
Program Recruitment and Retention (PR²) Conference Working Group Report

Julie McNamara, California State University (CSU) East Bay, julie.mcnamara@csueastbay.edu

Dana Franz, Mississippi State University, dana.pomykal.franz@colled.msstate.edu

Maria Fernandez, Florida International University, mfernan@fiu.edu

Overview

The PR² Research Action Cluster (formerly known as the MATH RAC) convened on June 25 for the first of three working sessions during the MTE-Partnership annual conference. The RAC continued the work started at a convening held in Dallas over the weekend of January 21 and 22 with the goal of revising the driver diagram to reflect our dual goals of program recruitment and program retention, and to put the need for attending to issues of diversity, equity, and social justice at the forefront. The RAC agreed that its initial goal of producing a document to guide marketing campaigns had been reached with the completion of the *Secondary Mathematics Teacher Recruitment Campaign Implementation Guide*. Present at the January meeting were Dana Franz, Maria Fernandez, Carol Fry Bohlin (via Skype), Jim McKown, Gary Martin (facilitator), Ed Dickey, Cheryl Roddick, Jan Smith, and Laurie Cavey. During the January gathering we reaffirmed our agreement that the general aim of the RAC (i.e., to increase the supply of well-prepared, diverse candidates completing our secondary mathematics teacher preparation programs) had not changed but we needed to redefine how to address the challenges impeding progress toward our goal. This work led to the revised Driver Diagram shown in Figure 1.

In addition, we began identifying “change ideas” and sent out a draft to the group. While the leadership team received some feedback from the larger RAC during the spring, we knew that we would need to address the change ideas more thoroughly when we were together at the June Conference. The solicitation for the PR² RAC is shown in Appendix A.

An ongoing challenge for secondary schools (grades 6-12) in the United States is the number of students being taught by under-qualified mathematics teachers (Hill & Gruber, 2011; Ingersoll, 2005). Increasing school enrollment coupled with both a significant increase in the number of teachers leaving the classroom as well as increasing opportunities for women to find better paying work outside of the profession of teaching raise concerns about a potential deficit in the teacher workforce (Ingersoll & Perda, 2010). This results in out-of-field teaching where teachers may be credentialed to teach in another discipline but are teaching one or two mathematics courses. The problem of under-qualified teachers is even more critical in high-poverty and rural schools where it can be more challenging to fill positions with teachers (Hill, 2007). Further, teaching assignment practices within schools often place the least prepared teachers with the students who need a highly qualified teacher the most (Kalogrides, Loeb, & Beteille, 2011).

Within the last decade, mathematics teacher preparation programs have focused on developing marketing campaigns to broaden the attention of teaching as a career (e.g., the Teach Science and Mathematics campaign at the University of South Carolina). Motivated, in part, by the national “100K in 10” effort to train 100,000 highly qualified STEM teachers by 2021, these marketing campaigns strive to change potential teachers’ (and others’) perceptions about teaching. The development of a marketing campaign includes careful attention to the target audience, branding, social media, public relations, and the web identity of the program. However, we need to understand how these campaigns are impacting the recruitment and retention of teachers.

