



Preparing Tomorrow's Teachers: The Role of Practice-Based Teacher Preparation Programs in Massachusetts

Research conducted and report produced by RENNIE CENTER for Education Research & Policy

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About the Trefler Foundation

The Trefler Foundation is a private charitable organization dedicated to strengthening teaching and learning in public K-12 education systems and to supporting leadership development in schools and nonprofits. At the heart of the Foundation's mission is a belief in the potential of young people to succeed in school and higher education and to contribute to their community with the support of caring, dedicated adults. To achieve its mission, the Foundation supports strategies to test ideas and scale success, opportunities to build and share knowledge and skills, and creative partnerships between nonprofits, public education and higher education. The Foundation's geographic focus is on the greater Boston area.

About RENNIE CENTER for Education Research & Policy

The Rennie Center's mission is to develop a public agenda that informs and promotes significant improvement of public education in Massachusetts. Our work is motivated by a vision of an education system that creates the opportunity to educate every child to be successful in life, citizenship, employment and life-long learning. Applying non-partisan, independent research, journalism and civic engagement, the Rennie Center is creating a civil space to foster thoughtful public discourse to inform and shape effective policy. For more information, please visit www.renniecenter.org.

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This year there are 38 aspiring teachers enrolled in the Teach Next Year program at the University of Massachusetts Boston. At the start of the school year, these aspiring teachers were placed in eight Boston Public Schools located in the neighborhoods of Dorchester, Roxbury, West Roxbury, Hyde Park, Jamaica Plain, Roslindale and East Boston, and in six Randolph Public Schools. The candidates will spend a full academic year working as apprentices alongside expert educators and taking courses to supplement and enrich their teaching experiences.

The Teach Next Year program begins in late June with courses at the university, followed by integrated teaching and graduate study on-site at the schools for the remainder of the year. Participants work in various roles with students—initially as tutors, co-teachers and student teachers, and by mid-year, as full-time teachers with a reduced assignment. Teach Next Year is an intensive site-based educational experience that provides professors, practitioners and colleagues who support aspiring teachers.

Introduction

Teach Next Year is an example of one of the many programs in Massachusetts designed to attract college graduates who are interested in becoming teachers. Programs like Teach Next Year are considered alternative routes to teaching because they are alternatives to traditional four-year undergraduate teacher preparation programs.

Over the past decade, alternative teacher preparation programs have proliferated across the nation—and in Massachusetts—in response to projected teacher shortages and in an effort to better prepare teachers for the challenges of today's classrooms. While the vast majority of Massachusetts teachers are trained through traditional teacher preparation programs, both the number of alternative route programs and the number of teachers completing them has grown significantly.

National research comparing alternative and traditional routes to teaching offers little empirical evidence to guide policy changes. Yet there has been a shift in teacher preparation programs toward: longer and more intense field-based experiences; closing the gap between theory and practice; partnerships between preparation programs and local school districts; and accountability in teacher preparation. It is within this context that the Rennie Center embarked upon a project to examine the role of alternative routes to teaching in Massachusetts. The project examined the characteristics of alternative teacher preparation programs in the Commonwealth, including the type of candidates they attract, and examined issues associated with the expansion and sustainability of these programs. This report is the culmination of the Rennie Center's year-long project.

The study revealed that the reasons for the creation and growth of alternative programs in Massachusetts are consistent with national trends—thus some of the findings will not come as a surprise to readers familiar with the field. The findings are nonetheless important, as they provide a baseline for understanding the characteristics shared by alternative teacher preparation programs across the state. This report highlights gaps in knowledge and areas for improvement, and lays the groundwork necessary for a deeper look at issues associated with drawing exceptional candidates into the teaching profession; filling vacant positions; measuring teacher quality; and holding teacher preparation programs accountable. The report concludes by putting forth considerations for policymakers, K-12 school and district leaders, and institutions of higher education (IHEs).

Purpose and Methods

Over the 2008-2009 school year, the Rennie Center, with support from the Trefler Foundation, prepared a series of three white papers and convened a working group to stimulate a dialogue among policymakers, members of the K-12 and higher education communities, and other stakeholders about the role of alternative teacher preparation programs in Massachusetts. (See Appendix A for a list of the individuals who attended the working group meetings.) The first white paper described the context for alternative routes and provided an overview of alternative teacher preparation in the state. The second paper described the characteristics of programs that are operated by school districts, charter schools, private schools, education collaboratives and private organizations. The third described how alternative teacher preparation programs operated by institutions of higher education, school districts, and other providers are funded.

Research for this project included a review of relevant literature, websites and online documents, and interviews with directors of 26 alternative teacher preparation programs in Massachusetts. Fourteen interviews were conducted with directors of alternative teacher preparation programs operated by school districts, charter schools, private schools, education collaboratives and private organizations.¹ Twelve interviews were conducted with directors of alternative teacher preparation programs operated by institutions of higher education.² Participating college and university programs included two undergraduate programs, two 5th year programs and eight post-baccalaureate programs. (See Appendix B for a list of participating programs.) The report also draws on input from working group discussions.

This report summarizes key findings from the project and lays a foundation for discussion on the future role that alternative teacher preparation programs might play in Massachusetts, as well as their potential role as a catalyst for the reform of traditional university-based teacher education. This report also puts forth considerations for policymakers, K-12 school and district leaders, and institutions of higher education. The report is organized into five sections:

- Background and Context
- Becoming a Public School Teacher in Massachusetts
- Defining Alternative Teacher Preparation
- Common Themes
- Next Steps for Policy and Practice

Background and Context

Status of the Teaching Workforce

According to the National Comprehensive Center for Teacher Quality, low-income and minority students in at-risk and hard-to-staff schools across the country “consistently have teachers with little experience or marginal qualifications.”³ Furthermore, high turnover among new teachers and the impending retirement bulge are exacerbating the challenge and urgency to recruit and retain a sufficient number of teachers for these and other schools.⁴

The challenge to fill vacancies is made even more difficult because of the increased qualifications required of public school teachers by federal and state regulations. Today's teachers are required to have higher levels of preparation in their content areas and are being held to higher standards than their predecessors. The current standards-based accountability system has shifted the focus from assuring that some students achieve at high levels to assuring high levels of

1 The 2008 Massachusetts Department of Elementary and Secondary Education list of approved licensure programs was used to identify these programs.

2 To compile a list of IHE-run programs for this study, the websites of the 10 Massachusetts colleges and universities that train the largest number of teachers were searched for programs that place candidates in schools for a full academic year. Two working group members also aided in the search by contacting Massachusetts State Colleges and University of Massachusetts campuses via email.

3 Rowland, C. (October 2007). “*Emerging strategies to improve teacher quality in at-risk and hard to staff schools and subject areas.*” Online presentation.

4 Peter D. Hart Research Associates, Inc. (2008). *Teaching as a second career*. Princeton, NJ: The Woodrow Wilson Fellowship Foundation.

achievement for *all* students. Yet, many teacher preparation programs have not altered their coursework or amount of field experience to respond to these new realities and, as a result, are not adequately preparing teachers for their increasingly more demanding roles.⁵

Finally, today's teacher labor market is markedly different from the labor market of 30 years ago. Today's teachers include career changers seeking meaningful new work as well as younger workers who expect to have multiple careers during the course of their lifetimes. Thirty years ago, teaching was an attractive career path for intelligent women and minorities who were excluded from other careers. Today, women and minorities have a range of options from which to choose, many of which provide better compensation and offer more opportunities for advancement than the teaching profession. Some research has shown that while large scale retirement of teachers accounts for some of the teacher shortage, high numbers of new teachers are also leaving the profession due to job dissatisfaction.⁶

In Massachusetts, it is estimated that through the year 2014, there will be an average of 2,700 open K-12 teaching positions each year.⁷ Elementary teaching positions account for half of the open positions (50 percent), secondary school positions account for about one third (34 percent) and middle school positions account for the remainder (16 percent).⁸

While the exact number of vacant teaching positions in the state is difficult to predict,⁹ there is a general consensus that the number of qualified teachers does not match the number of classrooms of children to be taught. Although schools and districts are managing to fill most positions with candidates prepared through traditional and alternative routes, too often the teachers hired are not adequately prepared in the discipline they are assigned to teach. In 2006-2007, Massachusetts issued 3,521 certification waivers allowing teachers to be hired without appropriate certification;¹⁰ this represents five percent of the state's teacher workforce. A disproportionate percentage of teachers employed in high-poverty school districts are not fully certified. While teachers in high-poverty districts make up 36 percent of the Commonwealth's teaching workforce, they make up 45 percent of the teaching workforce that is employed on a waiver.¹¹

Alternative Teacher Preparation Programs: A Solution

In order to address these growing challenges in the teaching workforce, policymakers and school leaders began to develop alternatives to the traditional four-year undergraduate teacher preparation programs. Many alternative preparation programs are based on the premise that a greater emphasis on field-based experience, coupled with updated approaches to university-based coursework, creates a stronger and more streamlined pathway to preparing effective teachers, especially in high-need schools and in high demand content areas. There are several reasons for the development of alternative teacher preparation programs. Some of the most common reasons are described below.

Remove barriers to entering the teaching profession. Many alternative preparation programs were designed as a way to remove some of the barriers for candidates seeking to pursue a career in teaching. For many potential candidates, the prospect of returning to school to earn a special degree in teacher education is not feasible. Alternative certification programs were developed as a fast-track to the classroom, eliminating the time and expense of returning to an institution of higher education for additional training.

