

# STRENGTHENING THE STEM TEACHER WORKFORCE THROUGH STRATEGIC PARTNERSHIPS

UIDP, Mission in Motion  
Atlanta, GA  
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UTeach



The University of Texas at Austin  
WHAT STARTS HERE CHANGES THE WORLD



CLARK ATLANTA UNIVERSITY  
**School of Education**



Spelman College®

*A Choice to Change the World*

Dr. Valeisha Ellis, Spelman College

Dr. Jacquita Henderson, Clark Atlanta University

Kimberly Hughes, UTeach, University of Texas at Austin

Dr. Michael Marder, UTeach, University of Texas at Austin

Korey Hawkins, Microsoft

# AGENDA

- Critical Contributions of HBCUs
- National STEM Teacher Workforce Trends
- What we Know from Research
- Effective University-Based Models: UTeach
- Leveraging partnership between HBCUs and UTeach
- Discussion and Q&A

# HBCUs PUNCHING ABOVE THEIR WEIGHT

Across the 21 states and territories where HBCUs are located, in 2016 they...

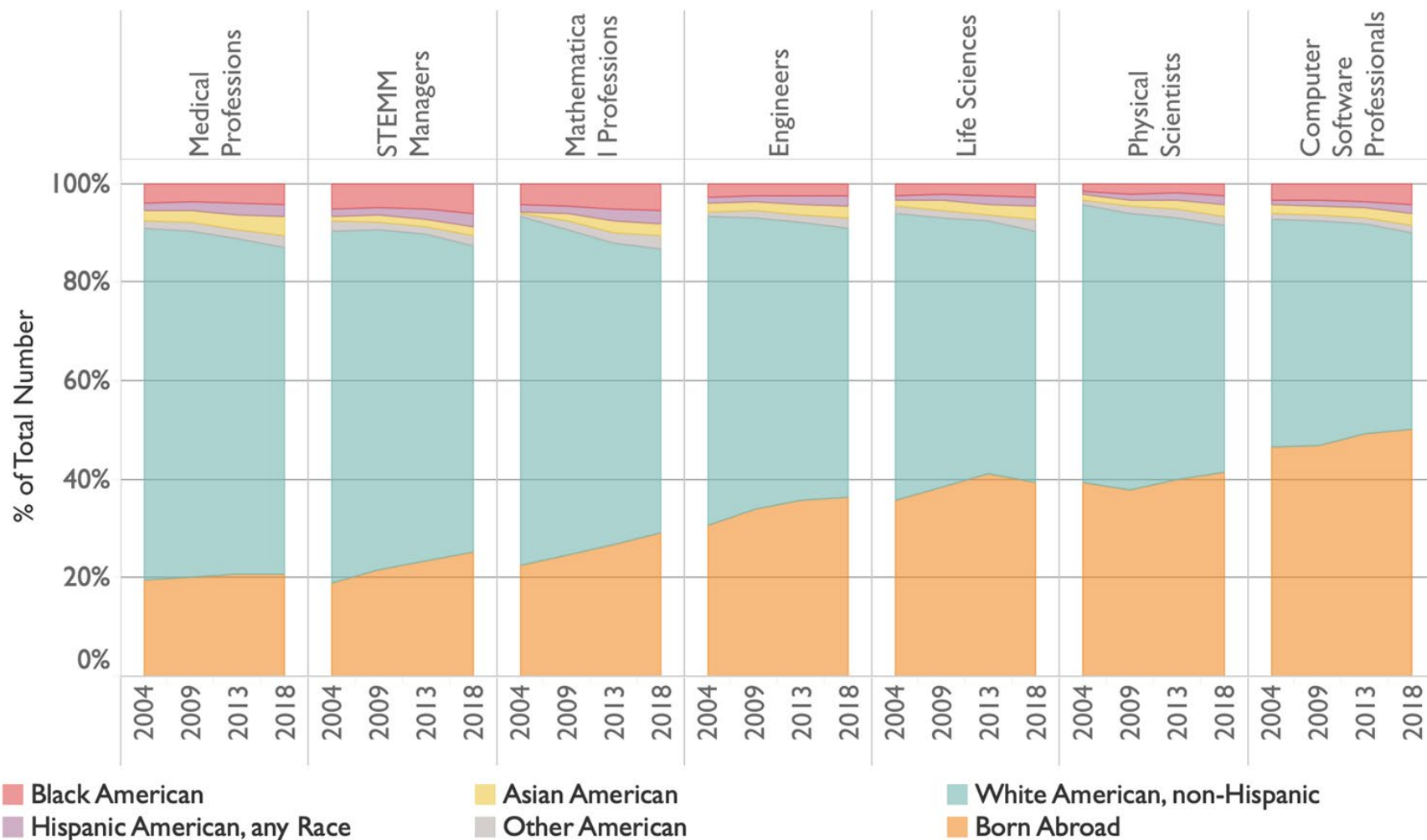
- Comprised **9%** of four-year institutions
- Enrolled **24%** of all black undergrads pursuing a bachelor's degree
- Awarded **26%** of all black bachelor's degrees
- Awarded **32%** of STEM bachelor's degrees earned by black students

