What's Happening

July 2016

Understanding field experiences in traditional teacher preparation programs in Missouri

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Key findings

A survey about the student teaching experiences of first-year teachers trained in traditional Missouri teacher preparation programs found that:

- All teachers reported participating in field experiences and nearly all had student teaching experiences.
- Teachers reported spending an average of 16 weeks and 39 hours a week student teaching, for a total estimated average of 631 hours.
- Student teaching experiences aligned with teachers' career teaching plans and first teaching assignments.
- Resources and support in field experience schools were perceived positively, and professional collaboration was frequent; parent and community interaction was less frequent.
- Cooperating teachers at field experience schools conducted observations and provided feedback frequently, whereas supervising faculty members from the teacher preparation programs did so less frequently.
- Aspects of field experiences that varied among first-year teachers with different types of teaching certificates included duration, diversity of settings, alignment between student teaching and first teaching positions, and engagement with families and community members.

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Summary

Field experiences, which include student teaching and other teacher preparation activities, such as observing classes or tutoring, are a component of nearly all teacher preparation programs and a centerpiece of national and state standards related to teacher preparation. Members of Regional Educational Laboratory Central's Educator Effectiveness Research Alliance, which includes state education agency and teacher preparation program administrators and faculty, have expressed a need for better information about the implementation and effectiveness of teacher preparation programs to guide policy and practice.

Researchers and practitioners have identified the quality of field experiences as an area needing particular attention. Concerns about inconsistent program quality and underpreparedness of new teachers have led institutions that offer teacher preparation to explore new models for field experiences and seek better information about programs and their impact. States are also developing new standards and evaluation models for teacher preparation programs that are designed to improve field experiences.

This study collected survey data in spring 2015 from first-year Missouri public school teachers who were trained in 1 of 36 state-approved institutions that offer traditional undergraduate teacher preparation programs. Teacher survey responses revealed the following:

- All first-year teachers had field experiences in their preparation programs, nearly all (95 percent) had student teaching experiences, and their experiences varied substantially in duration and diversity of settings.
- Teachers reported spending an average of 16 weeks and 39 hours per week student teaching for a total estimated average of 631 hours.
- Student teaching experiences aligned with first-year teachers' career teaching plans and first teaching assignments.
- Resources and support in field experience schools were perceived positively, and professional collaboration was frequent, though parent and community interaction during field experiences was less frequent.
- First-year teachers had positive perceptions of the knowledge, teaching skill, mentorship ability, feedback, and support provided by cooperating teachers (who oversee student teachers in the field experience school) and supervising faculty members (who oversee student teachers in their teacher preparation program).
- Cooperating teachers frequently conducted observations and provided feedback, whereas supervising faculty members did so less frequently.
- Field experiences for most first-year teachers were aligned with content learned in teacher preparation program courses and were well timed with the instructional schedules of preK–12 schools.
- First-year teachers frequently used a variety of instructional activities during field experiences.
- Teacher perceptions of the quality of partnership between teacher preparation programs and preK–12 schools involved in field experiences were generally positive.
- Several aspects of field experiences varied across first-year teachers with different types of teaching certificates, including the duration and diversity of field experiences, alignment between student teaching and first teaching positions, observation during field experience, engagement with families and community members, and instructional activities.

This report provides information about field experiences in traditional teacher preparation programs for state and teacher preparation program leaders, teacher preparation program faculty, and others with an interest in this topic. The findings may be useful for informing policy and practice discussions related to program design and implementation.

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Why this study?

Recent emphasis on teacher effectiveness and accountability has led the education policy, research, and practitioner communities to take a closer look at the effectiveness of teacher preparation programs (see box 1 for definitions of key terms), motivated largely by concerns about program quality. Several national and state studies have found new teachers to be underprepared in knowledge and skills, based on reports by school principals, education school faculty and deans, and program graduates themselves (Kiuhara, Graham, & Hawken, 2009; Levine, 2006; Missouri Schools of Education Research Project, 2005). For example, teachers in their first three years of teaching who had graduated from one of 17 universities reported lacking knowledge and skills related to content, pedagogy, lesson design and preparation, classroom management, and other aspects of teaching (Chesley & Jordan, 2012). Assessments of teacher preparation programs have also identified substantial diversity within and across traditional and alternative programs, including variation in curricula, pedagogical preparation, course requirements, textbook quality, faculty teaching assignments, and student teaching experiences (Greenberg, Walsh, et al., 2011; Greenberg et al., 2014; Ingersoll, Merrill, & May, 2014; Levine, 2006).[1]

Researchers and practitioners have identified the quality of field experiences as an area of particular concern in teacher preparation programs

Field experiences are a component of nearly all teacher preparation programs and a centerpiece of national and state standards related to teacher preparation (American Association of Colleges for Teacher Education, 2010; Association of Teacher Educators, 2008; Council for Accreditation of Educator Preparation, 2013; Greenberg, Walsh, & McKee, 2014). Members of Regional Educational Laboratory (REL) Central's Educator Effectiveness Research Alliance, which includes state education agency and teacher preparation program administrators and faculty, have expressed the need for better information about the implementation and effectiveness of teacher preparation programming to guide policy and practice.

Researchers and practitioners have identified the quality of field experiences as an area of particular concern. A national study of institutions offering teacher preparation programs found that they typically offered field experiences of insufficient duration, in inappropriate teaching sites, and with insufficient monitoring of student teacher performance (Levine, 2006). Based on a review of research, the National Council for Accreditation of Teacher Education Blue Ribbon Panel on Clinical Preparation and Partnerships for Improved Student Learning, comprising researchers, policymakers, and practitioners, concluded that field experiences are "poorly defined and inadequately supported" and "the most ad hoc part of teacher education in many programs" (National Council for Accreditation of Teacher Education, 2010, p. 4). In response to these concerns, several national organizations that support teacher preparation have launched initiatives to better understand and improve field experiences (see, for example, State Alliance for Clinical Educator Preparation and Partnerships, described in Henning, Burns, Lester, Mann, & Walters-Parker, 2014; the American Federation of Teachers Teacher Preparation Task Force, described in American Federation of Teachers, 2012; National Clinical Practice Commission, described in American Association of Colleges for Teacher Education, 2015).