5 Levine, A. (2006). *Educating school teachers*. Washington, D.C.: The Education Schools Project. Retrieved from http://edschools.org/pdf/Educating_Teachers_Report.pdf.

6 Ingersoll, R. (2001). *Teacher turnover, teacher shortages, and the organization of schools*. Seattle: Center for the Study of Teaching and Policy. Retrieved from <http://depts.washington.edu/ctpmail/PDFs/Turnover-Ing-01-2001.pdf>.

7 State Occupational Projections. Retrieved from <http://www.projectionscentral.com>.

8 Ibid.

9 The Massachusetts Department of Elementary and Secondary Education, in recognition of the dearth of data on the state's teaching workforce, is developing the Education Personnel Information Management System (EPIMS), a database that contains, among other things, information on teachers' educational attainment, licensure, and teaching assignments.

10 U.S. Department of Education. (2008). *Massachusetts Title II state report 2008*. Retrieved from <https://title2.ed.gov/Title2DR/Intro.asp>.

11 Calculations are based on data obtained from the *Massachusetts Title II state report 2008*. Retrieved from <https://title2.ed.gov/Title2DR/Intro.asp>.

Create a pipeline for teachers of high-need subject areas and in hard-to-staff schools. There are worrisome shortages of qualified teaching candidates for certain subject areas, including special education, English as a second language, science and mathematics. In addition, many urban and rural schools often struggle to find qualified teachers in these and other subject areas. Some alternative preparation programs were specifically designed to prepare teachers to teach high-need subject areas and to serve as faculty within hard-to-staff schools.

Provide a tailored program for career changers. Another major reason for alternative preparation is that candidates who are changing careers to enter teaching may already possess the subject area knowledge required to teach. Alternative preparation programs meet these candidates' needs by placing more emphasis on pedagogy and classroom management than on content area knowledge.

Improve the quality of the teaching force. Finally, some alternative programs were developed within school districts, as an attempt to improve the quality of teachers' preparation and provide a better match between the needs of the schools and the skills of the teaching candidates. Some alternative preparation programs, like Teach for America, attract individuals who might not otherwise consider entering the teaching profession and strive to improve the teaching ranks through a highly selective recruitment process.

Growth of Alternative Teacher Preparation

Over the past decade, alternative teacher certification programs have proliferated across the nation in response to projected teacher shortages, and in an effort to better prepare teachers for the challenges of today's classrooms. Today, 47 states and the District of Columbia have adopted alternative teacher preparation programs intended to increase the number of teacher candidates.¹²

While the alternative route graduates account for just one out of every five new teachers nationwide,¹³ both the number of alternative route programs and the number of individuals completing them has grown.

- One-third of current alternative routes to teacher certification have been created since 2000, and more than half of these programs were established in the last 15 years.¹⁴
- States reported 110 alternative route programs in 2005, a 40 percent increase over the number reported in 2002.¹⁵
- From 2000 to 2004, the total number of individuals completing alternative route programs increased by almost 40 percent (growing from 29,671 to 40,925).¹⁶

In Massachusetts, increasingly, more educators are prepared in state-approved, alternative educator preparation programs that are operated by organizations other than institutions of higher education. In 2006-2007, a total of 737 candidates completed alternative preparation programs leading to Initial licensure.¹⁷ This is a 250 percent increase over the previous year. Despite this growth, a majority of Massachusetts educators, 6,624 in 2006-2007, who received an Initial license in Massachusetts completed a teacher preparation program at an IHE.¹⁸

The proliferation of alternative preparation programs is also due in part to federal and state grants that have encouraged and supported the development of this type of program. In Massachusetts, three programs receive a significant portion of their funding from federal grants. These grant programs, the Transition to Teaching and Teacher Quality Enhancement

12 Levine, A. (2006). *Educating school teachers*. Washington, D.C.: The Education Schools Project. Retrieved from http://edschools.org/pdf/Educating_Teachers_Report.pdf.

13 U.S. Department of Education, Office of Postsecondary Education. (2006). *The Secretary's fifth annual report on teacher quality: A highly qualified teacher in every classroom*. Washington, D.C.: U.S. Department of Education.

14 U.S. Department of Education, Office of Postsecondary Education. (2006). *The Secretary's fifth annual report on teacher quality: A highly qualified teacher in every classroom*. Washington, D.C.: U.S. Department of Education. p. 2.

15 U.S. Department of Education, Office of Postsecondary Education. (2006). *The Secretary's fifth annual report on teacher quality: A highly qualified teacher in every classroom*. Washington, D.C.: U.S. Department of Education. p. 10.

16 Ibid.

17 U.S. Department of Education. (2008). *Massachusetts Title II state report 2008*. Retrieved from <https://title2.ed.gov/Title2DR/Intro.asp>

18 Ibid.

–Recruitment grant programs, are summarized below. In addition, at least four programs housed in institutions of higher education receive support to prepare candidates who will become math or science teachers through a National Science Foundation (NSF) program called The Robert Noyce Teacher Scholarship Program; this program is also summarized below. (See Appendix C for a more detailed description of each grant program.)

- **Transition to Teaching (TTT)** provides grants to support the recruitment and retention of highly qualified mid-career professionals looking to enter the teaching profession. These individuals, who do not yet have teaching credentials, are recruited to teach in high-need schools and districts. TTT fosters the development of new or enhanced alternative routes to certification and also provides grants to encourage the development and expansion of alternative routes to certification that enable individuals to be eligible for teacher certification within a reduced period of time, relying on an individual's experience and academic qualifications in lieu of traditional coursework in the field of education. Fourteen programs nationwide were awarded grants for fiscal year 2009; awards totaled just under \$7,000,000. A total of 102 programs received awards for fiscal year 2008; awards totaled \$43,700,000.
- **Teacher Quality Enhancement-Recruitment (TQE-R)** provides grants to support teacher recruitment reforms. Grant activities focus on developing strategies to improve school district capacity to hire and retain highly qualified teachers including identifying pools of potential teachers who can meet critical needs, recruiting teachers from these pools, and preparing them through high-quality preparation and induction programs that are based on the best current research. Nine programs nationwide were awarded grants for fiscal year 2009; awards totaled just over \$7,000,000. A total of 20 programs received awards for fiscal year 2008; awards totaled \$23,300,000. To help promote sustainability of the program after federal funding dissipates, TQE-R grants require grantees to contribute to the program with in-kind and cash-matching contributions.
- **The Robert Noyce Teacher Scholarship Program** seeks to encourage talented science, technology, engineering and mathematics (STEM) majors and professionals in these fields to become K-12 mathematics and science teachers. The program provides funds to institutions of higher education to support scholarships, stipends, and academic programs for undergraduate STEM majors and post-baccalaureate students holding STEM degrees who commit to teaching in high-need K-12 school districts.

In Spring 2009, the U.S. Department of Education's Office of Innovation and Improvement released a notice requesting applications for Teacher Quality Partnership (TQP) grants, a discretionary competitive grant program. The purposes of the TQP program are to improve student achievement; strengthen the quality of new teachers by improving teacher preparation and enhancing professional development activities for those teachers; hold teacher preparation programs at institutions of higher education accountable for preparing highly qualified teachers; and recruit highly qualified individuals, including minorities and individuals from other occupations, into the teaching force.

More specifically, the TQP Grants Program seeks to improve the quality of new teachers by creating partnerships among institutions of higher education, high-need school districts and their high-need schools and/or high-need early childhood education programs. The grant encourages the development of preparation programs at the pre-baccalaureate level that include a year-long pre-service clinical experience (field experience) and the establishment of post-baccalaureate teacher residency programs that involve year-long apprenticeships for individuals with strong academic and/or professional backgrounds but without teaching experience. The grant allows teaching residency programs to provide a one-year living stipend or salary to teaching residents during the apprenticeship.

The TQP Grants Program intends to enforce accountability standards for IHEs to ensure that they are preparing highly qualified teachers. Priority is given to applicants that collect and use data on student achievement to assess the effectiveness of teachers prepared through the pre-baccalaureate and/or teacher residency programs. Also, grantees must commit to cooperating with a national evaluation contractor that the Department of Education will select to evaluate each program.

The estimated funds available for the TQP Grants Program is \$143 million. Nationally, 25 to 35 grantees will receive awards in the amount of \$1 to \$2 million. The grant requires funded applicants to provide an annual non-federal match of no less than 100 percent of the federal TQP funds awarded for all five years of the project to carry out activities supported by the federal grant.¹⁹ This match may be provided in cash or in-kind.

The TQP grants program's definition of a teaching residency program²⁰

A school-based teacher preparation program in which a prospective teacher:

- for one academic year teaches alongside a mentor teacher, who is the teacher of record;
- receives concurrent instruction during the year from the partner institution in the teaching of the content area in which the teacher will become certified or licensed (courses may be taught by local educational agency personnel or residency program faculty);
- acquires effective teaching skills;
- prior to completing the program attains full state certification/licensure and becomes highly qualified; and
- acquires a master's degree not later than 18 months after beginning the program.

Becoming a Public School Teacher in Massachusetts

This section provides an overview of the key components to becoming a public school teacher in Massachusetts. A basic understanding of the routes to licensure as they are described in the Massachusetts Regulations for Educator Licensure and by the Department of Elementary and Secondary Education is necessary context for understanding some of the gaps in knowledge and areas for improvement that are described later in this report.

Teacher Licensure

In order to become a public school teacher in Massachusetts, one must obtain a Massachusetts educators' license. Teacher licensure is currently based on Professional Standards for Teachers identified by the Massachusetts Department of Elementary and Secondary Education. These standards define the pedagogical and other professional knowledge and skills required of all teachers.

