

Alternative Assessment Pilot Evaluation

Interim Second Year Assessment

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Executive Summary

Teacher licensure is one of the primary mechanisms through which states ensure that new teachers have the requisite literacy skills and subject matter knowledge for classroom instruction. Basic skills and subject matter tests required of prospective teachers are a key component of licensure in nearly every state (National Council on Teacher Quality, 2020). Ample evidence shows these tests are predictive of teachers' contributions to student learning (Clotfelter et al., 2007, 2010; Cowan et al., 2020; Goldhaber, 2007; Goldhaber et al., 2017; Sass, 2015). However, there are also unresolved academic debates about the extent to which testing requirements exclude potentially effective teachers (Gershenson, 2021; Gitomer et al., 2011) or limit the diversity of the teacher workforce (Angrist & Guryan, 2004, 2008; Bennet et al., 2006; Rucinski & Goodman, 2019).

In 2020, the Massachusetts Board of Elementary and Secondary Education (BESE) authorized a pilot of alternatives to the Massachusetts Tests for Educator Licensure (MTEL) requirements for educator candidates. The pilots were intended to expand access to the teaching profession, allowing prospective teachers to demonstrate their capacities in different ways while maintaining high standards for literacy skills and content knowledge. They were also designed to reduce barriers for teacher candidates of color, teachers already in the workforce, and out-of-state teachers to earn licensure in Massachusetts (Massachusetts Department of Elementary and Secondary Education, 2021; Riley, 2020).

The National Center for Analysis of Longitudinal Data in Education Research at the American Institutes for Research is engaged with the Massachusetts Department of Elementary and Secondary Education (DESE) in a multiyear evaluation of MTEL Alternative pilots. In this report, we describe survey evidence on participants' experiences with the alternative assessments and preliminary evidence on their employment and licensure outcomes.

Project Updates

The research team linked data on participation in the pilots to licensure and employment records from the 2022-23 school year. Because many candidates began taking the alternative assessments in late 2021 or early 2022, we are currently able to follow the earlier participants up to about 18-24 months after their initial participation.

The research team surveyed all participants in the Communication and Literacy Skills Test Alternatives and MTEL-Flex pilots in July and August 2023. The surveys focused on candidates' reasons for participating in one of the pilots and their experiences with the alternative assessment models. We describe themes emerging from the surveys in this report.

Since the last report, the number of teacher candidates participating in the pilots has increased by 104% (to 877) for the Communications and Literacy Skills Alternatives; by 180% (to 1,043) for the MTEL-Flex; and by 93% (to 56) for the Program Attestation option.

Key Findings

Summary of Alternatives

Candidates for educator licensure typically take two types of MTEL. The *Communications and Literacy Skills Test* (CLST) is a test of basic literacy skills required of all candidates for licensure. In addition, each license field has a corresponding *MTEL Subject Test* that focuses on content knowledge required for that field. This is an interim second year report that focuses on updated data and results from the three MTEL Alternatives enrolling participants:

CLST Alternatives: The Massachusetts Department of Elementary and Secondary Education (DESE) has approved five alternatives to the CLST. CLST Alternatives are standardized assessments offered by Pearson or the Educational Testing Service (ETS) for licensure in other states. Each of the alternatives includes a reading and writing subtest, similar to the CLST, and candidates can substitute a passing score on these tests for the CLST requirements.

MTEL-Flex: MTEL-Flex is offered by the Evaluation Systems group of Pearson (ES) to candidates receiving a near-passing score on one of seven MTEL subject tests (General Curriculum [Elementary and Early Childhood], Foundations of Reading, General Science, English, History, Spanish, and English as a Second Language). Candidates submit a written analysis of a topic covered by the relevant test.

Preparation Program Attestation: The Preparation Program Attestation option is currently approved for candidates taking the General Curriculum, Foundations of Reading, English as a Second Language, or Music MTEL at Bridgewater State University, Fitchburg State University, Merrimack College, Westfield State University, and Worcester State University. Candidates must be enrolled in a given institution to access these alternatives. Candidates take assessments and/or submit a variety of materials documenting their understanding of content knowledge for review by a content expert.

In Exhibit 1, we display characteristics of the teachers who have used each of these alternatives to satisfy their MTEL requirements. We also display these characteristics for candidates passing the traditional MTEL. For the CLST Alternatives, the comparison group is candidates passing the traditional CLSTs; for MTEL-Flex and Program Attestation, the comparison group is candidates passing one of the included subject tests. We also display the pass rate for each test in the top row.

Exhibit 1. Characteristics of Teachers Passing Through MTEL Options

	Communications and Literacy Skills Tests		Subject Tests		
	MTEL CLST	CLST Alternative	MTEL Subject Test	MTEL-Flex	Attestation
<i>Pass Rate</i>	72.0%	62.9%	50.7%	63.0%	85.7%
Prior Preparation Program Enrollment	17.1%	10.8%	40.6%	47.4%	60.4%
Prior Preparation Program Completion	2.4%	2.8%	12.5%	22.1%	16.7%
Emergency License	16.6%	25.6%	19.9%	34.2%	16.7%
Initial/Provisional License	0.2%	0.2%	13.7%	13.0%	0.0%
Employed, Teaching Role	11.7%	17.6%	25.5%	37.0%	14.6%
Employed, Non-Teaching Role	15.1%	16.2%	15.5%	16.5%	6.2%
Hispanic	6.3%	10.5%	5.8%	6.8%	4.2%
Black	3.8%	6.5%	2.5%	4.1%	4.2%
Male	17.6%	17.4%	15.5%	10.8%	4.2%

Notes: First row indicates pass rate on traditional MTEL and MTEL Alternatives. The sample includes tests administered after October 20, 2020 and is limited to the tests included in the MTEL Flex for the subject tests (Columns 3 – 5). Only candidates who satisfy their licensure requirements by passing the indicated test are included in the sample. The remaining rows indicate candidate characteristics and include all candidates who have passed Communications and Literacy Skills Tests (Columns 1 and 2) or subject tests (Columns 3 – 5) after October 20, 2020. All employment, preparation, and licensure characteristics measured as of testing date.

Teacher Diversity

Communication and Literacy Skills Tests Alternatives

Educator candidates who passed the CLST Alternatives were more likely to be Black (7%) or Hispanic (11%) than candidates passing the traditional CLST (4% and 6%, respectively).

Educator candidates working in Massachusetts public schools on emergency licenses were more likely to take the CLST alternatives.¹ In addition, survey responses indicate that the alternative tests may disproportionately draw teachers attending out-of-state programs or those considering licensure in other states.

¹ The emergency license was introduced during the COVID-19 pandemic for candidates impacted by disruptions to state licensure testing. Candidates are not required to complete the MTEL testing requirements prior to qualifying for an emergency license, although they must demonstrate progress toward initial licensure in order to renew the license. Emergency licenses are valid through June 30, 2024.

Candidates taking alternatives struggled with the traditional MTEL: 42% of participants had previously failed the CLST. In addition, 67% of survey respondents reported the requirement was a barrier to licensure, and 85% reported that test difficulty was somewhat or very important in their decision to take an alternative.

MTEL-Flex

Over the last 18 months, the MTEL-Flex has become the most popular method of retaking the MTEL subject tests among eligible candidates.

Teacher candidates who passed the MTEL-Flex were slightly more likely to be Black (4%) or Hispanic (7%) than candidates passing the traditional MTEL (3% and 6%, respectively).

The MTEL-Flex is available for General Curriculum, Foundations of Reading, English, History, General Science, Spanish, and English as a Second Language, and was most popular among candidates seeking licenses in high school English and History.

The MTEL-Flex is available for candidates who score just below the passing score on MTEL subject tests. Among teachers eligible for the MTEL-Flex, those who performed relatively better on their prior MTEL assessments were more likely to make another attempt on the traditional MTEL, while those with lower scores were more likely to take MTEL-Flex.

Preparation Program Attestation

An additional preparation program provider was approved to administer the program attestation option in the last year, bringing the total number of providers to 5. These providers jointly produce 23% of all program completers in Massachusetts each year.

The number of participants in the program attestation option approximately doubled over the last year. Participants are more likely to be employed in teaching roles on emergency licenses than other teachers attending their programs. They are also more racially diverse.

Access to the Profession

Communication and Literacy Skills Tests Alternatives

The CLST alternatives are generally less expensive and shorter than the traditional test. Survey respondents indicated these features were popular: 95% reported that ease of accessing the test was somewhat or very important in their decision to take an alternative, while 85% reported the same for the cost.

Candidates who took one of the CLST Alternatives were subsequently employed in Massachusetts public schools at similar rates to those taking the traditional tests, but they were less likely to enroll in or complete preparation programs in Massachusetts. The

program enrollment patterns may partially reflect the share of out-of-state candidates taking the alternative assessments.

MTEL-Flex

As part of the survey of participants, we asked candidates to indicate how various factors influenced their decision to take the MTEL-Flex. The ability to prepare submissions in their own time and consult textbooks and other sources were the most frequently cited as positive factors.

Candidates participating in the MTEL-Flex pilot were about 6 percentage points more likely to pass the MTEL. However, there are currently no detectable differences in licensure or employment.

Preparation Program Attestation

Participants appear to be making progress toward licensure and employment. About 53% of participants completed a preparation program in the year following participation, and about one third were working in teaching roles in public schools.

Teacher Effectiveness

Communication and Literacy Skills Tests Alternatives

Based on performance ratings and contributions to student achievement on MCAS, teachers who passed the CLST Alternatives and who could be observed teaching were similarly effective as candidates who took the traditional MTEL. However, these estimates are currently based on a small sample, and the differences are imprecisely estimated.

MTEL-Flex

Based on performance ratings and contributions to student achievement on MCAS, teachers who participated in the MTEL-Flex pilot and who could be observed teaching were similarly effective as eligible candidates who retook the traditional MTEL. However, these estimates are currently based on a small sample, and the differences are imprecisely estimated.

Introduction and Background

Massachusetts requires educators to demonstrate content knowledge using the Massachusetts Tests of Educator Licensure (MTEL). All candidates for licensed educator roles are statutorily required to pass a series of tests before they obtain a license.² These include the Communication and Literacy Skills Test (CLST), a two-part test that covers reading comprehension and writing proficiency that is required for all educator licenses. In addition, teacher candidates must pass subject tests that are aligned with the [state curricular frameworks](#) and [Subject Matter Knowledge Guidelines](#) in the field in which they intend to teach. Tests are designed to ensure that candidates can demonstrate a functional level of understanding of the content knowledge required for the license.

Teacher content knowledge is one of many teaching skills that contribute to student learning. Researchers have demonstrated in a variety of contexts that students who are assigned to teachers with higher mastery of their content, as measured by licensure tests, perform better on standardized assessments (Clotfelter et al., 2007, 2010; Cowan et al., 2023; Goldhaber, 2007; Goldhaber et al., 2017; Sass, 2015). At the same time, testing requirements may exclude some teachers who would become effective educators (Gershenson, 2021). Passing rates on licensure tests also tend to be lower for teacher candidates of color, raising concerns that testing requirements may limit the diversity of the teacher workforce (Nettles et al., 2011; Rucinski & Goodman, 2019).

The Massachusetts Board of Elementary and Secondary Education (BESE) authorized the MTEL Alternatives pilot on October 20, 2020 to study different methods for demonstrating communications and literacy skills and content knowledge. The alternative assessments are intended to increase accessibility for strong educators while maintaining standards for teacher knowledge (Department of Elementary and Secondary Education [DESE], 2021; Riley, 2020). There are currently four alternative assessment models included in the pilot:

CLST Alternatives: The Massachusetts Department of Elementary and Secondary Education (DESE) has approved five alternatives to the CLST. CLST Alternatives are standardized assessments offered by Pearson or the Educational Testing Service (ETS) for licensure in other states. Each of the alternatives includes a reading and writing subtest, similar to the CLST, and candidates can substitute a passing score on these tests for the CLST requirements.

² These licensure requirements have been temporarily relaxed during the COVID-19 pandemic. DESE offers an emergency license option that temporarily exempts teachers from completing certain licensure requirements. Teachers will have to advance their license to an initial or provisional type by completing the relevant licensure tests.

MTEL-Flex: MTEL-Flex is offered by the Evaluation Systems group of Pearson (ES) to candidates receiving a near-passing score on one of seven MTEL subject tests (General Curriculum [Elementary and Early Childhood], Foundations of Reading, General Science, English, History, Spanish, and English as a Second Language). Candidates submit a written analysis of a topic covered by the relevant test.