In many states institutions that offer teacher preparation are exploring new models for field experiences and are seeking better information about current implementation of programs and their impact. States are also developing new standards and evaluation models for teacher preparation programs that are designed to improve field experiences (Meyer, Brodersen, & Linick, 2014).

Box 1. Key terms

Alternative teacher preparation program. A teacher preparation program based in or outside an institution of higher education that serves primarily candidates who have subject matter knowledge and who are practicing classroom teachers while completing their preparation.

Certificate type. The type of state-issued documentation (referred to as a license in some states) required for an individual to teach in a public school in the state. Certificate types in this study include grade-level certificates (early childhood, elementary, middle, and high school), subject area certificates for middle and high school (English language arts, math, science, and social science), and subject area certificates for grades K–12 (special education, music/arts, and physical education/health).

Cooperating teacher. The staff member at a field experience school who oversees student teaching and other field experiences.

Field experiences. Any activities with preK–12 students, their teachers, or family or community members undertaken as part of a teacher preparation program. In traditional teacher preparation programs field experiences typically include student teaching as well as observing or assisting in classrooms, tutoring, conducting research, or similar activities.

Field experience school. The preK–12 school in which field experiences take place.

Student teaching experiences. Placement as a classroom teacher in one or more preK–12 schools to practice instruction under the supervision of an experienced teacher as part of a teacher preparation program. In traditional teacher preparation programs, student teaching experiences are typically intensive and extensive culminating activities that immerse candidates in the learning community and provide opportunities to develop and demonstrate competence in the professional roles for which they are preparing.

Supervising faculty member. The staff member at a teacher preparation program who oversees student teaching and other field experiences.

Teacher preparation program. "A state-approved course of study, the completion of which signifies that an enrollee has met all of the state's educational, or training requirements, or both, for an initial credential to teach in the state's elementary, middle, or secondary schools" (U.S. Department of Education, 2013, p. xiii). A teacher preparation program may be either a traditional program or an alternative route to certification or licensure. The term "teacher preparation program" can refer to the institution that provides teacher preparation (for example, the University of Missouri), the type of program offered within an institution (alternative, traditional, undergraduate, or graduate), or the particular certificate or license offered (such as secondary school math education). In this report teacher preparation program refers to each subject- or grade-level-specific area in which a program offers preparation for teacher certification or licensure.

Traditional teacher preparation program. A teacher preparation program based at an institution of higher education that generally serves undergraduate students who have no prior teaching or work experience and leads to a bachelor's degree (adapted from U.S. Department of Education, 2013, p. x). In Missouri traditional undergraduate teacher preparation programs typically take four years, with student teaching during the final semester.

The evidence base in teacher preparation is weak but suggests the importance of field experiences

Contributing to concerns about teacher preparation program effectiveness is a lack of good information about what makes programs effective. Reviews of research that examine the relationship between characteristics of teacher preparation and teacher effectiveness provide little conclusive information (Allen, 2003; Cochran-Smith & Zeichner, 2005; National Research Council, 2010). For example, a review of research by the National Research Council (2010) found few rigorous studies examining the effects of programs on student and teacher outcomes and concluded that there was "little firm empirical evidence to support conclusions about the effectiveness of specific approaches to teacher preparation" (p. 4). Reviews of research focusing on field experiences in teacher preparation have identified few studies that link programs to teacher outcomes and few that use rigorous methodology—most are qualitative case studies with small sample sizes (Anderson & Stillman, 2013; Greenberg et al., 2011).

Contributing to concerns about teacher preparation program effectiveness is a lack of good information about what makes programs effective

A handful of more rigorous studies that use quantitative data and larger samples provide some evidence about the relationship between field experiences and teacher outcomes. For example, a study of beginning teachers in New York City found that mandatory student teaching, oversight of the student teaching experience, and congruence between field experiences and eventual teaching position were positively associated with student test score gains in English language arts and math (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009). Other recent studies suggest that teachers with more extensive field experiences feel better prepared and are more likely to stay in teaching (Ingersoll et al., 2014; Ronfeldt, Schwartz, & Jacob, 2014). Completing student teaching in suburban schools and in schools with higher teacher turnover is associated with greater likelihood of finding a teaching job (Goldhaber, Krieg, & Theobald, 2014), and completing student teaching in schools with lower teacher turnover is associated with retention in teaching positions and greater student achievement gains (Ronfeldt, 2012).

This study seeks to improve understanding of field experiences in teacher preparation programs

Given concerns about the variation in field experiences and evidence suggesting that this is an aspect of program implementation with the potential to affect teacher and student outcomes, additional research is warranted. The Missouri Department of Elementary and Secondary Education recently revised its standards for teacher preparation programs through the Missouri Standards for the Preparation of Educators (Missouri Department of Elementary and Secondary Education, 2012), which replaced the Missouri Standards for Teacher Education Programs (Missouri Department of Elementary and Secondary Education, 2006). Preparation programs have begun to implement these standards, and full implementation by all programs in the state is expected in fall 2017. The revised standards present more specific statewide expectations for field experiences in terms of duration, engagement of cooperating teachers and supervising faculty members, and collaboration among teacher preparation programs and preK–12 schools.

Findings from this descriptive study reveal some of the ways in which field experiences vary within and across programs in Missouri and may inform conversations among state policymakers and teacher preparation program administrators about the extent to which programs meet expectations. Confidential institution-specific reports of data from this study were provided to representatives of institutions offering teacher preparation programs and may prompt program administrators in Missouri to discuss how to improve their

programs by comparing them with others in the state. The findings may also help guide conversations about local expectations for teacher preparation programs in other states.

What the study examined

First-year teachers in Missouri were surveyed about field experiences in their teacher preparation programs. The survey data were used to answer two research questions:

- What are the characteristics of field experiences in traditional teacher preparation programs completed by first-year public school teachers in Missouri?
- How do field experiences in traditional teacher preparation programs completed by first-year public school teachers in Missouri vary by certificate type?

Only first-year teachers prepared in traditional undergraduate teacher preparation programs were included in the study for two reasons. First, most U.S. teachers are trained through traditional programs; an estimated 80 percent of teachers who were prepared during the 2009/10 academic year completed traditional programs (U.S. Department of Education, 2013). About 90 percent of the teachers who completed a program at one of Missouri's state-approved teacher preparation providers during the 2012/13 academic year were prepared through a traditional program (U.S. Department of Education, 2014).[1] Second, in traditional programs there is a clear distinction between teacher preparation and in-service teaching, whereas in alternative programs teacher candidates often serve as practicing classroom teachers while completing their preparation. Field experiences in alternative teacher preparation programs are different, requiring a different approach for identifying program completers and different questions to address varied definitions of terms such as "student teaching experience." This study focused on the way most teachers are prepared so it could provide data that can be compared across programs of the same type.