Individuals entering the teaching profession must obtain either a Preliminary license or an Initial license. Individuals who hold a bachelor's degree but have not completed a state-approved teacher preparation program are eligible for a Preliminary license. Individuals who hold a bachelor's degree and have completed an approved teacher preparation program are eligible for an Initial license. Everyone who seeks licensure must pass the Massachusetts Tests for Educator Licensure (MTEL), which include written tests of communication and literacy skills, and of subject matter knowledge.

Preparation Program Providers

One of the requirements for obtaining an Initial license is the completion of a state-approved educator preparation program. This requirement can be met by completing a program offered by an institution of higher education (IHE) or a program offered outside of higher education.

¹⁹ Some grantees may receive a waiver of up to 100 percent of the non-federal match requirement for one or both of the first two years of the project. In order to receive a waiver, grantees must have submitted proper certification of hardship in their grant applications.

²⁰ U.S. Department of Education, Office of Innovation and Improvement. *FY 2009 Application for Grants under the Teacher Quality Partnership Grant Program*. CFDA Number: 84.405 A.

Higher Education

Fifty-nine four-year institutions currently have state-approved programs that prepare teachers for licensure. Twelve public institutions (eight state colleges and four campuses of the University of Massachusetts) and forty-seven independent colleges and universities prepare teachers in the Commonwealth. The National Council for Accreditation of Teacher Education (NCATE) accredits seven of the public institutions and one private college. Colleges and universities prepare candidates in both undergraduate and post-baccalaureate programs.

Outside of Higher Education

Twenty-eight organizations outside of higher education currently operate state-approved programs leading to Initial licensure. They include eight school districts; two private, elementary schools; two charter schools; seven collaboratives of districts; four for-profit companies; three professional associations; one foundation; and one national educator preparation organization.

Routes to Initial Licensure

Massachusetts has five routes to Initial licensure.²¹ Four of the routes are described in this report. One route (Route Five) is designed for candidates who have either completed a teacher preparation program outside of Massachusetts or who have a teaching license from another state and are seeking licensure in the Commonwealth. This route is not relevant to the discussion on alternative teacher preparation and, therefore, is not described below.

Route One is for teacher candidates who receive their preparation in approved undergraduate programs. Candidates seeking licensure under this route must complete a bachelor's degree in an approved program and obtain passing scores on the MTEL Communication and Literacy Skills test and the subject matter knowledge test(s) appropriate to the license sought.

ROUTE ONE: UNDERGRADUATE BACCALAUREATE



This route allows individuals to satisfy teacher licensure requirements while pursuing a bachelor's degree in education or another field. Undergraduate teacher preparation programs are housed in institutions of higher education and are typically characterized by three main elements:

1. Arts and sciences courses provide candidates with the knowledge and understanding of the content they will teach.
2. Courses in pedagogy provide candidates with an understanding of how students learn, how to teach content and how to manage classrooms such that student learning is maximized.

²¹ Massachusetts Department of Elementary and Secondary Education. (2007). *Regulations for educator licensure and preparation program approval (603 CMR 7.05)*. Retrieved from <http://www.doe.mass.edu/lawsregs/603cmr7.html?section=05>.

Four types of educator licenses in Massachusetts:

Preliminary license: A license issued to a person who holds a bachelor's degree and has passed the MTEL. It is valid for five years of employment.

Initial license: A license issued to a person who holds a bachelor's degree, passed the MTEL, completed a state-approved educator preparation program, and met other eligibility requirements established by the Board of Elementary and Secondary Education. It is valid for five years of employment and may be renewed for an additional five years.

Professional license: A license issued to a person who meets the following criteria:

1. possesses an Initial license in the same field as the Professional license sought;
2. completed a one-year induction program with a mentor;
3. completed at least three full years of employment under the Initial license;
4. completed at least 50 hours of a mentored experience beyond the induction year;
5. completed an approved district-based program for the Professional license sought, a master's or higher graduate level program in an accredited college or university, or a program leading to eligibility for master teacher status, such as the National Board for Professional Teaching Standards. A Professional license is valid for five years and requires renewal every five years based on completing a specific number of professional development points or credits.

Temporary license: A license issued to an experienced teacher from another state who has not passed the MTEL. It is valid for one calendar year.

3. Ten to sixteen weeks of guided field experiences, often referred to as student teaching, provide an opportunity for candidates to apply their knowledge of teaching and learning in a school.

Route Two is for teacher candidates who receive their preparation in approved post-baccalaureate programs. Teacher candidates seeking licensure under this route must have a bachelor's degree, complete an approved program, and obtain passing scores on the MTEL Communication and Literacy Skills test and the subject matter knowledge test(s) appropriate to the license sought.

ROUTE TWO: POST-BACCALAUREATE

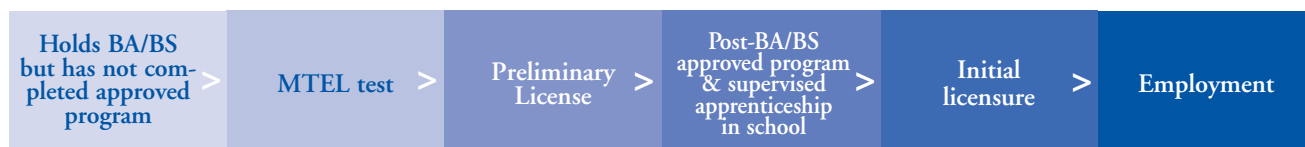


Route Two programs are typically housed in colleges or universities. These programs involve at least two semesters of coursework and a field-based experience that typically occurs at the end of the program. Some of these programs allow candidates to satisfy licensure requirements within a master's program; others allow candidates to meet these requirements without pursuing a full graduate degree.

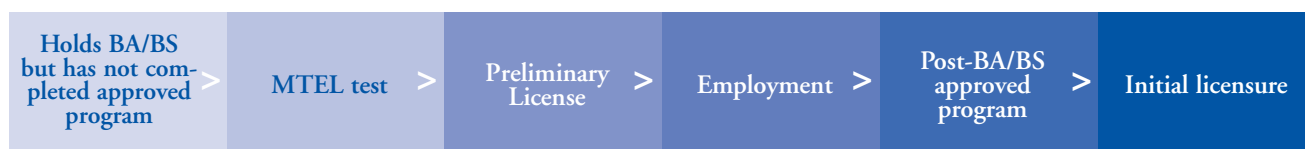
Route Three is for teacher candidates who hold a Preliminary license, serve in a school as either a teacher of record, or are serving as an apprentice in a classroom under the direct supervision of a teacher who holds an appropriate license. Candidates seeking licensure under this route must possess a Preliminary license in the field at the level of the license sought (i.e. elementary, middle or secondary) and complete an approved program for the license sought.

For the purpose of this report, Route Three is represented as containing two separate trajectories, Post-Baccalaureate Apprentice and Post-Baccalaureate Teacher of Record.

ROUTE THREE: POST-BACCALAUREATE—APPRENTICE



ROUTE THREE: POST-BACCALAUREATE—TEACHER OF RECORD



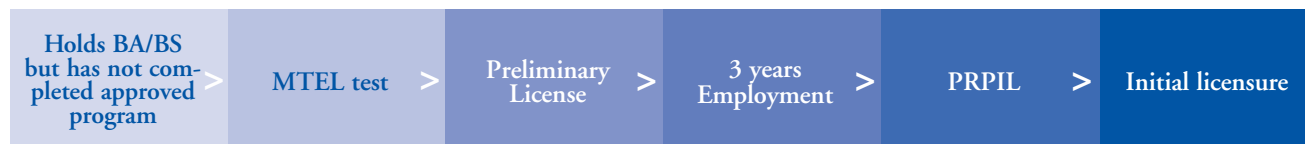
Route Three Post-Baccalaureate Apprentice programs typically place candidates in a school for one academic year. Candidates in apprenticeship programs work closely with an expert educator while progressively taking on teaching responsibility. Most apprentices are placed in the classroom at the start of the school year and spend September and October observing and helping in the classroom. Over the course of the school year their role increases. Candidates supplement their field-based experience with coursework, which is often taught on-site at the school in which they are training.

Route Three Post-Baccalaureate Teacher of Record programs are those that have been designed by public school districts, often in partnership with a college, university or other professional development provider. Candidates pursuing licensure through this route are hired as a teacher of record under a Preliminary license and are assigned a team of mentors for additional support and supervision. Candidates in these programs complete seminars or courses, which are aligned with the Professional Standards for Teachers, and a final performance assessment.

In Massachusetts, both types of Route Three programs are referred to as district-based programs and are considered alternative routes to licensure. Aspiring teachers who visit the Gateway for Educators of Massachusetts (GEM) website can download a list of the Route Three programs from the *Find a Preparation Program* page.²² All Route Three programs on this list are operated by providers outside of higher education.

Route Four is the Performance Review Program for Initial Licensure (PRPIL) process for teacher candidates who hold a Preliminary license, are hired as teachers of record, and are working in a district that does not have an approved program for the Initial license. Route Four is referred to as a district-based program (the same term used for Route Three programs) and is considered an alternative route to licensure.

ROUTE FOUR: POST-BACCALAUREATE PRPIL



Candidates seeking licensure under this route must possess a Preliminary license in the field at the level of the license sought; complete at least three full years of employment under the Preliminary license; provide documentation to the DESE to demonstrate completion of seminars, courses, and experience relevant to the Professional Standards for Teachers; provide a recommendation from the principal of each school where the candidate was employed under the Preliminary license or in the role of the license sought; and a competency review for those licensed fields that have no subject matter knowledge test, or for which not all subject matter knowledge required for the license is measured by the test. Route Four is not available for certain teacher and specialist teacher licenses.

