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# UTeach Model Implementation

## Tennessee Universities Implementing UTeach Fall 2013 Progress Reports

Prepared by the UTeach Institute  
University of Texas at Austin





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## ***UTeach Elements of Success***

### **Distinctive Program Identity**

UTeach has an established identity as a prestigious secondary STEM teacher preparation program that attracts high caliber students, experienced and successful master teachers, and tenure-track faculty who are interested in the reform of STEM education.

### **Cross-College and School District Collaboration**

UTeach is a formally coordinated effort of the equivalents of the College of Education, the College of Liberal Arts, and the college(s) responsible for administering STEM degrees.

### **Long-Term Institutional and Community Support**

UTeach is a long-term institutional and community priority that is sustained through ongoing financial support from university and college administrators, as well as a broader range of stakeholders concerned with STEM education reform. UTeach is afforded a level of stability similar to other university departments and is not an outreach effort.

### **Compact and Flexible Degree Plans**

UTeach offers four-year degree plans that fully integrate students' STEM content major requirements and UTeach program requirements and allow students to obtain secondary STEM teaching certification while earning degrees in science, computer science, engineering, or mathematics.

### **Active Student Recruitment and Support**

UTeach actively recruits to attract the greatest possible number of STEM majors and provides significant resources and encouragement to maximize program and career retention.

### **Dedicated Master Teachers**

UTeach master teachers—non-tenured clinical faculty with exemplary secondary teaching experience—are exclusively dedicated to student support and program success.

### **Rigorous, Research-Based Instruction**

UTeach courses are designed to develop deep understanding of content of particular importance to future secondary STEM teachers and build strong connections between mathematics and science and between educational theory and practice.

### **Early and Intensive Field Experiences**

In order to promote confidence and accelerate professional development, UTeach students begin a carefully scaffolded sequence of intensive teaching opportunities in their first semester of the program and continue these field experiences throughout.

### **Continuous Program Improvement**

UTeach systematically collects and analyzes both student and program level data to make informed decisions about program development and improvement.



**Fall 2013 • Milestone Summary Matrix • Tennessee Partner Universities**

This document is intended to serve as an "at-a-glance" overview of progress made on milestones for grant distribution across university partners through the specified semester/quarter. These milestones track progress on minimal operational features and are not intended to serve as a measure of overall quality. For a more comprehensive assessment of program progress, please refer to the individual operations summaries and progress reports produced for each partner program.

<b>Milestones</b> <i>(Please review milestones notes as appropriate for each partner program on back page)</i>	<b>Middle Tennessee State University</b>	<b>University of Memphis</b>	<b>University of Tennessee, Chattanooga</b>	<b>University of Tennessee, Knoxville</b>
<b>Continue to enroll new students in program</b>	✓	-	na	✓
<b>Program approved by State and authorized to offer STEM teaching certification</b>	✓	-		✓
<b>Functional classroom, office space, and student workroom secured or being negotiated</b>	✓	✓		✓
<b>Steering committee meets regularly</b>	✓	-		✓
<b>Fall 2013 site visit completed</b>	✓	ip		✓
<b>PEARS data submitted</b>	ip	✓		✓
<b>UTeach equivalent courses offered as recommended by the implementation schedule, program model, and/or negotiated with the Institute</b>	✓	-		✓
<b>Appropriate UTeach equivalent courses listed in the Spring 2014 course schedule</b>	✓	-		✓
<b>Required Instructional Program Review materials submitted by established deadlines</b>	✓	✓		✓
<b>Sufficient number of master teachers employed to adequately support the program</b>	✓	-		✓
<b>Accurate financials submitted by established deadlines</b>	ip	✓		✓
<b>UTeach Institute's recommendation for continued funding</b>	✓	✓		✓

✓ indicates that the program has fulfilled expectations for the semester/quarter.

ip indicates that an adaptation exists; more time is needed to determine progress and alignment with UTeach model and replication goals.

- indicates an area in which a permanent modification exists.

**Notes:**

**Middle Tennessee State University** - The program has submitted student level and course roster data, but university profile data has not yet been submitted.

**University of Tennessee at Chattanooga:** The University of Tennessee at Chattanooga stopped receiving grant funds after the Spring 2013 semester.

**University of Memphis:** The University of Memphis program staff recently confirmed that the Tigers Teach program will not be continued past the grant period. Even though these milestones reflect project activities for the Fall 2013 semester, these milestones take into account the termination of the program at the end of Spring 2014.

While Tigers Teach has enrolled new students every semester, the overall program enrollment is low and has not grown sufficiently to support current course offerings.

A Tigers Teach Steering Committee has been established, but it does not meet regularly.

Fall site visit activities were not completed during the scheduled visit

As of the Fall 2013 site visit, master teacher salaries had been moved to recurring institutional funding. However, it is not clear whether the master teacher will continue to be employed by the university after the grant.



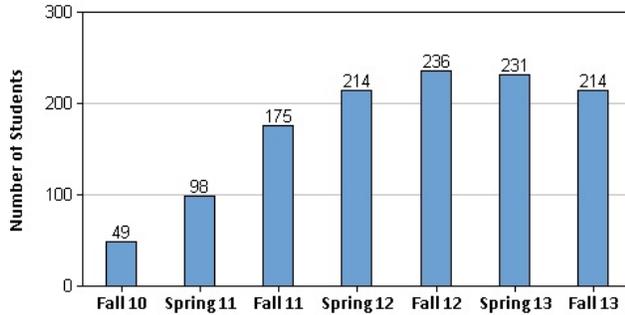
# Middle Tennessee State University - MTeach

## Progress Report - Fall 2013

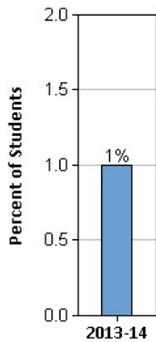
### Enrollment and Recruitment

Total Program Enrollment: 214 students

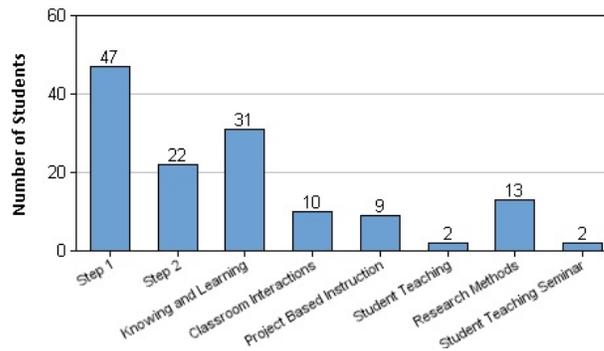
Program Enrollment (Number of Unique Individuals Enrolled in MTeach)



The Percent of Math and Science Students Recruited into MTeach



Enrollment by MTeach Course, Fall 2013



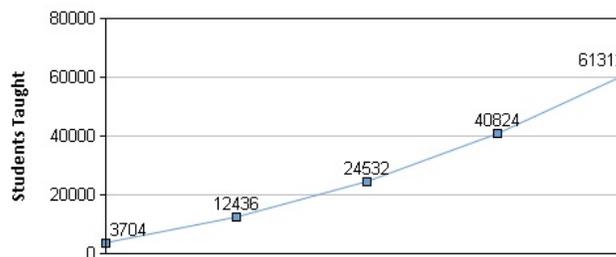
[STEM Pool includes Biology, Chemistry, Mathematics, Physics, Astronomy, Geosciences, Computer Science & other STEM majors]

(Fall percent recruited represents Step 1 students from the fall semester only)

Teachers Produced and Students Taught for MTeach

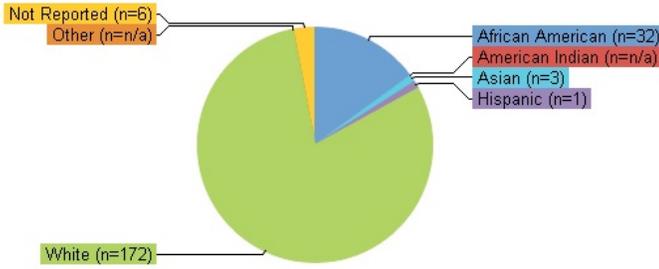
Cumulative number of students taught is based on an assumption that 80% of program graduates who go into teaching will remain for at least five years. Totals assume teachers will teach 150 students per year.

Actual number of cumulative graduates shown through previous year. Projected number of graduates shown for subsequent years.



	2013-14	2014-15	2015-16	2016-17	2017-18
Students Taught	3704	12436	24532	40824	61312
Graduates (per Year)	34	47	31	39	39
Graduates (Cumulative)	34	81	112	151	190

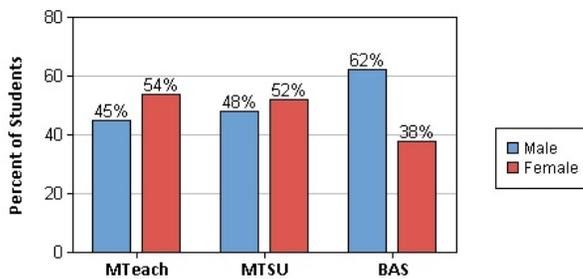
Ethnicity - MTeach - (n=214)



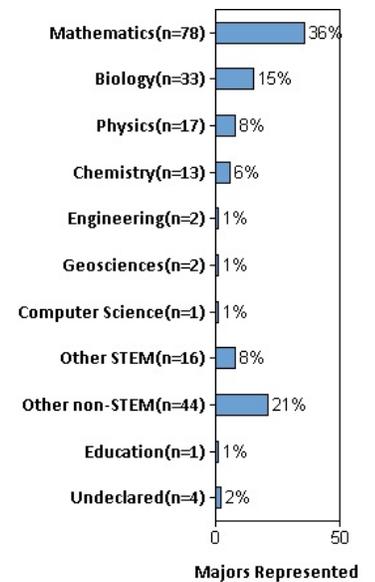
	MTeach		Middle Tennessee State University		Basic and Applied Sciences	
	n	%	n	%	n	%
African American	32	15%	4221	18.0%	826	17.4%
American Indian	n/a	n/a	70	0.3%	18	0.4%
Asian	3	1%	746	3.2%	197	4.1%
Hispanic	1	1%	795	3.4%	162	3.4%
White	172	80%	16593	70.9%	3367	70.8%
Other	n/a	n/a	987	4.2%	186	3.9%
Not Reported	6	3%	0	0.0%	0	0.0%

\*Data for the university and the college are from the most current data available.

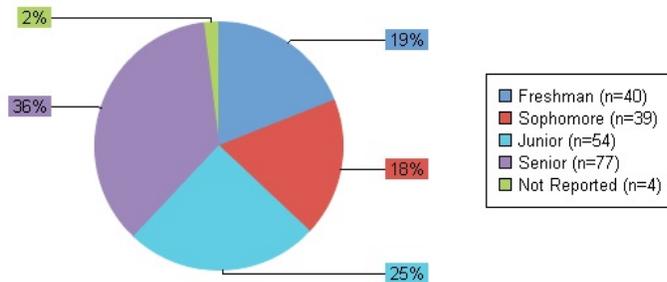
Gender MTeach - (n=214)



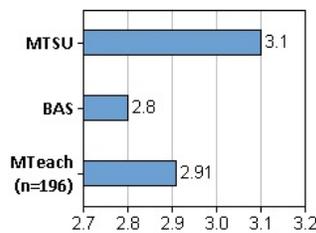
Majors for MTeach - (n=214)



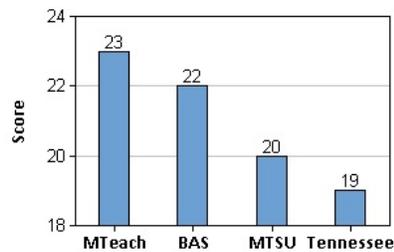
Classification (n=214)



Grade Point Average



ACT Math Average Scores



\*Data for the university and the college are from the most current data available.