\*2016 data



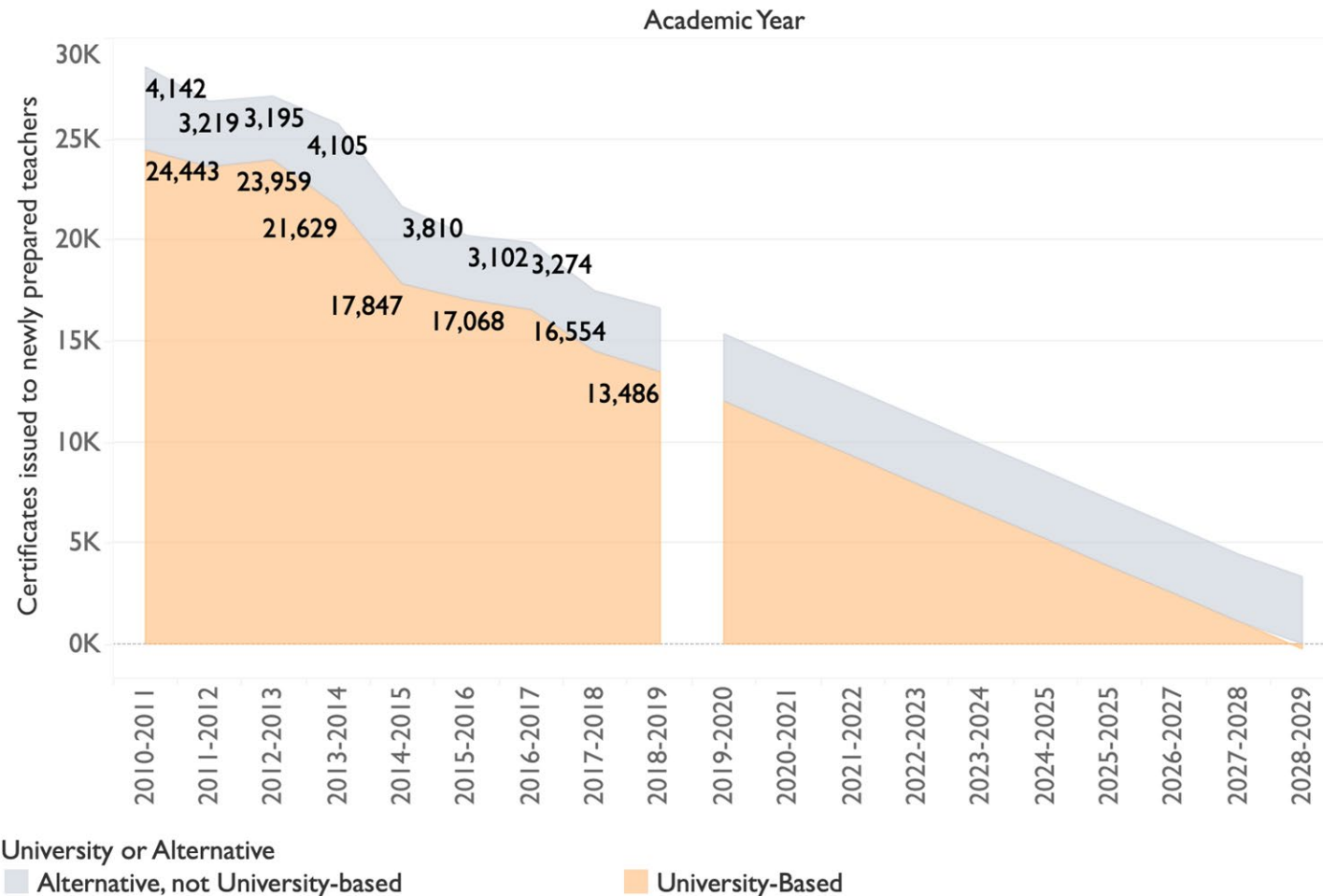
A State-Level Analysis of Historically Black College and University Enrollment and Graduation\*

