A strong STEM-capable workforce is critical to U.S. innovation and economic prosperity, but we are falling behind in production of STEM professionals. We need at least 1 million more STEM professionals over the next decade—34% more than we are currently producing. Additionally, women and minorities continue to be underrepresented in the pool of STEM graduates.

UTeach has the solution. UTeach prepares teachers with deep content knowledge and inquiry-based pedagogical strategies. UTeach programs produce teachers at a lower cost than other leading programs, and our graduates stay in teaching longer, improve student performance in math and science, and influence students to enter STEM fields.

UTeach Impact
We prepare teachers. They change the world.

UTeach is an innovative university-based teacher preparation program working to increase the number of qualified STEM teachers in U.S. secondary schools. STEM majors earn a secondary teaching certification without adding time or cost to their four-year degree.

UTeach programs prepare STEM teachers for less

UTeach programs produce teachers at a lower cost than other leading programs.

**Leading national post-baccalaureate model**

- $3.57M = $53,000 per new teacher
- A cohort of 67 new STEM teachers each year.

**UTeach model**

- $2M
- A cohort of 70 new STEM teachers each year.
- $29,000 per new teacher

**UTeach graduates stay in schools longer.**

- Teachers stay in teaching for an average of 2.1 years, resulting in 142 active STEM teachers.

**Leading national post-baccalaureate model**

- Teachers stay in teaching for an average of 5 years, resulting in 350 active STEM teachers.

Since UTeach graduates stay in teaching longer, the average cost per year of teaching is much lower.

<table>
<thead>
<tr>
<th>Leading national post-baccalaureate model</th>
<th>VS.</th>
<th>UTeach model</th>
</tr>
</thead>
<tbody>
<tr>
<td>$25,000</td>
<td>Cost per year of teaching</td>
<td>$5,700</td>
</tr>
</tbody>
</table>
UTeach graduates increase student learning

UTeach uses proven inquiry-based teaching methods to prepare STEM majors to be inspiring and effective teachers.

An independent research study found that secondary students of UTeach graduates gain an additional 4 months of learning in math and 5.7 months in science.

A UTeach study found significant advantages for students of UTeach graduates of around 9 months of schooling in both Algebra I and Biology for Gifted students, and 5 months of schooling in Biology for Economically Disadvantaged and Hispanic students.

You engaged us and made us actually look at how things worked and why they worked, not only in problems, but also in practical applications. You really changed my love of science into an understanding of what I want to do for a living.

Student of a UTeach teacher from The University of Texas at Austin

“I teach because we’re preparing citizens. This country will be theirs and we need them making the best decisions possible.”

Michael Ralph, UKanTeach graduate, University of Kansas

Footnotes


Marder, M., & Hamrock, C. (2016, working paper). Math and science outcomes for students of teachers from standard and alternative pathways in Texas. uteach.utexas.edu/uteach-blog/students-uteach-graduates-learn-more
UTeach provides a high return on investment

UTeach graduates inspire their students and influence them to go into STEM fields.

70 UTeach graduates per year who stay in teaching for an average of 5 years

350 UTeach teachers in schools

if each teacher influences just one more student per year to go into STEM, 350 more students will enter STEM fields annually

1 symbol = 10 STEM professionals

Median STEM vs. non-STEM annual earnings in Texas

\[\text{Median job earnings in Texas} \]

\[\begin{align*}
\text{STEM} & \quad \text{Non-STEM} \\
$77,147 & \quad $36,566
\end{align*}\]

annual increase in Texas state tax revenue per STEM professional

$3,002

Cumulative lifetime earnings

Minimum ROI to the state of Texas

+350 additional STEM professionals created

+$1M increased government revenue

“Her love of science helped me discover my own and influenced my decision to go for a science major in college.”

Student of a UTeach teacher from The University of Texas at Austin

Her love of science helped me discover my own and influenced my decision to go for a science major in college.

Student of a UTeach teacher from The University of Texas at Austin
Their mission is not just math and science. It’s math and science for everyone.

Jill Marshall, Associate Professor, Department of Curriculum and Instruction, The University of Texas at Austin

68% of UTeach graduates are teaching in K–12 schools with a majority low-income population.

"UTeach is really a remarkable phenomenon. University after university has adopted the mission of preparing more mathematics and science teachers. This cause is very important, and that's why it has spread so well."

Michael Marder, UTeach Executive Director and Professor of Physics at The University of Texas at Austin

UTeach is scalable

Since 2006, UTeach has expanded to 46 universities in 23 states and the District of Columbia.

UTeach Program Graduates (Cumulative)

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual Graduates</th>
<th>Projected Graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>6,034</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>6,870</td>
<td></td>
</tr>
<tr>
<td>2022</td>
<td>7,634</td>
<td></td>
</tr>
<tr>
<td>2024</td>
<td>9,192</td>
<td></td>
</tr>
<tr>
<td>2026</td>
<td>10,760</td>
<td></td>
</tr>
</tbody>
</table>

"We prepare teachers. They change the world.

The University of Texas at Austin | College of Natural Sciences info@uteach.utexas.edu | www.uteach-institute.org

The UTeach Institute supports a national community that improves STEM education by increasing the number of high-quality teachers and improving access to inquiry-based curriculum. See the technical supplement to this report for more information: uteach-institute.org/uteach-impact."