Program Retention	Program Graduates
Retention of students from Step 1 to Step 2: 31.6% <i>(Students enrolled in Step 1 who subsequently enrolled in Step 2)</i>	Projected number of graduates (Fall 2013): 2 <i>(Number of students enrolled in student teaching)</i>

**Implementation Milestones**

✓	Continue to enroll new students in program
✓	Program approved by State and authorized to offer STEM teaching certification
✓	Functional classroom, office space, and student workroom secured or being negotiated
✓	Steering committee meets regularly
✓	Fall 2013 site visit completed
ip	PEARS data submitted
✓	UTeach equivalent courses offered as recommended by the implementation schedule, program model, and/or negotiated w/ Institute
✓	Appropriate UTeach equivalent courses listed in the Spring 2014 course schedule
✓	Required Instructional Program Review materials submitted by established deadlines
✓	Sufficient number of master teachers employed to adequately support the program
ip	Accurate financials submitted by established deadlines
✓	UTeach Institute's recommendation for continued funding

✓ indicates that the program has fulfilled expectations for this semester/quarter.  
 ip indicates that an adaptation exists; more time is needed to determine progress and alignment with the UTeach model and replication goals.

**Footnote:** The program has submitted student level and course roster data, but university profile data has not yet been submitted. The financial information submission from MTeach to the UTeach Institute is currently pending.

**MTeach School District Partners**

Murfreesboro City Schools, Rutherford Country School System





**MTech Operations Summary**  
**Middle Tennessee State University**  
**Fall 2013**

The UTeach Institute regularly documents progress at universities implementing UTeach nationwide. During the grant period, UTeach Institute staff conduct a variety of evaluation activities. In the early stages of implementation, co-directors, faculty members, master teachers, students, and program staff are interviewed, and programmatic and course implementation data are collected. After program operations are established, on-site evaluation and technical support activities shift to focus more on course observations and student focus groups. To fully review overall program implementation, Institute staff conduct a final, end-of-grant implementation review during the last year of the grant period. Similar interviews are conducted during this phase as were conducted in the early stages of implementation.

This document reviews program operations to date. As with other UTeach Institute evaluation activities and reports, the operations summary is organized by the *UTeach Elements of Success*, available at <http://uteach-institute.org/publications>.

**Purposes of the Operations Summary**

- To document the progress made thus far at each partner university, in order to plan technical support and determine how best to balance future operational and instructional support and evaluation
- To engage partner universities with a framework that describes the *UTeach Elements of Success* and the standards against which progress toward full UTeach implementation is measured
- To provide funders information regarding partner programs’ operational progress

**Program Operations Summary**

This summary details (a) the program’s operational progress as of Fall 2013 and (b) any remaining operational tasks to ensure fidelity and sustainability. Not all elements are expected to be in place from the beginning of implementation. Remaining programmatic challenges will continue to be reviewed by the UTeach Institute.

Throughout this summary, the following notations are used.

✓	The program is fulfilling expectations at this time
ip	Program actively attempting to bring the program into alignment with replication goals
—	More time is needed to determine progress
-	An adaptation from the model exists
na	Not applicable, either due to the university’s local context or to the point at which the program is in its development (e.g., activities related to serving students cannot be addressed during the planning period)

**UTeach Elements of Success | I: Distinctive Program Identity**

*“UTeach has an established identity as a prestigious secondary STEM teacher preparation program that attracts high caliber students, experienced and successful master teachers, and tenure-track faculty who are interested in the reform of STEM education.”*

✓	<i>“UTeach is an academic program that functions like a department, employing its own co-directors, program support staff, student advisors, master teachers, and tenure-track faculty.”</i>
✓	<i>“UTeach is name-branded and actively promoted through marketing materials, press releases, special announcements, and ceremonies that honor students and faculty.”</i>



**MTeach Operations Summary**  
**Middle Tennessee State University**  
**Fall 2013**

✓	<i>“UTeach is the only undergraduate program at the university that recommends STEM majors for teaching certification.”</i>
✓	<i>“A UTeach Website provides a comprehensive program description and ready access to course offerings, program news and reports, and other items of significance.”</i>
MTeach website: <a href="http://www.mtsu.edu/mteach/">http://www.mtsu.edu/mteach/</a>	
✓	<i>“A UTeach student organization fosters camaraderie among participants, establishes a presence on campus, and promotes the program to students and within the university community.”</i>
✓	<i>“UTeach students are honored for choosing to become teachers through special ceremonies; opportunities to meet with university administrators, program co-directors and other supporters; and press coverage.”</i>

**UTeach Elements of Success | 2: Cross-College and School District Collaboration**

*“UTeach is a formally coordinated effort of the equivalents of the College of Education, the College of Liberal Arts, and the college(s) responsible for administering STEM degrees.”*

✓	<i>“UTeach co-directors—one representing the STEM college(s) and one representing the College of Education or its equivalent—collaborate to ensure effective program operations and a high quality teacher preparation experience for students.”</i>
✓	<i>“A cross-college steering committee that includes representatives from program faculty and staff meets regularly to develop program policies, monitor curriculum and instructional effectiveness, and manage student affairs and program operations.”</i>
✓	<i>“Master teachers and tenure-track faculty from all participating colleges are actively involved in the development and ongoing implementation of the UTeach program to ensure effective course articulation, explicit connections between mathematics and science, and an appropriate balance of STEM content and pedagogical instruction.”</i>
✓	<i>“Administrators, content specialists, and mentor teachers from one or more school districts work collaboratively with UTeach faculty to ensure relevant, high quality field experiences, feedback, and mentoring throughout the students’ UTeach program of study.”</i>

**UTeach Elements of Success | 3: Long-Term Institutional and Community Support**

*“UTeach is a long-term institutional and community priority that is sustained through ongoing financial support from university and college administrators, as well as a broader range of stakeholders concerned with STEM education reform. UTeach is afforded a level of stability similar to other university departments and is not an outreach effort.”*

✓	<i>“The university provides a recurring instructional budget, as well as ongoing in-kind support, such as appropriate office space, well-equipped classrooms and laboratories, dedicated student advisors, and an administrative office staff to provide professional services such as purchasing and managing materials, scheduling classes, and processing payments for mentor teachers and student internships.”</i>
✓	<i>“UTeach co-directors proactively advocate for programmatic needs and ensure that university leadership is kept informed of program progress and growth.”</i>
✓	<i>“Program elements that cannot be paid for by university instructional funds are supported by gifts from individuals, corporations, foundations, and other public and private sources.”</i>



**MTeach Operations Summary**  
**Middle Tennessee State University**  
**Fall 2013**

ip	<i>"A dedicated program endowment is established and the work of establishing and meeting a long-term goal amount is a collaborative effort between college development officers, business leaders, and UTeach faculty and staff."</i>
The program's long-term endowment goal is \$2,000,00. The current program endowment amount is \$7,100. A dedicated team focused on the endowment goals has not been established.	
✓	<i>"Instructors and staff apply for and administer competitive state and national grants and other awards to provide additional financial support to the program."</i>

**UTeach Elements of Success | 4: Compact and Flexible Degree Plans**

*"UTeach offers four-year degree plans that fully integrate students' STEM content major requirements and UTeach program requirements and allow students to obtain secondary STEM teaching certification while earning degrees in science, computer science, engineering, or mathematics."*

✓	<i>"UTeach explicitly recognizes the difficulties posed to students with limited economic means who traditionally have had to complete additional undergraduate semesters in order to earn teaching certification in addition to their STEM major degrees, as well as the importance of diversifying the current secondary STEM teaching force. As a result, UTeach degree plans allow students to earn both a degree in their major and teaching certification in the same amount of time required by equivalent undergraduate STEM degrees, usually between 120 and 126 semester credit hours, without the requirement and cost of additional undergraduate semesters."</i>
✓	<i>"UTeach program degrees are equivalent in rigor to other undergraduate STEM degrees, in addition to being fully coordinated with state and national standards for teacher preparation in these disciplines."</i>
✓	<i>"UTeach degree plans include a limited professional development sequence of specially designed courses in mathematics and science education as well as domain-specific mathematics and science courses that fulfill multiple university requirements."</i>
✓	<i>"UTeach provides various pathways for completing required coursework such that program enrollment is open to students at any point in their undergraduate careers, allowing upperclassmen and post-baccalaureate candidates to complete the program in an accelerated manner."</i>

**UTeach Elements of Success | 5: Active Student Recruitment and Support**

*"UTeach actively recruits to attract the greatest possible number of STEM majors and provides significant resources and encouragement to maximize program and career retention."*

✓	<i>"UTeach employs a variety of targeted communication strategies and recruitment events to ensure that all STEM majors, particularly incoming freshman, are invited to participate in the program and aware of its benefits."</i>
Student focus group comments: <i>"I heard about it from a couple different professors at community college."          "I had a Biology teacher tell me about it last year...at community college."</i>	
✓	<i>"The first two, one-hour field-based courses allow students to try out teaching in a positive and supportive environment with no demand for commitment to continue in the program. Students are offered a financial incentive, such as a tuition rebate, for completing each of these courses."</i>
Student focus group comments: <i>"The Dean told me there was a program that you could do to try out teaching with no commitment."</i>	



**MTeach Operations Summary**  
**Middle Tennessee State University**  
**Fall 2013**

✓	<i>“STEM major and UTeach program advisors actively support careers in teaching and are well informed about the wide variety of degree plans leading to certification, ensuring that UTeach pre-service teachers successfully meet all requirements for graduation.”</i>
Student focus group comment: <i>“My Biology advisor told me about [Step 1].”</i> <i>“I got most of my advising from [MTeach staff]. She was incredibly helpful.”</i>	
✓	<i>“Students are provided a well-equipped workroom with appropriate meeting space, convenient to UTeach classrooms and master teacher and administrative offices, to build community, encourage collaboration, and develop peer support.”</i>
Student Focus Group Comments: <i>“I like how the MTeach office is set up...you can go in there and make copies and scan things or work on your lesson plans.”</i>	
✓	<i>“Students have opportunities, facilitated and paid for by the program, to earn income and gain relevant work experience through flexible internship placements at nonprofit STEM or education-related organizations.”</i>
ip	<i>“UTeach graduates who enter the teaching profession receive two years of intensive, individualized induction support, including classroom visits, regularly scheduled professional development opportunities, online mentoring, and access to a lending library of materials.”</i>
MTeach plans to have graduates starting in the Fall of 2013.	

**UTeach Elements of Success | 6: Dedicated Master Teachers**

*“UTeach master teachers – non-tenured clinical faculty with exemplary secondary teaching experience – are exclusively dedicated to student support and program success.”*

✓	<i>“Master teachers are widely recognized for their educational leadership and secondary mathematics, science, or computer science teaching experience; have earned at least a master’s degree; and demonstrate their skill and passion for working with students and novice teachers.”</i>
Note: The UTeach Institute relies on programs themselves to determine whether this element has been fulfilled.	
ip	<i>“Master teachers are appointed as non-tenured clinical faculty and are paid from the university instructional budget, hired at a ratio of approximately one per 50 students in a mature program.”</i>
✓	<i>“Master teachers co-teach or formally support field-based courses, observing and providing written and oral feedback to evaluate and help students improve their skills throughout the program.”</i>
✓	<i>“Master teachers manage field experiences, working with local school district teachers and administrators to ensure appropriate field placements and productive teaching experiences for UTeach students.”</i>
✓	<i>“Master teachers maintain an “open door” policy, making themselves available to students on demand.”</i>
Student focus group comment: <i>“[They master teachers] are very helpful and nice. They have helped me a lot with my lesson plans.”</i>	
✓	<i>“Master teachers are active in program recruitment, manage student internships, and participate in a variety of other student support activities, including tracking students and identifying and following up with any students in danger of not completing the program.”</i>
ip	<i>“Master teachers are knowledgeable about what new teachers encounter and provide ongoing and on-demand career support for UTeach graduates, particularly during their first two years of induction into the profession.”</i>
MTeach plans to produce their first graduates in the Fall of 2013.	