Program Recruitment & Retention RAC Driver Diagram

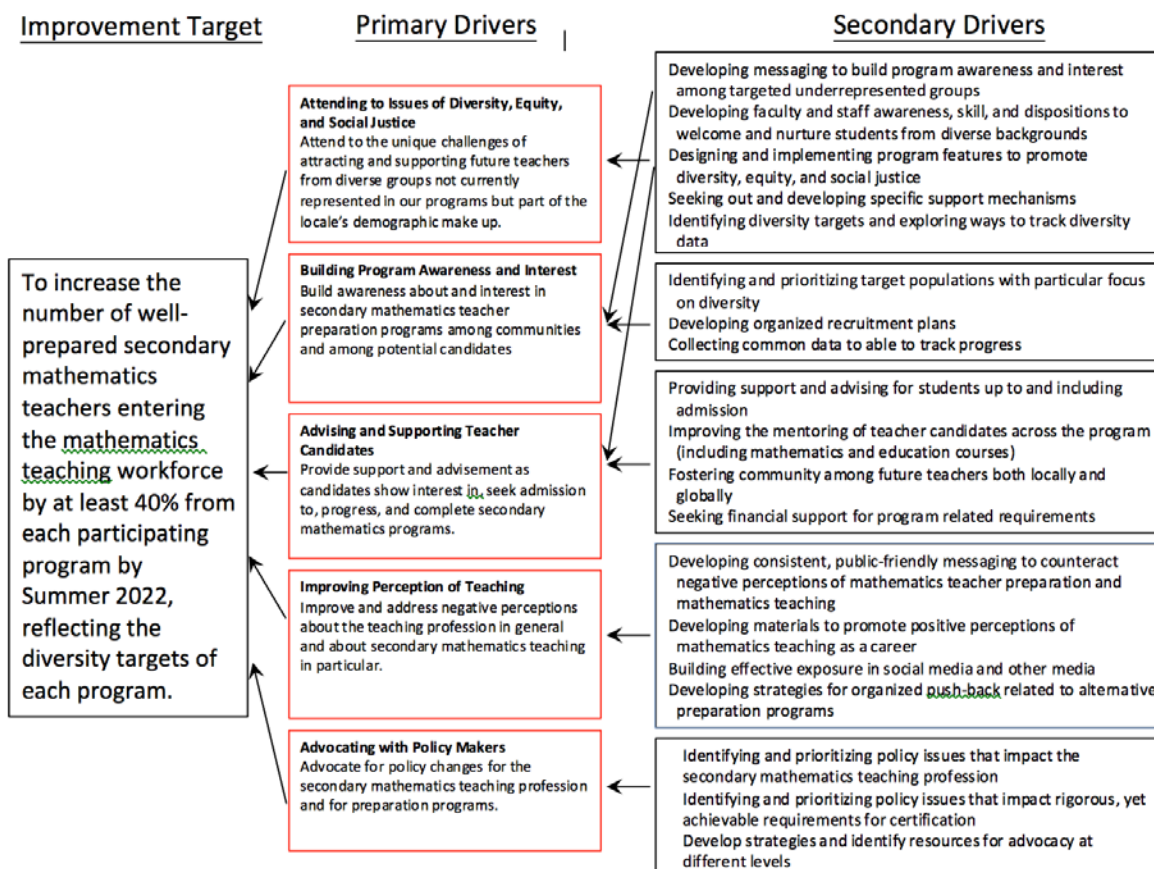


Figure 1. PR² revised driver diagram.

Table 1

Present at the MTE-Partnership 2017 Conference

Dana Franz, Mississippi State University	Shawnda Smith, University of Texas at Austin
Maria Fernandez, Florida International University	Ed Dickey, University of South Carolina
Charmaine Mangram, University of Hawaii	Cheryl Odorica, California State University Chico
Margaret Schroder, University of Kentucky	Kathy Hann, California State University East Bay
Seth Jones, Middle Tennessee State University	Julie McNamara, California State University East Bay
Sally Millsap, Middle Tennessee State University	

What We Accomplished at the Conference

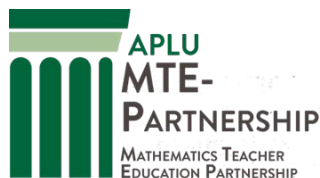
During our first session at the June conference, Dana Franz presented the new Driver Diagram and Preamble to the group. As we anticipated, a great deal of time was spent clarifying drivers and terminology. To facilitate this work, the RAC members split into two working groups. One group worked on defining terminology, in particular, the terms equity, diversity, and social justice. This resulted in draft definitions that will be sent to the entire RAC for feedback and revisions. The second working group addressed the redundancy of secondary drivers. This is work that the RAC will continue to address moving forward.

