PROFESSIONAL LEARNING & SYSTEMIC CHANGE

Success can only come when trust is established. That's why we bring a collaborative approach to truly understand the unique needs, challenges, and goals of each school, district, system, and state we partner with. We work within each partner's culture to engage change at the right intervals in the right ways.

The Dana Center works with many large systems, including the Louisiana Department of Education (LDOE) and the U.S. Department of Defense Education Activity (DoDEA). While every large system is unique, our research-based approach allows us to work through all stages of the change process in a meaningful way. We develop tailored professional learning, resources, and supports needed to achieve their goals.

K–12 Professional Learning: utdanacenter.org/k12-professional-learning

Higher Ed Professional Learning: utdanacenter.org/higher-ed-professional-learning



CURRICULAR RESOURCES

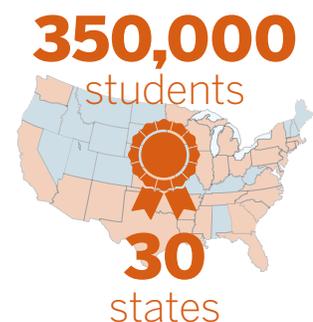
Student success goes beyond course materials. That's why we collaborate with practitioners and other experts from across the nation to develop curricular resources that blend high-quality content with noncognitive topics and social emotional academic development.

The Dana Center/Agile Mind programs, authored by the Dana Center and delivered via the web in collaboration with education technology company Agile Mind, Inc., are designed for a blended model of instruction. Our middle and high school mathematics courses are among the highest rated courses available, awarded all-green ratings by EdReports.

We also produce higher education curricular resources aligned with three different mathematics pathways, standalone curriculum and assessments for K–12 mathematics and science courses, and leadership and coaching materials.

K–12 Curricular Resources: utdanacenter.org/k12-curricular-resources

Higher Ed Curricular Resources: utdanacenter.org/higher-ed-curricular-resources



Dana Center/Agile Mind programs, recognized for their quality by multiple review panels including EdReports in 2019, served more than 350,000 students in 30 states.

OPENSIED

Science literacy—and the successful completion of high school science courses—is critical for our students' success in a growing STEM economy.

OpenSciEd seeks to ensure that any science teacher, anywhere, can access and download freely available, high-quality instructional materials. OpenSciEd curriculum provides teachers pedagogical strategies that build upon A Framework for K–12 Science Education and the Next Generation Science Standards.

As part of the OpenSciEd Developers Consortium, the Dana Center provides professional development and data collection to the OpenSciEd field testing team.

With the first OpenSciEd middle school units now available to the public, we offer a range of services designed explicitly to support school systems in eliminating persistent achievement gaps and increasing access to rigorous and relevant learning for all students.

Learn more: utdanacenter.org/opensied

OpenSciEd

550
teachers



The Dana Center supported 550 teachers in field testing new open education science resources from OpenSciEd in 2019.

INSIDE MATHEMATICS

Inside Mathematics is a resource for K–12 educators who are passionate about improving students' mathematical learning and performance.

Through Inside Mathematics, K–12 educators can strengthen their classroom teaching with best practices and resources straight from real classrooms. Educators around the world have free access to Inside Mathematics videos and other resources that showcase real mathematics teaching and learning.

Learn more: insidemathematics.org



There have been 425,000 downloads of free Inside Mathematics resources for elementary and secondary classrooms.



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