**UTeach Elements of Success | 7: Rigorous, Research-Based Instruction**

*“UTeach courses are designed to develop deep understanding of content of particular importance to future secondary STEM teachers and build strong connections between mathematics and science and between educational theory and practice.”*

✓	<i>“Rigorous learning outcomes are aligned with national, state, and program standards.”</i>
The MTeach program will be affected by a Tennessee Board of Regents initiative called Ready to Teach. To the extent possible, the MTeach program will need to adhere to the UTeach model and also meet the requirements of Ready to Teach.	
✓	<i>“Evidence of student proficiency is measured throughout the program using standardized assessments, including a final portfolio of student work and a field teaching evaluation. Students are required to demonstrate competency across domains ranging from STEM content knowledge to equitable instruction and professional responsibility in order to be recommended for certification.”</i>
✓	<i>“UTeach science and mathematics education faculty - who are active in research related to STEM teaching and learning [including how students learn mathematics and science, how to assess what students know, and how to incorporate learning technologies to enhance student learning] - teach Knowing and Learning in Mathematics and Science, Classroom Interactions, and Project-Based Instruction.”</i>
✓	<i>“UTeach science and mathematics education faculty are active in research related to STEM teaching and learning, including how students learn mathematics and science, how to assess what students know, and how to incorporate learning technologies to enhance student learning.”</i>
✓	<i>“UTeach faculty actively involved in research on the history or philosophy of science or mathematics teach Perspectives on Science and Mathematics, a content course that develops students’ conceptions about the historical and philosophical development of STEM disciplines.”</i>
✓	<i>“Pedagogical instruction throughout the program is discipline specific, focusing on research-based best practices in STEM teaching and learning and the connections between mathematics and science and among the sciences.”</i>
✓	<i>“Course instructors—both master teachers and tenure-track faculty— purposefully model effective STEM instruction as students learn to employ research-based pedagogical methods and strategies ranging from inquiry to direct instruction, connecting theory to practice throughout the program.”</i>
✓	<i>“Courses emphasize the underlying interconnections between mathematics and science and among the sciences, while making explicit what research in the learning sciences implies about the similarities and differences in how each is taught and learned. Science, mathematics, and computer science majors take UTeach courses together and collaborate whenever possible.”</i>
✓	<i>“All UTeach courses integrate research-based themes important to STEM education, including research on and strategies to ensure equitable instruction, how to create and analyze authentic assessments, and pedagogically effective uses of a wide variety of technological tools.”</i>

**Note:** The instructional program will be fully assessed once all program courses have been implemented and reviewed. Instructional program review activities also are documented separately.



**MTeach Operations Summary**  
**Middle Tennessee State University**  
**Fall 2013**

**UTeach Elements of Success | 8: Early and Intensive Field Experiences**

*“In order to promote confidence and accelerate professional development, UTeach students begin a carefully scaffolded sequence of intensive teaching opportunities in their first semester of the program and continue these field experiences throughout.”*

✓	<i>“Field experiences are domain specific, tightly articulated with the UTeach curriculum, and closely supervised by course instructors—both tenure-track faculty and master teachers—to promote full integration of critical knowledge and skills.”</i>
✓	<i>“Students develop their own lesson plans, using research-based instructional materials and strategies, with intensive coaching and feedback from both master teachers and tenure-track faculty who are experts in STEM content and pedagogy, in order to ensure UTeach expectations for accuracy and inquiry-based practice are met.”</i>
✓	<i>“Students experience multiple STEM teaching opportunities in high-need and diverse elementary, middle, and high school settings to gain an understanding of current K-12 public school environments and student populations.”</i>
✓	<i>“Beginning in their first semester and throughout the program, students’ time in classrooms is carefully structured, from focused observations of authentic teaching to clinical interviews of students regarding problem solving strategies to their own experiences teaching, receiving formative feedback, and revising and re-teaching lessons.”</i>
Student Focus Group Comment: <i>“I decided to come to MTSU because of the MTeach program, because I liked the experience aspect of this [program].”</i>	
✓	<i>“Mentor teachers—host K-12 teachers who receive stipends for their collaboration—create supportive classroom environments, review lesson plans, and provide oral and written feedback to UTeach students after observing them teach.”</i>
Student focus group comment: <i>“My mentor teacher gives me good feedback that helps me improve.”</i>	

**Note:** The instructional program will be fully assessed once all program courses have been implemented and reviewed. Instructional program review activities also are documented separately.

**UTeach Elements of Success | 9: Continuous Program Improvement**

*“UTeach systematically collects and analyzes both student and program level data to make informed decisions about program development and improvement.”*

✓	<i>“UTeach systematically gathers and reports data on the characteristics of its students and graduates, including numbers of students, grade point average distributions, demographic information, graduation rates, and retention rates in teaching.”</i>
Note: The UTeach Institute currently collects these data from all programs.	
✓	<i>“UTeach program co-directors, master teachers, tenure-track faculty, and administrative staff regularly review data on program indicators, reflect on successes and challenges, plan for upcoming semesters, and continue to refine program components.”</i>
✓	<i>“The UTeach curriculum is regularly reviewed by the steering committee and instructional teams of faculty and refined to ensure course alignment, minimize redundancies, and update content in accordance with current research on best practices and state and national guidelines.”</i>



**MTeach Operations Summary**  
**Middle Tennessee State University**  
**Fall 2013**

✓	<i>“Students provide formal, anonymous feedback on the UTeach program and courses through a variety of surveys and are given the opportunity to voice opinions in the presence of program decision-makers at regularly scheduled events and activities.”</i>
<i>Note: The UTeach Institute currently collects student survey data from all programs.</i>	
✓	<i>“UTeach program co-directors, master teachers, tenure-track faculty, and administrative staff interact regularly with colleagues from universities replicating UTeach and other institutions to share information on program development, management, and general concerns related to STEM teacher preparation and support.”</i>

**Additional Grant Compliance Activities**

✓	<i>IRB approval has been secured locally.</i>
✓	<i>The program has been granted state approval and is able to offer secondary STEM teacher certifications to students.</i>
✓	<i>Formal processes have been developed for selecting mentor teachers and training them on the program’s expectations.</i>
✓	<i>Program and student level data have been submitted to the UTeach Institute for current term.</i>
ip	<i>University profile data have been submitted to the UTeach Institute for the current term.</i>
na	<i>All requested student surveys were administered in the current term.</i>
<i>Due to the need for programs to customize the timeframe and questions of the mid-semester surveys, the UTeach Institute no longer centrally administers these surveys, and instead relies on programs themselves to survey students for anonymous formative feedback midway through each course.</i>	
✓	<i>All appropriate course materials have been submitted to the UTeach Institute for instructional program review for the current term.</i>
<i>Note: Instructional program review activities are documented separately in cross-site reports by cohort and course.</i>	
✓	<i>The program was represented at appropriate UTeach Institute support events in the current term (e.g., course workshops, retreats, annual conference).</i>
<p>Support events for Fall 2013 with MTeach attendance are listed below. It is expected that one or more representatives from MTeach will attend support events relevant to where the program is in its implementation.</p> <ul style="list-style-type: none"> <li>• Summer Step 1 and 2 Course Workshop – 0 attendees</li> <li>• Apprentice Teaching Course Workshop – 0 attendees</li> <li>• Project-Based Instruction Course Workshop – 0 attendees</li> <li>• Perspectives in Mathematics and Science Course Workshop – 0 attendees</li> </ul> <p>Support events scheduled for Spring 2014 are listed below.</p> <ul style="list-style-type: none"> <li>• Master Teacher Retreat – January 9-10, 2014</li> <li>• Induction Workshop</li> <li>• Apprentice Teaching Course Workshop</li> <li>• Step Course Workshop</li> <li>• 2014 UTeach Annual Conference – May 20-22, 2014</li> </ul>	



## **MTeach Operations Summary** **Middle Tennessee State University** **Fall 2013**

### **UTeach Institute Recommendations for Progress and Sustainability**

#### Element 1: Distinctive Program Identity

- No recommendations at this time.

#### Element 2: Cross-College and School District Collaboration

- No recommendations at this time.

#### Element 3: Long-Term Institutional and Community Support

- An aggressive plan needs to be created with university and college development to reach the \$2,000,000 endowment goal.
- Establish a task force or dedicated team consisting of program faculty and staff, business leaders, and development officers to work on fundraising for an MTeach endowment.

#### Element 4: Compact and Flexible Degree Plans

- No recommendations at this time.

#### Element 5: Active Student Recruitment and Support

- Provide induction support to graduates as they enter the profession (*this is planned*).
- Continue recruiting students for Step I and other courses every semester (*this is in progress*).

#### Element 6: Dedicated Master Teachers

- Hire an additional master teacher.

#### Element 7: Rigorous, Research-Based Instruction

- No recommendations at this time.

#### Element 8: Early and Intensive Field Experiences

- Survey students on the effectiveness of mentor teachers, and, if necessary, refine the pool of mentor teachers to weed out less effective mentors.



## **MTeach Operations Summary** **Middle Tennessee State University** **Fall 2013**

### Element 9: Continuous Program Improvement

- Ensure that instructors teaching program courses are aware of appropriate UTeach Institute workshops and other events, the Members Website, and other resources and support available to them by the UTeach Institute, as well as any requirements or deadlines for submission of course materials for instructional program review.
- Send course instructors and other appropriate individuals (e.g., master teachers supporting field courses beyond Step 1 and 2) to all appropriate course workshops and other support events offered by the UTeach Institute.

### Additional Grant Compliance Activities

- Using the questions provided by the UTeach Institute (with edits and customizations if necessary), administer student surveys midway through courses, to provide anonymous formative feedback for course instructors. If these surveys are administered electronically, allot a few minutes of class time for students to complete the surveys.



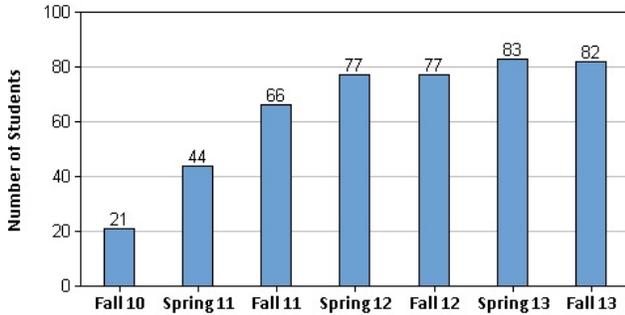
# University of Memphis - Tigers Teach

## Progress Report - Fall 2013

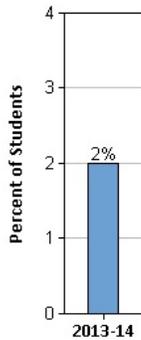
### Enrollment and Recruitment

Total Program Enrollment: 82 students

Program Enrollment (Number of Unique Individuals Enrolled in Tigers Teach )



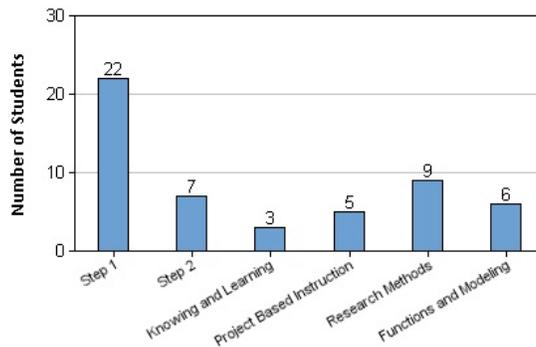
The Percent of Math and Science Students Recruited into Tigers Teach



[STEM Pool includes Biology, Chemistry, Mathematics, Physics, Astronomy, Geosciences, Computer Science & other STEM majors]

(Fall percent recruited represents Step 1 students from the fall semester only)

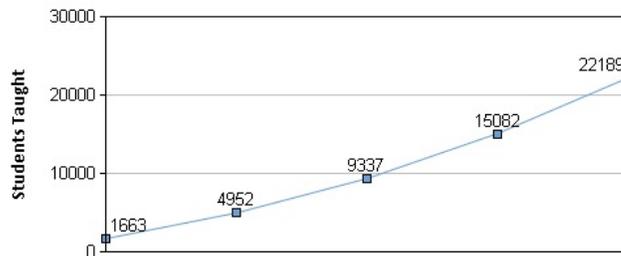
Enrollment by Tigers Teach Course, Fall 2013



### Teachers Produced and Students Taught for Tigers Teach

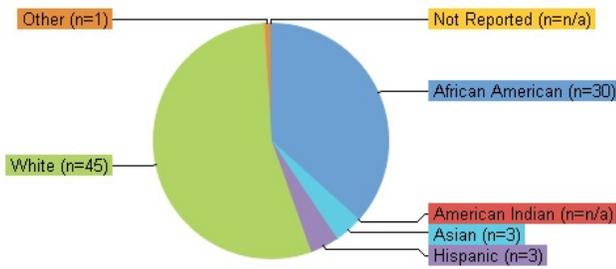
Cumulative number of students taught is based on an assumption that 80% of program graduates who go into teaching will remain for at least five years. Totals assume teachers will teach 150 students per year.