During our second work session on June 25 the RAC began by reviewing the change ideas that came out of the meeting in January. Our attempt to prioritize the change ideas led the RAC to realize we were not consistent. One “big idea” that was voiced by Ed Dickey was the realization that, with the exception of Cheryl Odorica at CSU Chico, the work of the RAC is not included in any of our actual positions; it is above and beyond our primary responsibilities.

What We Are Working on Going Forward

Based on our attempts to revise and refine our secondary drivers and change ideas the RAC members agreed to formalize the recruitment plan at their institutions using the language of our Driver Diagram. (End of August due date.) The RAC members also agreed on the importance of creating common structures for reporting on and sharing data regarding recruitment and retention efforts (see Appendix B). As a result, the RAC decided to undertake a PDSA cycle for reporting on recruitment and retention efforts using a common format. The RAC members who were present at the conference will pilot the common format shown in Appendix A by our next conference call on September 20. Revisions will be made as needed and the data collection will be extended to the rest of the institutions in the MTE-Partnership.

Appendix A



Solicitation for Participation in the
PR² Program Recruitment and Retention RAC

June 2017

Problem Addressed

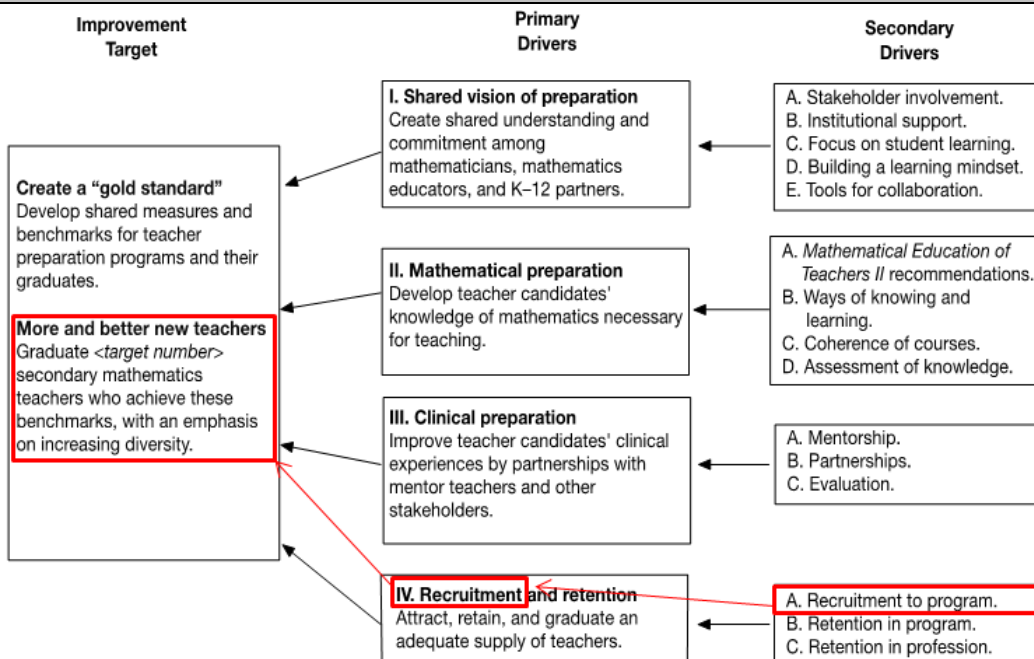
Guiding Principle 8. Student Recruitment, Selection, and Support: The Teacher Preparation program actively recruits high-quality and diverse teacher candidates into the program and supports their success in completing the program.