Field-based Experience

Field-based experiences are an integral component to all teacher preparation programs and are typically referred to as pre-practicum and practicum experiences. Pre-practicum experiences provide candidates with initial opportunities for practice and typically involve observing teachers, working with individual students or small groups of students, and assisting the teacher with tasks in the classroom.

A practicum is a field-based experience that provides candidates with the opportunity to apply and demonstrate what they have learned or are learning. As part of the practicum, candidates plan and deliver instruction based on the Massachusetts Curriculum Frameworks.²³ During the practicum, a candidate's performance is evaluated jointly by the preparation program in which the candidate is enrolled and the supervising practitioner in the school. Candidates are assessed on their achievement of the Professional Standards for Teachers using license-specific criteria developed by the Massachusetts Department of Elementary and Secondary Education.

The number of practicum hours required by state regulations varies based on grade level and subject area, but generally 150 to 300 hours of field experience are required for the practicum. Candidates in Post-Baccalaureate Teacher of Record programs (Route Three) are working in the field full-time. For these candidates, state regulations stipulate that the initial five-month period of service as teacher of record under a Preliminary license is considered the equivalent to the practicum. These candidates complete their practicum under the direction of a supervisor who is a professionally licensed teacher in the content area in which they are seeking Initial licensure. Similarly, candidates in a Post-Baccalaureate Apprentice program (Route Three) are in the field for the whole school year. For these candidates, serving as an apprentice in a classroom for at least one half of the year, under the direct supervision of a teacher who holds an appropriate license, is considered equivalent to the practicum.

22 Massachusetts Department of Elementary and Secondary Education. (2007). *Find a preparation program. Gateway for educators of Massachusetts (GEM)*. Retrieved from: <http://www.doe.mass.edu/gem/prep.html>.

23 Curriculum frameworks provide guidance to schools and districts for implementing the content standards adopted by the State Board of Education.

A Closer Look: Field-Based Experience

Apprenticeship program operated by a district

One Massachusetts teacher preparation program operated by a school district places program participants, that the program calls "residents," in a pre-practicum on the first day of school. The pre-practicum portion of the program runs through mid-November. During this time, residents are in classrooms full-time, collaborating with their mentor teachers on a wide variety of classroom roles and responsibilities. The program is designed to actively involve residents in the classroom from the first day of school because the early involvement facilitates residents' transition to taking over classes later in the year. During the pre-practicum, residents complete a number of assignments which allow them to get to know their students, practice effective classroom management, and plan lessons. The pre-practicum culminates in a "Lead Teaching Week" in which residents take full responsibility for planning and teaching a series of four continuous lessons in their classrooms.

The next phase of the program is the practicum. The practicum involves "a steep learning curve" in which the resident works closely with his/her mentor teacher, site director and instructors to develop the skills, knowledge and stamina to become an effective teacher in the district. During this time the resident's responsibilities are gradually increased as the school year progresses. By spring, the resident is expected to teach 50 percent of the full teaching load in the classroom and is expected to teach every day.

Apprenticeship program operated by a charter school

One Massachusetts charter school program begins by engaging participants, called "teaching fellows," in a series of orientations. In the first quarter, fellows attend a teaching fellow orientation, support the 9th grade student orientation and attend faculty orientation. During the first months of school, teaching fellows observe their mentor teacher in the classroom, discuss the planning of the mentor's lessons with their mentor, and assist in planning new lessons that the teaching fellows will then observe. Following the observation, fellows discuss what they found to be successful about the lesson with their mentors. During this time, teaching fellows also attend department meetings, and become acclimated with the school's curriculum, including how and what other members of the department are teaching. This period is designed to help the teaching fellows become established in both the classroom and school environments.

Once both the mentor and fellow agree that the fellow is ready to assume the responsibility, the fellow begins to teach individual lessons within the class with his/her mentor present; this is soon followed by teaching a lesson without the mentor present. This typically occurs by the end of the 2nd quarter. The fellow then teaches an entire unit of at least three days. During this period, fellows also attend parent conferences (with their mentors), faculty meetings and department meetings. Starting in June, fellows teach or co-teach three classes of summer school. During summer session they work a half-day schedule, teaching every day for six weeks.

Defining Alternative Teacher Preparation

Over the years, there has been confusion about what distinguishes an alternative route to teaching from a traditional route. The most common definition focuses on the credentials of the candidate; considering alternative routes to be any teacher preparation programs that enroll noncertified individuals who already have at least a bachelor's degree. Other definitions focus on the program provider, timing of fieldwork and the assumptions underlying the program.

- **Credentials of the candidate.** Alternative routes are any teacher preparation programs that enroll noncertified individuals who already have at least a bachelor's degree. Under this definition, undergraduate programs are the traditional route.
- **Program provider.** Alternative routes are any teacher preparation programs operated by entities other than a college or university. Under this definition, programs operated by institutions of higher education are traditional routes.
- **Timing of fieldwork.** Alternative routes are programs where most of the preparation occurs while the candidates are in the field either as a teacher of record or as an apprentice to a mentor teacher. Traditional routes are programs where a majority of the preparation is completed prior to entering the field.
- **Set of assumptions underlying the program.** Traditional programs are those that operate under the belief that becoming a teacher requires pedagogical education and ten to sixteen weeks of guided field experience before the candidate begins teaching. Alternative programs are those that operate under the belief that the best way for candidates to acquire the necessary skills and knowledge is through longer and more intense fieldwork supplemented by coursework that focuses less on theory and more on practice. Alternative programs are also those that operate under the belief that individuals who have subject matter expertise can learn to teach on-the-job with in-service training and support.

While many definitions of alternative teacher preparation exist, the Massachusetts Regulations for Educator Licensure and Preparation Program Approval (603 CMR 7.00) do not define nor use the term alternative route or alternative teacher preparation. As described earlier, the regulations define five routes to initial licensure, two of which, Route Three and Four (Post-Baccalaureate Teacher of Record/Apprentice programs and PRPIL) are considered alternative routes to traditional university-based programs. As a result, interviews conducted for this project focused on these programs.

The research conducted for this project also included interviews with Route Two Post-Baccalaureate programs operated by institutions of higher education. Interviews were conducted to identify and better understand the characteristics of Route Two programs that, similar to Route Three programs, place candidates in schools as student teachers or apprentices full-time for an academic year. **Given that the Massachusetts Regulations for Educator Licensure and ESE do not distinguish these field-based programs from post-baccalaureate programs that place candidates in the field for a shorter period of time, the term “practice-based programs” is used throughout the remainder of this report to refer to all of the programs analyzed for this study.** The term “district-run” is used to refer to practice-based programs operated by school districts and the term “IHE-run” is used to refer to practice-based programs operated by institutions of higher education.

Definition of practice-based teacher preparation program

Teacher preparation programs that place candidates in schools full-time as either a student teacher or an apprentice for an academic year. These programs are operated by institutions of higher education, schools, school districts and other providers outside of higher education. Post-Baccalaureate Teacher of Record (Route Three) and PRPIL (Route Four) programs are also included.

Massachusetts' five routes to Initial licensure do not adequately describe the types of preparation programs offered by the state's institutions of higher education.

Institutions of higher education have historically trained aspiring teachers through coursework, followed by ten to sixteen weeks of fieldwork, whereby candidates have the opportunity to apply their knowledge of teaching and learning in a school. These programs are typically considered "traditional" routes to teacher preparation. Some colleges and universities in Massachusetts now offer programs that do not fit this model. Our study identified programs in higher education that are based in the field, meaning candidates are placed in schools full-time as either a student teacher or an apprentice and are more consistent with "practice-based" programs than with "traditional" routes. These programs immerse candidates in the school environment for one school year and supplement the field experience with coursework and seminars. Massachusetts' five routes to Initial licensure do not reflect these programs as a distinct route to teaching, instead classifying them with the other traditional route programs offered at the IHEs. Furthermore, it is difficult to identify these programs. Aspiring teachers who visit the Gateway for Educators of Massachusetts (GEM) website can download a list of the practice-based programs housed outside of higher education (Route Three and Four programs) from the *Find a Preparation Program* page.²⁴ A list of the practice-based programs housed within higher education is not available nor are these programs mentioned by name when visitors to the site use the program search feature of the website; only the name of the institution appears.²⁵

Common Themes

This study represents a first step in understanding the role of practice-based teacher preparation programs in Massachusetts. The findings are largely based on 23 interviews with the directors of practice-based teacher preparation programs; nine directors of programs operated by institutions of higher education (IHE-run programs) and fourteen directors of programs operated by school districts, charter schools, private schools, education collaboratives and private organizations. (See Appendix B for a list of participating programs.) While there is diversity among the programs, this section describes common themes among the participating programs. In instances where there were differences among particular types of programs (for example, those operated by colleges and universities and those that are not), it is noted.

The purpose of this project was to examine the characteristics of Massachusetts' practice-based teacher preparation programs and the issues associated with their expansion and sustainability. The study revealed that the reasons for the creation and growth of practice-based programs in the Commonwealth are consistent with national trends—thus some of the themes will be unsurprising to readers familiar with the field. The themes are nonetheless important, as they provide a baseline for understanding the characteristics shared by practice-based preparation programs across the state. The themes also highlight gaps in knowledge and areas for improvement. Combined with the information contained in earlier sections of the report, the following themes lay the groundwork necessary for a deeper look at issues associated with drawing exceptional candidates into the teaching profession, filling vacant positions, measuring teacher quality, and holding teacher preparation programs accountable for preparing effective teachers.

