



Initiating Critical Conversations in Action:

A Case Study Highlighting Southwest Airlines Engaging Children in Real-World Math



About *Catalyzing Change*

In April 2018, NCTM published *Catalyzing Change in High School Mathematics: Initiating Critical Conversations*. Developed by high school teachers, district leaders, university faculty, and mathematicians, *Catalyzing Change* identifies the vexing issues that have long plagued high school mathematics education. The focus on high school mathematics education stems from the flat high school mathematics achievement over the last 30 years as compared with the progress made at the elementary and middle school levels. The mathematical learning opportunities students have—the content, the learning experiences, and the support they receive—need to be examined and changed.

The National Council of Teachers of Mathematics (NCTM) makes the following key recommendations to begin the critical conversations:

Eliminate student and teacher tracking.

Teach all Essential Concepts in mathematics.

Provide engaging and empowering mathematics instruction for every student.*

Offer high school students continuous and meaningful four-year mathematics instruction.

*Southwest is implementing this recommendation.

Brandi DeWaters, program lead for K–12 Initiatives, People Department at Southwest Airlines, discusses the company’s approach to getting more children interested in mathematics.

Challenge

Southwest was looking for a way to engage their employees’ children to help build the company’s talent pipeline. The goal is to broaden children’s perspectives on potential career paths that may interest them and teach them how to best position themselves for those careers. Southwest recognized that an airline may not be the first employer that comes to mind for a student interested in science, technology, engineering, the arts, and mathematics (STEAM), so it designed a way to change that perception.

Opportunity

Southwest Summer Camp is for employees’ high school-age children and is a unique opportunity for kids to attend a camp at the Southwest headquarters in Dallas, Texas. Southwest uses the opportunity to help young adults build a better understanding of all the challenges and opportunities that go into making Southwest a successful airline.

Students are asked to take an assessment at the beginning of camp to identify their top interests. Southwest then engages with the students about how those interests may translate into specific careers and roles at Southwest, in addition to college majors. Through breakout sessions, advice from senior leaders in the company, and various interactive activities, the students are exposed to the many different functions that contribute to Southwest running effectively. Students interested in STEAM can

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participate in an escape room hosted by the cybersecurity team, design an airline logo with the creative studio team, or compete in a network planning activity that involves students building their own airline route and schedules.

Additionally, information sessions take place with employees in technology, technical operations, and revenue management. Students interested in STEAM careers learn what skills and experiences will help set them up for success in those areas. They also learn about real-life decisions that the company needs to make, including what to do when fuel costs increase, a contract is about to expire, or the airline is considering adding new destinations to its schedule.

Results

For the past five summers, more than 600 students from across the United States have spent three days at Southwest Summer Camp at Southwest's headquarters in Dallas. The camp has proven to be an innovative way to build Southwest's talent pipeline—engaging students at an early age, inspiring an interest in aviation, and providing a path to return as an intern or full-time employee at Southwest. To date, 18 students who attended Southwest Summer Camp have gone on to become Southwest employees. Their roles at the company vary from **ramp agents** to customer service agents to operations agents to flight attendants.

For more information about *Catalyzing Change*, visit www.nctm.org/change or contact David Barnes at dbarnes@nctm.org. For more information about Southwest Airlines' K-12 initiatives, contact Brandi DeWaters at campusreach@wnco.com. To learn more about Southwest Airlines' programs, visit careers.southwestair.com/campus-reach.