Differences in field experiences across first-year teachers by certificate type were examined to help understand variation across programs

Differences in field experiences across first-year teachers by certificate type were examined to help understand variation across programs. Differences in field experiences were examined by certificate grade level (for example, elementary or high school) and subject area (for example, math or music). Some differences may be expected. For example, a teacher with a certificate in art or physical education may spend less time preparing students for standardized tests than one with a certificate in a core academic subject area such as English language arts or math. Other aspects of field experiences, such as the nature and extent of feedback provided during student teaching, may not be expected to vary across certificate types. Information about the process used to identify subgroup differences and the study methodology is presented in appendix A. The study methodology is summarized in box 2.

What the study found

This section presents findings for the full sample of respondents. Findings for subgroups of teachers with different certificate types are presented when they differed substantially from those for the full sample—that is, when subgroup percentages were at least 10 percentage points lower or higher than the percentage for the full sample.

All teachers reported participating in field experiences and nearly all had student teaching experiences

All responding first-year teachers. All teachers reported participating in field experiences and indicated that the experiences took place in an average of four schools and six

Box 2. Study data and methodology

Data

This descriptive study is based on data from a survey of new teachers in Missouri. A list of all practicing first-year, preK–12 teachers provided by the Missouri Department of Elementary and Secondary Education was used to identify potential survey respondents. All first-year preK–12 Missouri teachers who completed a traditional undergraduate teacher preparation program in the state were asked to respond to questions about their field experiences.

An online survey was administered over 15 weeks in spring 2015. Teachers were invited to complete the survey via email. Several follow-up contacts, including a postcard, four emails, a paper survey mailed to the school address, and two phone calls, were made to encourage response. Survey respondents included 856 first-year teachers who were trained in teacher preparation programs at 36 institutions of higher education. Institutions include public and private colleges and universities that range in size from fewer than 10 graduates per year to more than 400 per year.

Among respondents, the largest group had a certificate to teach in elementary school grades (40 percent), followed by high school (23 percent), grades K–12 (21 percent), early childhood (11 percent), and middle school (9 percent). Among respondents with a certificate to teach middle or high school, most had a subject area certificate to teach English language arts (43 percent), followed by social science (36 percent), math (34 percent), and science (34 percent). Among respondents with a K–12 certificate, most had a certificate to teach music/arts (29 percent), followed by physical education/health (27 percent), and special education (21 percent). Some teachers had more than one certificate, and some may have had a subject area certificate that did not fall into these categories.

The adjusted survey response rate was 44 percent, and an analysis of nonresponse bias found no statistically significant differences between respondents and nonrespondents in terms of gender, race/ethnicity, certificate type, or the institution where they were prepared (see appendix B). The survey contained questions about first-year teachers' student teaching and field experiences in teacher preparation (see appendix C) that were based on a set of key elements of field experiences identified through a review of research and professional standards.

Methodology

Analysis of the information collected from the survey focused on describing the field experiences of all respondents who were first-year teachers. Analyses were also conducted on responses from first-year teachers by certificate type. Analyses of data for survey respondents and nonrespondents were used to estimate the potential bias of survey nonresponse.

classrooms, across an average of six grade levels (table 1). Teachers also participated in field experiences at one nonschool site, on average. Most respondents (95 percent) reported participating in student teaching, with 57 percent reporting more than one student teaching placement. Among those with multiple placements, most (85 percent) reported having two, and those with two placements described varied combinations, including student teaching placements at two schools, at two classrooms in the same school, and in a primary classroom with rotations to other settings.

Teachers reported spending an average of 16 weeks and 39 hours per week student teaching, for a total estimated average of 631 hours. Teachers also reported teaching an average

Table 1. Teachers reported participating in field experiences and student teaching experiences in multiple settings, 2015

Type of experience	Mean	Standard deviation	Range
Field experiences			
Number of schools (*n* = 838)	4.1	1.9	0–15
Number of classrooms (*n* = 831)	6.0	3.7	0–30
Number of grade levels (*n* = 855)	5.8	3.1	1–14
Number of sites outside of preK–12 schools and classrooms (*n* = 823)	1.0	1.6	0–20
Student teaching experiences (among those who reported having these experiences)			
Number of weeks (*n* = 801)	16.1	4.7	8–40
Average hours per week (*n* = 775)	39.3	8.1	8–60
Total estimated hours (*n* = 761)	630.6	220.7	64–2,000
Number of subject areas (*n* = 717)	2.5	1.6	1–7
Number of grade levels (*n* = 789)	3.3	2.9	1–14
Percentage of time spent with complete responsibility for classroom instruction (*n* = 807)	63.2	23.7	0–100

Note: All respondents were first-year teachers.

Source: Author's analysis of survey data described in the report.

of 2.5 subject areas across three grade levels and spending an average of 63 percent of their time during student teaching with complete responsibility for classroom instruction. The ranges and high standard deviations (higher standard deviations indicate greater variability in data) of the responses indicate that field experiences varied substantially across teachers. For example, the reported duration of student teaching experiences ranged from 8 to 40 weeks and from 64 to 2,000 total estimated hours.