Preparation Program Attestation: The Preparation Program Attestation option is currently approved for candidates taking the General Curriculum, Foundations of Reading, English as a Second Language, or Music MTEL at Bridgewater State University, Fitchburg State University, Merrimack College, Westfield State University, and Worcester State University. Candidates take assessments and/or submit a variety of materials documenting their understanding of content knowledge for review by a content expert.

Performance Review Program for Initial Licensure (PRPIL) Expansion: The PRPIL Expansion route is intended for candidates already working in the field on a teaching waiver. Candidates would submit a portfolio documenting their content knowledge for external review.

In a prior report (Cowan et al., 2022), we assessed the introduction of the alternatives in late 2021 and early 2022. In this update, we link participants in the pilots to licensure and employment outcomes through the 2022-23 school year. We also conducted an original survey of participants in the CLST and MTEL-Flex Alternatives. Combining these data, we are learning a few lessons about candidates' progression through the licensing process.

CLST Alternatives: Candidates taking the CLST Alternatives are currently making less progress toward licensure and employment than candidates taking the traditional CLST. This partially reflects differences in candidate backgrounds. Participants are more likely to have previously failed the CLSTs, which also correlates negatively with licensure and employment outcomes. When we statistically adjust for candidates' background prior to taking the test, passing rates on the traditional and alternative CLSTs are similar, although participants in the alternatives are less likely to subsequently enroll in or complete an in-state preparation program. However, the surveys indicate that participants in the alternatives may disproportionately attend out-of-state programs, which may also explain these results. Candidates taking the CLST alternatives are more likely to be Black or Hispanic than those taking the traditional CLST MTEL.

MTEL-Flex: Participants in the MTEL-Flex pilot are making similar progress toward employment and licensure as other candidates. Among candidates eligible to take the MTEL-Flex, those electing to take Flex rather than retake the same traditional MTEL subject tests are about six percentage points more likely to pass the test. So far, higher pass rates on the tests have not translated into differences in program completion, licensure, or employment rates. Candidates

taking the Flex alternatives are more likely to be Black or Hispanic than those taking the traditional MTEL.

Program Attestation: Although the program attestation option has expanded since the last report, it remains the smallest of the pilot options. Nonetheless, participants do appear to be progressing toward licensure. About half of those participating in this alternative have completed a preparation program, and one third have advanced to an initial or provisional license. Participants also appear to be more ethnoracially diverse than other candidates attending their programs during the same time period.

Candidate Experiences

Communication and Literacy Skills Tests Alternatives

Candidates taking alternatives reported that the CLST requirement was a barrier to pursuing an educator license: 67% of survey respondents reported the requirement was a barrier to licensure, and 85% reported that test difficulty was somewhat or very important in their decision to take an alternative.

The CLST alternatives are generally less expensive and shorter than the traditional test. Survey respondents indicated these features were popular: 95% reported that ease of accessing the test was somewhat or very important in their decision to take an alternative, while 85% reported the same for the cost.

MTEL-Flex

The typical candidates spent about 10 hours preparing their MTEL-Flex submission, which generally consists of a three-page written analysis of a topic from the state curricular framework.

As part of the survey of participants, we asked candidates to indicate how various factors influenced their decision to take the MTEL-Flex. The ability to prepare submissions in their own time and consult textbooks and other sources were the most frequently cited as positive factors.

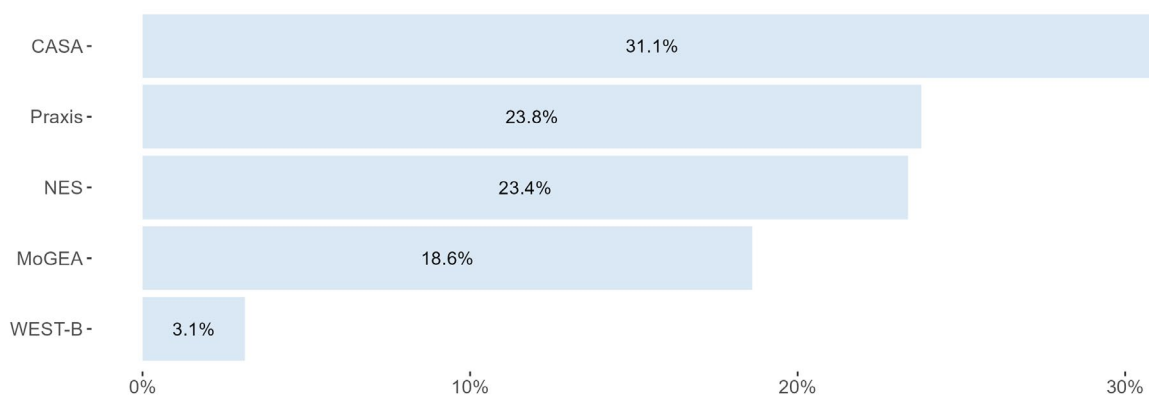
In order to better understand candidates' experiences with the MTEL Alternatives, we conducted a survey of teacher candidates taking the MTEL-Flex or a CLST Alternative in July and August 2023. The survey sample included all candidates who had taken one of the alternative tests. The surveys asked participants about their background, their perceptions of the MTEL and alternative assessments, and their experiences taking the tests. To maximize response rates, the surveys were short and focused on a few major themes. Candidates were contacted by e-mail and invited to take the survey. The MTEL-Flex survey included 879 teacher candidates and

had a response rate of 47%. The CLST Alternative survey included 877 teacher candidates with a response rate of 36%.³ In this section, we discuss results from these surveys.

Communications and Literacy Skills Alternatives

The CLST is a two-part test in reading and writing required of all candidates in Massachusetts, including those seeking administrative, specialist, or professional support licenses. Candidates must earn a passing score on each of the two subtests to advance to licensure. As part of the pilot, DESE accepts similar assessments offered in other states to satisfy CLST requirements. DESE has approved five alternatives to the CLST. These alternatives include the Praxis Core, the National Evaluation Series (NES) Essential Academic Skills, the Missouri General Education Assessment (MoGEA), the Washington [state] Educator Skills Test-Basic (WEST-B), and the Indiana Core Academic Skills Assessment (CASA). Each of these tests includes a reading and writing subtest, and candidates can submit a passing score on either of these subtests to meet their licensure requirements. In Exhibit 2, we show participation by test series. The CASA, Praxis, and NES are the most popular alternatives, while relatively few candidates have taken the WEST-B.

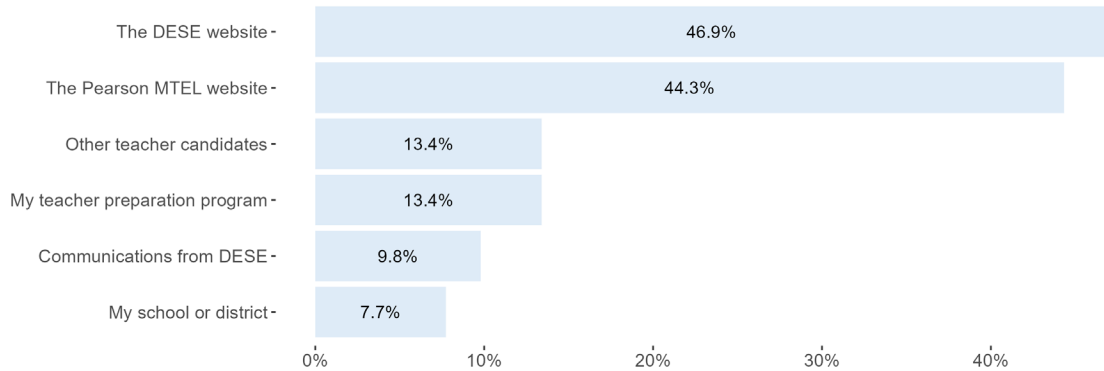
Exhibit 2. Participation by Test Series



We asked candidates on the survey where they heard about the CLST Alternatives (Exhibit 3). The most popular responses were the DESE (47%) and Pearson (44%) websites. Relatively few candidates reported hearing about the alternatives from other candidates, their preparation program, or their school or district (all less than 14%). About 10% of respondents reported hearing about the pilot through direct communications from DESE.

³ Not all survey respondents answered every question in the survey. Overall, 35% and 26% of those included in the surveys, respectively, responded to the survey and completed every question.

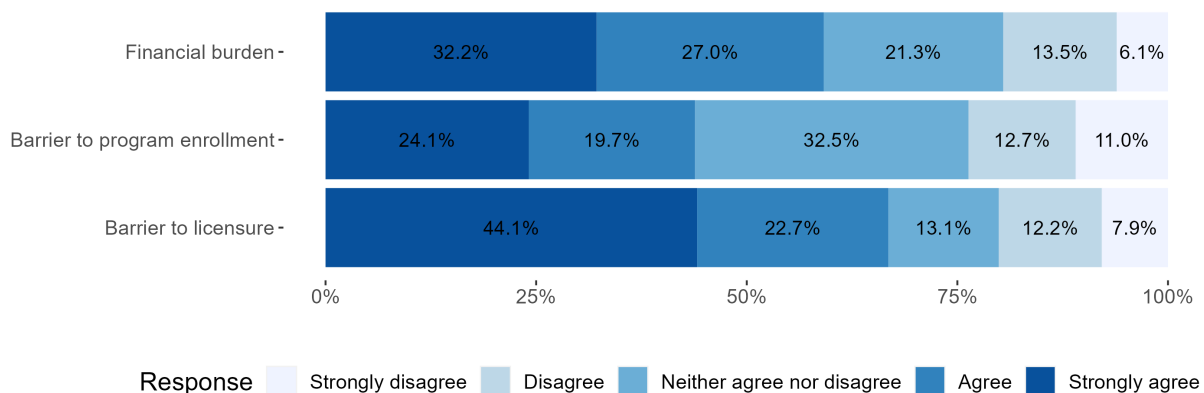
Exhibit 3. Sources of Information about Communications and Literacy Skills Alternatives



We also asked survey participants about their general perceptions of the CLST requirement (Exhibit 4). We asked candidates about the extent to which the CLST requirement posed a barrier to candidates financially, to enrollment in a preparation program, or to obtaining licensure. Nearly 60% of respondents reported that the CLST was a financial burden. The CLST is not a formal requirement for program entry, but candidates typically complete it before enrollment. About 44% of respondents reported that the CLST was a barrier to enrolling in a preparation program, although the plurality (33%) indicated it had no effect. Candidates more consistently identified the CLST as a barrier to licensure: 44% of respondents strongly agreed with the statement that the test posed a barrier to obtaining a license, and an additional 23% agreed.

Exhibit 4. Perceptions of Communications and Literacy Skills Requirement

To what extent do you agree with the following statements about the CLST?



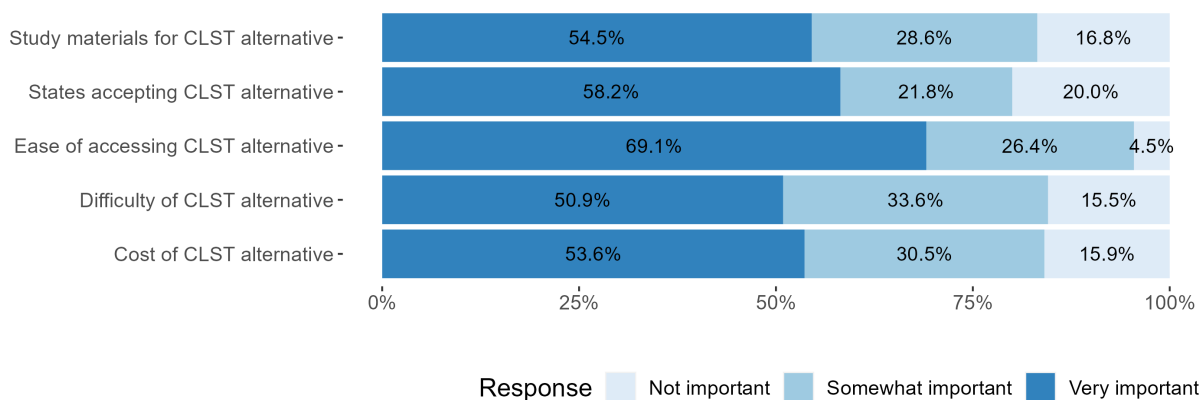
Finally, we asked about participants' reasons for taking one of the alternative tests (Exhibit 5). The CLST Alternatives differ from the traditional MTEL in a few important respects. First, the alternatives typically cost less than the traditional CLST. The combined test (both reading and writing subsections) costs \$112 for the traditional MTEL. By contrast, four of the five

alternatives cost less than \$75 for the combined test. Second, the alternatives are generally shorter than the traditional CLST. The testing window for the traditional CLST is four hours; it ranges from two to five hours for the alternatives. Finally, some of the alternatives are accepted for licensure in states other than Massachusetts. These tests may be more attractive to candidates attending out-of-state programs or considering licensure in other states. Based on these differences, we provided candidates with five potential reasons to take the alternatives and asked them about the importance of each in their decision to take the test (not important, somewhat important, very important).

