

#### UTeach: An innovative Teacher Preparation Program for Math and Science Majors







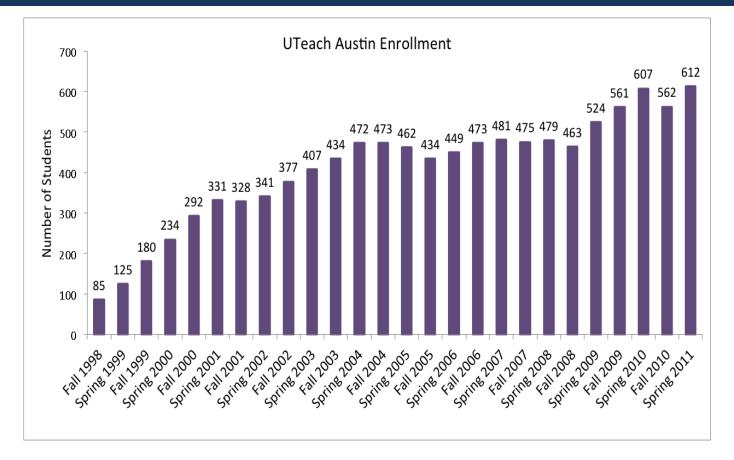




## UTeach: A Proven Program

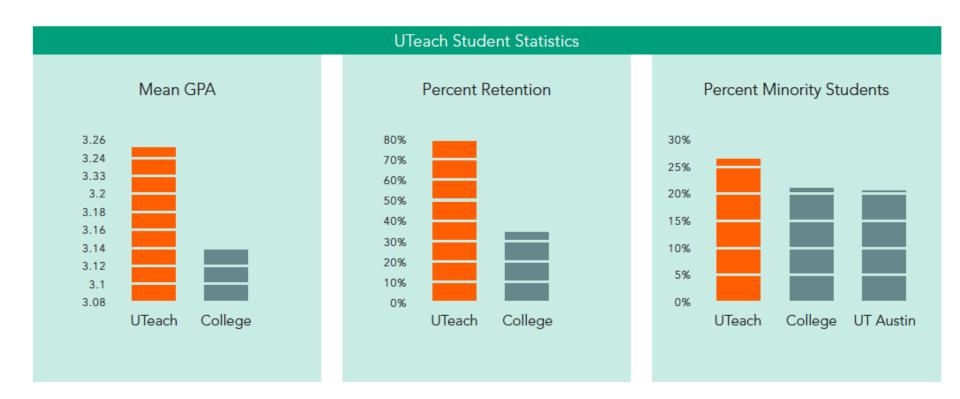
- The UTeach program was developed at The University of Texas at Austin to help address the disturbing shortage of qualified math and science teachers in this country.
- UTeach integrates a rigorous math and/or science major, research experience, acquisition of effective, inquiry-based teaching techniques, field experience, and certification in a 4-year program.

## **UTeach Austin Program Growth**



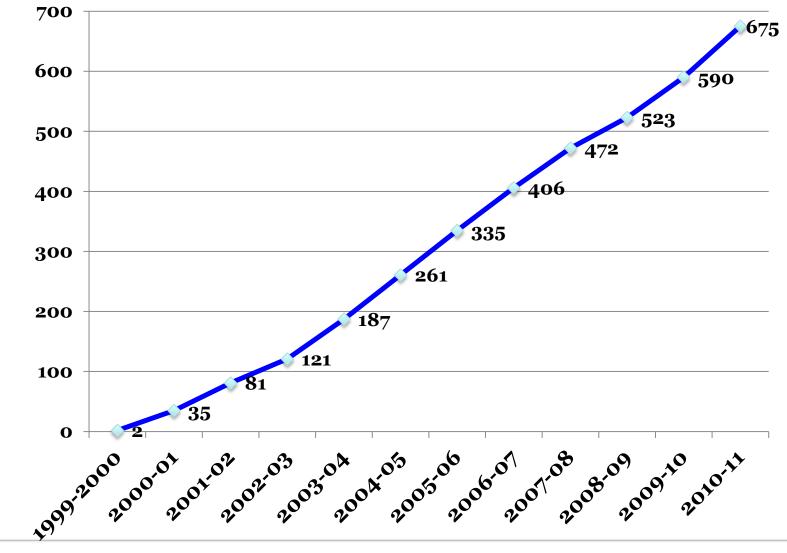
From a pilot project with 28 students in the fall of 1997, UTeach at UT Austin has matured to a high-profile, well-respected program with an ongoing program enrollment of more than 600 students

## **UTeach Austin Student Statistics**



UTeach students have high SAT scores, high GPAs, very high retention in the major, and there is a higher percentage of minority students in the program than in the University as a whole.