Field experiences varied substantially across teachers; for example, the reported duration of student teaching experiences ranged from 8 to 40 weeks and from 64 to 2,000 total estimated hours

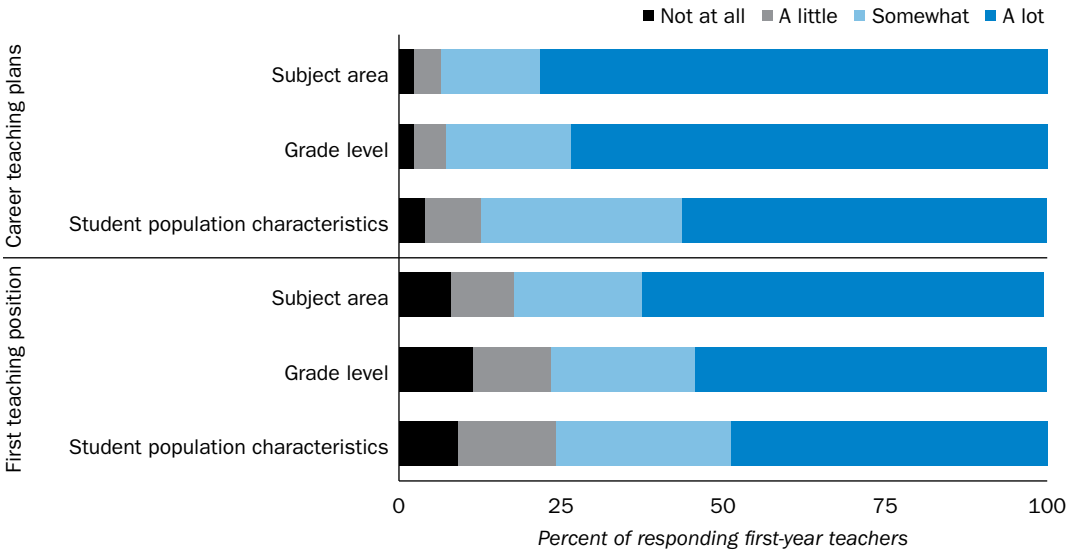
Variation by certificate type. Teachers with an early childhood education or elementary school certificate tended to have field experiences in more schools and classrooms than those with a middle or high school certificate (see table E1 in appendix E). Teachers with an early childhood certificate reported student teaching in an average of five schools, while those with a high school certificate reported student teaching in an average of three schools. Teachers with an early childhood certificate also reported spending more time student teaching (678 total estimated hours, on average) than those with another certificate type. Teachers with a music/arts or physical education/health certificate tended to have field experiences that involved students from more grade levels (about 11) and fewer hours (fewer than 600 hours) than those with other certificate types.

Teachers perceived their student teaching experiences to be relevant

All responding first-year teachers. Teachers reported that their student teaching experiences aligned with their career teaching plans and first teaching assignments (figure 1; see also table D1 in appendix D). Most indicated that their student teaching experiences matched somewhat or a lot with the subject areas, grade levels, and student characteristics of their career teaching plans and first teaching positions. Alignment was greater for career teaching plans than for first teaching positions.

Variation by certificate type. Across all certificate types, over 80 percent of teachers reported that their student teaching experiences aligned with their career teaching plans

Figure 1. Student teaching experiences were aligned with career teaching plans and first teaching positions, 2015



Note: Sample sizes ranged from 812 to 814.

Source: Author's analysis of survey data described in the report.

somewhat or a lot (see table E2 in appendix E). Alignment with first teaching positions showed more variation. Ratings of alignment were higher among teachers with an early childhood, math, or music/arts certificate than for the full sample but were lower among teachers with a social science certificate than for the full sample. The percentage of teachers who reported that the grade levels of their student teaching experiences aligned somewhat or a lot with those of their first teaching positions was higher for teachers with an early childhood (90 percent), math (87 percent), or music/arts certificate (90 percent) than for teachers with a social science certificate (66 percent).

Ratings were high across grade-level and subject area certificates, with over 80 percent of teachers in all groups agreeing or strongly agreeing with positive statements about their cooperating teachers and supervising faculty members

Teachers had positive impressions of cooperating teachers and supervising faculty members

All responding first-year teachers. Teacher responses suggested high overall satisfaction with the qualities of their cooperating teachers and supervising faculty members (figure 2; see also table D2 in appendix D).[2] Over 90 percent of respondents agreed or strongly agreed with positive statements about cooperating teachers and supervising faculty members, including their knowledge of content and pedagogy and the quality of their feedback, mentorship, and support. A slightly higher proportion of teachers strongly agreed with positive statements about cooperating teachers than with positive statements about supervising faculty members.

Variation by certificate type. Ratings were high across grade-level and subject area certificates, with over 80 percent of teachers in all groups agreeing or strongly agreeing with positive statements about their cooperating teachers and supervising faculty members (see tables E3 and E4 in appendix E). Agreement with positive statements about cooperating teacher communication skills and their ability to provide support was lower among teachers with an English language arts certificate than for all respondents. Eighty-three percent of teachers with an English language arts certificate agreed or strongly agreed that their cooperating teacher had good communication skills, compared with 94 percent of all

Figure 2. Ratings of cooperating teachers and supervising faculty members suggested high satisfaction, 2015

Note: Sample sizes ranged from 812 to 822.

Source: Author's analysis of survey data described in the report.

survey respondents. And 83 percent of teachers with a math certificate agreed or strongly agreed that their supervising faculty members had good knowledge of subject area content, compared with 93 percent of all respondents.

The most prevalent feedback methods (reported by over 85 percent of teachers) were oral and written feedback by cooperating teachers and supervising faculty members and self-assessment or reflective analysis

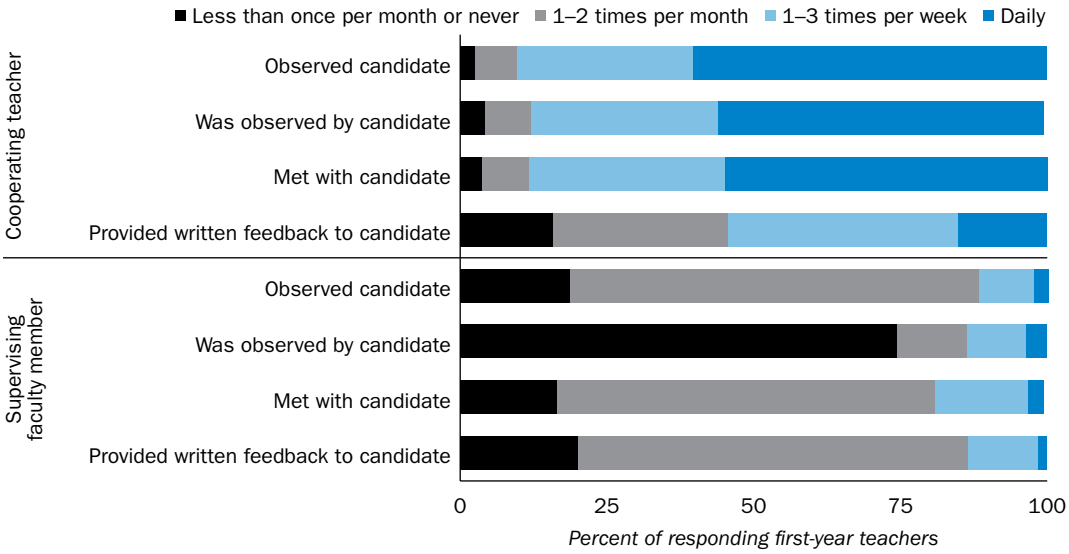
Feedback during student teaching was frequent and varied