The most frequently cited rationale was the ease of taking the alternative tests or accessing the testing sites (95% reported this was somewhat or very important in their decision). As we discussed earlier, the alternative tests generally take less time than the traditional CLST. In addition, some survey respondents indicated in written comments that it was easier to take the alternative assessments as an out-of-state candidate.

Exhibit 5. Influences on Decision to Take CLST Alternatives

How did the following factors influence your decision to take CLST alternative?



For each of the other options, about 80-85% of respondents reported that it was a somewhat or very important factor in their decision. The two next most frequently cited rationales were difficulty (85%) and cost (84%), but at least 80% of respondents also reported that the availability of study materials or other states accepting the tests were important factors.

MTEL-Flex

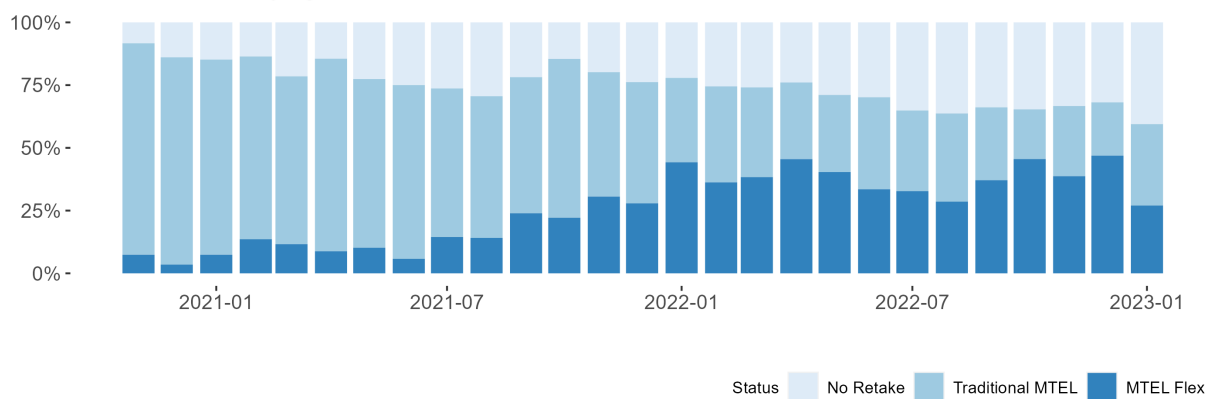
The MTEL-Flex is an alternative to retaking the MTEL subject tests for candidates who receive a failing score. It is currently offered on subject tests taken by teacher candidates seeking licenses in elementary or moderate disabilities (General Curriculum Mathematics and Multi-Subject subtests; Foundations of Reading), English, English as a Second Language, History, Spanish, and General Science. In order to qualify for the MTEL-Flex, candidates must have previously taken the traditional MTEL and received a qualifying score on the exam. The qualifying score is set at

one standard error of measurement below the minimum passing score and varies by test.⁴ In the prior report, we discussed the eligible pool of candidates and noted that, in some cases, it included as much as 20% of all submissions on the traditional MTEL.

Qualification for MTEL-Flex is automatic and eligible candidates have the option to register when they log into the ES website to schedule an MTEL retake (DESE, 2022). The DESE and Pearson websites also provide information about the MTEL-Flex assessment. The MTEL-Flex varies in several important respects from the traditional MTEL. The traditional MTEL includes some open response questions, but most of the available points come from multiple choice questions. By contrast, MTEL-Flex includes a three-page written analysis of a topic on the curricular frameworks. Candidates complete the submission in their own time and can consult primary sources (e.g., textbooks) as they prepare their submissions. The MTEL-Flex assessment is less expensive (\$49–\$69) than retaking the corresponding MTEL subject tests (\$94–\$139). Candidates who fail the assessment are provided with a scoring report and feedback and may resubmit the test (DESE, 2022). Candidates who receive a passing score are considered to have completed their licensure testing requirements.

Exhibit 6. Candidate Retake Status by Month of Qualification

Candidate Retake Status by Month
All Candidates with Qualifying MTEL Score



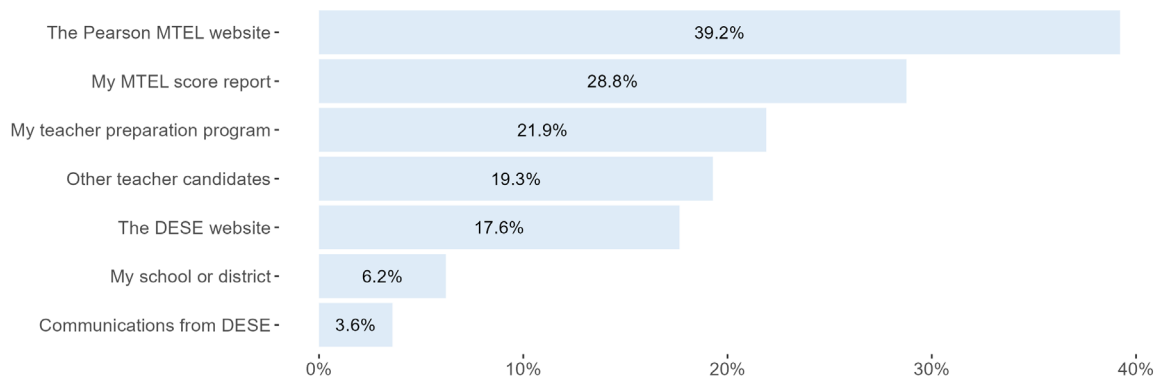
The MTEL-Flex was first introduced in early 2022. In the last report, we focused on submissions on either the traditional MTEL or the MTEL-Flex through June 2022. Given the recency of its introduction, we found that relatively few candidates were electing to take the Flex. We update this analysis in Exhibit 6 and show that it has become more popular over time. The figure identifies the MTEL retaking decisions for all candidates qualifying for the MTEL-Flex. The

⁴ The standard error of measurement is a measure of how much a candidate’s score would be expected to vary over subsequent administrations of the test due to random chance.

horizontal axis indicates the month that a candidate first became eligible for the MTEL-Flex (i.e., the testing date corresponding to the qualifying score). We then identify three possible decisions: no retake by July 30, 2023 (light blue), retake only the traditional MTEL by July 30, 2023 (medium blue), or retake MTEL-Flex by July 30, 2023 (dark blue).⁵ We plot qualifying dates through the end of 2022. The decline in retake rates throughout the pilot period, and particularly toward the end of 2022, is due to the fact that these candidates have had less time to retake the tests. As shown in Exhibit 6, the MTEL-Flex was the most popular MTEL-Flex retake option for candidates qualifying during 2022. Among those qualifying during 2022, 38% took the MTEL-Flex, 32% retook the traditional MTEL, and 30% did not take either.

As part of the survey, we asked participants where they had heard about the MTEL-Flex (Exhibit 7). The most common responses were both from Pearson: 39% reported hearing about MTEL-Flex on the Pearson website and 29% reported hearing about it on their MTEL score report. Candidates also commonly reported hearing about it from their preparation program (22%), other candidates (19%), or the DESE website (18%). Few candidates (4%) heard about MTEL-Flex through direct DESE communications.

Exhibit 7. Sources of Information about MTEL-Flex



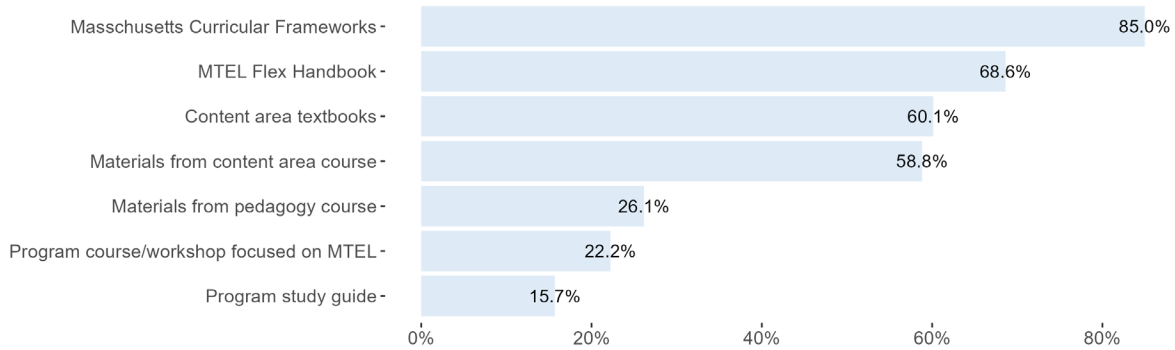
We also asked candidates how long they spent on their Flex submission. The traditional MTEL subject tests typically contain two open response questions that are designed to take 20-30 minutes each to complete. By contrast, the MTEL-Flex contains a written analysis of about 3 pages on a topic taken from the state curricular frameworks. The median survey respondent reported spending 10 hours to prepare their submission. However, a minority of candidates

⁵ Some candidates pursue multiple options. We categorize teacher candidates as retaking the MTEL-Flex if they take the assessment at least once.

took substantially more time: 25% spent at least 20 hours and 10% spent at least 40 hours on their submissions.

Exhibit 8. Resources Consulted During MTEL-Flex Preparation

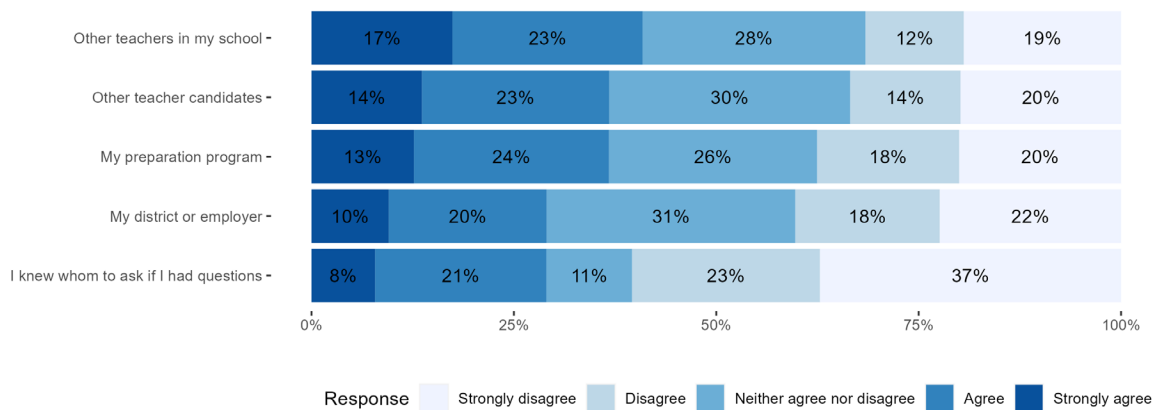
Which resources did you consult while preparing your MTEL Flex submission?



We next asked candidates about their use of various resources during the MTEL-Flex submission (Exhibit 8). These resources were pulled from items listed in the MTEL-Flex Handbook (DESE, 2022) in consultation with DESE. The most frequently cited materials were the Massachusetts Curricular Frameworks (85%), the MTEL-Flex Handbook (69%), content area textbooks (60%), and material from content area courses (59%). Candidates infrequently reported consulting program MTEL prep courses or workshops (22%) or study guides (16%).