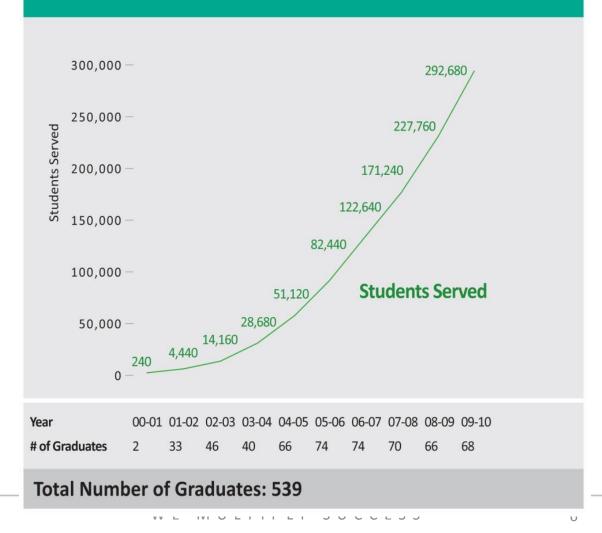
## **UTeach Austin Graduates**





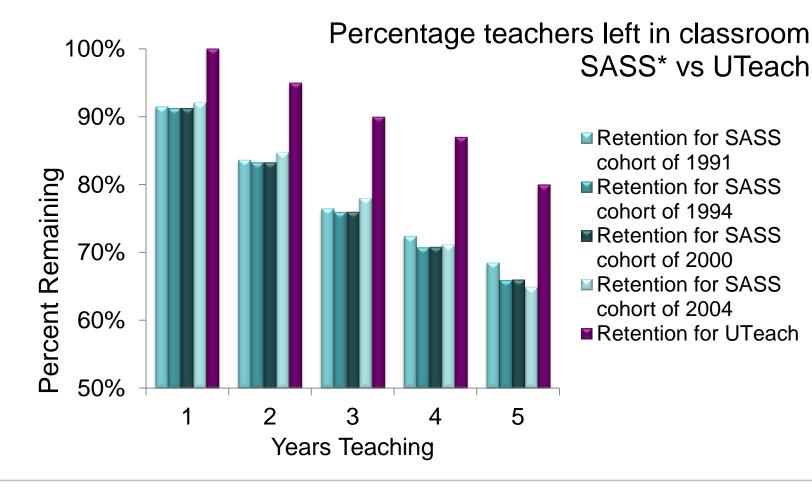
# UTeach Graduates and Students Served 2010

#### TEACHERS PRODUCED AND ESTIMATED STUDENTS SERVED UTEACH AUSTIN | 2000-2010





#### As of 2009 more than 80% still teaching after 5 years





### UTeach Program Features: The Elements of Success

- 1. Active Student Recruitment and Support
- 2. Early, Continuous and Intensive Teaching Opportunities
- 3. Dedicated Master Teachers and Coaches, Mentors and Teacher Models
- 4. Compact, Flexible 4 Year Degree Plans
- 5. Cross-College Collaboration
- 6. High Quality Mentor Teachers
- 7. Rigorous, Research-Based, Focused Instruction in Pedagogy
- 8. Individualized Induction Support
- 9. Distinctive Program Identity

## Early, Continued, Intensive Field Experiences

- Active recruitment of STEM majors to "try out teaching" in field courses at no cost in the freshman year
- Students experience teaching from their very first semester and continuously throughout the program
- Students receive intensive coaching and feedback on lesson development and teaching
- Field experiences are tightly articulated with the UTeach curriculum and closely supervised by course instructors, master teachers and mentor teachers
- An *internship program* provides income and relevant work/teaching experiences for students