Actual number of cumulative graduates shown through previous year. Projected number of graduates shown for subsequent years.



	2013-14	2014-15	2015-16	2016-17	2017-18
Students Taught	1663	4952	9337	15082	22189
Graduates (per Year)	15	15	10	13	13
Graduates (Cumulative)	15	30	40	53	66

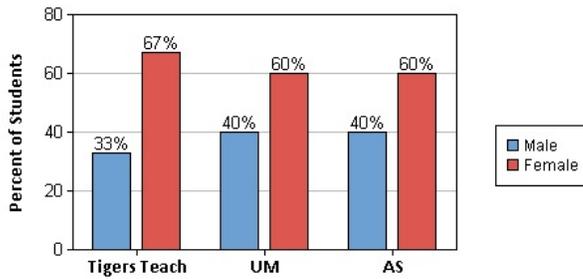
Ethnicity - Tigers Teach - (n=82)



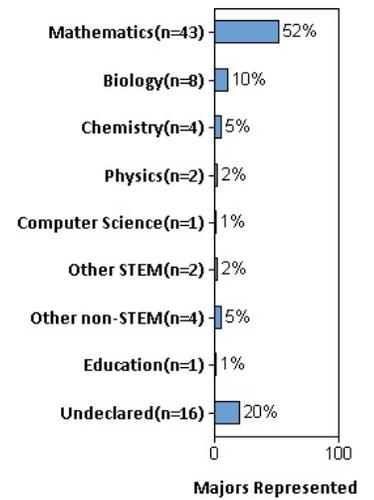
	Tigers Teach		University of Memphis		Arts and Sciences	
	n	%	n	%	n	%
African American	30	37%	6578	38.4%	1658	38.2%
American Indian	n/a	n/a	42	0.2%	10	0.2%
Asian	3	4%	479	2.8%	127	2.9%
Hispanic	3	4%	583	3.4%	161	3.7%
White	45	55%	8774	51.2%	2180	50.2%
Other	1	1%	682	4.0%	208	4.8%
Not Reported	n/a	n/a	0	0.0%	0	0.0%

\*Data for the university and the college are from the most current data available.

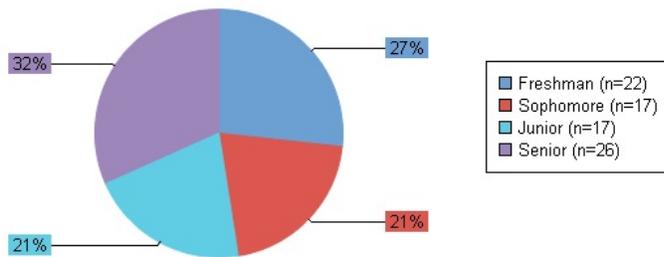
Gender Tigers Teach - (n=82)



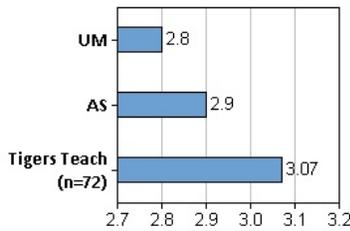
Majors for Tigers Teach - (n=82)



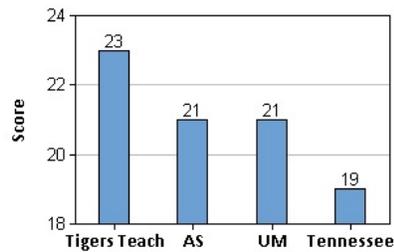
Classification (n=82)



Grade Point Average



ACT Math Average Scores



\*Data for the university and the college are from the most current data available.

## Program Retention

## Program Graduates

Retention of students from Step 1 to Step 2: 50.0%  
*(Students enrolled in Step 1 who subsequently enrolled in Step 2)*

Projected number of graduates (Fall 2013): 0  
*(Number of students enrolled in student teaching)*

## Implementation Milestones

–	Continue to enroll new students in program
–	Program approved by State and authorized to offer STEM teaching certification
✓	Functional classroom, office space, and student workroom secured or being negotiated
–	Steering committee meets regularly
ip	Fall 2013 site visit completed
✓	PEARS data submitted
–	UTeach equivalent courses offered as recommended by the implementation schedule, program model, and/or negotiated w/ Institute
–	Appropriate UTeach equivalent courses listed in the Spring 2014 course schedule
✓	Required Instructional Program Review materials submitted by established deadlines
–	Sufficient number of master teachers employed to adequately support the program
✓	Accurate financials submitted by established deadlines
✓	UTeach Institute's recommendation for continued funding

–	indicates an area in which a permanent modification exists.
✓	indicates that the program has fulfilled expectations for this semester/quarter.
ip	indicates that an adaptation exists; more time is needed to determine progress and alignment with the UTeach model and replication goals.

**Footnote:** University of Memphis: The University of Memphis program staff recently confirmed that the Tigers Teach program will not be continued past the grant period. Even though these milestones reflect project activities for the Fall 2013 semester, these milestones take into account the termination of the program at the end of Spring 2014. While Tigers Teach has enrolled new students every semester, the overall program enrollment is low and has not grown sufficiently to support current course offerings. A Tigers Teach Steering Committee has been established, but it does not meet regularly. Fall site visit activities were not completed during the scheduled visit. As of the Fall 2013 site visit, master teacher salaries had been moved to recurring institutional funding. However, it is not clear whether the master teacher will continue to be employed by the university after the grant.

## Tigers Teach School District Partners

Memphis City Schools, Tipton County Schools, Shelby County Schools





## Tigers Teach Operations Summary

### The University of Memphis

### Fall 2013

The UTeach Institute regularly documents progress at universities implementing UTeach nationwide. During the grant period, UTeach Institute staff conduct a variety of evaluation activities. In the early stages of implementation, co-directors, faculty members, master teachers, students, and program staff are interviewed, and programmatic and course implementation data are collected. After program operations are established, on-site evaluation and technical support activities shift to focus more on course observations and student focus groups. To fully review overall program implementation, Institute staff conduct a final, end-of-grant implementation review during the last year of the grant period. Similar interviews are conducted during this phase as were conducted in the early stages of implementation.

This document reviews program operations to date. As with other UTeach Institute evaluation activities and reports, the operations summary is organized by the *UTeach Elements of Success*, available at <http://uteach-institute.org/publications>.

### Purposes of the Operations Summary

- To document the progress made thus far at each partner university, in order to plan technical support and determine how best to balance future operational and instructional support and evaluation
- To engage partner universities with a framework that describes the *UTeach Elements of Success* and the standards against which progress toward full UTeach implementation is measured
- To provide funders information regarding partner programs' operational progress

### Program Operations Summary

This summary details (a) the program's operational progress as of Fall 2013 and (b) any remaining operational tasks to ensure fidelity and sustainability. Not all elements are expected to be in place from the beginning of implementation. Remaining programmatic challenges will continue to be reviewed by the UTeach Institute.

Throughout this summary, the following notations are used.

✓	The program is fulfilling expectations at this time
ip	Program actively attempting to bring the program into alignment with replication goals
—	More time is needed to determine progress
-	An adaptation from the model exists
na	Not applicable, either due to the university's local context or to the point at which the program is in its development (e.g., activities related to serving students cannot be addressed during the planning period)

### UTeach Elements of Success | I: Distinctive Program Identity

*“UTeach has an established identity as a prestigious secondary STEM teacher preparation program that attracts high caliber students, experienced and successful master teachers, and tenure-track faculty who are interested in the reform of STEM education.”*

✓	<i>“UTeach is an academic program that functions like a department, employing its own co-directors, program support staff, student advisors, master teachers, and tenure-track faculty.”</i>
✓	<i>“UTeach is name-branded and actively promoted through marketing materials, press releases, special announcements, and ceremonies that honor students and faculty.”</i>

✓	<i>“UTeach is the only undergraduate program at the university that recommends STEM majors for teaching certification.”</i>
✓	<i>“A UTeach Website provides a comprehensive program description and ready access to course offerings, program news and reports, and other items of significance.”</i>
Tigers Teach website: <a href="http://www.memphis.edu/tigersteach/">http://www.memphis.edu/tigersteach/</a>	
✓	<i>“A UTeach student organization fosters camaraderie among participants, establishes a presence on campus, and promotes the program to students and within the university community.”</i>
✓	<i>“UTeach students are honored for choosing to become teachers through special ceremonies; opportunities to meet with university administrators, program co-directors and other supporters; and press coverage.”</i>

**UTeach Elements of Success | 2: Cross-College and School District Collaboration**

*“UTeach is a formally coordinated effort of the equivalents of the College of Education, the College of Liberal Arts, and the college(s) responsible for administering STEM degrees.”*

-	<i>“UTeach co-directors—one representing the STEM college(s) and one representing the College of Education or its equivalent—collaborate to ensure effective program operations and a high quality teacher preparation experience for students.”</i>
<i>The co-directors do not jointly oversee the Tigers Teach program, and minimally collaborate to ensure effective program implementation. Site visit interview data indicate that, key program staff in the College of Education, Health, and Human Services do not currently see the Tigers Teach as a cross-college collaborative effort. Rather, the program is viewed as a College of Arts and Science initiative, separate from teacher preparation initiative in the College of Education, Health, and Human Services initiative.</i>	
-	<i>“A cross-college steering committee that includes representatives from program faculty and staff meets regularly to develop program policies, monitor curriculum and instructional effectiveness, and manage student affairs and program operations.”</i>
<i>A steering committee has been formed and met in the past but has not met on a regular basis.</i>	
-	<i>“Master teachers and tenure-track faculty from all participating colleges are actively involved in the development and ongoing implementation of the UTeach program to ensure effective course articulation, explicit connections between mathematics and science, and an appropriate balance of STEM content and pedagogical instruction.”</i>
<i>Site visit interview data indicate that key program staff and some faculty in the College of Education, Health, and Human Services (CEHHS) see the Tigers Teach courses as College of Arts and Sciences courses that have to be staffed by the CEHHS, yet are a drain on the resources of the college.</i>	
✓	<i>“Administrators, content specialists, and mentor teachers from one or more school districts work collaboratively with UTeach faculty to ensure relevant, high quality field experiences, feedback, and mentoring throughout the students’ UTeach program of study.”</i>



**Tigers Teach Operations Summary**  
**The University of Memphis**  
**Fall 2013**

**UTeach Elements of Success | 3: Long-Term Institutional and Community Support**

*“UTeach is a long-term institutional and community priority that is sustained through ongoing financial support from university and college administrators, as well as a broader range of stakeholders concerned with STEM education reform. UTeach is afforded a level of stability similar to other university departments and is not an outreach effort.”*

ip	<i>“The university provides a recurring instructional budget, as well as ongoing in-kind support, such as appropriate office space, well-equipped classrooms and laboratories, dedicated student advisors, and an administrative office staff to provide professional services such as purchasing and managing materials, scheduling classes, and processing payments for mentor teachers and student internships.”</i>
Because of several recent upper-level campus leadership changes, including a new provost, president and dean, and because of university financial constraints the future of the Tigers Teach recurring instructional budget is unclear. Campus leaders have stated that preparing undergraduates to teach STEM is a campus priority, but no specific recurring institutional funds have been designated to Tigers Teach as of yet.	
✓	<i>“UTeach co-directors proactively advocate for programmatic needs and ensure that university leadership is kept informed of program progress and growth.”</i>
The College of Arts and Sciences co-director proactively advocates for the program with college and university leaders.	
ip	<i>“Program elements that cannot be paid for by university instructional funds are supported by gifts from individuals, corporations, foundations, and other public and private sources.”</i>
Tigers Teach received a large gift early in the grant period. However, since that first gift, the program has not raised any further funds. There is a need for more gift money to sustain the program. There have been meetings with potential funders. The relationships are still being developed.	
✓	<i>“A dedicated program endowment is established and the work of establishing and meeting a long-term goal amount is a collaborative effort between college development officers, business leaders, and UTeach faculty and staff.”</i>
Long-term endowment goal: \$10,000,000 Current endowment amount: \$1,000,000	
✓	<i>“Instructors and staff apply for and administer competitive state and national grants and other awards to provide additional financial support to the program.”</i>