# STEM Workforce



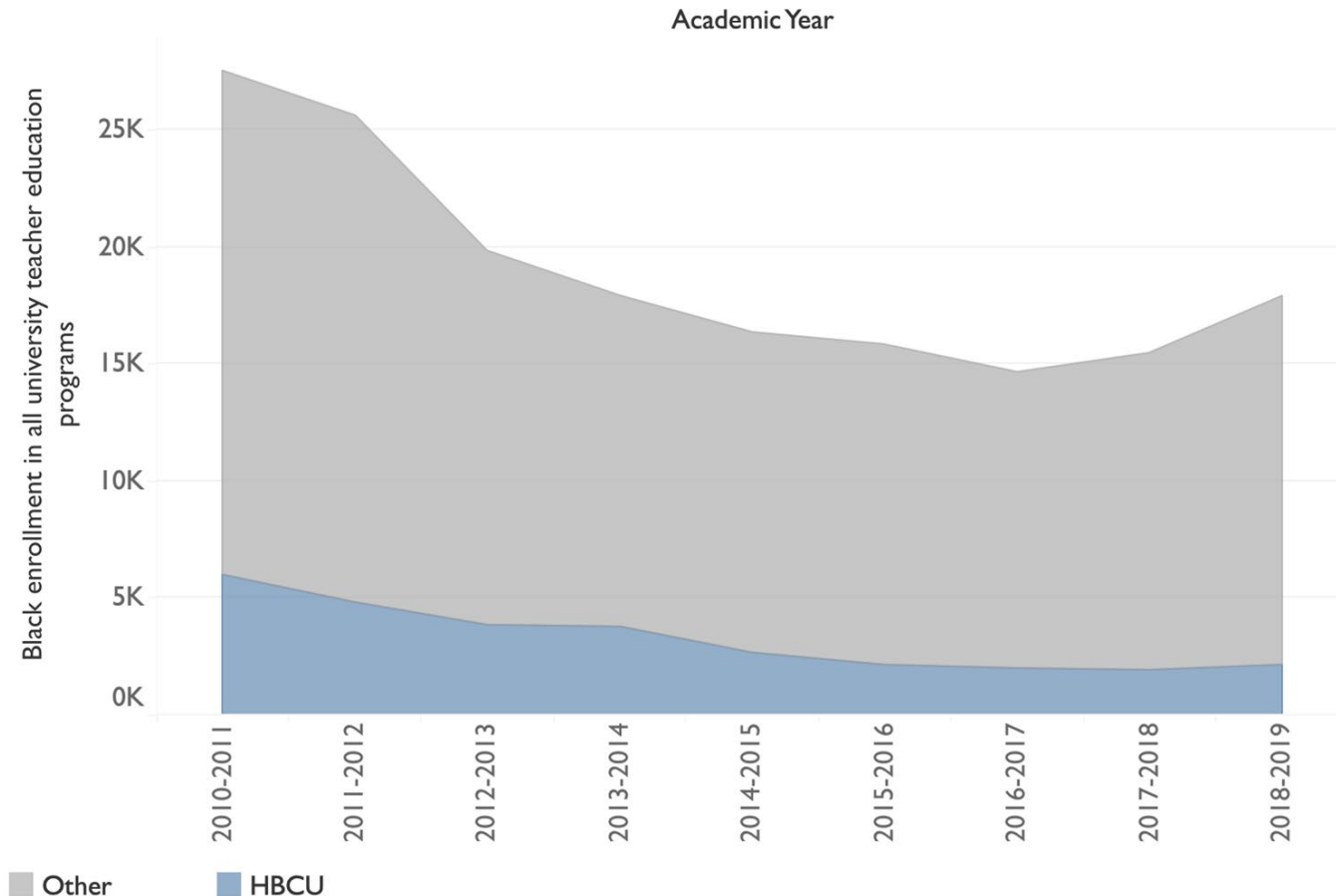
# STEM TEACHER PRODUCTION FOR US

Secondary STEM Certificates, selected by Area



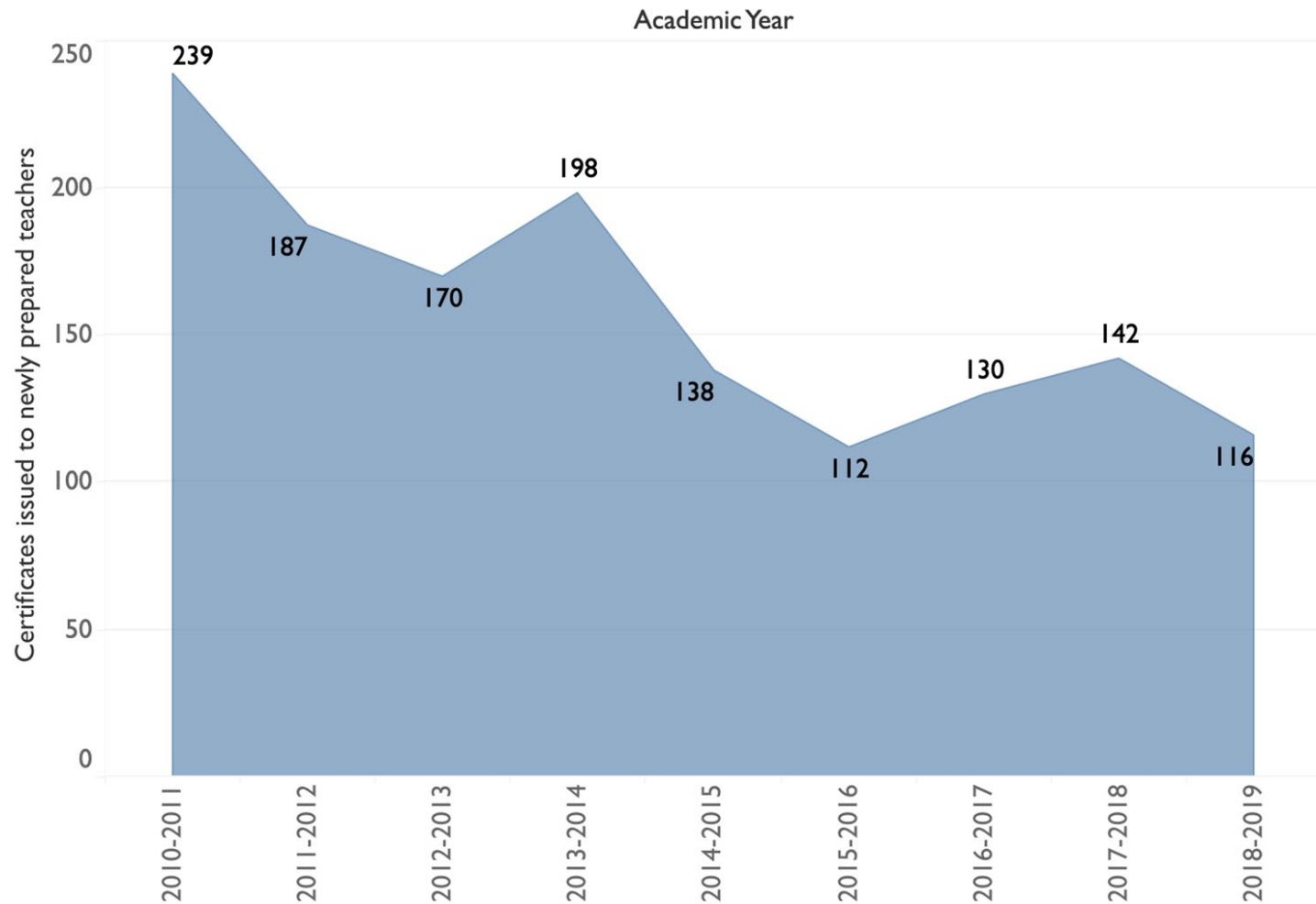
# BLACK ENROLLMENT IN ALL UNIVERSITY TEACHER PROGRAMS

Black Students Enrolled in University Programs



# HBCU STEM TEACHER PRODUCTION

HBCU Secondary STEM Certificates, selected by Area,