Exhibit 9. Sources of Support Received During MTEL-Flex Preparation

Support provided by this source helped me to succeed on MTEL Flex

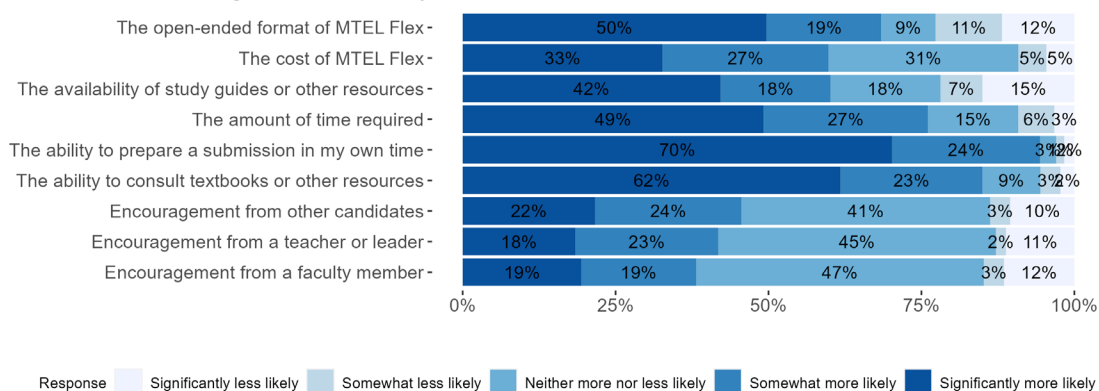


We also asked candidates about whom they relied on for support during the submission process (Exhibit 9). In particular, we listed several potential sources of support (other teachers, other teacher candidates, preparation program, or employing school/district) and asked candidates about the extent to which they agreed that the indicated source helped them to

succeed on MTEL-Flex.⁶ In each instance, a plurality of candidates responded “neither agree nor disagree.” The most commonly cited source of support were other teachers in the respondent’s school, followed by other candidates and their preparation program. When we asked candidates if they knew whom to ask for help, only 29% indicated some level of agreement.

Exhibit 10. Influences on Decision to Take MTEL-Flex

How did the following factors affect your decision to take the MTEL Flex?



Finally, we asked candidates to report which features of the test influenced their decision to take MTEL-Flex (Exhibit 10). We listed several features of MTEL-Flex and asked candidates if each feature influenced their decision (significantly less likely, less likely, neither more nor less likely, more likely, significantly more likely). The most commonly cited rationales were the ability to prepare a submission in my own time (94% reported more likely or significantly more likely) and the ability to consult textbooks and other sources (86%). On the other hand, the open-ended nature of the assessment and the lack of study guides were most frequently cited as reasons against taking MTEL-Flex: 23% of respondents indicated that the open-ended nature made them less likely to take MTEL-Flex and 22% of respondents indicated the same about the availability of study guides.

Program Attestation

The Preparation Program Attestation option is an assessment offered by preparation providers to document teacher candidates’ content area knowledge. DESE released [Guidelines](#) for proposals for providers in February 2021. Five providers (Bridgewater State University, Fitchburg State University, Merrimack College, Westfield State University, and Worcester State University) have been approved to implement the Program Attestation option. Four of these

⁶ We instructed respondents to select “Not applicable” if they were not currently employed or enrolled in a preparation program. We omit those responses from Exhibit 15.

providers were offering the program attestation option at the time of the last report. One program (Worcester State) has recently been approved. In this report, we focus on the four incumbent providers as they have associated outcomes for their participants.

The providers developed their own assessment procedures and submitted them for review. Each provider designed their attestation procedures, and while these vary to a certain extent by provider and subject area, there are many commonalities. The providers generally require candidates to first attempt the traditional MTEL and require a certain minimum performance on the MTEL or on other academic measures. For example, three programs have minimum GPA requirements. Candidates then complete a preliminary diagnostic assessment aligned to the test objectives to determine areas for additional coursework or online modules. Candidates then usually take an assessment at the end of these modules. In some cases, satisfactory performance of these assessments can qualify a candidate for attestation. More typically, candidates submit written responses to prompts aligned with the MTEL that are then scored by content experts in the program.

Candidate Diversity

KEY FINDINGS

Communication and Literacy Skills Tests Alternatives

Educator candidates who passed the CLST Alternatives were more likely to be Black (7%) or Hispanic (11%) than candidates passing the traditional CLST (4% and 6%, respectively).

Educator candidates working in Massachusetts public schools on emergency licenses were more likely to take the CLST alternatives. In addition, survey responses indicate that the alternative tests may disproportionately draw teachers attending out-of-state programs or those considering licensure in other states.

MTEL-Flex

Teacher candidates who passed the MTEL-Flex were more likely to be Black (4%) or Hispanic (7%) than candidates passing the traditional MTEL (3% and 6%, respectively).

The MTEL-Flex is available for Elementary (General Curriculum and Foundations of Reading), English History, General Science, Spanish, and English as a Second Language, but was most popular among candidates seeking licenses in high school English and History.

Preparation Program Attestation

Participants are more likely to be employed in teaching roles on emergency licenses than other teachers attending their programs. They are also more racially diverse.

In this section, we discuss the background of candidates participating in the MTEL Alternatives pilot. We consider the ethnic and racial diversity of candidates, as well as their diversity in terms of licensure pathway, employment status, and preparation background. As we showed in the Executive Summary and reiterate in Exhibit 11 below, candidates passing licensure test requirements using the CLST Alternatives and MTEL Flex tend to be more racially diverse than those passing through the traditional MTEL. In this section, we also consider whether these patterns are driven by who is eligible for the different alternatives or by the choices of individual candidates about which assessments to take.

Exhibit 11. Characteristics of Teachers Passing Through MTEL Options

	Communications and Literacy Skills Tests		Subject Tests		
	MTEL	CLST Alternative	MTEL	MTEL-Flex	Attestation
Prior Preparation Program Enrollment	17.1%	10.8%	40.6%	47.4%	60.4%
Prior Preparation Program Completion	2.4%	2.8%	12.5%	22.1%	16.7%
Emergency License	16.6%	25.6%	19.9%	34.2%	16.7%
Initial/Provisional License	0.2%	0.2%	13.7%	13.0%	0.0%
Employed, Teaching Role	11.7%	17.6%	25.5%	37.0%	14.6%
Employed, Non-Teaching Role	15.1%	16.2%	15.5%	16.5%	6.2%
Hispanic	6.3%	10.5%	5.8%	6.8%	4.2%
Black	3.8%	6.5%	2.5%	4.1%	4.2%
Male	17.6%	17.4%	15.5%	10.8%	4.2%

Notes: The rows indicate candidate characteristics and include all candidates who have passed Communications and Literacy Skills Tests (Columns 1 and 2) or subject tests (Columns 3 – 5) after October 20, 2020. All employment, preparation, and licensure characteristics measured as of testing date.

Communications and Literacy Skills Alternatives

We present descriptive evidence on candidates taking the CLST Alternatives and the traditional CLST since October 20, 2020 (Exhibit 12). Participants in the CLST Alternatives are less likely to have recently enrolled in a preparation program but slightly more likely to have previously completed one. The most significant differences are in employment and licensure outcomes. About one third of candidates taking a CLST alternative has an emergency license, compared to about one fifth of those taking the traditional CLST MTEL. Candidates taking an alternative are also more likely to be working in a teaching role in the year they take the test (21%) than traditional MTEL takers (13%).

Candidates taking the CLST Alternatives are also somewhat more ethnoracially diverse than candidates taking the traditional MTEL. About 10% of candidates are Black (6% on the traditional MTEL) and 15% are Hispanic (8% on the traditional MTEL). The proportions of Black and Hispanic candidates taking the CLST Alternatives (Exhibit 12) are slightly lower than those passing them (Exhibit 11); this difference is due to lower test pass rates among these groups.

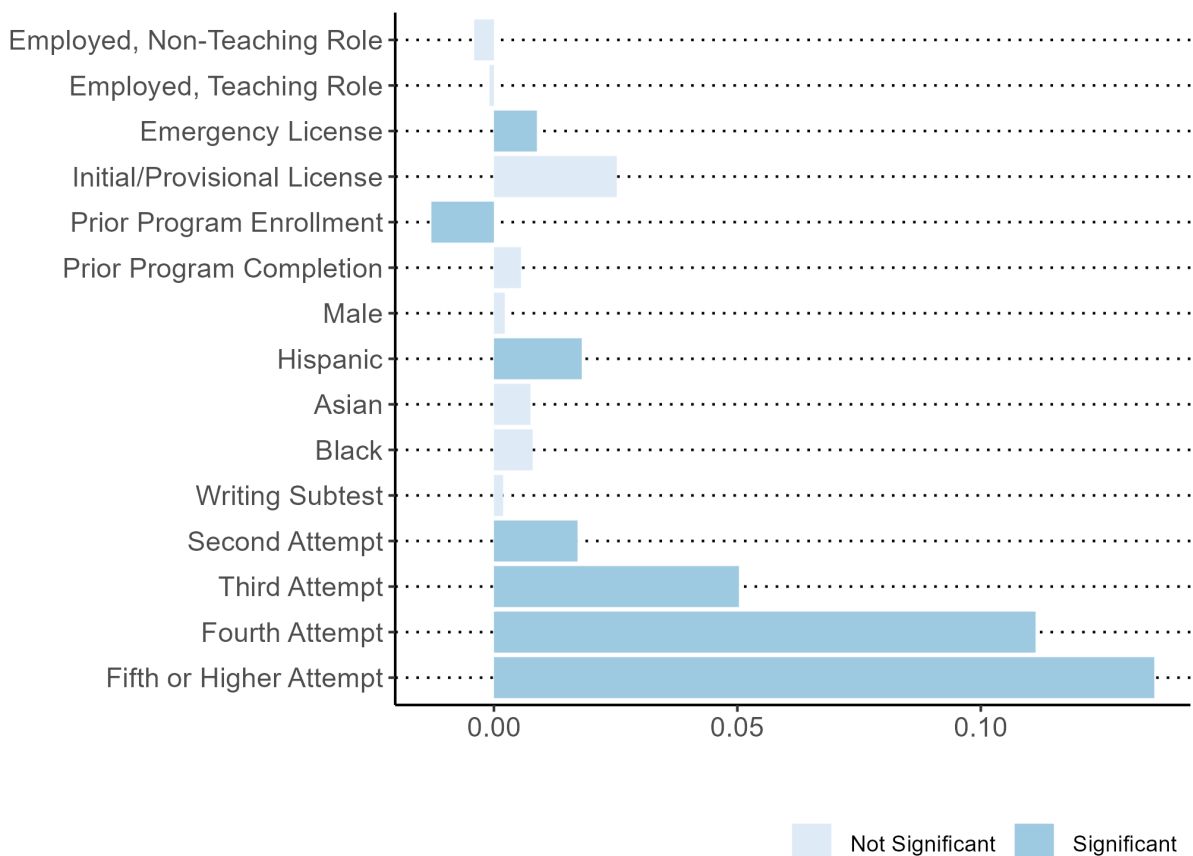
Exhibit 12. Teacher Candidate Characteristics and CLST Alternatives Choice

	MTEL CLST	CLST Alternatives
Prior Preparation Program Enrollment	16.1%	11.4%
Prior Preparation Program Completion	2.3%	3.2%
Emergency License	18.4%	32.9%
Employed, Teaching Role	12.9%	21.3%
Employed, Non-Teaching Role	15.9%	19.5%
Hispanic	8.2%	15.2%
Black	5.9%	9.5%
Male	16.3%	17.7%

Notes: Average characteristics of traditional and alternative MTEL test-takers. Sample includes all submissions on traditional or alternative CLSTs after October 20, 2020. Prior program enrollment, prior program completion, and emergency license are all measured as of the testing date. Employment outcomes are measured during the academic year a candidate took the test.

In Exhibit 13, we more formally test the relationship between choice of CLST and candidates' backgrounds. Using the sample of CLST test-takers, we regress the choice of licensure test on candidates' backgrounds. The coefficients from these regressions are shown in Exhibit 13. The regression coefficients indicate the extent to which each of the background measures independently predicts choice of test given the other characteristics in the model. Positive coefficients indicate a candidate with the given characteristics is more likely to take the CLST alternative; negative coefficients indicate a candidate with that characteristic is more likely to take the traditional CLST. For reference, the alternatives collectively account for about 3% of all submissions during this period. The regression also provides a test of the statistical significance of these relationships; that is, we test whether the differences in test choice are likely to have arisen by chance. Statistically significant results – those that are unlikely to be observed by chance – are indicated using dark blue bars in Exhibit 13.

Exhibit 13. Teacher Candidate Characteristics and CLST Alternatives Choice



Notes: Coefficients from regressions of CLST choice on teacher candidate characteristics. Positive coefficients indicate that a candidates is more likely to take the CLST alternatives. Sample includes CLST submissions after October 20, 2020. In addition to the included characteristics, the regressions also include a quadratic polynomial of the number of days since the beginning of the pilot. All characteristics measured at the testing date. Standard errors clustered by teacher candidate and statistical significance indicated at the 5% level.