**Tigers Teach Operations Summary**  
**The University of Memphis**  
**Fall 2013**

**UTeach Elements of Success | 4: Compact and Flexible Degree Plans**

*“UTeach offers four-year degree plans that fully integrate students’ STEM content major requirements and UTeach program requirements and allow students to obtain secondary STEM teaching certification while earning degrees in science, computer science, engineering, or mathematics.”*

-	<i>“UTeach explicitly recognizes the difficulties posed to students with limited economic means who traditionally have had to complete additional undergraduate semesters in order to earn teaching certification in addition to their STEM major degrees, as well as the importance of diversifying the current secondary STEM teaching force. As a result, UTeach degree plans allow students to earn both a degree in their major and teaching certification in the same amount of time required by equivalent undergraduate STEM degrees, usually between 120 and 126 semester credit hours, without the requirement and cost of additional undergraduate semesters.”</i>
	Tigers Teach allows some students to graduate from the university and obtain a paid teaching position under a provisional certification license. Students who opt for this pathway do not take all UTeach courses prior to graduation, and instead complete an Apprentice Teaching-like experience during their first year of teaching. After successful completion of that first year and completion of an Apprentice Teaching seminar, those students’ teaching credentials can be upgraded to a standard teacher certification.
✓	<i>“UTeach program degrees are equivalent in rigor to other undergraduate STEM degrees, in addition to being fully coordinated with state and national standards for teacher preparation in these disciplines.”</i>
✓	<i>“UTeach degree plans include a limited professional development sequence of specially designed courses in mathematics and science education as well as domain-specific mathematics and science courses that fulfill multiple university requirements.”</i>
✓	<i>“UTeach provides various pathways for completing required coursework such that program enrollment is open to students at any point in their undergraduate careers, allowing upperclassmen and post-baccalaureate candidates to complete the program in an accelerated manner.”</i>

**UTeach Elements of Success | 5: Active Student Recruitment and Support**

*“UTeach actively recruits to attract the greatest possible number of STEM majors and provides significant resources and encouragement to maximize program and career retention.”*

ip	<i>“UTeach employs a variety of targeted communication strategies and recruitment events to ensure that all STEM majors, particularly incoming freshman, are invited to participate in the program and aware of its benefits.”</i>
	Despite earnest recruiting efforts, the historical number of new students entering Tigers Teach has not been a sufficient number to ensure a steady pipeline of students to take the later program courses, given attrition rates. The program has recently hired a marketing and promotions expert, who has achieved success in helping other UTeach programs more effectively recruit and retain students. This is a critical issue, and one that, if not fully addressed immediately, could have very negative repercussions about future program sustainability.
✓	<i>“The first two, one-hour field-based courses allow students to try out teaching in a positive and supportive environment with no demand for commitment to continue in the program. Students are offered a financial incentive, such as a tuition rebate, for completing each of these courses.”</i>
✓	<i>“STEM major and UTeach program advisors actively support careers in teaching and are well informed about the wide variety of degree plans leading to certification, ensuring that UTeach pre-service teachers successfully meet all requirements for graduation.”</i>
✓	<i>“Students are provided a well-equipped workroom with appropriate meeting space, convenient to UTeach classrooms and master teacher and administrative offices, to build community, encourage collaboration, and develop peer support.”</i>



**Tigers Teach Operations Summary**  
**The University of Memphis**  
**Fall 2013**

✓	<i>“Students have opportunities, facilitated and paid for by the program, to earn income and gain relevant work experience through flexible internship placements at nonprofit STEM or education-related organizations.”</i>
Student focus group comment: “You can do tutoring or be a student worker.”	
ip	<i>“UTeach graduates who enter the teaching profession receive two years of intensive, individualized induction support, including classroom visits, regularly scheduled professional development opportunities, online mentoring, and access to a lending library of materials.”</i>
Tigers Teach currently has students who completed PBI, graduated from the university, and obtained full-time teaching jobs. These students will receive their teaching certification through Tigers Teach after their first full year of teaching. Master teachers are supporting them in the field. However, this semester students were not required to come to campus to meet for a seminar and so the master teachers had little contact with some of them. In Spring 2014 these teachers will be required to meet on campus once per week for a seminar.	

**UTeach Elements of Success | 6: Dedicated Master Teachers**

*“UTeach master teachers – non-tenured clinical faculty with exemplary secondary teaching experience – are exclusively dedicated to student support and program success.”*

✓	<i>“Master teachers are widely recognized for their educational leadership and secondary mathematics, science, or computer science teaching experience; have earned at least a master’s degree; and demonstrate their skill and passion for working with students and novice teachers.”</i>
Note: The UTeach Institute relies on programs themselves to determine whether this element has been fulfilled.	
✓	<i>“Master teachers are appointed as non-tenured clinical faculty and are paid from the university instructional budget, hired at a ratio of approximately one per 50 students in a mature program.”</i>
✓	<i>“Master teachers co-teach or formally support field-based courses, observing and providing written and oral feedback to evaluate and help students improve their skills throughout the program.”</i>
✓	<i>“Master teachers manage field experiences, working with local school district teachers and administrators to ensure appropriate field placements and productive teaching experiences for UTeach students.”</i>
✓	<i>“Master teachers maintain an “open door” policy, making themselves available to students on demand.”</i>
✓	<i>Master teachers are active in program recruitment, manage student internships, and participate in a variety of other student support activities, including tracking students and identifying and following up with any students in danger of not completing the program.”</i>
ip	<i>“Master teachers are knowledgeable about what new teachers encounter and provide ongoing and on-demand career support for UTeach graduates, particularly during their first two years of induction into the profession.”</i>
Tigers Teach is currently supporting teaching in the field who graduated from the University of Memphis without completing Apprentice Teaching and are first year, full-time teachers. In Spring 2014 master teachers will provide support in the field and through a seminar on campus.	

**UTeach Elements of Success | 7: Rigorous, Research-Based Instruction**

*“UTeach courses are designed to develop deep understanding of content of particular importance to future secondary STEM teachers and build strong connections between mathematics and science and between educational theory and practice.”*

✓	<i>“Rigorous learning outcomes are aligned with national, state, and program standards.”</i>
✓	<i>“Evidence of student proficiency is measured throughout the program using standardized assessments, including a final portfolio of student work and a field teaching evaluation. Students are required to demonstrate competency across domains ranging from STEM content knowledge to equitable instruction and professional responsibility in order to be recommended for certification.”</i>
✓	<i>“UTeach science and mathematics education faculty - who are active in research related to STEM teaching and learning [including how students learn mathematics and science, how to assess what students know, and how to incorporate learning technologies to enhance student learning] - teach Knowing and learning in Mathematics and Science, Classroom Interactions, and Project-Based Instruction.”</i>
✓	<i>“UTeach science and mathematics education faculty are active in research related to STEM teaching and learning, including how students learn mathematics and science, how to assess what students know, and how to incorporate learning technologies to enhance student learning.”</i>
-	<i>“UTeach faculty actively involved in research on the history or philosophy of science or mathematics teach Perspectives on Science and Mathematics, a content course that develops students’ conceptions about the historical and philosophical development of STEM disciplines.”</i>
The Perspectives on Science and Mathematics course is not currently taught by a faculty member actively involved in research on the history or philosophy of science or mathematics. No such faculty member exists on campus.	
✓	<i>“Pedagogical instruction throughout the program is discipline specific, focusing on research-based best practices in STEM teaching and learning and the connections between mathematics and science and among the sciences.”</i>
✓	<i>“Course instructors—both master teachers and tenure-track faculty— purposefully model effective STEM instruction as students learn to employ research-based pedagogical methods and strategies ranging from inquiry to direct instruction, connecting theory to practice throughout the program.”</i>
✓	<i>“Courses emphasize the underlying interconnections between mathematics and science and among the sciences, while making explicit what research in the learning sciences implies about the similarities and differences in how each is taught and learned. Science, mathematics, and computer science majors take UTeach courses together and collaborate whenever possible.”</i>
✓	<i>“All UTeach courses integrate research-based themes important to STEM education, including research on and strategies to ensure equitable instruction, how to create and analyze authentic assessments, and pedagogically effective uses of a wide variety of technological tools.”</i>

**Note:** The instructional program will be fully assessed once all program courses have been implemented and reviewed. Instructional program review activities also are documented separately.

**UTeach Elements of Success | 8: Early and Intensive Field Experiences**

*“In order to promote confidence and accelerate professional development, UTeach students begin a carefully scaffolded sequence of intensive teaching opportunities in their first semester of the program and continue these field experiences throughout.”*

✓	<i>“Field experiences are domain specific, tightly articulated with the UTeach curriculum, and closely supervised by course instructors—both tenure-track faculty and master teachers—to promote full integration of critical knowledge and skills.”</i>
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**Tigers Teach Operations Summary**  
**The University of Memphis**  
**Fall 2013**

✓	<i>“Students develop their own lesson plans, using research-based instructional materials and strategies, with intensive coaching and feedback from both master teachers and tenure-track faculty who are experts in STEM content and pedagogy, in order to ensure UTeach expectations for accuracy and inquiry-based practice are met.”</i>
✓	<i>“Students experience multiple STEM teaching opportunities in high-need and diverse elementary, middle, and high school settings to gain an understanding of current K-12 public school environments and student populations.”</i>
✓	<i>“Beginning in their first semester and throughout the program, students’ time in classrooms is carefully structured, from focused observations of authentic teaching to clinical interviews of students regarding problem solving strategies to their own experiences teaching, receiving formative feedback, and revising and re-teaching lessons.”</i>
✓	<i>“Mentor teachers—host K-12 teachers who receive stipends for their collaboration—create supportive classroom environments, review lesson plans, and provide oral and written feedback to UTeach students after observing them teach.”</i>

**Note:** The instructional program will be fully assessed once all program courses have been implemented and reviewed. Instructional program review activities also are documented separately.