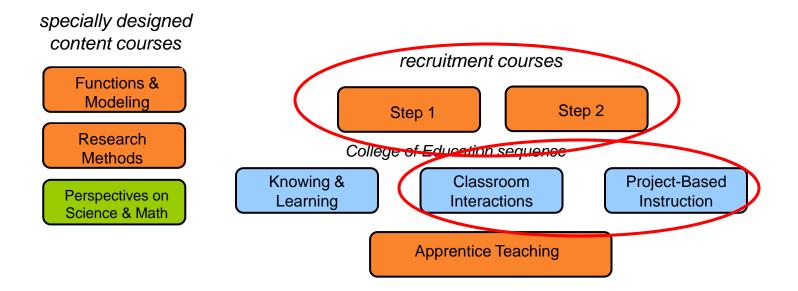
## **Dedicated Master Teachers**

Master Teachers are experienced, successful former high school or middle school teachers employed as full- time clinical faculty who teach or coteach all field-based courses



- They recruit, nurture and support UTeach pre-service students as they become teachers
- They share experiences and understanding of real classrooms and how to innovate within them
- They provide knowledgeable connections with school district teachers and administrator

## **UTeach Course Sequence**



Four field-based courses provide teaching experiences in elementary, middle and high school settings prior to the final Apprentice Teaching semester



#### Compact, Flexible 4 Year Degree Plans

Compact degree plans allow students to obtain both a teaching certificate and a rigorous STEM degree within 4 years

A variety of program completion pathways permit program entry at all levels

	Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
Freshman → Pathway	STEP 1	STEP 2	Knowing & Leaming	Classroom Interactions	Perspectives	Research Methods	Project-Bsd Instruction	Apprentice Teaching
Sophomore Pathway S Natural Sciences College of Education			STEP 1	STEP 2 Knowing & Learning	Classroom Interactions	Perspectives	Research Methods Prject- Bsd Instruction	Apprentice Teaching
			Junior/Senior Pathway		STEP 1 Knowing & Learning	STEP 2 Classroom Interactions	Research Methods Prject- Bsd Instruction Perspectives	Apprentice Teaching
				Post-Baccalaureate Pathway			Prject- Bsd Instruction Classroom Interaction	Apprentice Teaching
College of Liberal Arts							sResearch Methods	Perspectives

## **Cross-College Collaboration**

## Co-directors from COE and CN

- Formally coordinated cross-college collaboration via steering committee
- Research and clinical faculty across all colleges actively involved in development and implementation of content and pedagogy courses
- Students take content courses and pedagogy courses simultaneously



## **Cross-College** Collaboration

#### Program Co-directors

- College of Education codirector and College of Natural Science co-director
- Champions of the program who represent both colleges in:



- Shared decisions
- Presentations and community building with students, faculty, administration and potential donors
- Dealing with day-to-day details of program effectiveness
- Communicating "What is UTeach?" to all audiences at local, state and national level



## **Cross-College Collaboration**

## Steering Committee

- Primary formal mechanism for regular contact between the faculty and staff from colleges of education, natural sciences, liberal arts and engineering
- Co-directors are co-chairs
- Meets regularly (bi-weekly)

Administrative body that provides oversight and makes policy decisions for the program



## Rigorous, Research-Based Instruction

- Courses develop deep understanding of content and build strong connections between educational theory and practice
- Courses emphasize underlying connections between math and science and make explicit how research in learning informs how each subject is learned and taught



- Special content courses develop students' perspectives on the historical development of math and science and provide opportunities to experience the processes and methods by which scientists and mathematicians discover new knowledge
- All courses integrate the design and use of authentic, effective assessments, use of technology tools, and equitable instruction



## Individualized Induction Support

Master Teachers provide graduates with on-demand and targeted support during their first 2 years of teaching

- one-on-one individualized support in the classroom
- targeted professional development workshops (specific to needs of STEM teachers)
- Leadership development





## **Distinctive Program Identity**

- UTeach has a department-like status in the College of Natural Sciences with a wing of classrooms and office space in the center of campus
- Website provides comprehensive information and program is actively promoted through a variety of promotional materials
- No competing undergraduate programs