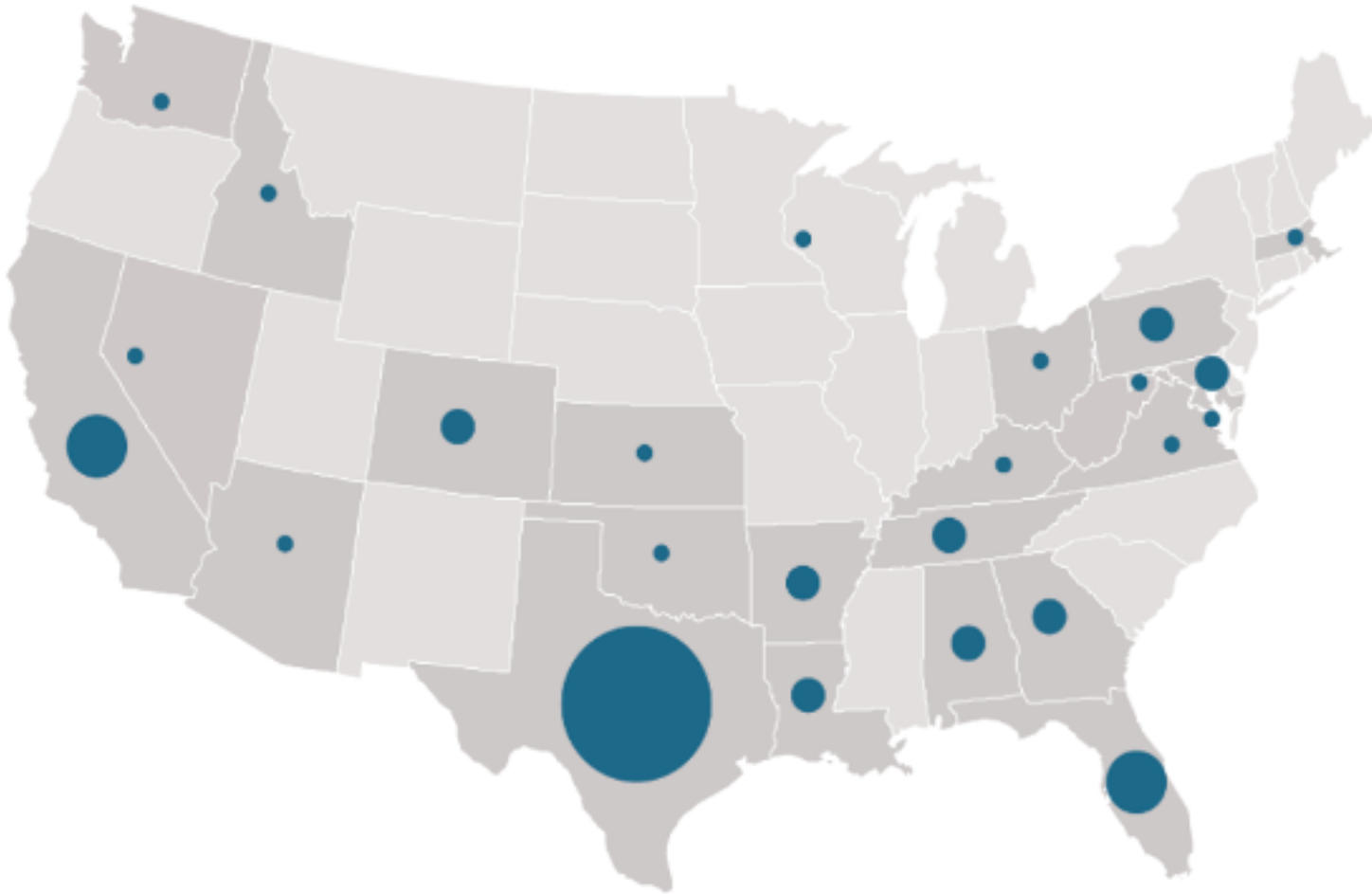
# RESEARCH ON TEACHER RETENTION & QUALITY

- Contributions of HBCU's
- Learning gains for students of UTeach teachers
- Retention and learning gains for students of university-prepared teachers
- The response to shortage should lay the groundwork for a sustainable solution



# UTeach **49 universities | 6,870 graduates | Exponential Impact**

We prepare teachers who stay. UTeach graduates stay in education for up to three times longer than teachers from other leading programs. They dedicate their lives to making math and science exciting for students.





# UTeach

**+4  
months**

additional learning  
in math

**+5.7  
months**

additional learning  
in science

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.