**UTeach Elements of Success | 9: Continuous Program Improvement**

*“UTeach systematically collects and analyzes both student and program level data to make informed decisions about program development and improvement.”*

✓	<i>“UTeach systematically gathers and reports data on the characteristics of its students and graduates, including numbers of students, grade point average distributions, demographic information, graduation rates, and retention rates in teaching.”</i>
<i>Note: The UTeach Institute currently collects these data from all programs.</i>	
✓	<i>“UTeach program co-directors, master teachers, tenure-track faculty, and administrative staff regularly review data on program indicators, reflect on successes and challenges, plan for upcoming semesters, and continue to refine program components.”</i>
✓	<i>“The UTeach curriculum is regularly reviewed by the steering committee and instructional teams of faculty and refined to ensure course alignment, minimize redundancies, and update content in accordance with current research on best practices and state and national guidelines.”</i>
✓	<i>“Students provide formal, anonymous feedback on the UTeach program and courses through a variety of surveys and are given the opportunity to voice opinions in the presence of program decision-makers at regularly scheduled events and activities.”</i>
<i>Note: The UTeach Institute currently collects student survey data from all programs.</i>	
✓	<i>“UTeach program co-directors, master teachers, tenure-track faculty, and administrative staff interact regularly with colleagues from universities replicating UTeach and other institutions to share information on program development, management, and general concerns related to STEM teacher preparation and support.”</i>

**Additional Grant Compliance Activities**

✓	<i>IRB approval has been secured locally.</i>
✓	<i>The program has been granted state approval and is able to offer secondary STEM teacher certifications to students.</i>
✓	<i>Formal processes have been developed for selecting mentor teachers and training them on the program’s expectations.</i>



**Tigers Teach Operations Summary**  
**The University of Memphis**  
**Fall 2013**

✓	<i>Program and student level data have been submitted to the UTeach Institute for current term.</i>
✓	<i>University profile data have been submitted to the UTeach Institute for the current term.</i>
na	<i>All requested student surveys were administered in the current term.</i>
Due to the need for programs to customize the timeframe and questions of the mid-semester surveys, the UTeach Institute no longer centrally administers these surveys, and instead relies on programs themselves to survey students for anonymous formative feedback midway through each course.	
✓	<i>All appropriate course materials have been submitted to the UTeach Institute for instructional program review for the current term.</i>
<i>Note: Instructional program review activities are documented separately in cross-site reports by cohort and course.</i>	
✓	<i>The program was represented at appropriate UTeach Institute support events in the current term (e.g., course workshops, retreats, annual conference).</i>
Support events for Fall 13, with the Tigers Teach attendance, are listed below. It is expected that one or more representatives from Tigers Teach will attend support events relevant to where the program is in its implementation. <ul style="list-style-type: none"> <li>• Summer Step 1 and 2 Course Workshop – 2 attendees (Parrish, Miller)</li> <li>• Apprentice Teaching Course Workshop – 0 attendees</li> <li>• Project-Based Instruction Course Workshop – 1 attendees (Parrish)</li> <li>• Perspectives in Mathematics and Science Course Workshop – 0 attendees</li> </ul> Support events scheduled for Spring/Summer 2014 are listed below. <ul style="list-style-type: none"> <li>• Master Teacher Retreat – January 9-10, 2014</li> <li>• Induction Workshop</li> <li>• Apprentice Teaching Course Workshop</li> <li>• Step Course Workshop</li> <li>• 2014 UTeach Annual Conference – May 20-22, 2014</li> </ul>	

**UTeach Institute Recommendations for Progress and Sustainability**

Element 1: Distinctive Program Identity

- No recommendations at this time.

Element 2: Cross-College and School District Collaboration

- Ensure that all program faculty and leaders are supportive of program goals and visions.
- Meet regularly with COE faculty to strengthen the relationship between Tigers Teach and the COE.
- Hold regular steering committee meetings where representatives from the COE and Tigers Teach (including partner school district personnel) may attend to discuss the direction of the program and set policy.

#### Element 3: Long-Term Institutional and Community Support

- Enlist increased help from the College of Education co-director in proactively advocating for programmatic needs and progress with campus leadership.
- Continue to work with university leadership on allocating funding to sustain the Tigers Teach program.
- Create an aggressive plan with university and college development to reach the \$10,000,000 endowment goal.
- Regularly convene the Tigers Teach Development Task Force, comprised of local business leaders and program faculty, to collaborate with campus development officers to raise awareness of, and funds for, the Tigers Teach endowment.
- Pursue additional grants and other awards to provide ongoing financial support to the program.

#### Element 4: Compact and Flexible Degree Plans

- Encourage every student that can to take all UTeach courses during their undergraduate degree, so that they may graduate from the university with standard (rather than alternative) teacher certification.
- Attempt to schedule Tigers Teach courses around large, standard introductory STEM courses that Tigers Teach students will likely need to take at the same time, to avoid scheduling conflicts for students.

#### Element 5: Active Student Recruitment and Support

- As planned, work with the marketing/promotions expert to attempt to drastically increase the number of students recruited into Tigers Teach each semester.
- Explore ways to raise the retention rates of Tigers Teach students from course to course, and provide necessary support and intervention to students on the verge of leaving the program, such as targeted tutoring, study groups, and consistently making students aware of what comes next in the program and helping them feel connected to the program and the faculty and staff working within it.
- Continue to develop additional internships opportunities for program students.
- Ensure students are aware of internship, scholarship, and other support opportunities.
- Provide induction support to graduates as they enter the profession.

#### Element 6: Dedicated Master Teachers

- No recommendations at this time.

#### Element 7: Rigorous, Research-Based Instruction

- Recruit a historian or philosopher of math and science to teach or co-teach the Perspectives course.

#### Element 8: Early and Intensive Field Experiences

- Ensure that mentor teachers are trained on program expectations regarding availability and the need to provide valid, constructive feedback to students teaching in their classrooms.
- Conduct surveys of program students on mentor teachers, and refine the pool of mentors based on their perceived helpfulness and supportive classroom environments.



## **Tigers Teach Operations Summary** **The University of Memphis** **Fall 2013**

### Element 9: Continuous Program Improvement

- Collect and review feedback about the Tigers Teach program from Tigers Teach students.
- Ensure that instructors teaching program courses are aware of appropriate UTeach Institute workshops and other events, the Members Website, and other resources and support available to them by the UTeach Institute, as well as any requirements or deadlines for submission of course materials for instructional program review.
- Send course instructors and other appropriate individuals (e.g., master teachers supporting field courses beyond Step 1 and 2) to all appropriate course workshops and other support events offered by the UTeach Institute.

### Additional Grant Compliance Activities:

- Using the questions provided by the UTeach Institute (with edits and customizations if necessary), administer student surveys midway through courses, to provide anonymous formative feedback for course instructors. If these surveys are administered electronically, allot a few minutes of class time for students to complete the surveys.

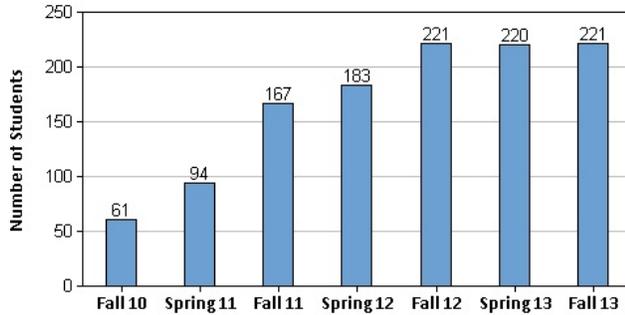
# University of Tennessee Knoxville - VolsTeach

## Progress Report - Fall 2013

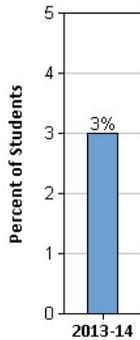
### Enrollment and Recruitment

Total Program Enrollment: 221 students

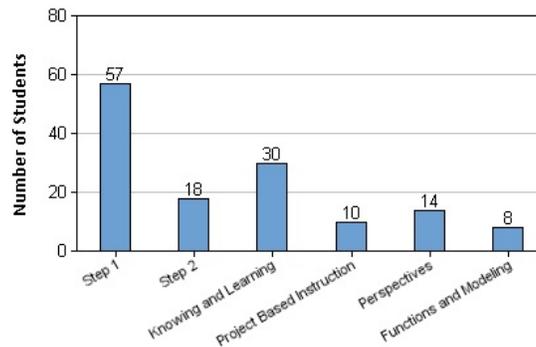
Program Enrollment (Number of Unique Individuals Enrolled in VolsTeach)



The Percent of Math and Science Students Recruited into VolsTeach



Enrollment by VolsTeach Course, Fall 2013



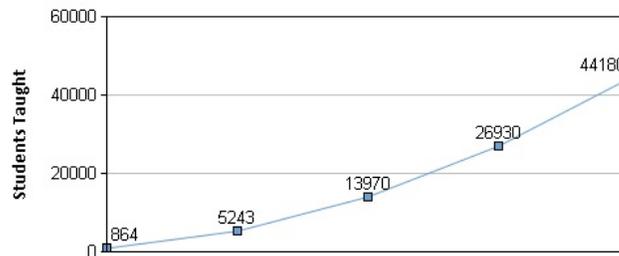
[STEM Pool includes Biology, Chemistry, Mathematics, Physics, Astronomy, Geosciences, Computer Science & other STEM majors]

(Fall percent recruited represents Step 1 students from the fall semester only)

Teachers Produced and Students Taught for VolsTeach

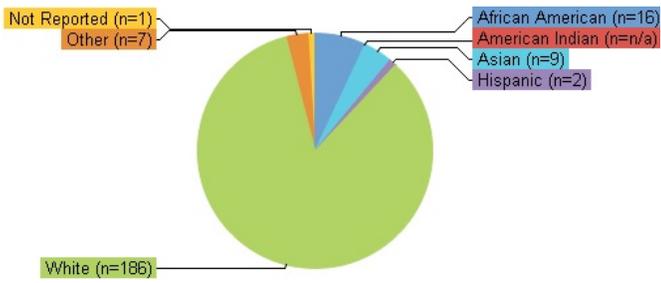
Cumulative number of students taught is based on an assumption that 80% of program graduates who go into teaching will remain for at least five years. Totals assume teachers will teach 150 students per year.

Actual number of cumulative graduates shown through previous year. Projected number of graduates shown for subsequent years.



	2012-13	2013-14	2014-15	2015-16	2016-17
Students Taught	864	5243	13970	26930	44180
Graduates (per Year)	8	33	40	39	40
Graduates (Cumulative)	8	41	81	120	160

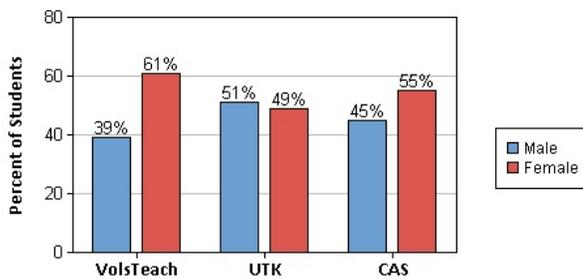
Ethnicity - VolsTeach - (n=221)



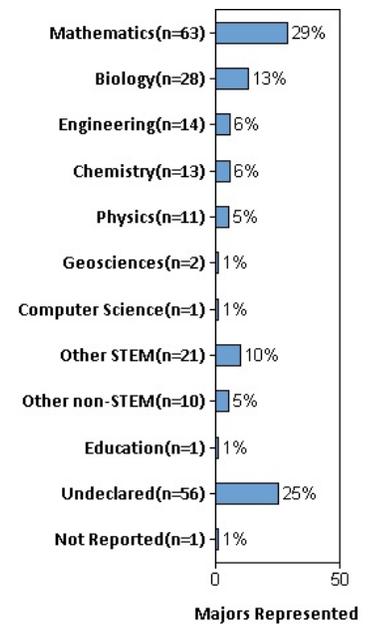
	VolsTeach		University of Tennessee Knoxville		College of Arts and Sciences	
	n	%	n	%	n	%
African American	16	7%	1520	7.3%	576	8.0%
American Indian	n/a	n/a	54	0.3%	26	0.4%
Asian	9	4%	700	3.4%	231	3.2%
Hispanic	2	1%	599	2.9%	243	3.4%
White	186	84%	16966	81.5%	5777	80.3%
Other	7	3%	990	4.8%	340	4.7%
Not Reported	1	1%	0	0.0%	0	0.0%

\*Data for the university and the college are from the most current data available.

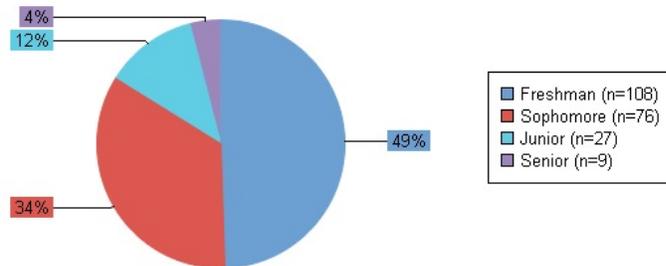
Gender VolsTeach - (n=221)



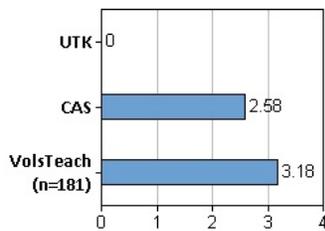
Majors for VolsTeach - (n=221)



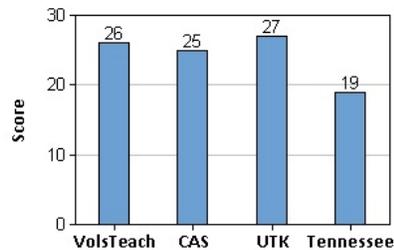
Classification (n=221)



Grade Point Average



ACT Math Average Scores



\*Data for the university and the college are from the most current data available.