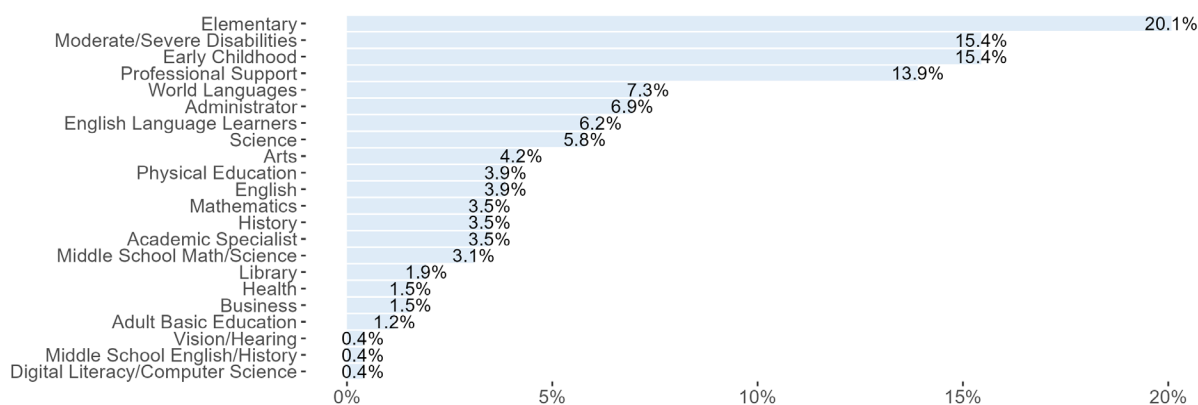
The results are mostly consistent with the descriptive evidence in Exhibit 12. Candidates with an emergency license are more likely to take the CLST alternative, while those enrolled in preparation programs are more likely to take the traditional CLST. Notably, conditional on emergency licensure status and program enrollment and completion outcomes, current employment status is not predictive of the choice of test. We find that Hispanic candidates are statistically significantly more likely to choose the CLST alternatives; although Black candidates are also more likely to take the alternatives, the difference is not statistically significant.

We also find that candidates who have previously failed the CLSTs were more likely to take one of the alternatives. Recall that about 3% of all submissions are on the alternative tests. Candidates on their second attempt are about 2 percentage points more likely to take an

alternative, while candidates on their fifth attempt or higher were about 14 percentage points more likely to take an alternative.

Because candidates typically take the CLSTs before they enroll in a preparation program, we have little information about their intended licensure areas until they either enroll or seek an initial license. We therefore asked survey respondents to indicate the areas in which they intended to seek an educator license in Massachusetts. The results are shown in Exhibit 14. Respondents could select more than one option, so the proportions do not necessarily sum to 100%.

Exhibit 14. Intended Licensure Fields of Candidates who took a CLST Alternative Assessment



Notes: Intended licensure field as reported on survey of candidates taking CLST Alternatives. Survey sample includes all candidates taking one of the alternative tests.

Although we do not have information on intended licensure fields for non-participants, we can compare the stated intentions of those taking the CLST alternatives to the proportion of licenses awarded in each field during the pilot. The most popular fields in Exhibit 14 are also the most popular license areas (Moderate/Severe Disabilities and Elementary). However, a few license areas appear to be over-represented among those taking one of the alternatives. For example, about 15% of respondents reported pursuing an early childhood license, but this field accounts for only about 7% of new licenses. Similarly, about 14% of respondents reported pursuing a professional support license (e.g., social workers, guidance counselors, nurses); these fields account for about 8% of new licenses.

MTEL-Flex

We present descriptive evidence on candidates taking MTEL-Flex in Exhibit 15. The base sample for this analysis includes all candidates who submit an MTEL subject test on one of the eligible

tests after the earliest eligibility date.⁷ Using this sample, we identify four groups of candidates: candidates who submit MTEL subject tests that do not result in a qualifying score; candidates who submit qualifying MTEL subject tests, but do not retake the assessment; candidates who submit a qualifying MTEL subject test and retake the traditional MTEL; and candidates who submit a qualifying MTEL subject test and retake the MTEL-Flex.

Exhibit 15. Teacher Candidate Characteristics and MTEL-Flex Choice

	Not Eligible	Eligible, no Retake	Eligible, Retake MTEL	Eligible, Retake MTEL Flex
Prior Preparation Program Enrollment	35.2%	30.7%	43.9%	45.4%
Prior Preparation Program Completion	11.4%	13.2%	11.8%	14.6%
Emergency License	20.5%	28.2%	22.4%	28.9%
Initial/Provisional License	14.7%	15.7%	11.3%	11.6%
Employed, Teaching Role	28.0%	34.3%	23.2%	30.0%
Employed, Non-Teaching Role	15.4%	15.6%	19.2%	15.6%
Hispanic	7.3%	7.8%	5.3%	6.0%
Black	4.1%	6.4%	3.7%	4.3%
Male	16.3%	10.7%	11.3%	11.5%

Notes: Average characteristics of MTEL test-takers by eligibility and participation in MTEL-Flex. Sample includes all candidates who submit an MTEL on a subject test eligible for the MTEL-Flex. Eligible submissions are assessed based on whether the score qualifies a candidate to take the MTEL-Flex. Prior program enrollment, prior program completion, emergency license, and initial/provisional license are all measured as of the qualification date (for MTEL-Flex eligible submissions) or the earliest testing date (for candidates ineligible for MTEL-Flex). Employment outcomes are measured during the academic year a candidate took the test.

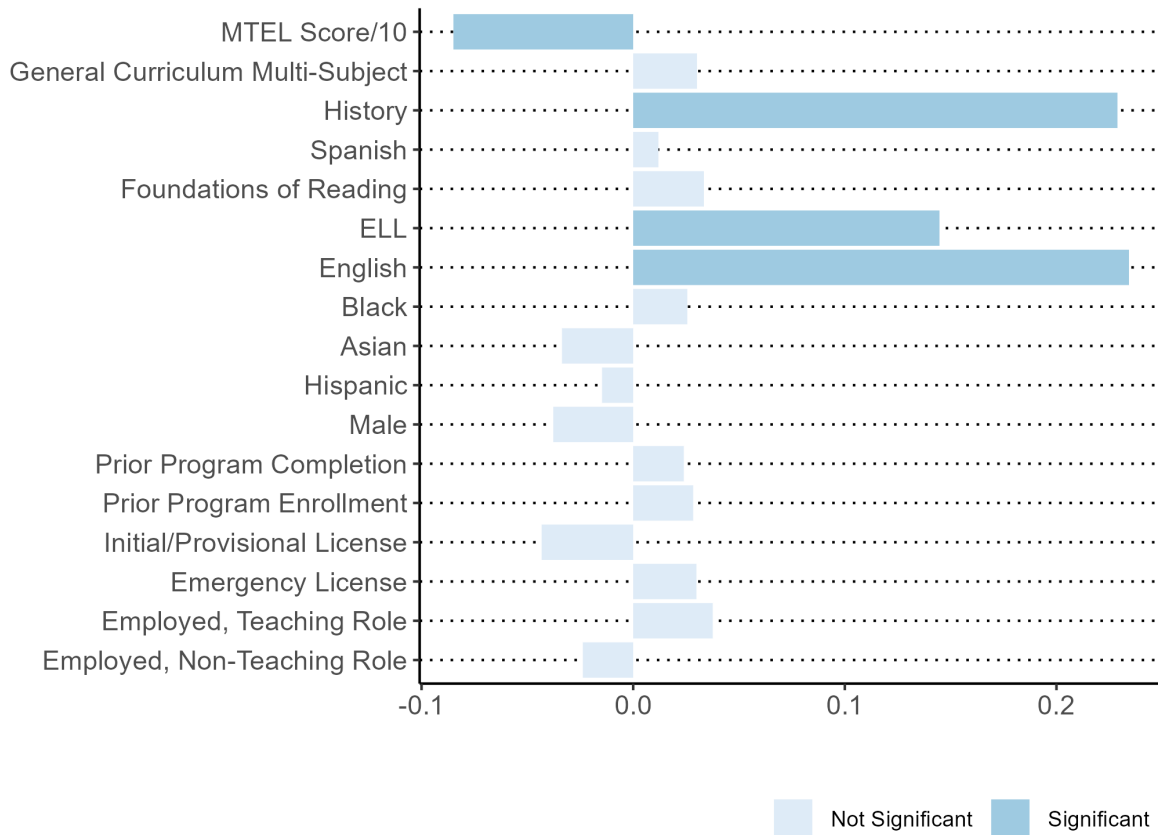
We mainly focus on differences in the backgrounds of those eligible for the MTEL-Flex, but we briefly note that, relative to ineligible candidates, those eligible for MTEL-Flex are somewhat more likely to have previously enrolled in a preparation program or have an emergency license. Turning to the eligible population, we see that those retaking the MTEL in either format are more likely to be enrolled in an educator preparation program and less likely to have previously earned an initial or provisional license. Among qualifying candidates, Black and Hispanic teachers are less likely to retake the MTEL, which is consistent with research using larger

⁷ DESE is in the process of updating several subject tests to align with the updated curricular frameworks. As a consequence, some of the subject MTEL have been revised during the pilot period in ways that affect MTEL-Flex eligibility. We consider submissions on the Foundations of Reading test after 2/8/2021, on the General Science test after 8/24/2022, on the English test after 5/31/2021, and on the History test until 2/5/2023. We consider submissions on all other tests after 10/20/2020.

samples of educator candidates in Massachusetts (Cowan et al., 2023; Rucinski & Goodman, 2019).

Comparing those who retake the traditional MTEL to those who take the MTEL-Flex, we see that participants in the pilot are more likely to have an emergency license (29% compared to 22%) and are more likely to be working in a teaching position when they qualify for MTEL-Flex (30% compared to 23%). The demographics of both groups of retakers are similar.

Exhibit 16. Teacher Candidate Characteristics and MTEL-Flex Choice



Notes: Coefficients from regressions of MTEL-Flex choice on teacher candidate characteristics. Positive coefficients indicate that a candidate is more likely to take MTEL-Flex. Sample limited to candidates eligible to take MTEL-Flex based on their initial scores who retake the traditional MTEL or participate in MTEL-Flex. All characteristics measured at time that candidate becomes eligible to take the MTEL-Flex.

We also estimate models of candidates' test choice using the sample of qualifying candidates that retake either the traditional MTEL or the MTEL-Flex. The coefficients from these regressions are shown in Exhibit 16. The regression coefficients indicate the extent to which each of the background measures independently predicts choice of test given the other characteristics in the model. Positive coefficients indicate that a candidate with the given

characteristics who qualifies for the MTEL-Flex and retakes the test is more likely to take the MTEL-Flex; negative coefficients indicate a candidate with that characteristic is more likely to take the traditional MTEL instead. Statistically significant results – those that are unlikely to be observed by chance – are indicated using dark blue bars.

As shown in Exhibit 16, the strongest predictors of test choice are prior performance on the MTEL and the subject of the test. Candidates with stronger performance on their initial MTEL submission were more likely to attempt the traditional MTEL again. We estimate that an increase in the qualifying MTEL score of 10 points decreases the likelihood of taking the MTEL-Flex (rather than the traditional MTEL) by about 10 percentage points. The eligible score range for the MTEL-Flex is about 10 points; hence, this suggests that the lowest scoring eligible candidates are about 10 percentage points more likely to retake MTEL-Flex.

We also find that test subject predicts choice of test. The omitted test field in Exhibit 16 is the General Curriculum Mathematics (Elementary) test. Therefore, each of the other coefficients can be interpreted as the increased likelihood of taking MTEL-Flex rather than the traditional MTEL for a candidate on the indicated test relative to a candidate on the General Curriculum Mathematics test. Candidates on the English and History MTEL are both about 23 percentage points more likely to retake the MTEL-Flex; candidates for the ELL MTEL are about 14 percentage points more likely to choose the MTEL-Flex. On the remaining tests, candidates are about equally likely to take either test.⁸

Program Attestation

In Exhibit 17, we provide descriptive evidence on the characteristics of participants in the program attestation option. However, we caution that the small number of participants to date limits the conclusions we can draw about candidate outcomes.

We compare candidates participating in the program attestation option with other candidates who have recently enrolled in the same educator preparation programs. As a comparison sample, we include candidates attending the same programs who have an enrollment or completion date after October 20, 2020. Because the program attestation assessments are offered for academic teaching licenses, we only retain candidates enrolling in teacher preparation programs that lead to initial licensure. Among these candidates, participants in the

⁸ We include candidates taking the General Science test in the regression shown in Exhibit 16. However, given the timing of the General Science MTEL-Flex, relatively few candidates had retaken prior to July 2023, and the point estimate is very imprecisely estimated. Nonetheless, the point estimate indicates that candidates are equally likely to take either MTEL-Flex or the traditional MTEL.

program attestation option are significantly more likely to hold an emergency license (18% compared to 4%) and be employed in a teaching role during the school year in which they participate. These findings suggest that pilot participants are disproportionately attending programs while they are employed on an emergency license.