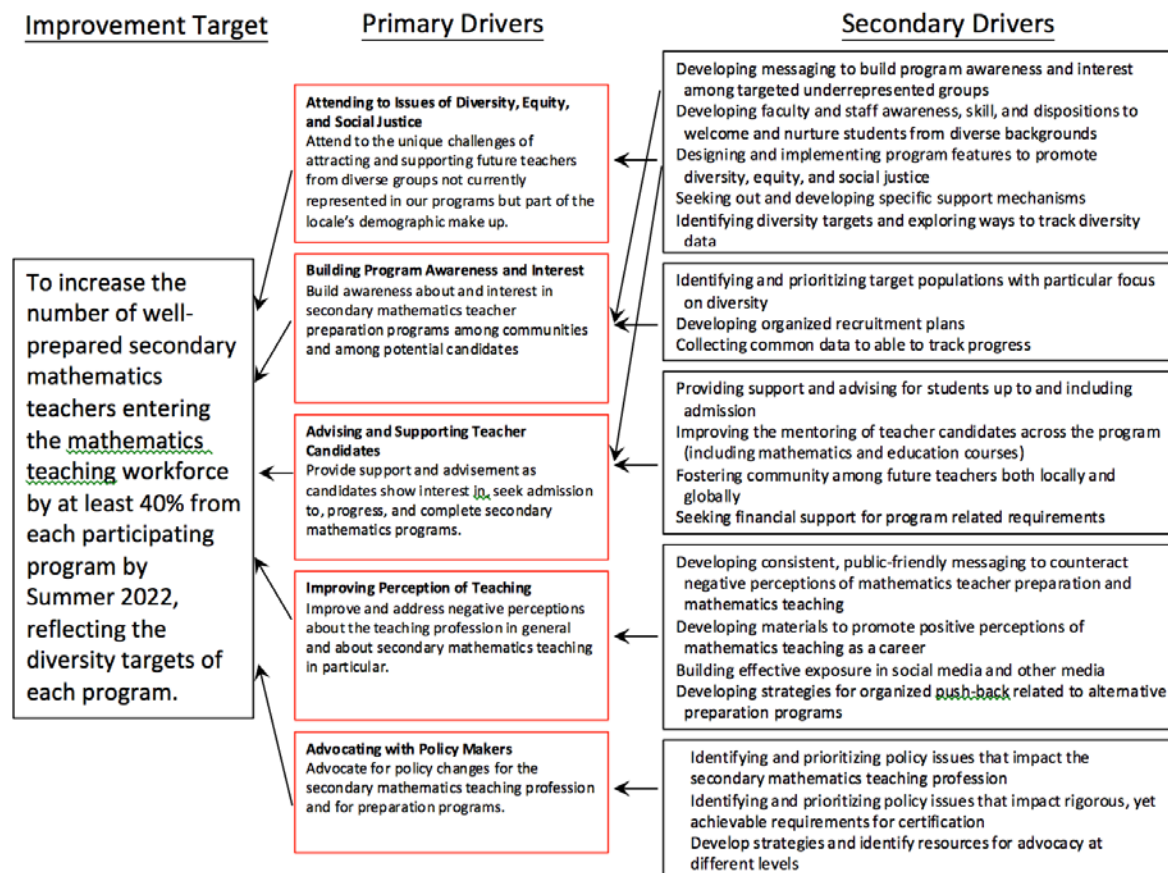
Problem:

- Secondary Mathematics Teacher Programs* (SMTPs) are not enrolling or graduating secondary mathematics teachers to satisfy the needs of U.S. middle and high schools
- Current teachers and teacher candidates do not reflect the diversity of the K-12 US student population
- Salary, stereo-types, job-satisfaction, career prestige, and the challenges of learning mathematics contribute to low enrollments in mathematics teacher preparation programs

* An SMTP is a program that includes a nationally accredited course of study housed at an institution of higher education that leads to licensure for teaching mathematics in grades 6-12.

General Approach





- Implementing models for developing and launching purposeful and sustained marketing campaigns that rebrand teaching to appeal to diverse populations
- Identify critical experiences in mathematics and clinical work that impact recruitment and retention
- Include adaptations for programs focusing on undergraduates, UTeach, alternative pathways, career changers, and other models.