Program Retention

Program Graduates

Retention of students from Step 1 to Step 2: 41.5%  
*(Students enrolled in Step 1 who subsequently enrolled in Step 2)*

Projected number of graduates (Fall 2013): 0  
*(Number of students enrolled in student teaching)*

**Implementation Milestones**

✓	Continue to enroll new students in program
✓	Program approved by State and authorized to offer STEM teaching certification
✓	Functional classroom, office space, and student workroom secured or being negotiated
✓	Steering committee meets regularly
✓	Fall 2013 site visit completed
✓	PEARS data submitted
✓	UTeach equivalent courses offered as recommended by the implementation schedule, program model, and/or negotiated w/ Institute
✓	Appropriate UTeach equivalent courses listed in the Spring 2014 course schedule
✓	Required Instructional Program Review materials submitted by established deadlines
✓	Sufficient number of master teachers employed to adequately support the program
✓	Accurate financials submitted by established deadlines
✓	UTeach Institute's recommendation for continued funding

✓ indicates that the program has fulfilled expectations for this semester/quarter.

**VoIsTeach School District Partners**

Knox County School System, Anderson County School System, Roane County School System





**VolSTeach Operations Summary**  
**University of Tennessee - Knoxville**  
**Fall 2013**

The UTeach Institute regularly documents progress at universities implementing UTeach nationwide. During the grant period, UTeach Institute staff conduct a variety of evaluation activities. In the early stages of implementation, co-directors, faculty members, master teachers, students, and program staff are interviewed, and programmatic and course implementation data are collected. After program operations are established, on-site evaluation and technical support activities shift to focus more on course observations and student focus groups. To fully review overall program implementation, Institute staff conduct a final, end-of-grant implementation review during the last year of the grant period. Similar interviews are conducted during this phase as were conducted in the early stages of implementation.

This document reviews program operations to date. As with other UTeach Institute evaluation activities and reports, the operations summary is organized by the *UTeach Elements of Success*, available at <http://uteach-institute.org/publications>.

**Purposes of the Operations Summary**

- To document the progress made thus far at each partner university, in order to plan technical support and determine how best to balance future operational and instructional support and evaluation
- To engage partner universities with a framework that describes the *UTeach Elements of Success* and the standards against which progress toward full UTeach implementation is measured
- To provide funders information regarding partner programs’ operational progress

**Program Operations Summary**

This summary details (a) the program’s operational progress as of Fall 2013 and (b) any remaining operational tasks to ensure fidelity and sustainability. Not all elements are expected to be in place from the beginning of implementation. Remaining programmatic challenges will continue to be reviewed by the UTeach Institute.

Throughout this summary, the following notations are used.

✓	The program is fulfilling expectations at this time
ip	Program actively attempting to bring the program into alignment with replication goals
—	More time is needed to determine progress
—	An adaptation from the model exists
na	Not applicable, either due to the university’s local context or to the point at which the program is in its development (e.g., activities related to serving students cannot be addressed during the planning period)

**UTeach Elements of Success | I: Distinctive Program Identity**

*“UTeach has an established identity as a prestigious secondary STEM teacher preparation program that attracts high caliber students, experienced and successful master teachers, and tenure-track faculty who are interested in the reform of STEM education.”*

✓	<i>“UTeach is an academic program that functions like a department, employing its own co-directors, program support staff, student advisors, master teachers, and tenure-track faculty.”</i>
✓	<i>“UTeach is name-branded and actively promoted through marketing materials, press releases, special announcements, and ceremonies that honor students and faculty.”</i>



**VolsTeach Operations Summary**  
**University of Tennessee - Knoxville**  
**Fall 2013**

ip	<i>“UTeach is the only undergraduate program at the university that recommends STEM majors for teaching certification.”</i>
	A 5-year pre-existing secondary STEM teacher education certification pathway was in place prior to the implementation of VolsTeach. As of Fall of 2011, all new students interested in secondary STEM teacher certification are directed into VolsTeach. The pre-existing program will be completely phased out by the end of the 2013-2014 academic year.
✓	<i>“A UTeach Website provides a comprehensive program description and ready access to course offerings, program news and reports, and other items of significance.”</i>
✓	<i>“A UTeach student organization fosters camaraderie among participants, establishes a presence on campus, and promotes the program to students and within the university community.”</i>
	Student focus group comments: <i>“[The student organization, VolunTeachers, is] pretty great. They have a meeting once a month [where] they usually have free food and speakers come in.”</i>
✓	<i>“UTeach students are honored for choosing to become teachers through special ceremonies; opportunities to meet with university administrators, program co-directors and other supporters; and press coverage.”</i>
	Student focus group comments: <i>“I do feel kind of special being in this program. Because we have so many opportunities [such as the] Noyce scholarship, [and it’s] just for us. It’s not for the rest of the science department, for example.”</i> <i>“There are just, like, these advantages [with VolsTeach] that you wouldn’t get in a regular teaching program. It’s just very personal and relaxed and I just feel kind of at home.”</i>

**UTeach Elements of Success | 2: Cross-College and School District Collaboration**

*“UTeach is a formally coordinated effort of the equivalents of the College of Education, the College of Liberal Arts, and the college(s) responsible for administering STEM degrees.”*

✓	<i>“UTeach co-directors—one representing the STEM college(s) and one representing the College of Education or its equivalent—collaborate to ensure effective program operations and a high quality teacher preparation experience for students.”</i>
✓	<i>“A cross-college steering committee that includes representatives from program faculty and staff meets regularly to develop program policies, monitor curriculum and instructional effectiveness, and manage student affairs and program operations.”</i>
✓	<i>“Master teachers and tenure-track faculty from all participating colleges are actively involved in the development and ongoing implementation of the UTeach program to ensure effective course articulation, explicit connections between mathematics and science, and an appropriate balance of STEM content and pedagogical instruction.”</i>
✓	<i>“Administrators, content specialists, and mentor teachers from one or more school districts work collaboratively with UTeach faculty to ensure relevant, high quality field experiences, feedback, and mentoring throughout the students’ UTeach program of study.”</i>



**VolSTeach Operations Summary**  
**University of Tennessee - Knoxville**  
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**UTeach Elements of Success | 3: Long-Term Institutional and Community Support**

*“UTeach is a long-term institutional and community priority that is sustained through ongoing financial support from university and college administrators, as well as a broader range of stakeholders concerned with STEM education reform. UTeach is afforded a level of stability similar to other university departments and is not an outreach effort.”*

ip	<i>“The university provides a recurring instructional budget, as well as ongoing in-kind support, such as appropriate office space, well-equipped classrooms and laboratories, dedicated student advisors, and an administrative office staff to provide professional services such as purchasing and managing materials, scheduling classes, and processing payments for mentor teachers and student internships.”</i>
Program representatives are working with university leadership to develop and finalize a written sustainability plan that specifies the budget needed to maintain the program past the grant period.	
✓	<i>“UTeach co-directors proactively advocate for programmatic needs and ensure that university leadership is kept informed of program progress and growth.”</i>
✓	<i>“Program elements that cannot be paid for by university instructional funds are supported by gifts from individuals, corporations, foundations, and other public and private sources.”</i>
✓	<i>“A dedicated program endowment is established and the work of establishing and meeting a long-term goal amount is a collaborative effort between college development officers, business leaders, and UTeach faculty and staff.”</i>
VolSTeach and university development officers continue working to meet the long-term endowment goal of \$6,500,000 by December 2014. The current endowment amount is \$151,000.	
✓	<i>“Instructors and staff apply for and administer competitive state and national grants and other awards to provide additional financial support to the program.”</i>

**UTeach Elements of Success | 4: Compact and Flexible Degree Plans**

*“UTeach offers four-year degree plans that fully integrate students’ STEM content major requirements and UTeach program requirements and allow students to obtain secondary STEM teaching certification while earning degrees in science, computer science, engineering, or mathematics.”*

ip	<i>“UTeach explicitly recognizes the difficulties posed to students with limited economic means who traditionally have had to complete additional undergraduate semesters in order to earn teaching certification in addition to their STEM major degrees, as well as the importance of diversifying the current secondary STEM teaching force. As a result, UTeach degree plans allow students to earn both a degree in their major and teaching certification in the same amount of time required by equivalent undergraduate STEM degrees, usually between 120 and 126 semester credit hours, without the requirement and cost of additional undergraduate semesters.”</i>
VolSTeach is a minor pathway consisting of 24 hours for science majors and 27 hours for math majors on top of the STEM degree, typically consisting of 120 hours.	
✓	<i>“UTeach program degrees are equivalent in rigor to other undergraduate STEM degrees, in addition to being fully coordinated with state and national standards for teacher preparation in these disciplines.”</i>
✓	<i>“UTeach degree plans include a limited professional development sequence of specially designed courses in mathematics and science education as well as domain-specific mathematics and science courses that fulfill multiple university requirements.”</i>
✓	<i>“UTeach provides various pathways for completing required coursework such that program enrollment is open to students at any point in their undergraduate careers, allowing upperclassmen and post-baccalaureate candidates to complete the program in an accelerated manner.”</i>



**VolsTeach Operations Summary**  
**University of Tennessee - Knoxville**  
**Fall 2013**

**UTeach Elements of Success | 5: Active Student Recruitment and Support**

*“UTeach actively recruits to attract the greatest possible number of STEM majors and provides significant resources and encouragement to maximize program and career retention.”*

✓	<i>“UTeach employs a variety of targeted communication strategies and recruitment events to ensure that all STEM majors, particularly incoming freshman, are invited to participate in the program and aware of its benefits.”</i>
Student focus group comments: <i>“[The VolsTeach recruiter/coach] does do an excellent job advertising, recruiting, she really is everywhere.”</i>	
✓	<i>“The first two, one-hour field-based courses allow students to try out teaching in a positive and supportive environment with no demand for commitment to continue in the program. Students are offered a financial incentive, such as a tuition rebate, for completing each of these courses.”</i>
✓	<i>“STEM major and UTeach program advisors actively support careers in teaching and are well informed about the wide variety of degree plans leading to certification, ensuring that UTeach pre-service teachers successfully meet all requirements for graduation.”</i>
Student focus group comments in response to the question “How did you hear about VolsTeach?” <i>“I was interested [in pursuing teaching as a career], but on the border. Then I got a note that said ‘Are you interested in teaching secondary education?’ and I was like ‘sure, okay.’ I wrote my name on a list. So I kind of fell into it but that was cool, I’m happy.”</i> <i>“I decided to be a Math major beginning in my sophomore year and was in one of my first Math courses. [The VolsTeach recruiter/coach] came in, did the little VolsTeach plug, and by that afternoon I was enrolled in Step 1.”</i>	
✓	<i>“Students are provided a well-equipped workroom with appropriate meeting space, convenient to UTeach classrooms and master teacher and administrative offices, to build community, encourage collaboration, and develop peer support.”</i>
✓	<i>“Students have opportunities, facilitated and paid for by the program, to earn income and gain relevant work experience through flexible internship placements at nonprofit STEM or education-related organizations.”</i>
Student focus group comments: <i>“[As part of the VolsTeach internship program] I worked with the Knoxville Zoo. This is my second semester with the Knoxville Zoo and I’m helping teach a home school class. It’s just so much fun and my mentor teacher there has given us a lot of freedom, ...I have to come in with a demonstration ready to show the kids [every week].”</i>	
✓	<i>“UTeach graduates who enter the teaching profession receive two years of intensive, individualized induction support, including classroom visits, regularly scheduled professional development opportunities, online mentoring, and access to a lending library of materials.”</i>