Exhibit 17. Program Attestation Candidate Background

	MTEL Subject Tests	Program Attestation Option
Prior Preparation Program Completion	1.6%	14.3%
Emergency License	4.4%	17.9%
Employed, Teaching Role	8.2%	12.5%
Employed, Non-Teaching Role	11.3%	8.9%
Hispanic	3.8%	5.4%
Black	1.9%	3.6%
Male	19.0%	3.6%

Notes: Average characteristics of program attestation participants and other candidates enrolled in the teacher preparation programs offering the assessment. Sample includes participants and all candidates with enrollment or completion dates after October 20, 2020. Prior program enrollment, prior program completion, emergency license, and initial/provisional license are all measured as of the testing date (for attestation participants) or as of date of enrollment (for comparison group). Employment outcomes are measured during the academic year a candidate took the test or enrolled in the teacher preparation program.

We also find that candidates in the program attestation option are more racially diverse than other candidates in the same program. Recall from Exhibits 1 and 11 that those passing the program attestation option were less likely to be Hispanic than candidates passing the traditional MTEL. This appears to be partially driven by which programs offer the option: comparison candidates at the eligible institutions are less diverse than MTEL test-takers as a whole, and participants in the program attestation option are more likely than their colleagues to be Black or Hispanic.

Access to the Profession

KEY FINDINGS

Communication and Literacy Skills Tests Alternatives

Candidates who took one of the CLST Alternatives were subsequently employed in Massachusetts public schools at similar rates to those taking the traditional tests, but they were less likely to enroll in or complete preparation programs in Massachusetts. The program enrollment patterns may partially reflect the share of out-of-state candidates taking the alternative assessments.

MTEL-Flex

Candidates participating in the MTEL-Flex pilot were about 6 percentage points more likely to pass the MTEL. However, there are currently no detectible differences in licensure or employment.

Preparation Program Attestation

Participants appear to be making progress toward licensure and employment. About 53% of participants completed a preparation program in the year following participation, and about one third were working in teaching roles in public schools.

Licensure and Employment Data

The current report analyzes data on teacher employment through the 2022-23 school year. We use available data to construct five primary outcomes described in Exhibit 18. These outcomes include: Enrollment in or completion of an in-state preparation program; obtaining either an initial or provisional license to teach in Massachusetts; and employment in teaching or non-teaching roles in Massachusetts public schools. We can measure these outcomes for participants in the pilots during the 2020-21 (i.e., October 20, 2020 – July 30, 2021) and 2021-22 (i.e., August 1, 2021 – July 30, 2022) school years.

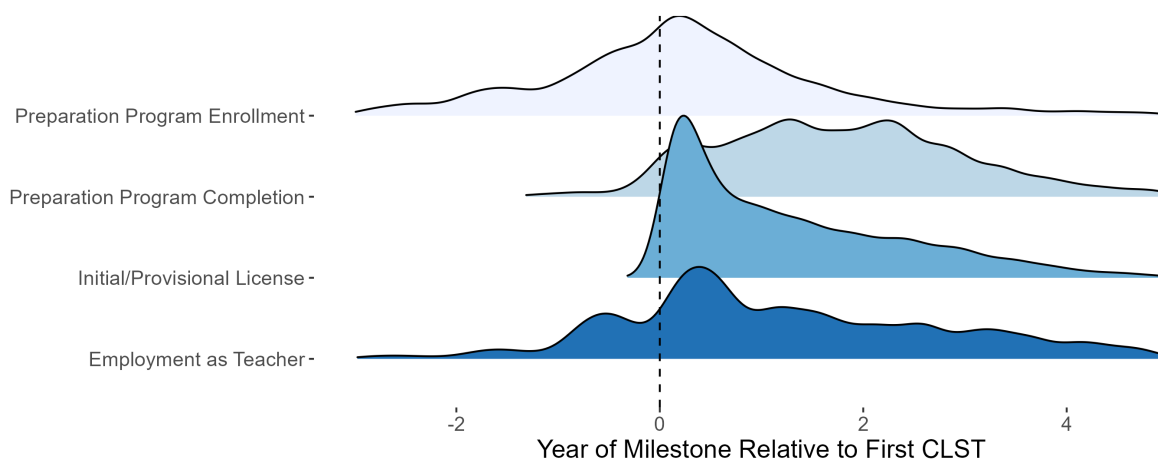
Exhibit 18. Timeline of Milestones Relative to First Communication and Literacy Skills Test Date

Outcome	Definition
Program Enrollment	Preparation program reports enrollment in an educator preparation program leading to initial licensure within 18 months of testing date.

Program Completion	Preparation program reports completion of an educator preparation program leading to initial licensure within 18 months of testing date.
Initial/Provisional Licensure	Candidate progresses to an initial or provisional license within 18 months of testing date.
Employment, Teaching Role	Candidate obtains teaching position in Massachusetts public schools in school year following year of testing date.
Employment, Non-Teaching Role	Candidate obtains non-teaching position in Massachusetts public schools in school year following year of testing date.

To provide some sense of the expected career progression of participants in the MTEL Alternatives evaluation, we plot the timeline of key milestones relative to a candidate’s first attempt at a Communications and Literacy Skills Test (Exhibit 19) or a subject test (Exhibit 20). In each figure, we plot the distribution of the time between (a) testing and program enrollment, (b) testing and initial licensure, (c) testing and program completion, and (d) testing and employment.

Exhibit 19. Timeline of Milestones Relative to First Communication and Literacy Skills Test Date

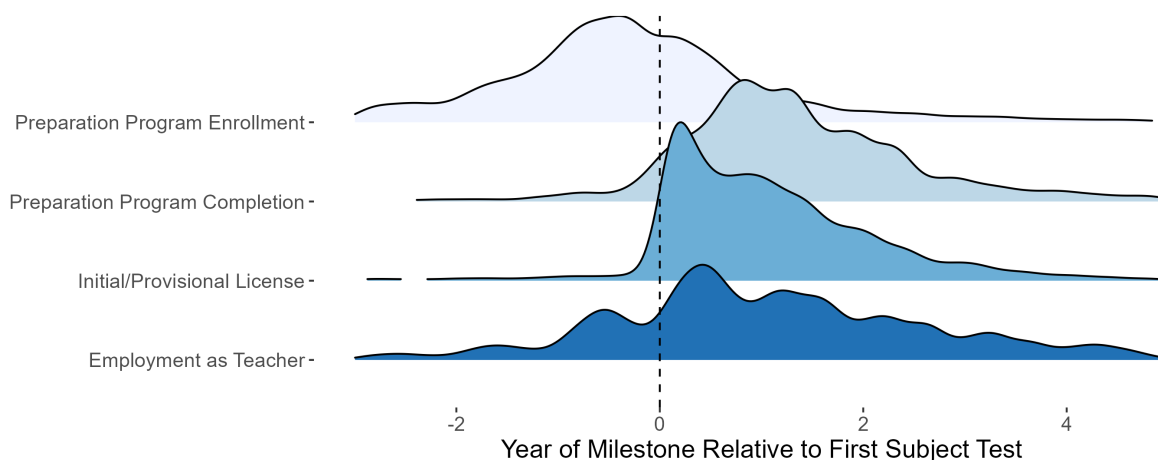


Candidates typically take the CLST before entering a program. The median candidate first takes the CLST about two months prior to enrolling in and about 21 months prior to completing a preparation program. The median time between taking the CLST and both employment and

licensure is about 1 year. Many people earn a license and become employed shortly after taking the CLST; these are typically candidates entering the profession on a provisional license, which does not require completion of a preparation program prior to entry.

The first CLST Alternative submissions occurred in August 2021. Based on the historical data in Exhibit 19, we would expect the earliest participants to have completed a preparation program and become employed in time to be recorded in the administrative data used in this report; however, we note that many candidates will not have progressed through program completion, licensure, and/or employment in the intervening two years.

Exhibit 20. Timeline of Milestones Relative to First Subject Test Date



Candidates typically take the MTEL subject tests later in their preparation, often before their practicum. Thus, among those candidates who enroll in an in-state preparation program, the majority take the subject tests after enrollment. Candidates typically take the tests about 14 months before they complete a program, 11 months before they earn a license, and 10 months before becoming employed. As with the CLST, the candidates earning licensure shortly after first taking the MTEL subject tests typically enter the profession on a provisional license.

The MTEL-Flex first became available in early 2022. Although candidates were notified of the option to take the MTEL-Flex if they received a qualifying score after October 20, 2020, most candidates who became eligible between October 2020 and December 2021 elected to retake the traditional MTEL. Hence, the end of our data collection for this interim report falls about where we would expect the earliest participants to be completing their programs or becoming employed. Similarly, most of the participants in the program attestation option completed their assessments beginning in early 2022, making it challenging to assess career progression to date.

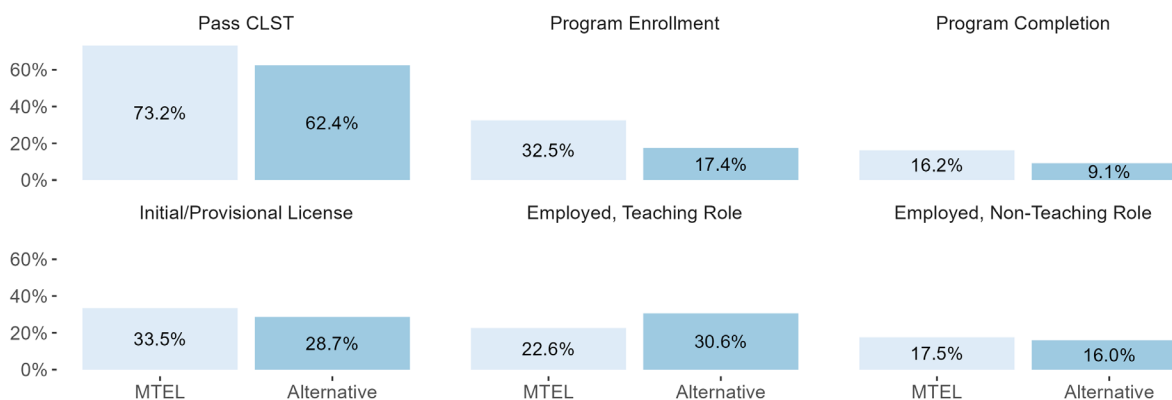
Based on these timelines, we note one caveat about the licensure and employment results in this report. We anticipate that many candidates who have not yet done so will eventually

complete program or licensure requirements. Indeed, for MTEL-Flex, the career progression to date is quite similar to other candidates. Many of the participants are close enough to their initial testing date that we expect significant numbers of candidates are still completing programs, earning licenses, or finding teaching positions. In the next report, we will consider a longer time horizon using data from the 2023-24 school year.

Communications and Literacy Skills Alternatives

In the prior report, we provided preliminary evidence on career progression for candidates taking the CLST alternatives. We update this analysis with additional data from the 2022-23 school year on program completion, licensure, and employment.

Exhibit 21. Candidate Outcomes on the CLST Alternatives

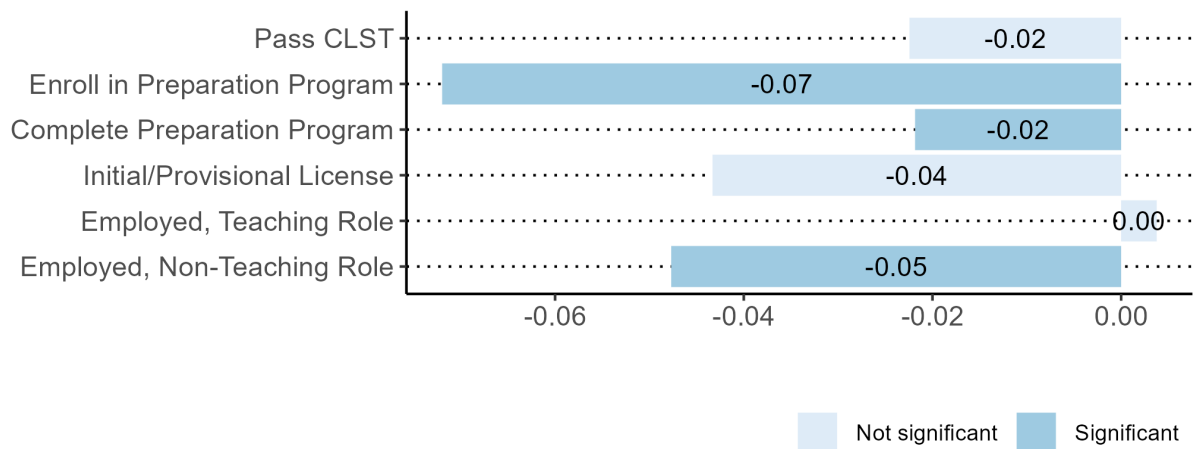


Notes: Average employment and licensure outcomes for traditional (light blue) and alternative (dark blue) MTEL test-takers. Sample includes all submissions on traditional or alternative CLSTs during the 2020-21 and 2021-22 school years (after October 20, 2020). Program enrollment, program completion, and initial/provisional license are all measured as of 18 months after the testing date. Employment outcomes are measured during the academic year following the one in which a candidate took the test.