## **National UTeach Replication**



#### Cohort 1 (Began Spring 2008)

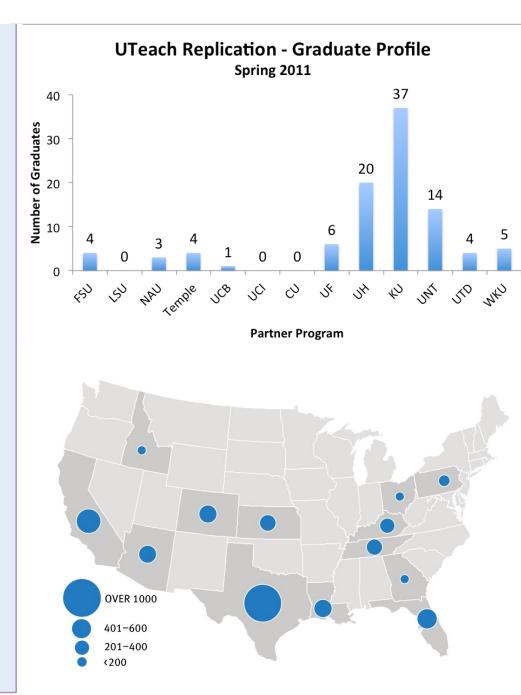
Florida State University • FSU-Teach Louisiana State University • Geaux Teach Northern Arizona University • NAUTeach Temple University • TUteach University of California, Berkeley • Cal Teach Berkeley University of California, Irvine • UCI Cal Teach University of Colorado at Boulder • CUTeach University of Florida • UFTeach University of Florida • UFTeach University of Houston • teachHouston University of Kansas • UKanTeach University of North Texas Teach North Texas (TNT ) University of Texas at Dallas • UTeach Dallas Western Kentucky University • SKyTeach

#### Cohort 2 (Began Spring 2010)

Cleveland State University • CSUTeach Middle Tennessee State University • MTeach University of Colorado at Colorado Springs • UCCS Teach University of Memphis • UTeach MEmphis University of Tennessee, Chattanooga • UTeaChattanooga University of Tennessee, Knoxville • VolsTeach University of Texas at Arlington • UTeach Arlington University of Texas at Tyler • UTeach Tyler

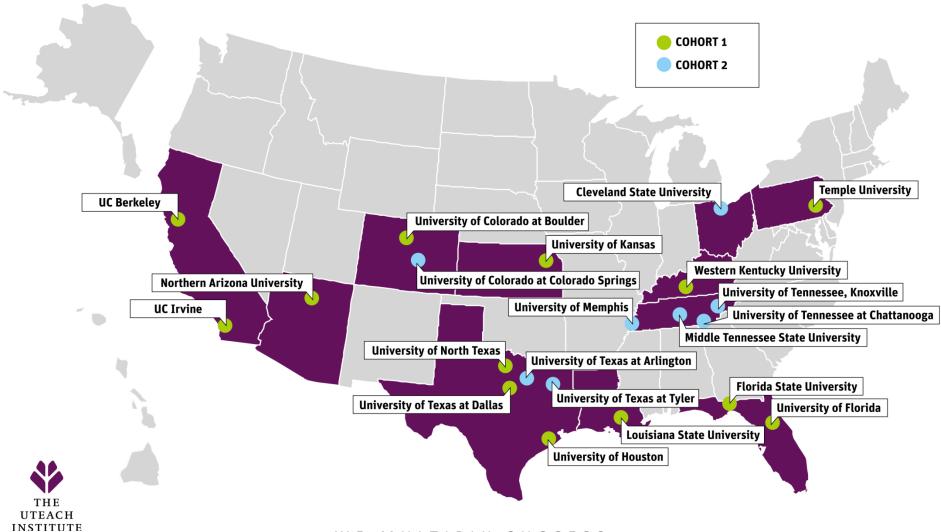
#### Cohort 3 (Will Begin Fall 2011)

Boise State University • *IDo-Teach (BSU)* Columbus State University • *Columbus Teach* Southern Polytechnic State • University *SPSU Teach* University of West Georgia • *UTeach West Georgia* 