- **Designed to serve the needs of particular school districts.** Nationwide, many urban and rural schools often struggle to find qualified teachers. The same is true in Massachusetts. The large urban centers of Boston and Worcester as well as other urban and rural districts in the state have developed their own teacher preparation programs or have worked with IHE partners to develop teacher preparation programs to build capacity in their school districts. These programs train candidates to fill positions in high-need subject areas in their schools but also seek out candidates with particular characteristics that make them well-suited to work in their districts. Some seek racial/ethnic minor-

24 Massachusetts Department of Elementary and Secondary Education. (2007). *Find a preparation program*. Gateway for educators of Massachusetts (GEM). Retrieved from: <http://www.doe.mass.edu/gem/prep.html>.

25 To compile a list of IHE-run practice-based programs for this study, the websites of the 10 Massachusetts colleges and universities that train the largest number of teachers were searched for programs that place candidates in schools for a full academic year. Two working group members also aided in the search by contacting Massachusetts State Colleges and University of Massachusetts campuses via email.

ity candidates. Others seek candidates who have experience working in the community; yet others seek candidates willing to make a commitment to working in an urban environment or high-need school. While some of the practice-based programs were initiated by school/district staff and others were initiated by individuals outside the school system (including institutions of higher education), they are similar in their focus on recruiting and training teachers that match individual district needs both in terms of subject matter knowledge and teacher characteristics.

- **Focus coursework on the practical aspects of teaching.** When asked how their program's curricular content differs from traditional teacher preparation programs, most program directors said that the main difference is that their courses focus on practice. Words and phrases commonly used to describe the content of their courses include: practical; hands on; less on theory and content, more on pedagogy; and more hours directly teaching. The sentiment is summed up well by the mantra of one private provider: "Learn it today, use it tomorrow."

Many program directors also described the importance of blending theory and practice, and portrayed teaching as a craft. A private school provider explained that they "merge theory with practice in the classroom" and "focus on practice as well as the art and craft of teaching." A district provider stated, "Teaching is a craft. The only way to learn is to practice. Candidates read less theory and when they do, they look at it through the lens of practice."

- **Reduce financial barriers for individuals seeking to enter the teaching profession.** Most of the programs operated by districts, education collaboratives and private providers are structured so candidates work full-time as a teacher and earn a salary. Participants in these programs also pay substantially less for their coursework and training than they would be required to pay had they enrolled in the courses through a college or university.

A national survey of public school teachers in their first year in the classroom found that 53 percent of secondary teachers and 40 percent of elementary teachers felt that their preparation programs spent too much time emphasizing theory. Only two percent of secondary teachers and four percent of elementary teachers reported too much emphasis on the practical challenges of teaching.²⁶

A Closer Look: Coursework

Participants in one of the apprenticeship programs operated by a school district take a course one afternoon per week for three hours (3:30 pm to 6:30 pm) throughout the school year and attend a full-day seminar (from 8:00am to 4:00 pm) each Friday during the school year. In December, there is a two-week intensive inter-session in which residents attend class full-time; during this period, they are not working in schools. Participants also take courses during the summer prior to and following the school year. The course sequence includes courses on skillful teaching; human development; assessment; content area curriculum planning; district-specific issues related to democracy, power and language; content and methods; and reflective seminars.

Participants in one of the Teacher of Record programs operated by an education collaborative take two courses in the fall (September through December), two courses in the spring (January through May) and two courses in the summer (June through August.) Most classes are held once a week on a weekday from 4:30 pm to 7:30 pm and a few are held on Saturdays from 8:30 am to 4:00 pm. The sequence for a middle school math teacher includes courses on integrating reading and writing into middle school math; the impact of technology in education; teaching for mathematical reasoning; managing challenging behaviors; curriculum and assessment for teachers; and working with the struggling math student. The sequence for reading specialists includes courses on assessment for instruction; working with the struggling reader; literacy learning for younger children; literacy learning for older children and adolescents; language learning and literacy; and specialized reading approaches.

26 National Comprehensive Center for Teacher Quality and Public Agenda. (2007). *Lessons learned: New teachers talk about their jobs, challenges and long-range plans*. Retrieved from: http://www.publicagenda.org/files/pdf/lessons_learned_1.pdf.

Practice-based programs operated by IHEs also ease the financial burden placed on candidates who want to enter the teaching profession. Participants in most of the IHE programs receive reduced or waived tuition; some also receive a stipend. Two IHE programs we studied actively recruit career changers to become teachers in high-need school districts. The program staff helps candidates who have passed the MTEL obtain teaching positions in the program's partner school district so that they can earn a salary while completing the requirements for their Initial licensure program.

Most of the apprenticeship programs indicated that the ability to provide stipends and reduce or waive tuition and fees is a vital component of the program. Without the ability to provide apprentices with financial support, the programs would be unable to attract the same caliber of candidate.

- **Seek to improve the quality of the teaching force.** While most practice-based programs have arisen from the need to fill positions in hard-to-staff schools and high-need subject areas, most program directors are primarily concerned with teacher quality; filling staffing gaps is secondary. Some of the participating programs were developed within school districts, as an attempt to improve the quality of teacher preparation and provide a better match between the needs of the schools and the skills of the teaching candidates. While only a handful of the program directors interviewed for this study specifically mentioned that their programs grew out of dissatisfaction with teachers trained through university preparation programs, a majority of the program directors expressed the belief that practice-based preparation programs are the most effective way of training and certifying teachers. Unlike traditional programs, the primary focus of these programs is on training candidates to teach by placing them in school classrooms and providing coursework that includes practical and useable teaching strategies that they can try out in their classrooms.

Practice-based programs seek to improve the quality of the teaching force by recruiting and training candidates with particular skills and characteristics. Directors of practice-based preparation programs outside IHEs consider themselves to be more selective in the type of candidate they recruit than traditional teacher preparation programs. In most cases, the selectivity lies in the type of person they recruit and train rather than the person's credentials (such as GPA or type of undergraduate institution the candidate attended). Among the characteristics these programs seek are subject matter knowledge and relevant work experience; experience working with youth; ability to collaborate; connections to the community; understanding of urban families and community; cultural competency; and a strong desire to teach.

Thus, practice-based programs address the issue of increasing the quality of the teaching workforce by focusing on candidates with relevant skills and characteristics, and training these candidates by immersing them in the very environment in which they will eventually work. Biographical sketches of some of the candidates who enrolled in practice-based programs this fall are shown on the following page.

There is some evidence to suggest candidates in traditional undergraduate and post-baccalaureate programs would benefit from a longer field experience.

In March 2007, the Massachusetts Department of Elementary and Secondary Education (ESE) Office of Educator Preparation and Quality conducted a survey of individuals who had recently applied for an Initial license. Findings from this survey suggest that teachers who were not trained through practice-based programs would benefit from a longer field experience. Thirty-one percent of teachers trained through undergraduate programs and 23 percent of teachers trained through IHE-run post-baccalaureate programs said their practicum experience could have been enhanced had they been given more time with full responsibility for the class, whereas only 13 percent of those trained through alternative programs provided this response.

Meet some of this years' candidates in practice-based programs

Charles entered the Shady Hill Teacher Training Course (TTC) after working as a mechanical engineer and re-search physicist for over 20 years. He has a B.S. in mechanical engineering and a master's degree in Astronomy. His work experience includes scientific research and software development in the defense industry on satellites and lasers, in the field of medical technology related to the human heart, and in the realm of astrophysics for the study of Jupiter. Charles' experience as a board member and classroom volunteer at his daughter's pre-school solidified his interest in switching professional gears. He is apprenticing in a middle school science classroom this fall and is seeking licensure in middle school science and math.

Myra is enrolled in the Teach Next Year (TNY) program. After receiving her B.A. in Chemistry from Northwestern University, Myra worked for several years as a research technician in the biotech industry. In this role, she maintained a chemical library for biological screening; developed programming, maintenance and calibration techniques and used integrated robotic systems to track and provide chemical samples in multiple formats. While Myra's love of science led to a career in biotech, her strong desire to help people drew her to volunteer work as a tutor. She realized that teaching urban students is a way to merge her desire to help make a difference in peoples' lives with her love of science. Myra is apprenticing at a high school in Dorchester and is seeking licensure in high school chemistry.

Amy is a mother of two who enrolled in the Teach Next Year (TNY) program after 18 years in the workforce. She holds a J.D. from Washington College of Law at American University and a master's degree in Tax Law from Boston University. She practiced law for 11 years in the fields of immigration, Medicaid and tax law. After becoming a mother, Amy needed more flexibility in her schedule so she became an office manager of a small family business where she was responsible for general office administration and bookkeeping. Being a mother and teaching her kids inspired Amy to pursue teaching as a career. Her experience as a tax attorney and bookkeeper make her particularly well-suited to a career as a math teacher.

Brian is currently teaching math at a middle school in Taunton as part of the Teach! UrbanSouth program, and pursuing Initial licensure in this subject. Brian is an entrepreneur with over 32 years of professional work experience. He began his career in sales, working in real estate, insurance and securities. After several years in sales, he saw an opportunity to start his own business. He grew a successful business which he operated for 11 years before selling it. After starting and selling a second business, Brian was ready for a career change. Brian had always enjoyed working with kids especially coaching his son's baseball team and his daughter's softball team, and running a Junior Achievement program. After selling his second business, he decided to pursue a career that involved working with children.