We assess candidate outcomes in two ways. We first directly compare licensure and employment progress of participants in the CLST Alternatives to candidates taking the traditional CLST (Exhibit 21). However, because candidates for the CLST Alternatives differ in several dimensions from those taking the traditional MTEL, we also use statistical methods to adjust differences in career progression for differences in candidate background between the two groups (Exhibit 22). In particular, we regress each of the licensure and employment

outcomes on several characteristics measured prior to taking the tests.⁹ These adjustments provide evidence on how the outcomes for CLST Alternative participants differ from observationally similar candidates taking the traditional CLST.

Exhibit 22. Differences in Workforce Outcomes Adjusted for Candidate Background



Notes: Coefficients from regressions of licensure and employment outcomes on CLST choice. Sample includes CLST submissions during the 2020-21 and 2021-22 school years (after October 20, 2020). In addition to the included characteristics shown in Exhibit 12, the regressions also include a quadratic polynomial of the number of days since the beginning of the pilot. All controls measured at the testing date. Standard errors clustered by teacher candidate and statistical significance indicated at the 5% level.

In Exhibit 21, we show the percentage of traditional MTEL test-takers and those taking the CLST alternatives reaching key milestones. The overall pass rate on the CLST alternatives is about 11 percentage points lower than on the traditional MTEL (62% compared to 73%). However, as shown in Exhibit 12, candidates with prior unsuccessful attempts on the CLST are significantly more likely to take one of the alternatives. When we adjust for prior testing history and other background variables in Exhibit 22, the passing rates on both tests are similar. The regression-adjusted difference is about 2 percentage points and not statistically significant. Thus, differences in pass rates appear to be mostly explained by differences in candidate background

⁹ The controls include indicators for whether the teacher has an emergency or initial/provisional license, employment as a teacher, employment in a non-teaching role, recent enrollment in a preparation program, prior completion of a preparation program, the number of prior attempts on the CLST, race/ethnicity, gender, and the subtest taken. We also include a quadratic polynomial in the number of days since the beginning of the pilot.

across the two testing groups. We thus find little evidence that the alternatives provide an easier route to completing the CLST requirements.

In Exhibit 21, we see that candidates taking the CLST alternatives have generally made less progress toward key milestones than teachers taking the traditional CLST. The differences are especially large for program enrollment (17% compared to 33% for traditional test takers) and program completion (9% compared to 16%). The differences are smaller when we account for candidate background, but they remain statistically significant. Adjusting for other factors, candidates taking the CLST alternatives were about 7 percentage points less likely to enroll in and 2 percentage points less likely to complete an in-state program. However, one important complication is that the alternatives seem to have attracted candidates attending out-of-state programs or considering licensure in other states. About 35% of survey respondents indicated that they had never attended a preparation program in Massachusetts, and when asked to elaborate, many explained that they attended an out-of-state program.¹⁰ It is difficult to account for this directly given that MA longitudinal data systems have little to no data on candidates' prior training background if they attended programs in other states. However, the lower rates of enrollment and completion for alternative test-takers may at least partially reflect unobserved differences in candidates' backgrounds and propensity to train in in-state institutions.

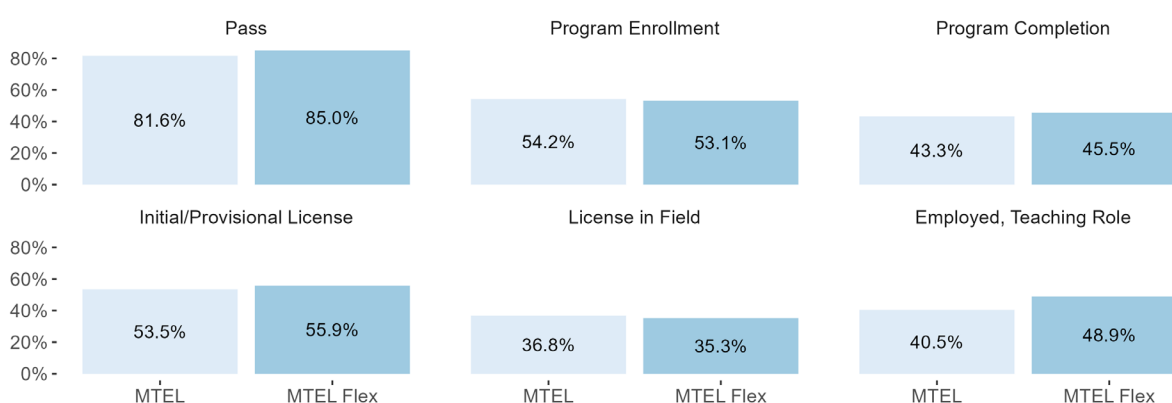
Finally, candidates taking the CLST Alternatives were more likely to be working in teaching positions in Massachusetts public schools than those taking the traditional CLST. About 31% of alternative test-takers and about 23% of traditional test-takers were working as teachers in the school year after taking the test. However, recall that candidates taking the alternatives were more likely at baseline to be working in Massachusetts schools (21% compared to 13%). Because these baseline differences are very close to the observed differences in the following school year, the regression adjusted differences in employment in Exhibit 22 are close to zero and not statistically significant. We do, however, find that traditional CLST test-takers are about 5 percentage points more likely to be working in non-teaching roles during the following school year. The similarity in employment outcomes across the two groups may further support the possibility that differences in program enrollment rates are driven in part by out-of-state enrollment.

¹⁰ Of the candidates who indicated they had never enrolled in a Massachusetts program, 25% (9% of all respondents) indicated in follow-up comments that they attended a program or earned licensure in another state or country. Among only the candidates responding to the follow-up prompt about their prior background, 82% reported they attended a program or earned licensure in another state or country.

MTEL-Flex

In the prior report, we provided early evidence on preparation program completion and licensure outcomes for candidates taking the MTEL-Flex. We update this analysis with more recent program completion and licensure data as well as additional data through the 2022-23 school year on employment. As with the analysis of the CLST Alternatives, we present these results in two ways. We first show key milestones for MTEL-Flex test-takers and eligible candidates who instead chose to retake the traditional MTEL (Exhibit 23). We then estimate regressions to adjust the differences in each of these outcomes for differences in teacher candidate background (Exhibit 24). Recall that MTEL-Flex participants tended to have lower initial MTEL scores and were more likely to already be working as teachers than those taking the traditional MTEL. We would therefore expect these groups to have different outcomes regardless of their experiences with the MTEL-Flex. The regressions account for each of the background characteristics observed in Exhibit 13 (program enrollment/completion, licensure, and employment status at time of test, teacher candidate gender and race/ethnicity, test subject, prior score on the MTEL, and test date). These results provide a more direct comparison of outcomes between the traditional and alternative test-takers.

Exhibit 23. Candidate Outcomes on the MTEL-Flex

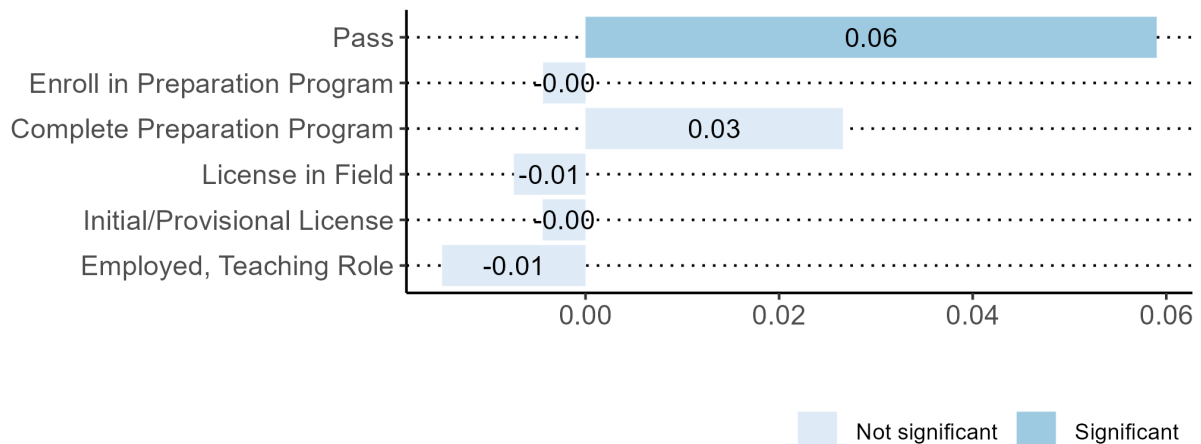


Notes: Average licensure and employment outcomes for candidates taking traditional MTEL (light blue) and MTEL-Flex (dark blue). Sample includes all candidates whose scores on a prior MTEL submission qualify them to take the MTEL-Flex during the 2020-21 and 2021-22 school years and who subsequently retook the test. Program enrollment, program completion, and initial/provisional license are all measured as of 18 months after the testing date. Employment outcomes are measured during the academic year following the year a candidate qualified for the test.

As shown in Exhibit 23, candidates who take the METL Flex are about 3 percentage points more likely to have passed the subject test than candidates retaking the MTEL. This unadjusted difference likely somewhat understates the differences in pass rates given that candidates

taking the MTEL-Flex have lower average prior scores than those who retake the traditional MTEL. The regression-adjusted differences in Exhibit 24 control for prior MTEL performance, and the difference in eventual pass rates increases to about 6 percentage points. This difference in pass rates has narrowed somewhat (from about 10 percentage points) since the prior year report but remains positive and statistically significant.

Exhibit 24. Differences in Workforce Outcomes Adjusted for Candidate Background



Notes: Coefficients from regressions of teacher candidate outcomes on MTEL-Flex test choice. Sample includes all candidates whose scores on a prior MTEL submission qualify them to take the MTEL-Flex during the 2020-21 and 2021-22 school years and who subsequently retake the test. Program enrollment, program completion, and initial/provisional license are all measured as of 18 months after the testing date. Employment outcomes are measured during the academic year following the year a candidate qualified for the test. In addition to the included characteristics, the regressions also include a quadratic polynomial of the number of days since the beginning of the pilot. All characteristics measured at the testing date. Standard errors clustered by teacher candidate and statistical significance indicated at the 5% level.

Despite the higher pass rates for the MTEL-Flex participants, we observe relatively small differences in licensure outcomes. Similar proportions of candidates in each group have enrolled in or completed a preparation program. Candidates taking the MTEL-Flex are slightly more likely to have earned an initial or provisional license, but slightly less likely to have earned a license in a field related to the subject test they have taken. They are significantly more likely to become employed as a teacher in the following school year, but they were also more likely to be employed at baseline. When we account for candidate background in Exhibit 24, none of these differences is statistically significant.