All responding first-year teachers. Most teachers reported frequent observation during their student teaching; 55–60 percent reported observing, being observed by, and meeting with cooperating teachers daily (figure 3; see also table D3 in appendix D). Approximately a third of teachers reported these activities happening one to three times per week. Slightly more than half of teachers reported receiving written feedback from their cooperating teachers one to three times per week (39 percent) or daily (15 percent). Observation and feedback with supervising faculty members during student teaching was reported to be less frequent. Seventy percent of teachers reported being observed by their supervising faculty member once or twice per month. Sixty-four percent of teachers reported meeting with their supervising faculty member once or twice per month, and 66 percent reported receiving written feedback once or twice per month.

Teachers reported that various methods were used to document their teaching and provide feedback during student teaching. The most prevalent feedback methods (reported by over 85 percent of teachers) were oral and written feedback by cooperating teachers and supervising faculty members and self-assessment or reflective analysis. Less common feedback methods were assessment by peers (29 percent) and assessment of video-recorded lessons (39 percent; see table D4 in appendix D).

Variation by certificate type. Teacher reports of observation and feedback during student teaching differed little by certificate type (see table E5 in appendix E). Observation of their

Figure 3. Classroom observations and feedback by cooperating teachers were frequent, 2015



Note: Sample sizes ranged from 801 to 805.

Source: Author's analysis of survey data described in the report.

cooperating teacher was reported to be less frequent for teachers with a science, social science, or physical education/health certificate than for all respondents. Seventy-four percent of teachers with a social science certificate reported observing their cooperating teacher at least once per week, compared with 87 percent of all survey respondents.

Teachers with different certificate types also differed little in the methods used to document teaching and provide feedback (see table E6 in appendix E). The proportion of teachers who reported being assessed by peers was smaller for teachers with a middle school certificate (18 percent) than for all survey respondents (29 percent).

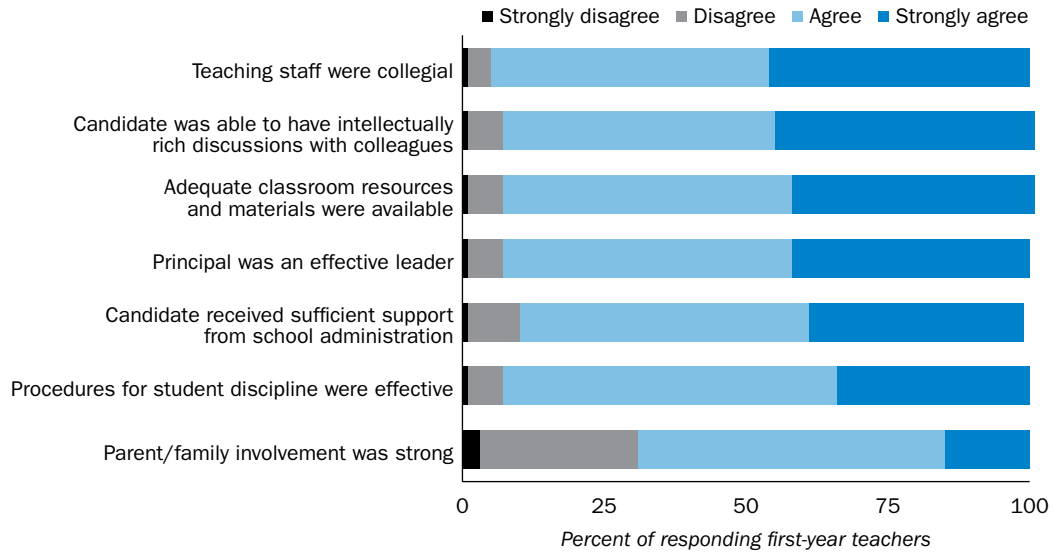
Most teachers (90 percent or more) agreed or strongly agreed with positive statements about staff collegiality, classroom resources, leadership, administrative support, and student discipline procedures

Field experience schools were described positively, professional collaboration was frequent, and parent/community interaction was less frequent

All responding first-year teachers. Teachers gave positive ratings of several characteristics of the schools in which they had field experiences (figure 4; see also table D5 in appendix D). Most teachers (90 percent or more) agreed or strongly agreed with positive statements about staff collegiality, classroom resources, leadership, administrative support, and student discipline procedures. Fewer teachers (69 percent) agreed or strongly agreed that parent and family involvement was strong.

Ratings of the frequency with which teachers engaged in professional collaboration during field experiences were also high (see table D6 in appendix D). Teachers were asked if they engaged in various collaborative activities never or almost never, rarely, occasionally, often, or always or almost always. Most teachers reported often or always or almost always participating in school professional development activities (79 percent), collaborating with other teachers to plan or deliver lessons (78 percent), and participating as a member of an instructional team or discipline-based department in the school (59 percent). Interaction

Figure 4. Ratings of field experience school characteristics were positive, 2015



Note: Sample sizes ranged from 774 to 842.

Source: Author's analysis of survey data described in the report.

with parents and community members was less frequent. At least one-fourth of teachers reported rarely or never or almost never interacting with parents (25 percent), participating in instructional activities that involved families or community members (35 percent), or developing strategies for engaging parents or community members (47 percent).

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Variation by certificate type. Field experience school characteristics were similar among teachers with different certificate types (see table E7 in appendix 7). Fewer teachers with an English language arts certificate agreed that they received sufficient support from school administration and that parent and family involvement was strong. Forty-eight percent of teachers with an English language arts certificate agreed or strongly agreed that parent and family involvement was strong, compared with 69 percent of all teachers in the sample.