Bill is an apprentice in an English classroom at Newton South High School, as part of the Newton Teach Residency program. After earning his B.A. in English, Bill worked for several years as a counselor at McLean Hospital in Boston. He then earned a master's degree in journalism, and had a successful career as a reporter, columnist and feature writer for several daily newspapers around New England and, most recently, as editor of a national legal newspaper based in Boston. He contemplated high school teaching for several years before making the change, and is now pursuing Initial licensure in secondary English for grades 8-12.

Camille is an apprentice in an 8th grade humanities classroom through the Shady Hill Teacher Training Course (TTC). She earned a B.A. from Spelman College in English. During and after college, Camille was drawn to the classroom. She taught middle school language arts for Aspire, a summer, leadership institute for adolescent girls based at her high school alma mater, Hathaway Brown. After college, she taught middle school and high school English at the Grier School in Tyrone, Pennsylvania and then became a founding faculty member at the Rosa Parks Leadership Academy in Atlanta, Georgia, teaching English and dance. Camille will receive her master's degree from Tufts University and will attain Initial licensure in middle school humanities.

- **Provide a career-step for experienced teachers.** Some experienced and talented teachers who want to advance in their career do not want to leave the classroom to become administrators but there often is not a classroom-based career-step available for them. Involvement in the development and operation of practice-based teacher training programs provides experienced teachers with an opportunity to take on a leadership role while continuing to teach. The directors of programs that do not train teachers to serve in their own school or district noted that one of the benefits of having a teacher training program is that it provides a way to reward excellent teaching in their schools. The programs provide top-notch teachers with the unique opportunity to help shape a teacher preparation program and select, teach, supervise and mentor the next generation of teachers. A director of an IHE-run program explained that teacher leadership opportunities are an important facet of their program. Teachers in the public schools helped the IHE faculty design the program and continue to be very involved in the program by writing course materials, teaching courses and providing feedback that has led to improvements in the program. The program director explained that the university's acknowledgement of public school teachers as experts in the field was very significant and had a profound impact on the teachers' sense of worth, motivation and job satisfaction.
- **Not a good fit for all aspiring teachers.** Even though program directors believe that practice-based programs are the best way to train prospective teachers, they also recognized that these programs are not appropriate for everyone. Many who wish to enter the teaching profession are not ready for the intensity that comes with an apprenticeship program; some are more comfortable with a more gradual introduction to teaching. In addition, not all candidates can afford to take a year off of work to participate in an apprenticeship and live on a modest stipend or no income at all. Some IHE-run programs indicated that from a practical standpoint, it is not feasible to have all teaching candidates in an apprenticeship program because colleges and universities can not secure funding to provide everyone in their teacher education programs with a stipend.
- **Internal versus external evaluation.** Most program directors are internally evaluating their preparation programs by collecting feedback from participants through course evaluations. In addition, many collect feedback from course instructors and supervising teachers. This feedback is generally used to make ongoing improvements to the program. Aside from the handful of federally funded programs that require external evaluation, only two directors reported that their program had been formally evaluated by an outside evaluator. Most cited the ESE review as the only evaluation of their program. A few of the IHE-run programs cited the National Council for Accreditation of Teacher Education (NCATE) review. While not asked as part of the interview, a handful of program directors indicated that if given the opportunity to have their programs formally evaluated, they would participate.
- **Do not track program completers, nor solicit feedback from them.** Aside from the few programs that provide mentoring to participants during their first few years of teaching, most programs do not maintain formal contact with their graduates, and as a result, do not maintain records about where graduates are working, what subjects/

MTA supports the creation of New Teacher Developer positions in K-12 schools.

The Massachusetts Teachers Association (MTA) is in favor of creating what they refer to as career path positions for K-12 veteran educators. Most notable is the position of New Teacher Developer (NTD), an individual who would work with pre-service and novice teachers while remaining within the teaching ranks. The NTD is a position for teachers with a Professional License who have earned Professional Teacher Status in a school district. The NTD would earn an endorsement based on the successful completion of graduate study in adult learning and theory, facilitation and coaching skills, and formative teacher evaluation protocols. The NTD would be an adjunct faculty member with the district's preparation program partner and contribute to the assessment of pre-service teachers as they progress through their field experiences and seminars.²⁷

27 Center for Education Policy and Practice, Massachusetts Teachers Association. (2008). *Tomorrow's teachers: Preparing the education workforce for 21st century schools*. Boston: Massachusetts Teachers Association.

grade levels they teach, how long they stay in positions or how well they perform on the job. Most have only informal contact with some graduates via email and telephone calls. One IHE-run program conducted a survey of program completers and another IHE-run program indicated that they are planning to do so. Both stated that the main purpose of the survey is to collect information from graduates about their first few years of teaching to identify areas where the graduates did not feel adequately prepared. Another IHE-run program indicated that they are developing a database that will be used to track their graduates and once it is developed, they plan to use it to survey principals who have hired their graduates to obtain a general assessment of their graduates' performance.

- **Willing to be held accountable for the quality of teachers they produce.** Unlike traditional programs, the primary focus of practice-based programs is on training candidates to teach by placing them in the environment in which they will eventually work: school classrooms. Program directors believe that practice-based programs are the most effective way of providing teachers with the skills and knowledge to be successful in today's classrooms; however, program directors have little or no empirical evidence to support the notion that teachers who complete their programs are more effective than those who complete traditional programs. While none of the programs reported evaluating the effectiveness of their graduates, many expressed an interest in doing so but mentioned challenges associated with conducting this type of evaluation. Some program directors embrace the idea of accountability

Nationally, there is little empirical evidence to support the notion that teachers who complete practice-based programs are more effective than teachers trained through traditional teacher education programs.

There is broad consensus that practical experience is an important component of teacher preparation programs. However, there is a good deal of disagreement about the best way for prospective teachers to gain such experience. The body of research comparing alternative and traditional teacher preparation programs provides conflicting findings. Researchers who have closely examined and synthesized the existing research on teacher preparation have concluded that there is no clear evidence of the superiority of any particular program type (i.e. traditional versus alternative, four-year versus five-year).²⁸

Teacher effectiveness is multidimensional and as a result, measuring it is a complex task. Teachers can be effective at improving the learning and achievement of students in a particular subject area and improving students' self-esteem, motivation, interest in particular subjects or level of engagement in school. Ideally, students' progress on all of these dimensions would be regularly measured during the time they are being taught by a particular teacher. However, rarely are measures of student progress available in any one of these dimensions over time and even when they are available, it is difficult to disentangle the contribution of the teacher from the other factors that impact the student (such as the school climate and home environment).

Understanding the effectiveness of various types of teacher preparation programs is also complex. If teachers from different programs were randomly distributed within and across schools, researchers would be less concerned about the impact of other factors when assessing the effectiveness of teachers from different programs. But, this is not the case. Some programs place teachers in certain types of schools or with certain types of students. As a result, evaluations of the effectiveness of different teacher preparation programs must differentiate the effect of the program from other factors that contribute to student progress.

There is a great deal of variety in the types of preparation programs that exist and the types of candidates they recruit and train. Thus, it is important to differentiate programs based on their characteristics. It is difficult to derive implications if the substance and details of different programs are not understood. Selection of teachers into programs is also an important factor to consider. For example, some programs attract teachers with particularly strong academic skills while others do not. Separating the impact of the program experience from the impact of recruitment and selection criteria is vital to understanding which aspects of the program contribute to effective teaching.

28 Zeichner, K.M. & Cochran-Smith, M. (Eds.). (2005). *Studying teacher education: The report of the AERA panel on research and teacher education*. Washington, DC: American Educational Research Association.

and would like to initiate an era where teacher training programs are measured downstream by value-added gains of students. These program directors believe accountability is inevitable and look forward to having a mechanism for showing that they are producing high-quality teachers and demonstrating the impact of their programs and graduate performance on K-12 student learning. In making this shift, the first challenge is to create a mechanism for collecting the necessary data. While program directors described numerous challenges, at the same time they expressed an openness and willingness to enter into discussions about how to overcome them and create an accountability model for their programs.

- **Sustained via participants' tuition and fees but there is a need for additional resources.** Over half of the programs studied rely on participant tuition and fees to help fund their programs. In fact, seven of the fourteen programs that are operated outside of higher education are fully funded through participants' tuition. While these programs manage to sustain themselves, money is tight. Most of these providers are just covering their costs and strive to enroll the number of participants they need in order to break even. As a result, program providers are unable to provide some of the services and supports that they would like because they do not have the resources. Some providers indicated that if they had the resources (both human and financial), they would more actively recruit candidates; provide stipends to program participants; maintain formal contact with program completers; keep better records about graduates' success and persistence; and provide formal, ongoing mentoring and support to program completers during their first few years of teaching.
- **Institutional support is critical to sustaining IHE-run programs.** The longest running IHE programs indicated that there is strong institutional support for the practice-based programs at all levels of the institution. Some of the IHE programs receive a substantial amount of support through their colleges/universities in the form of reduced or waived tuition and fees for participants. Others are supported by grants the college/university sought out specifically to support the programs. Strong institutional commitment to these programs has resulted in dedicated staff to actively recruit candidates, coordinate the programs and oversee the field placements. Staff from other university departments, including the admissions office, advising and other administrative offices also provide support to the programs. Some program directors spoke about the institution's commitment to clinical practice. For example, an important component of one IHE program is the role of Clinical Faculty (analogous to Professors of Practice). Clini-

National Council for Accreditation of Teacher Education (NCATE) is encouraging a practice-based approach to teacher education.