Who We Are	
Cynthia Anhalt , University of Arizona, & Maria Fernandez , Florida International University	Jennifer Whitfield , Texas A&M University
Diane Barrett , Jim McKown , Linda Venenciano , and Charmaine Mangram , University of Hawaii	Nadine Bezuk , Randy Philipp & Rafaela Santa Cruz , San Diego State
(Ryan) Seth Jones and Sally Millsap , Middle Tennessee State	Carol Fry Bohlin , Fresno State University
Laurie Cavey , Joe Champion & Jan Smith , Boise State	Kathy Hann , Julie McNamara & Julia Olkin , CSU-East Bay & Cheryl Roddick , San Jose State
Ed Dickey , University of South Carolina	Cheryl Ordorica , CSU-Chico
Dana Franz , Mississippi State University	Sofia Vicuna , CSU-Monterey Bay
Margaret Mohr-Schroeder , U of Kentucky	Gregory Chamblee , Georgia Southern U.
Amy Nebesniak , University of Nebraska-Kearney	

Current Progress

Each partner is implementing *Plan Do Study Act* cycles tied to recruitment and using measures of program inquires and enrollments to monitor impact. Boise State, Middle Tennessee State, and FIU are addressing UTeach replication recruitment efforts. Arizona, Kentucky, Mississippi State, Texas A&M, and UofSC as well as the California State System campuses are implementing various strategies and recruitment tactics tied to their own programs. Efforts include website development, class meetings, posters, social media efforts and videos. Sample partner websites are at

- University of Arizona: **SMEP**: <http://math.arizona.edu/~smep/>
- Boise State University, **IDoTeach**: <http://idoteach.boisestate.edu/>
- California State University, **EduCorps**: http://teachingcommons.cdl.edu/csu_educorps
- Florida International University, **FIUTeach**: <http://fiuteach.fiu.edu/>
- University of Kentucky, **STEM Dept**: <https://education.uky.edu/stem/>
- Middle Tennessee State University, **MTeach**: <http://www.mtsu.edu/mteach/>
- Mississippi State: **CISE**: <http://www.cise.msstate.edu/>
- Texas A&M University, **AggieTeach**: <http://aggioteach.tamu.edu/index.shtml>
- University of South Carolina, **TeachScienceandMath**: <http://teachscienceandmath.org>

The RAC has created and disseminates a nine-module **Secondary Mathematics Teacher Recruitment Campaign Implementation Guide** available within Trellis and at <http://bit.ly/MATHImplGuide> .

- Module 1 Teacher Recruitment Campaign Overview
- Module 2 Campaign Planning
- Module 3 Campaign Research
- Module 4 Branding
- Module 5 Social Media
- Module 6 Public Relations
- Module 7 Paid Broadcast Media
- Module 8 Web Site Identity
- Module 9 Lessons Learned/Evaluation



RAC members share **recruitment tools** (flyers, posters, videos, websites, etc) at

http://padlet.com/ed_dickey/vhle4qisbq82

The RAC continues to be aware of the work of the STRIDES RAC and aims to complement, but not duplicate, their efforts.

Opportunities for Engagement

- As a full partner, commit to implementing marketing tactics and share strategies, results, and data with RAC members. As participating partners, join in periodic conference calls to learn about activities and share information as appropriate.
- Share successful campaigns to further refine the Implementation Guide.
- Explore and implement strategies to diversify pool of teacher candidates and more effectively impact issues of equity and social justice in school settings.
- Explore the possibility of creating and working on sub-RACs.
- Participate in the building of a Recruitment Resources Collection with the new MTE-Partnership online communication and collaborative work platform with the AAAS Trellis site: <http://www.trelliscience.com>

Appendix B

Develop common format for reporting

After much debate, it was determined that we need to first collect information about our programs in some type of common format. Suggested at the conference as our initial data collection was the following format:

- a. University Context
 - i. Setting
 - ii. Demographics
 - iii. Type of institution
- b. Program context
 - i. Setting
 - ii. Demographics
 - iii. Type of program (Undergrad, Post-Bac, Grad, Combo)
- c. Recruitment targets
 - i. High schoolers
 - ii. Community college students
 - iii. Career changers
 - iv. Current undergrads
 - v. Current grad students
 - vi. Campus organizations/clubs
 - vii. Students at minority serving institutions (HBCUs, HSIs,...)
- d. Recruitment strategies