Professional collaboration and parent and community interaction during field experiences differed among teachers with different certificate types (see table E8 in appendix E). The percentage of all respondents who reported often or always or almost always participating as a member of an instructional team or discipline-based department was 59 percent. The percentage was higher among teachers with a social science certificate (69 percent) and lower among teachers with a music/arts (42 percent) or physical education/health certificate (47 percent). Participation in activities involving parents, families, and community members tended to be less frequent among teachers with an English language arts or music/arts certificate and more frequent among those with an early childhood certificate. The percentage of all respondents who reported often or always or almost always participating in noninstructional activities that involved families or community members was 36 percent. The percentage was higher among teachers with an early childhood certificate (46 percent) and lower among teachers with an English language arts (19 percent) or music/arts certificate (23 percent).

Most teachers reported that field experiences were aligned with teacher preparation program courses and well timed

All responding first-year teachers. Activities during field experiences were well aligned with content learned in teacher preparation program courses according to most teachers (figure 5; see also table D7 in appendix D). However, some teachers reported that during field experiences they never or almost never, rarely, or occasionally tried strategies and techniques learned in courses (19 percent), applied subject matter learned in courses (18 percent), or applied pedagogy learned in courses (26 percent).

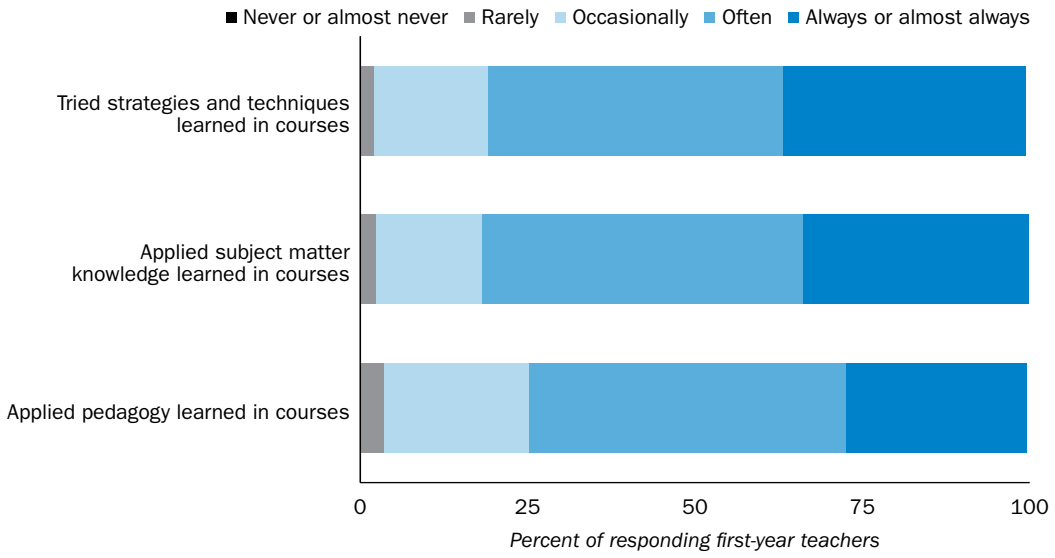
Most teachers gave positive reports about the timing of their field experiences, with 96 percent agreeing or strongly agreeing that field experiences were well timed[3] with the instructional schedules of the schools where they were placed and 76 percent agreeing or strongly agreeing that they were able to focus on their field experiences without being distracted by other program commitments or expectations (see table D8 in appendix D).

Alignment of field experiences with teacher preparation program courses was reported to be more frequent among teachers with a special education certificate and less frequent among those with a high school certificate

Variation by certificate type. Alignment of field experiences with teacher preparation program courses varied by certificate type (see table E9 in appendix E). Alignment was reported to be more frequent among teachers with a special education certificate and less frequent among those with a high school certificate. The percentage of all respondents who reported often or always or almost always applying pedagogy learned in courses was 74 percent. The percentage was higher among teachers with a special education certificate (86 percent) and lower among teachers with a high school certificate (61 percent).

The timing of field experiences differed little among teachers with different certificate types (see table E10 in appendix E). The percentage of teachers with a physical education/health certificate who agreed or strongly agreed that they were able to focus on field experiences without outside distractions (89 percent) was higher than that for all survey respondents (76 percent).

Figure 5. Field experiences were aligned with teacher preparation program courses, 2015



Note: Sample sizes ranged from 830 to 832.

Source: Author's analysis of survey data described in the report.

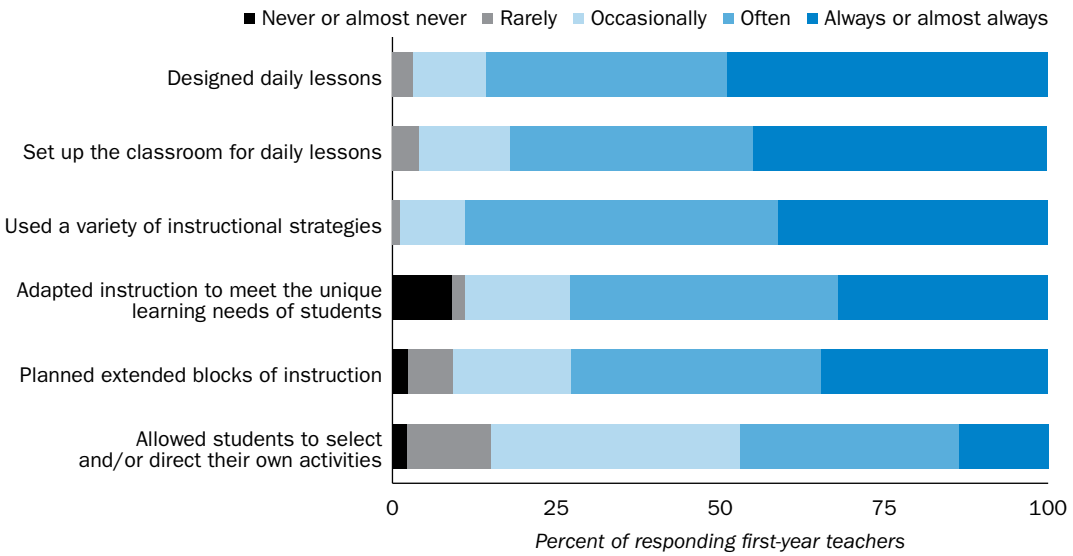
Teachers often engaged in instructional planning and used varied instructional strategies during field experiences

All responding first-year teachers. Teachers were frequently involved in instructional planning activities and used a variety of instructional strategies during field experiences (figure 6; see also table D9 in appendix D). Most teachers reported often or always or almost always designing daily lessons (86 percent), setting up the classroom for daily lessons (82 percent), using a variety of instructional strategies (89 percent), adapting instruction to meet the unique learning needs of students (81 percent), and planning extended blocks of instruction (73 percent). A smaller percentage (47 percent) reported often or always or almost always allowing students to select or direct their own activities.