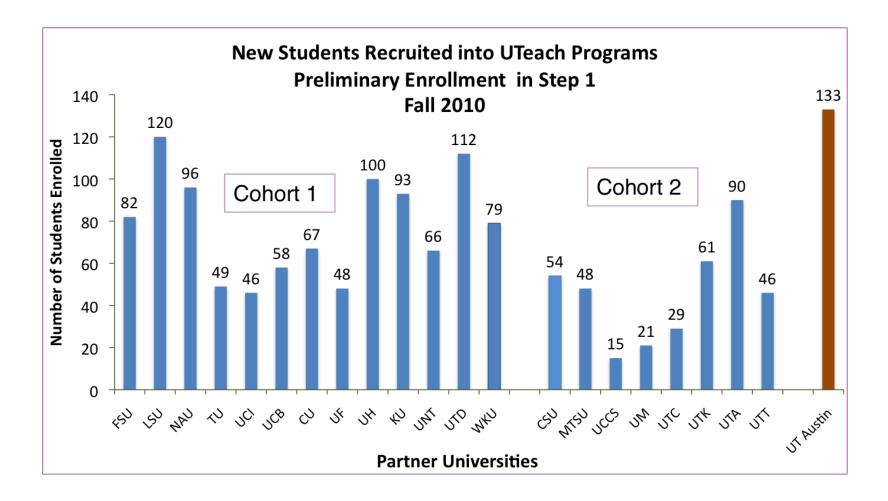


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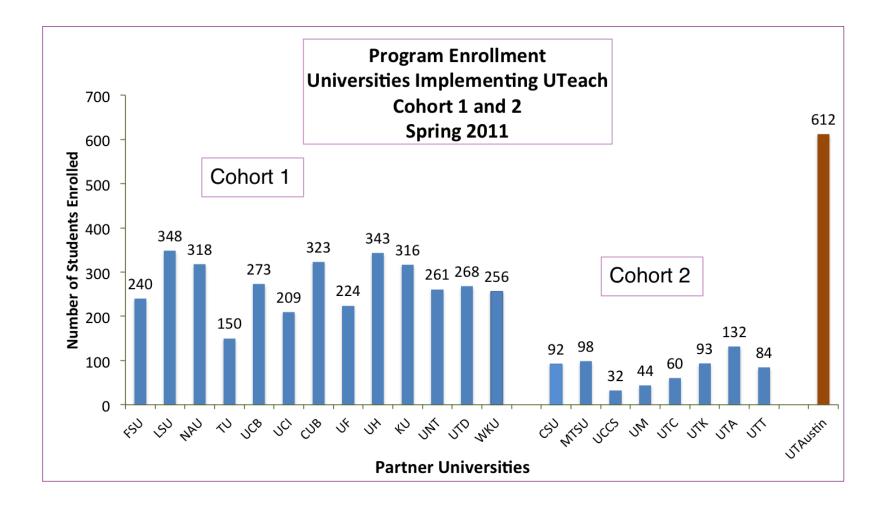
### UTeach Universities



### UTeach Replication Progress New Students Recruited Fall 2010



### UTeach Replication Progress Total Enrollment as of Spring 2011

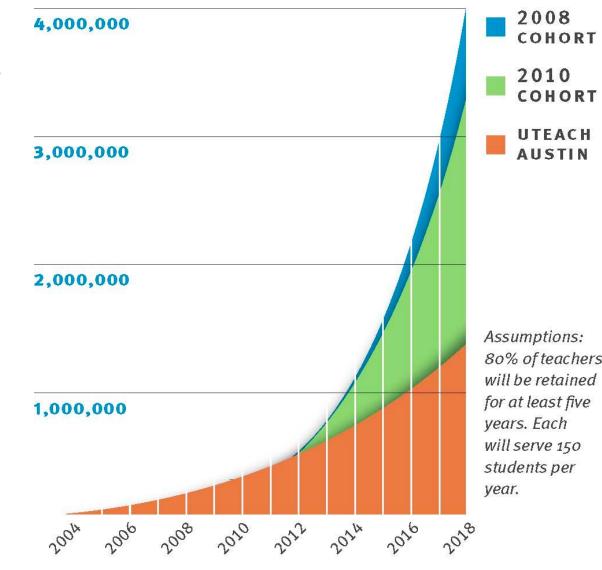


universities are projected to graduate between 450 and 600 students a year. Approximately 8,000 students

Beginning in 2012, partner

- are projected to graduate from UTeach programs nationwide by 2018.
- UTeach graduates are projected to teach approximately 4 million secondary STEM students by 2018.
- To further contribute to the growing national community working to strengthen STEM teacher preparation, a third cohort of universities began implementing a UTeach program in Fall 2011, and a fourth cohort is expected to begin in 2012

## Projected UTeach graduates



## Cohort 1 University Partners Program Logos



## Cohort 2 University Partners Program Logos



**UTeach MEmphis** 

WE MULTIPLY SUCCESS

THE UNIVERSITY OF TEXAS AT TYLER