**88%**

Graduates entering teaching

**87%**

Graduates who teach for at least 4 years

**23%**

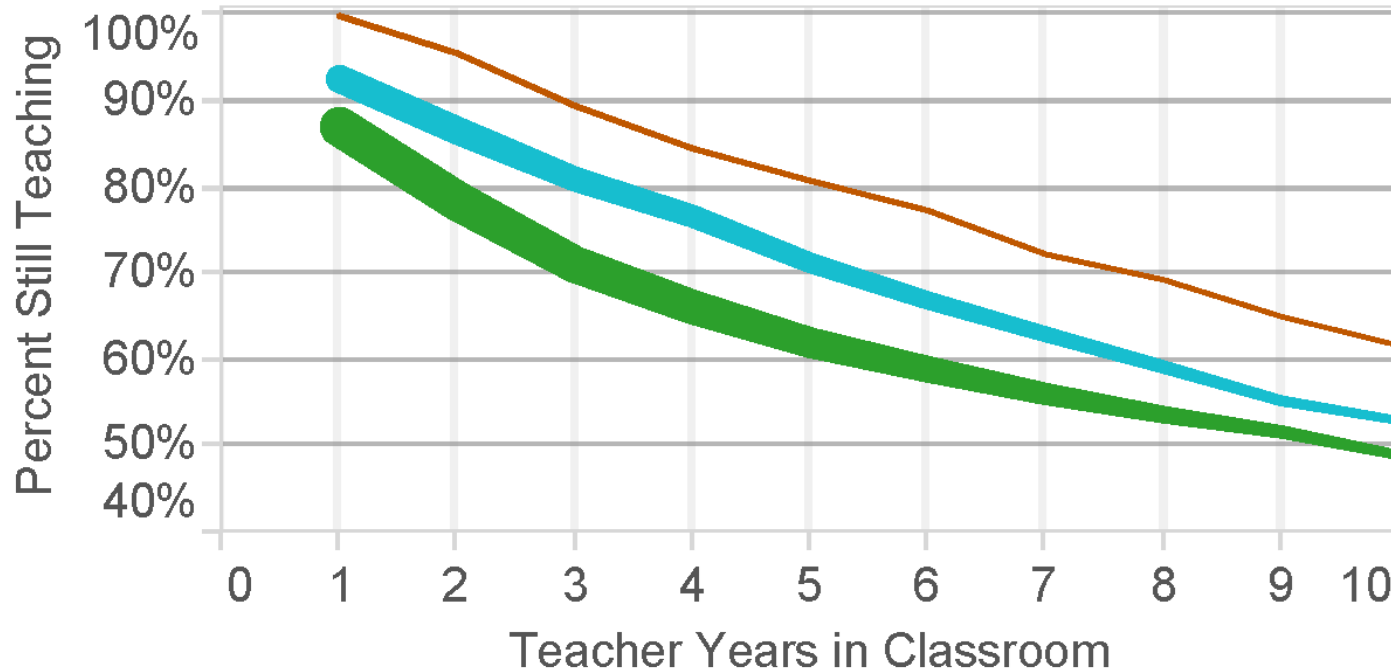
Graduates identified as underrepresented minorities

**68%**

Graduates currently teaching in K–12 schools with a majority economically disadvantaged population

# UTeach Teachers Stay in the Classroom

## Texas STEM Teachers



### Population

■ STEM, Standard Program

■ UTeach Austin

■ STEM, Alternative Program

# HBCU Teach: Leveraging Partnership

## PHASE I: Capacity Building

- Planning grants & proposal development

## PHASE II: Establish Permanent STEM Teacher Pathways

- Deep and sustained partnership between UTeach Institute and HBCUs
- Student recruitment and support
- Clinically intensive pre-service teacher development specialized for STEM
- Built for long-term sustainability

Claflin University  
Clark Atlanta University  
Morgan State University  
North Carolina A&T University  
Prairie View A&M University

Spelman College  
Talladega College  
Tougaloo College  
Virginia State University  
Norfolk University



**“The thing I am most passionate about when it comes to teaching is changing the way minorities are regarded in public education and creating equity. As a minority in a leadership position, I hope I can encourage my students to pursue careers in STEM or STEM education.”**

Trey Fisher, Math Teacher  
Mendez Middle School  
Austin, Texas



# DISCUSSION AND Q&A