Variation by certificate type. Some differences in instructional planning activities and instructional activities were apparent across certificate types (see table E11 in appendix E). The percentage of teachers with a special education certificate who reported often or always or almost always designing daily lessons (73 percent) was lower than that for all survey respondents (86 percent). Teachers with a math certificate reported planning extended blocks of instruction and using a variety of instructional strategies less frequently than all respondents. Math and science teachers reported allowing students to select or direct their own activities and adapting instruction to meet the unique learning needs of students less frequently, and special education teachers reported these actions more frequently. The percentage of all respondents who reported often or always or almost always allowing students to select or direct their own activities was 47 percent. The percentage was higher among teachers with a special education (65 percent) or early childhood certificate (60 percent) and lower among teachers with a science (31 percent), math (26 percent), or music/arts (23 percent) certificate.

Teachers were frequently involved in instructional planning activities and used a variety of instructional strategies during field experiences

Figure 6. Field experiences involved frequent instructional planning and use of varied instructional strategies, 2015



Note: Sample sizes ranged from 827 to 831.

Source: Author's analysis of survey data described in the report.

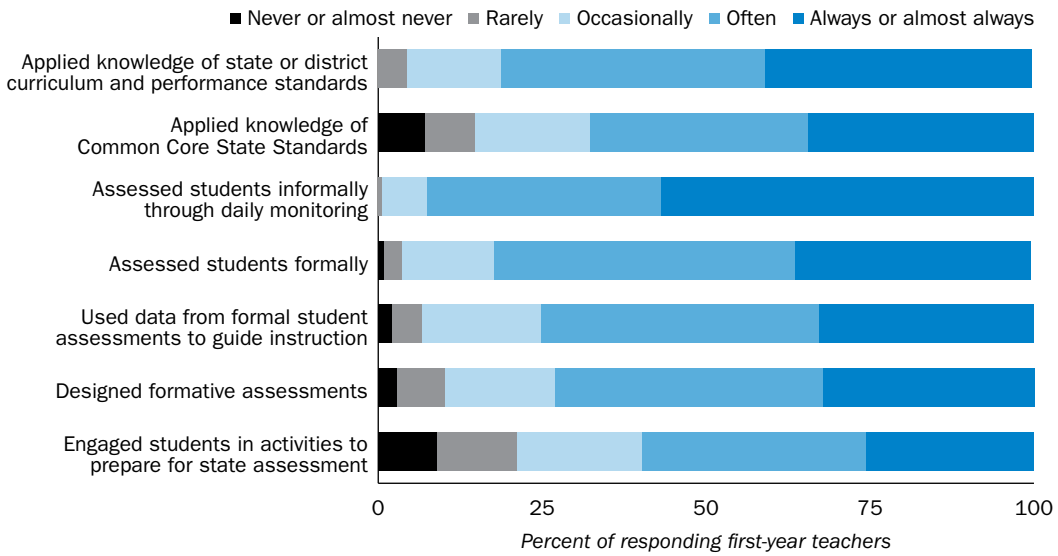
During field experiences teachers used standards knowledge and engaged in test preparation and assessment activities

All responding first-year teachers. Teachers reported frequent use of activities involving standards knowledge, test preparation, and assessment during field experiences (figure 7; see also table D10 in appendix D). Most teachers reported often or always or almost always applying knowledge of state or district curriculum and performance standards (81 percent) and applying knowledge of Common Core State Standards (68 percent). Teachers also reported often or always or almost always assessing students informally through daily monitoring (93 percent), assessing students formally (82 percent), using data from formal assessments to guide instruction (75 percent), designing formative assessments (73 percent), and engaging students in activities to prepare for the state assessment (60 percent).

Teachers reported frequent use of activities involving standards knowledge, test preparation, and assessment during field experiences

Variation by certificate type. Some differences were apparent across certificate types (see table E12 in appendix E). Teachers with a music/arts or physical education/health certificate reported engaging in formal assessment activities least frequently. The percentage of all teachers who reported often or always or almost always assessing students formally (82 percent) was lower for teachers with a music/arts (46 percent) or physical education/health certificate (62 percent). The percentage of teachers who reported often or always or almost always designing formative assessments was lowest among teachers with an early childhood (62 percent), music/arts (56 percent), or physical education/health certificate (62 percent) and highest among teachers with a high school (84 percent) or English language arts certificate (89 percent). Engagement of students in preparation activities for the state learning assessment was least frequent among teachers with a music/arts certificate (25 percent) and most frequent among teachers with a middle school certificate (73 percent).

Figure 7. Field experiences involved frequent application of knowledge of standards, test preparation activities, and student assessment, 2015



Note: Sample sizes ranged from 828 to 832.

Source: Author's analysis of survey data described in the report.

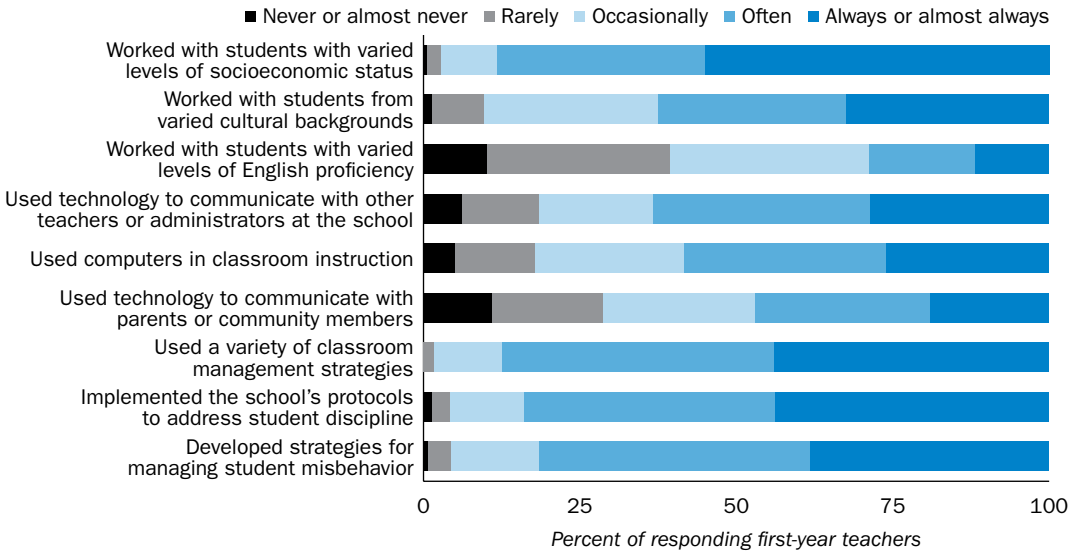
Teacher interaction with diverse students and use of computers during field experiences were varied; use of classroom management strategies was frequent