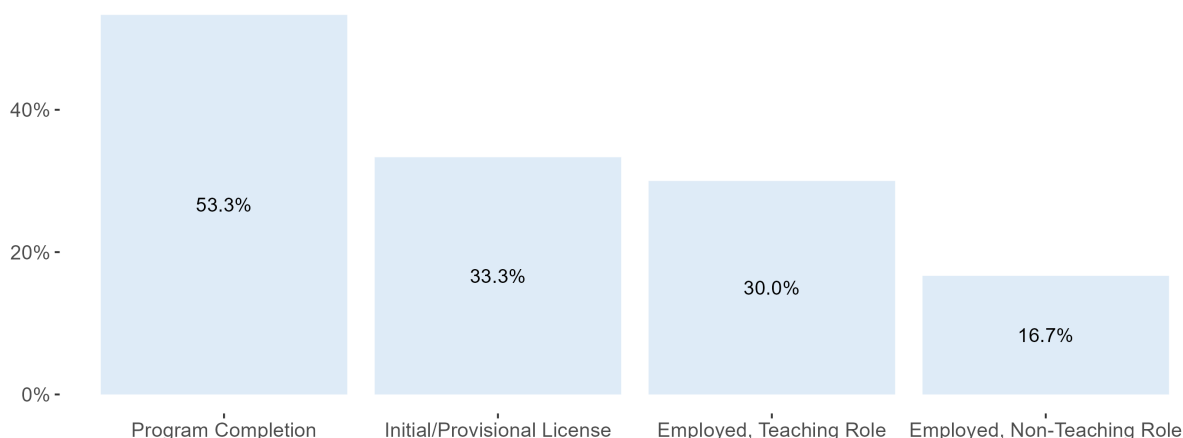
An important caveat is that many MTEL-Flex candidates are currently in the window where we would expect them to be completing preparation programs, attaining a teaching license, and

finding employment. One interpretation of the current disconnect between the pass rates (which are higher for MTEL-Flex candidates) and the licensure and employment outcomes (which are similar) is that the additional teachers who passed the MTEL-Flex may *eventually* have higher rates of licensure and employment. Over the next year, we will incorporate data from the 2023-24 academic year to assess this possibility.

Program Attestation

In Exhibit 25, we plot candidate outcomes for those who participated in the program attestation pilot during the 2021-22 school year.¹¹ About 53% of candidates have completed preparation programs within 18 months of the attestation. This is comparable to participants in the MTEL-Flex (also about 53%). About one third of participants have advanced to an initial or provisional license, and 30% were working in a teaching role in a public school in 2023. The rate of employment increased by about 18 percentage points between 2022 and 2023 (see Exhibit 17). Although the employment rate is somewhat lower than for participants in MTEL-Flex, the rate of increase is similar.

Exhibit 25. Percentage of Program Attestation Candidates Attaining Licensure/Employment Milestones



Notes: Average outcomes for participants in program attestation alternative. Sample includes all participants during 2021-22 school year. Program completion, and initial/provisional license are all measured as of 18 months after the testing date. Employment outcomes are measured during the academic year following the year a candidate took the test.

¹¹ The pass rate for this cohort, which we discussed in the prior year report, was 97%; however, including candidates attempting the program attestation option in the 2022-23 school year as well, the pass rate has fallen to 87%.

Teacher Effectiveness

KEY FINDINGS

Communication and Literacy Skills Tests Alternatives

Based on performance ratings and contributions to student achievement on MCAS, teachers who passed the CLST Alternatives and who could be observed teaching were similarly effective as candidates who took the traditional MTEL. However, these estimates are currently based on a small sample, and the differences are imprecisely estimated.

MTEL-Flex

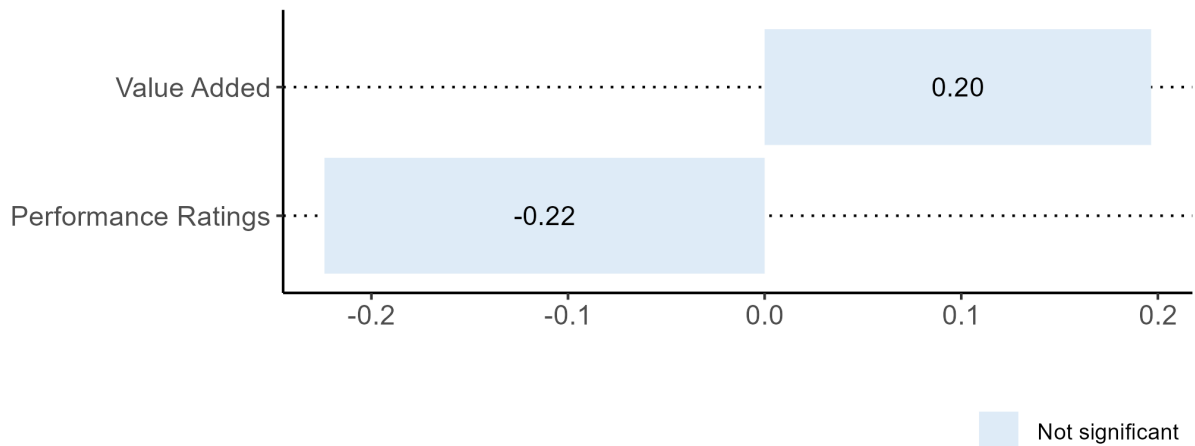
Based on performance ratings and contributions to student achievement on MCAS, teachers who participated in the MTEL-Flex pilot and who could be observed teaching were similarly effective as eligible candidates who retook the traditional MTEL. However, these estimates are currently based on a small sample, and the differences are imprecisely estimated.

In this section, we use data on teachers who were employed in the 2021-22 or prior school years to compare the effectiveness of teachers participating in pilots to those passing the traditional MTEL. Data on student achievement (used to calculate value-added measures) and teacher performance ratings are collected in the spring and typically become available in the fall following the school year. Thus, these data were not available for the 2022-23 school year at the time of writing. Although we present preliminary data on teaching effectiveness, we note that the sample of candidates who have taken teaching positions in the 2021-22 school year (or earlier) are not necessarily representative of the full sample of teachers taking MTEL. In the next report, we will be able to include student achievement data from the 2022-23 school year, which should provide a more comprehensive analysis of teaching effectiveness for participants.

We use two measures of teaching effectiveness in this report. The first is a value-added measure using student MCAS data for math and ELA in grades 4 – 8 and 10. The value-added measures adjust student performance on standardized tests for students' prior achievement and other contextual factors in order to separate teacher contributions to students' baseline knowledge (see Backes et al., 2023 for details). The second is a measure based on teachers' performance evaluations. Because teachers' performance evaluations vary with characteristics of their teaching assignments, we also adjust the ratings for their students' background. We

discuss details of the statistical adjustments in Cowan et al. (2022). We then standardize both performance measures.¹²

Exhibit 26. Effectiveness of Candidates Passing CLST Alternatives Relative to Traditional CLST



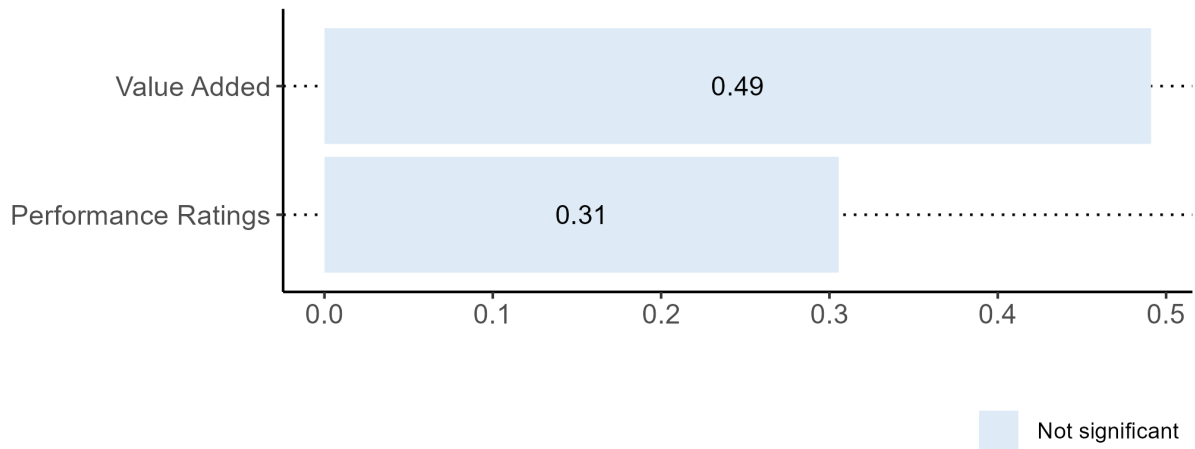
Notes: Coefficients from regressions of teacher effectiveness measures on CLST type. Sample includes all candidates who pass a traditional or alternative CLST reading or writing subtest during the 2020-21 and 2021-22 school years. Besides the test type indicator, the regressions also include an indicator for subtest type (reading or writing). Standard errors clustered by teacher candidate and statistical significance indicated at the 5% level.

In Exhibit 26, we show differences in both effectiveness measures between teachers who pass one of the CLST Alternatives and those who pass the traditional CLST. Neither estimate is statistically significant and they point in opposite directions. Although the estimates are imprecise, we do not find any evidence that teachers entering the profession through the alternative tests are any less effective than those passing the traditional MTEL.

In Exhibit 27, we compare the MTEL-Flex pilot to eligible teacher candidates who retake the traditional MTEL. Based on the available data, we do not find evidence that teachers who participated in the MTEL-Flex pilot were differentially effective as those who qualified for MTEL-Flex but took the traditional assessment. While the point estimates for MTEL-Flex participants are positive, they are estimated imprecisely and are not statistically significant.

¹² In addition to the results presented here, we also adjust the performance measure for teacher experience because teachers improve rapidly during their first few years in the classroom; however, the results are not different with this adjustment.

Exhibit 27. Effectiveness of Candidates Passing MTEL Flex Relative to Eligible Candidates Retaking Traditional MTEL



Notes: Coefficients from regressions of teacher effectiveness measures on MTEL-Flex test choice. Sample includes all candidates whose scores on a prior MTEL submission qualify them to take the MTEL-Flex during the 2020-21 and 2021-22 school years and who subsequently passed either the traditional test or MTEL-Flex. In addition to the MTEL-Flex indicator, the regressions also include indicators for test subject. Standard errors clustered by teacher candidate and statistical significance indicated at the 5% level.

It is important to interpret the teacher effectiveness results with some caution given that we would not expect many candidates participating in the CLST or MTEL-Flex pilots to have found employment as public school teachers in time to be included in the 2021-22 data. Therefore, the sample of teacher candidates with effectiveness measures may be somewhat unrepresentative of the larger sample of participants. Indeed, those with teacher value added data are significantly more likely to hold an emergency license when they qualified for MTEL-Flex (46% compared to 24%). The next annual report, which will incorporate data from the 2022-23 school year, should reflect a more representative sampling of participants.

Discussion

The MTEL pilot alternatives were launched between February 2021 through January 2022. In this report, we follow participants through the 2022-23 school year. These data provide a preliminary look at how candidates are progressing through the licensure pipeline and into the teaching workforce.

Performance on the CLST Alternatives is similar on average to the traditional MTEL. Nonetheless, according to surveys of participants, the test may have increased the accessibility of testing, particularly for out-of-state candidates. Participants became employed at similar rates as similar candidates taking the traditional MTEL, although they were less likely to subsequently enroll in or complete an educator preparation program. The surveys suggest that this latter result is partially attributable to the use of the alternative assessments by out-of-state candidates.

Consistent with results in the prior year report, pass rates on the MTEL-Flex are higher than on the traditional MTEL subject tests. MTEL-Flex participants are about 6 percentage points more likely to have passed their subject test. To date, there have not been detectable improvements in licensure or employment outcomes relative to eligible candidates who retaken the traditional MTEL; however, it is still early in the timeline for many participants to have completed their programs or found employment in public schools. We anticipate that the longer run consequences of the MTEL-Flex option will become more apparent during the upcoming school year.

There are three important caveats, both of which we will expand upon in future reports. First, data on licensure or employment outcomes may not be representative of longer run outcomes. As shown in Exhibits 19 and 20, candidates frequently spend several years between their first MTEL attempts and key outcomes such as licensure and employment. For many candidates participating in the pilots, we would expect these milestones to occur during the 2023-24 school year. The completeness of the data will therefore become less of a concern with future analyses.

Second, the differences in candidate outcomes are not necessarily representative of the causal effects of taking one assessment over another. Although we have adjusted many of our comparisons for prior testing histories, this may not be sufficient to account for selection biases arising from candidates' choices among licensure test options. For instance, the CLST surveys suggest that candidates choosing to take a licensure test that qualifies them for licensure in several states may have a weaker attachment to working in Massachusetts than a candidate taking the traditional CLST.

Finally, as administrative data for the 2022-23 and 2023–24 school years begins to become available, we plan to take a fuller assessment of the effectiveness of teachers participating in the pilot assessments. The early assessment of teacher effectiveness among MTEL-Flex participants relies disproportionately on emergency licensed teachers (who are already employed) and may not generalize to other groups. Data on performance evaluations or student achievement for the first cohorts will become available later this calendar year. Thus, we anticipate incorporating these data into the analyses beginning in 2024. These analyses will provide important evidence about the extent to which MTEL Alternatives balance the twin objectives of expanding access to licensure and ensuring high standards for teachers (DESE, 2021).

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