In June 2009, NCATE announced that they are implementing a new approach to ensuring quality in programs that prepare the vast majority of the nation's teachers. Under this initiative, teacher education programs will be required to strengthen the clinical focus of their programs to better prepare educators to meet the needs of today's P-12 students and foster increases in student learning. NCATE is planning to:

"push teacher education programs to close the gap between theory and practice, coursework and classroom, preparation and induction. In the past, accreditation wrapped clinical experience around coursework. The new approach will reverse the priority, encouraging institutions to place teacher candidates in more robust clinical experiences, and wrap coursework around clinical practice."²⁹

Under this initiative, teacher education programs will also be required to stimulate comprehensive changes in their programs focused on addressing critical needs of schools, such as recruiting talented teachers and bolstering teacher retention; demonstrating the impact of their programs and graduates on P-12 student learning; and increasing knowledge about what works in teacher education to improve P-12 student learning, using a research and development strategy to build better knowledge and help institutions use that knowledge to improve programs.

29 Cibulka, J.G. (June 2009). *Meeting urgent national needs in P-20 education: Improving relevance, evidence, and performance in teacher preparation*. Washington, DC: National Council for Accreditation of Teacher Education (NCATE).

cal Faculty, who have expertise in specific subject matter teaching, work closely with partner schools, and mentor or collaborate with teachers in the schools, partly to provide curriculum and teaching models for the program's teaching interns. The program has five full-time Clinical Faculty who are based at the University but spend a substantial amount of time in the schools.

Next Steps for Policy and Practice

Over the last decade, practice-based teacher preparation programs have proliferated across the nation in response to projected teacher shortages and in an effort to better prepare teachers for the challenges of today's classrooms. While national research is not yet rich enough to provide clear policy directions, there is a shift toward longer and more intensive field-based experiences, closing the gap between theory and practice, partnerships between preparation programs and local school districts, and accountability in teacher preparation. It is within this context that we offer the following considerations for policymakers, K-12 school and district leaders, and institutions of higher education.

Considerations for policymakers

Expand the state data system so that it serves multiple stakeholders. The state has a role to play in helping teacher preparation programs obtain the data they need to evaluate whether their programs are providing teacher candidates with the skills and competencies necessary to increase student achievement. One way to do this is by linking the Educator Licensure and Recruitment System (ELARS) and the Education Personnel Information Management System (EPIMS)³⁰ databases and providing teacher preparation programs with access to the merged data system. Teacher preparation programs could use the data system to locate and track individuals who complete their programs. While most programs collect feedback from participants about their experience in the program while they are enrolled, very few systematically solicit feedback from graduates; access to the state data system would make it easier for program providers to do so. A longer term goal is to provide preparation programs with data they need to evaluate and improve their programs. This includes reliable longitudinal data containing background and performance data for their graduates and the K-12 students they teach. One way to accomplish this is to link ELARS and EPIMS with the Student Information Management System (SIMS) database.³¹

Facilitate and encourage communication and collaboration between those that train teachers and those that hire them. Practice-based programs were created in part because school districts felt that institutions of higher education were not meeting their needs. The growth of practice-based programs in response to district needs demonstrates the importance of communication between school districts and the institutions preparing the teacher workforce. While many traditional IHE-run teacher preparation programs seem to undervalue the importance of this link, there are some IHE programs in Massachusetts that do not. Our study revealed that several IHEs have developed successful partnerships with school districts and created practice-based programs that address local needs. Policymakers may wish to consider providing a channel through which teacher preparation programs can learn about school districts' needs and contexts, so they may adjust their programs accordingly.

Provide information and resources necessary to bring partners together. Some teacher preparation programs in Massachusetts have received federal funding to establish partnerships to develop and launch their programs. Many more could use seed money to bring partners together. Policymakers may wish to consider how they might use staffing data to identify schools and districts with the greatest staffing needs and provide incentives to neighboring colleges and universities to develop teacher training programs with these schools. One incentive might involve including participation in partnerships with K-12 schools as an indicator in accountability systems for teacher education programs.

30 EPIMS is the database that contains information on teachers' educational attainment, licensure and teaching assignments.

31 SIMS is the database that contains information on students in the Massachusetts public schools.

Create a career-step for experienced teachers who take on a leadership role in teacher preparation programs.

Some experienced and talented teachers who want to advance in their career do not want to leave the classroom to become administrators but there often is no career-step for them. Involvement in the development and operation of practice-based teacher training programs provides experienced teachers with an opportunity to take on a leadership role while continuing to teach. This study suggests that this acknowledgement of public school teachers as experts in the field has a positive impact on the teachers' sense of worth, motivation and job satisfaction. As a result, we encourage policy-makers to consider creating career paths for K-12 veteran educators which involve working with pre-service and novice teachers, while allowing them to remain within the teaching ranks. An example of such a position is the one proposed by the Massachusetts Teachers Association (MTA), the New Teacher Developer.³² The MTA suggests the New Teacher Developer position be a career path position for teachers with a Professional license and would involve an endorsement based on the successful completion of graduate study in adult learning and theory, facilitation and coaching skills, and formative teacher evaluation protocols. The New Teacher Developer would be an adjunct faculty member with the district's preparation program partner and contribute to the assessment of pre-service teachers as they progress through their field experiences and seminars.

Brand programs that place candidates in the field full-time for an academic year so aspiring teachers can clearly recognize them as a route to entering the teaching profession. There should be a simple way to identify teacher preparation programs that place candidates in the field full-time for an academic year regardless of what type of entity operates them and whether they are baccalaureate or post-baccalaureate programs. One option would be to brand them as "field-based" or "practice-based" programs. Currently, aspiring teachers who visit the Gateway for Educators of Massachusetts (GEM) website can download a list of the post-baccalaureate practice-based programs that are housed outside of higher education (Route Three and Four programs) from the *Find a Preparation Program* page.³³ A list of the practice-based programs housed within higher education is not available nor are these programs mentioned by name when visitors to the site use the program search feature of the website; only the name of the institution appears.³⁴

Proactively market practice-based programs as a route to entering the teaching profession. In light of the current and projected shortage of teachers in Massachusetts and the number of educators not licensed in the area in which they are teaching (about 5% of the state's teacher workforce with a disproportionately high percentage in high-poverty school districts), we encourage ESE to proactively market practice-based programs as a route to entering the teaching profession. Increasing public awareness about practice-based teacher preparation programs could attract mid-career professionals who might not otherwise consider pursuing a career in teaching and increase the pool of applicants. A larger and more diverse applicant pool would enable district-run programs to better meet the needs of their district and enable all programs to be much more selective along multiple dimensions (including candidates' content knowledge, previous experience and a range of other characteristics) which in turn, could increase the quality of teaching workforce.

Adopt a new typology to facilitate meaningful research. In order to better understand which aspects of teacher preparation programs produce successful teachers, further research is needed. Research must take into consideration the great deal of variety in the types of programs that exist and the types of candidates they train. For research purposes, a simple dichotomy between practice-based and traditional programs does not capture the significant differences in characteristics across programs. A new typology that further distinguishes programs in Massachusetts is needed in order for research to be meaningful. For example, Grossman and Loeb suggest a typology that distinguishes programs based on the provider, the type of candidate, the labor market needs being addressed, and the timing and focus of coursework

32 Center for Education Policy and Practice, Massachusetts Teachers Association. (2008). *Tomorrow's teachers: Preparing the education workforce for 21st century schools*. Boston: Massachusetts Teachers Association.

33 Massachusetts Department of Elementary and Secondary Education. (2007). *Find a preparation program*. Gateway for educators of Massachusetts (GEM). Retrieved from: <http://www.doe.mass.edu/gem/prep.html>.

34 To compile a list of IHE practice-based programs for this study, the websites of the 10 Massachusetts colleges and universities that train the largest number of teachers were searched for programs that place candidates in schools for a full academic year. Two working group members also aided in the search by contacting Massachusetts State Colleges and University of Massachusetts campuses via email.

and fieldwork.³⁵ With a typology such as this in place, it will enable meaningful comparisons among programs with similar characteristics and lead to more conclusive findings about the aspects of those programs that result in effective teachers. Thus, we encourage policymakers to consider adopting a typology such as this one.

Considerations for K-12 school and district leaders

Communicate and collaborate with preparation programs that prepare teachers in your district. Establish partnerships with IHEs and other providers that prepare a large percentage of your district's new teachers and improve communication with the preparation programs with which your schools and district already have relationships. Invite directors of preparation programs to your district to discuss your district's needs, provide the context they need to understand the realities of teaching in your district, and provide feedback on how well their graduates have performed as teachers in your district. Encourage program directors to incorporate this information into their programs and to more actively engage with district and school staff to bridge the gap between theory and practice.

Work with IHEs to create lend-lease programs. A lend-lease program would allow expert teachers to work as adjunct professors in schools of education without forfeiting their role as K-12 teachers. This is one way to bring both the clinical and contextualized knowledge of schools and districts into teacher training. The dual role means there is someone from the school working with IHE faculty to train aspiring teachers well while focusing on practical aspects of teaching.

Considerations for institutions of higher education

Communicate and collaborate with districts who hire your graduates. Establish partnerships with districts that tend to hire your graduates and improve communication with the schools and districts with which your institution already has relationships. Invite school and district leaders to meet with school of education faculty to discuss the district's needs, provide the contextualization faculty may need to understand the realities of teaching in the district, and solicit their feedback on how well your graduates have performed as teachers in their district. Show the district that your institution is willing to adapt to local needs and explore how to more actively engage practitioners from the district in your teacher education program.