**VolSTeach Operations Summary**  
**University of Tennessee - Knoxville**  
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**UTeach Elements of Success | 6: Dedicated Master Teachers**

*“UTeach master teachers – non-tenured clinical faculty with exemplary secondary teaching experience – are exclusively dedicated to student support and program success.”*

✓	<i>“Master teachers are widely recognized for their educational leadership and secondary mathematics, science, or computer science teaching experience; have earned at least a master’s degree; and demonstrate their skill and passion for working with students and novice teachers.”</i>
<i>Note: The UTeach Institute relies on programs themselves to determine whether this element has been fulfilled.</i>	
ip	<i>“Master teachers are appointed as non-tenured clinical faculty and are paid from the university instructional budget, hired at a ratio of approximately one per 50 students in a mature program.”</i>
<i>Master teachers’ salaries are partially paid from the university instructional budget. VolSTeach is continuing to transition salaries over to the university instructional budget from grant funds.</i>	
✓	<i>“Master teachers co-teach or formally support field-based courses, observing and providing written and oral feedback to evaluate and help students improve their skills throughout the program.”</i>
✓	<i>“Master teachers manage field experiences, working with local school district teachers and administrators to ensure appropriate field placements and productive teaching experiences for UTeach students.”</i>
✓	<i>“Master teachers maintain an “open door” policy, making themselves available to students on demand.”</i>
<i>Student focus group comments:</i> <i>“...last week, I had to prepare a lesson for my high school classroom. [My partner and I] just didn't know what to teach and so we just asked [the master teacher]. She took like 30 minutes and gave us all these ideas and encouraged us... [the master teachers all] love what they do and they love to talk about it.”</i>	
✓	<i>“Master teachers are active in program recruitment, manage student internships, and participate in a variety of other student support activities, including tracking students and identifying and following up with any students in danger of not completing the program.”</i>
✓	<i>“Master teachers are knowledgeable about what new teachers encounter and provide ongoing and on-demand career support for UTeach graduates, particularly during their first two years of induction into the profession.”</i>

**UTeach Elements of Success | 7: Rigorous, Research-Based Instruction**

*“UTeach courses are designed to develop deep understanding of content of particular importance to future secondary STEM teachers and build strong connections between mathematics and science and between educational theory and practice.”*

✓	<i>“Rigorous learning outcomes are aligned with national, state, and program standards.”</i>
✓	<i>“Evidence of student proficiency is measured throughout the program using standardized assessments, including a final portfolio of student work and a field teaching evaluation. Students are required to demonstrate competency across domains ranging from STEM content knowledge to equitable instruction and professional responsibility in order to be recommended for certification.”</i>
✓	<i>“UTeach faculty actively involved in STEM research teach content courses such as Functions and Modeling and Research Methods that address topics of particular importance for future STEM teachers, including the processes by which scientists and mathematicians arrive at new knowledge and methods.”</i>
ip	<i>“UTeach science and mathematics education faculty - who are active in research related to STEM teaching and learning [including how students learn mathematics and science, how to assess what students know, and how to incorporate learning technologies to enhance student learning] - teach Knowing and Learning in Mathematics and Science, Classroom Interactions, and Project-Based Instruction.”</i>
<i>A master teacher teaches Knowing and Learning in Mathematics and Science. STEM faculty in TPTE are exploring opportunities to teach this course in the future.</i>	

-	<i>“UTeach faculty actively involved in research on the history or philosophy of science or mathematics teach Perspectives on Science and Mathematics, a content course that develops students’ conceptions about the historical and philosophical development of STEM disciplines.”</i>
Perspectives on Science and Mathematics is currently taught by master teachers.	
✓	<i>“Pedagogical instruction throughout the program is discipline specific, focusing on research-based best practices in STEM teaching and learning and the connections between mathematics and science and among the sciences.”</i>
✓	<i>“Course instructors—both master teachers and tenure-track faculty— purposefully model effective STEM instruction as students learn to employ research-based pedagogical methods and strategies ranging from inquiry to direct instruction, connecting theory to practice throughout the program.”</i>
✓	<i>“Courses emphasize the underlying interconnections between mathematics and science and among the sciences, while making explicit what research in the learning sciences implies about the similarities and differences in how each is taught and learned. Science, mathematics, and computer science majors take UTeach courses together and collaborate whenever possible.”</i>
✓	<i>“All UTeach courses integrate research-based themes important to STEM education, including research on and strategies to ensure equitable instruction, how to create and analyze authentic assessments, and pedagogically effective uses of a wide variety of technological tools.”</i>

**Note:** The instructional program will be fully assessed once all program courses have been implemented and reviewed. Instructional program review activities also are documented separately.

### **UTeach Elements of Success | 8: Early and Intensive Field Experiences**

*“In order to promote confidence and accelerate professional development, UTeach students begin a carefully scaffolded sequence of intensive teaching opportunities in their first semester of the program and continue these field experiences throughout.”*

✓	<i>“Field experiences are domain specific, tightly articulated with the UTeach curriculum, and closely supervised by course instructors—both tenure-track faculty and master teachers—to promote full integration of critical knowledge and skills.”</i>
✓	<i>“Students develop their own lesson plans, using research-based instructional materials and strategies, with intensive coaching and feedback from both master teachers and tenure-track faculty who are experts in STEM content and pedagogy, in order to ensure UTeach expectations for accuracy and inquiry-based practice are met.”</i>
✓	<i>“Students experience multiple STEM teaching opportunities in high-need and diverse elementary, middle, and high school settings to gain an understanding of current K-12 public school environments and student populations.”</i>
✓	<i>“Beginning in their first semester and throughout the program, students’ time in classrooms is carefully structured, from focused observations of authentic teaching to clinical interviews of students regarding problem solving strategies to their own experiences teaching, receiving formative feedback, and revising and re-teaching lessons.”</i>
Student focus group comments: <i>“For me [the teaching out in the field has] been a great experience. First of all, it builds up your self-confidence, like majorly. Just standing in front of children and teaching them [in these first classes has been helpful]. I taught 4th grade the first time and the first lesson, you know, I was very nervous and by the time I taught 6th grade last semester, it was really easy.”</i>	



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✓	<i>“Mentor teachers—host K–12 teachers who receive stipends for their collaboration—create supportive classroom environments, review lesson plans, and provide oral and written feedback to UTeach students after observing them teach.”</i>
Student focus group comments: <i>“[My mentor teacher] is a superstar. She is so interactive with the kids and she is very intentional. She is able to keep the class under control very quickly.”</i> <i>“My mentor teacher has been really easy to communicate with. She has responded to emails and gave us feedback after the initial teach with a lot of good information for teaching.”</i>	

**Note:** *The instructional program will be fully assessed once all program courses have been implemented and reviewed. Instructional program review activities also are documented separately.*

**UTeach Elements of Success | 9: Continuous Program Improvement**

*“UTeach systematically collects and analyzes both student and program level data to make informed decisions about program development and improvement.”*

✓	<i>“UTeach systematically gathers and reports data on the characteristics of its students and graduates, including numbers of students, grade point average distributions, demographic information, graduation rates, and retention rates in teaching.”</i>
<i>Note: The UTeach Institute currently collects these data from all programs.</i>	
✓	<i>“UTeach program co-directors, master teachers, tenure-track faculty, and administrative staff regularly review data on program indicators, reflect on successes and challenges, plan for upcoming semesters, and continue to refine program components.”</i>
✓	<i>“The UTeach curriculum is regularly reviewed by the steering committee and instructional teams of faculty and refined to ensure course alignment, minimize redundancies, and update content in accordance with current research on best practices and state and national guidelines.”</i>
✓	<i>“Students provide formal, anonymous feedback on the UTeach program and courses through a variety of surveys and are given the opportunity to voice opinions in the presence of program decision-makers at regularly scheduled events and activities.”</i>
<i>Note: The UTeach Institute currently collects student survey data from all programs.</i>	
✓	<i>“UTeach program co-directors, master teachers, tenure-track faculty, and administrative staff interact regularly with colleagues from universities replicating UTeach and other institutions to share information on program development, management, and general concerns related to STEM teacher preparation and support.”</i>

**Additional Grant Compliance Activities**

✓	<i>IRB approval has been secured locally.</i>
✓	<i>The program has been granted state approval and is able to offer secondary STEM teacher certifications.</i>
✓	<i>Formal processes have been developed for selecting mentor teachers and training them on the program’s expectations.</i>
✓	<i>Program and student level data have been submitted to the UTeach Institute for current term.</i>
✓	<i>University profile data have been submitted to the UTeach Institute for the current term.</i>



**VolSTeach Operations Summary**  
**University of Tennessee - Knoxville**  
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✓	<i>All requested student surveys were administered in the current term.</i>
Due to the need for programs to customize the timeframe and questions of the mid-semester surveys, the UTeach Institute no longer centrally administers these surveys, and instead relies on programs themselves to survey students for anonymous formative feedback midway through each course.	
✓	<i>All appropriate course materials have been submitted to the UTeach Institute for instructional program review for the current term.</i>
<i>Note: Instructional program review activities are documented separately in cross-site reports by cohort and course.</i>	
✓	<i>The program was represented at appropriate UTeach Institute support events in the current term (e.g., course workshops, retreats, annual conference).</i>
<p>Support events scheduled for Spring 2014 are listed below.</p> <ul style="list-style-type: none"> <li>• Master Teacher Retreat – January 9-10, 2014</li> <li>• Induction Workshop</li> <li>• Apprentice Teaching Course Workshop</li> <li>• Step Course Workshop</li> <li>• 2014 UTeach Annual Conference – May 20-22, 2014</li> </ul> <p>Support events scheduled for Spring 2014 are listed below.</p> <ul style="list-style-type: none"> <li>• Master Teacher Retreat – January 9-10, 2014</li> <li>• Induction Workshop</li> <li>• Apprentice Teaching Course Workshop</li> <li>• Step Course Workshop</li> <li>• 2014 UTeach Annual Conference – May 20-22, 2014</li> </ul>	

**UTeach Institute Recommendations for Progress and Sustainability**

Element 1: Distinctive Program Identity

- Continue working to phase out the pre-existing program.
- Continue to support the VolunTeacher student organization and help them bring in more VolsTeach students to participate.

Element 2: Cross-College and School District Collaboration

- No recommendations at this time.

Element 3: Long-Term Institutional and Community Support

- Meet with university leadership to ensure program will be funded past the grant period.

Element 4: Compact and Flexible Degree Plans

- Work with all relevant STEM departments and university leadership to create VolsTeach pathways that are limited to around 120-126 degree hours.

Element 5: Active Student Recruitment and Support



## **VolSTeach Operations Summary**

### **University of Tennessee - Knoxville**

### **Fall 2013**

- Continue recruiting students for Step I and other courses every semester (*this is in progress*).
- Continue working on planned induction support activities for the upcoming graduates entering the profession (*this is planned*).

#### Element 6: Dedicated Master Teachers

- Continue to work towards transitioning the master teacher salaries to the instructional budget.

#### Element 7: Rigorous, Research-Based Instruction

- Work to identify STEM faculty in TPTE to teach Knowing and Learning in Mathematics and Science.
- Work with university leadership and the history and/or philosophy departments to identify faculty actively involved in research on the history or philosophy of science or mathematics to teach Perspectives on Science and Mathematics.

#### Element 8: Early and Intensive Field Experiences

- No recommendations at this time.

#### Element 9: Continuous Program Improvement

- Continue to ensure that instructors teaching program courses are aware of appropriate UTeach Institute workshops and other events, the Members Website, and other resources and support available to them by the UTeach Institute, as well as any requirements or deadlines for submission of course materials for instructional program review.
- Continue to send course instructors and other appropriate individuals (e.g., master teachers supporting field courses beyond Step 1 and 2) to all appropriate course workshops and other support events offered by the UTeach Institute.

#### Additional Grant Compliance Activities:

- Using the questions provided by the UTeach Institute (with edits and customizations if necessary), administer student surveys midway through courses, to provide anonymous formative feedback for course instructors. If these surveys are administered electronically, allot a few minutes of class time for students to complete the surveys.