Value and reward K-12 clinical practice. Given the national shift toward longer and more intense field-based experiences, clinical work should be encouraged and rewarded rather than be seen as secondary to research and teaching. Consider creating Clinical Faculty/Professor of Practice positions. For example, Clark University's Jacob Hiatt Center for Urban Education has five full-time Clinical Faculty who are based at the University but spend a substantial amount of time in the schools. Colleges and universities may also consider encouraging faculty to spend their sabbatical working in a K-12 school.

Work with districts to create lend-lease programs. Institutions of higher education may wish to consider developing lend-lease programs with neighboring school districts. As mentioned in the considerations for K-12 school and district leaders, a lend-lease program would allow expert K-12 teachers to work as adjunct professors in IHE schools of education without forfeiting their role as K-12 teachers. This is one way to bring both the clinical and contextualized knowledge of schools and districts into your teacher education program.

³⁵ Grossman, P. & Loeb, S. (eds.) (2008). *Alternative routes to teaching: Mapping the new landscape of teacher education*. Cambridge: Harvard Education Press.

Appendix A: Members of the Working Group

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Appendix B: Participating Programs

Participating programs operated by providers outside of higher education are listed in Table B1 and those operated by colleges and universities are listed in Table B2. It is important to note that while the programs shown in Table B1 are operated by providers outside of higher education, many of these programs have partnerships with colleges and universities. In most cases, the higher education partner provides the option for program participants to earn a Master of Arts in Teaching (MAT).

TABLE B1: PROGRAMS OPERATED OUTSIDE OF HIGHER EDUCATION

Boston Teacher Residency Program
Brine District-Based Professional Licensure Programs
Cambridge Licensure In-District Program (CLIP)
City on a Hill Charter School Teaching Fellows Program
Class Measures District-Based Professional Licensure Programs
Hampshire Educational Collaborative (HEC)
Lowell District-Based Licensure Program
Lawrence Public Schools (formerly a MINT program)
Worcester Public Schools (formerly a MINT program)
Newton Teacher Residency Program (formerly Newton Teacher Training Institute (NTTI))
Reading Specialist Licensure Program
Shady Hill School Teacher Training Course
Springfield District-Based Licensure Programs
The Education Cooperative (TEC) Initial Licensure Program

TABLE B2: PROGRAMS OPERATED BY INSTITUTIONS OF HIGHER EDUCATION

IHE	PROGRAM	DESCRIPTION
Clark University	Master of Arts and Teaching Program	5th year program—5th year spent in the field
Lesley University	Collaborative Internship Program	Post-Baccalaureate—partners with 6 independent schools and 2 public schools—candidates are apprentices
Simmons College	Kathleen Dunn Scholars	5th year program—5th year spent in the field
Tufts University	Urban Teacher Training Collaborative (UTTC)	Post-Baccalaureate—partners with urban schools—candidates are apprentices
UMass Amherst	180 Days in Springfield	Post-Baccalaureate program serving Springfield public schools—candidates are apprentices
UMass Amherst	Collaborative Teacher Education Program (CTEP)	Post-Baccalaureate—does not serve particular districts—candidates are apprentices
UMass Boston	Teach Next Year	Post-Baccalaureate program serving particular BPS schools—candidates are apprentices
UMass Dartmouth	Teach! UrbanSouth	Post-Baccalaureate program serving South Shore districts—candidates are teachers of record
	Teach! SouthCoast	Post-Baccalaureate program serving South Shore districts—candidates are teachers of record
	Journey into Education and Teaching (JET)*	Undergraduate Baccalaureate program serving individuals working full-time as paraprofessionals
UMass Lowell	Initial Certification (IC) Program*	Post-Baccalaureate program primarily serving teachers who are already working as Teacher of Record—does not serve particular districts
Westfield State College	Reach to Teach*	Undergraduate Baccalaureate

*These programs were interviewed for the study but were not classified as practice-based programs. As a result, they were not included in the analysis to extract common themes.

Appendix C: Federal Grant Programs

Transition to Teaching Grant Program. Boston Teacher Residency (BTR), Hampshire Education Collaborative (HEC), and University of Massachusetts Dartmouth's Teach! SouthCoast receive funding through the Transition to Teaching (TTT) grant program. The MINT programs in Lawrence and Worcester Public Schools had also been supported by the TTT grant; funding ended in 2008.

Transition to Teaching is a discretionary competitive grant program administered through the U.S. Department of Education's Office of Innovation and Improvement. The TTT program provides five-year grants to state and local educational agencies, for-profit organizations, non-profit organizations, and IHEs collaborating with state or local educational agencies. The program provides grants to support the recruitment and retention of highly qualified mid-career professionals (including qualified paraprofessionals and recent college graduates) who do not yet have teaching credentials, to teach in high-need schools and districts through the development of new or enhanced alternative routes to certification. The program also provides grants to encourage the development and expansion of alternative routes to certification under state-approved programs that enable individuals to be eligible for teacher certification within a reduced period of time, relying on an individual's experience, expertise, and academic qualifications in lieu of traditional coursework in the field of education. Program participants must teach in high-need schools for at least three years.

Nationally, awards for fiscal year 2009 totaled \$6,857,548. Individual awards ranging from \$306,646 to \$755,499 were granted to 14 programs. Awards for fiscal year 2008 totaled \$43,706,865. A total of 102 programs received continuation awards (no new awards were granted) ranging from \$98,852 to \$3,074,284. The average award was \$426,324.

Teacher Quality Enhancement Grant Program. University of Massachusetts Dartmouth's Teach! UrbanSouth is funded through the Teacher Quality Enhancement-Recruitment grant program.

Teacher Quality Enhancement (TQE) is a discretionary competitive grant program administered through the U.S. Department of Education's Office of Postsecondary Education. The TQE program includes three types of grants: State Grants, Partnership Grants, and Teacher Recruitment Grants. These are three-year grants intended to make lasting changes in the ways teachers are recruited, prepared, licensed, and supported. This program aims to reduce shortages of qualified teachers in high-need school districts. The TQE-Recruitment Grant, which supports the Teach! UrbanSouth program at University of Massachusetts Dartmouth, is described below. The other TQE grants do not currently support any practice-based programs in Massachusetts.

It is important to note that TQE grants require grantees to contribute to the program with in-kind and cash-matching contributions. The purpose of the cost-sharing agreement is two-fold. First, it will increase the level of program services and second, it encourages the grantee and its partners to take significant ownership of the project through investment of their own resources. In-kind and cash matching contributions also help promote sustainability of the program after federal funding ends. For these multi-year awards, the percentage of in-kind and cash-matching required increases each year. The willingness to participate in this type of cost-sharing agreement is evidence of the level of commitment from the grantee and its partners to the institutionalization of the program.

TQE Recruitment grants seek to assist in teacher recruitment reforms. Grant activities focus on developing strategies to improve school district capacity to hire and retain highly qualified teachers including identifying pools of potential teachers who can meet critical needs, recruiting teachers from these pools, and preparing teacher candidates through high-quality preparation and induction programs that are based on the best current research.

Nationally, the TQE recruitment grants program awarded nine grants totaling \$7,197,491 for fiscal year 2008. Individual awards ranged from \$224,736 to \$1,097,246. Awards for fiscal year 2007 totaled \$23,288,780. Individual awards ranging from \$102,692 to \$2,347,351 were granted to 20 programs.

TQE State grants seek to promote statewide teacher preparation reform activities through the linkage of K-12 and IHEs to stimulate systemic policy and practice changes in such areas as teacher preparation, certification and licensing, and practice. Grant activities focus on improving content knowledge, teaching methods, and technology preparation; enhancing future teachers' clinical experiences; mentoring new teachers; recruiting teachers for high-need schools; encouraging meaningful teacher accountability; and providing high-quality professional development activities for both new and experienced teachers.

The TQE state grant program did not make any awards for fiscal year 2008. Two states were awarded grants totaling \$2,078,271 for fiscal year 2007.

TQE Partnership grants seek to raise student achievement and improve learning by bringing about fundamental change and improvement in teacher preparation programs. Grant activities focus on increasing teachers' academic content preparation; integrating research-based teaching methods into the education curriculum; providing sustained pre-service clinical or field experiences; and creating opportunities for professional development activities that improve content knowledge and strengthen teaching skills.

The TQE partnership grant program awarded 23 grants totaling \$25,544,729 for fiscal year 2008. Individual awards ranged from \$106,040 to \$2,375,064. Awards for fiscal year 2007 totaled \$34,527,909. Individual awards ranging from \$102,692 to \$2,347,351 were granted to 29 programs.

The Robert Noyce Teacher Scholarship Program. Clark University's Master of Arts in Teaching Program, University of Massachusetts Boston's Teach Next Year and University of Massachusetts Dartmouth's Teach! SouthCoast and Teach! UrbanSouth programs receive funding through The Robert Noyce Teacher Scholarship Program.

The Robert Noyce Teacher Scholarship Program is administered through the National Science Foundation (NSF). The program seeks to encourage talented science, technology, engineering and mathematics majors and professionals in these fields to become K-12 mathematics and science teachers. The program provides funds to IHEs to support scholarships, stipends, and academic programs for undergraduate STEM majors and post-baccalaureate students holding STEM degrees who commit to teaching in high-need K-12 school districts. A new component of the program supports STEM professionals who enroll as NSF Teaching Fellows in master's degree programs leading to teacher certification by providing academic courses, professional development, and salary supplements to Fellows while they are fulfilling a four-year teaching commitment in a high-need school district. This new component also supports the development of NSF Master Teaching Fellows by providing professional development and salary supplements for current math and science teachers deemed exemplary to become Master Teachers in high-need school districts.