All responding first-year teachers. Reports of interaction with diverse students during field experiences were mixed (figure 8; see also table D11 in appendix D). While 88 percent of teachers reported often or always or almost always working with students from various socioeconomic levels, fewer reported often or always or almost always working with students from varied cultural backgrounds (63 percent) or with students with varied levels of English proficiency (29 percent). More teachers reported often or always or almost always using technology for communication with teachers and school administrators (63 percent) than reported often or always or almost always using technology for communication with parents or community members (47 percent). Fifty-eight percent of teachers reported often or always or almost always using computers in classroom instruction. More than four out of five teachers reported often or always or almost always using a variety of classroom management strategies (87 percent), implementing the school's protocols to address student discipline (84 percent), and developing strategies for managing student misbehavior (81 percent).

More than four out of five teachers reported often or always or almost always using a variety of classroom management strategies (87 percent), implementing the school's protocols to address student discipline (84 percent), and developing strategies for managing student misbehavior (81 percent)

Variation by certificate type. Reports of frequent interaction with students of varied cultural backgrounds were more prevalent among teachers with an early childhood certificate and less prevalent among teachers with a science or music/arts certificate (see table E13 in appendix E). Sixty-three percent of all respondents reported often or always or almost always working with students from varied cultural backgrounds. The percentage was higher among teachers with an early childhood certificate (76 percent) and lower among teachers with a science (45 percent) or music/arts certificate (52 percent). Use of computers also varied across certificate types. Frequent use of computers in classroom instruction

Figure 8. Teachers frequently worked with students from varied cultural backgrounds, used computers for instruction, and used a variety of classroom management strategies, 2015



Note: Sample sizes ranged from 827 to 851.

Source: Author's analysis of survey data described in the report.

(defined as often or always or almost always) was most prevalent among teachers with an early childhood (69 percent) or special education certificate (70 percent) and least prevalent among teachers with a middle school (48 percent), math (36 percent), music/arts (35 percent), or physical education/health certificate (36 percent). Teachers with a physical education/health certificate also used technology for communication least frequently. Teachers with a math certificate reported less frequent use of classroom management and disciplinary activities. Among all teachers, 87 percent reported often or always or almost always using a variety of classroom management strategies, compared with 73 percent of teachers with a math certificate.

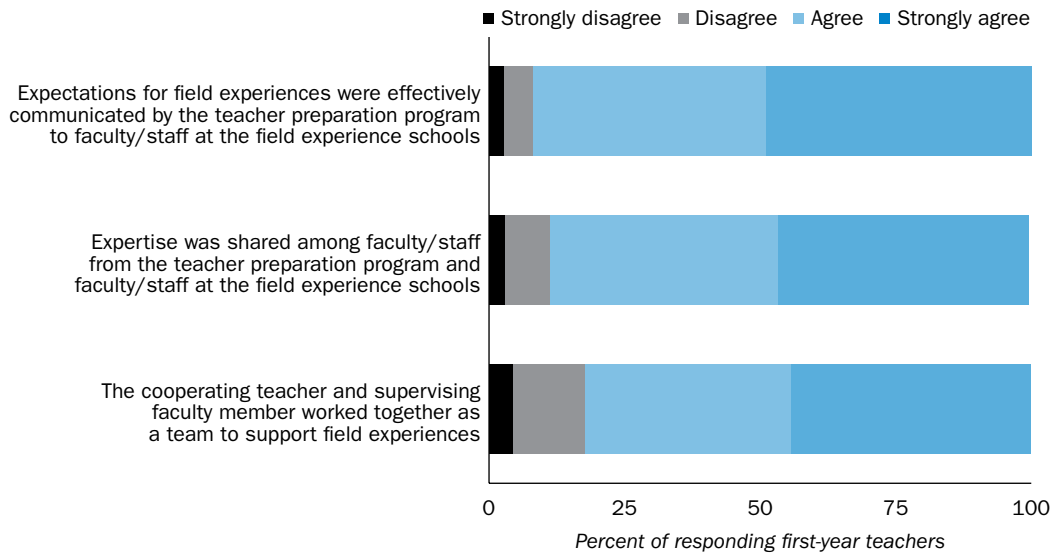
Teacher reports suggested good communication and collaboration among teacher preparation programs and field experience schools and variation in their joint involvement in field experiences; most reported being asked to provide feedback about field experiences

Teachers tended to agree with positive statements about the partnership between their teacher preparation program and field experience schools

All responding first-year teachers. Teachers tended to agree with positive statements about the partnership between their teacher preparation program and field experience schools (figure 9; see also table D12 in appendix D). Most teachers either agreed or strongly agreed that their teacher preparation programs effectively communicated field experience expectations to the field experience schools (92 percent), that expertise was shared among faculty and staff from the preparation program and field experience schools (89 percent), and that the cooperating teacher and supervising faculty member worked as a team (82 percent).

Teacher reports varied about the extent to which faculty and staff from field experience schools and from teacher preparation programs were jointly involved in aspects of field experiences (see table D13 in appendix D). While most teachers reported that field experience school and preparation program faculty and staff were jointly involved in assessing

Figure 9. Most teachers agreed with positive statements about partnerships between teacher preparation programs and field experience schools, 2015



Note: Sample sizes ranged from 758 to 789.

Source: Author's analysis of survey data described in the report.

teaching performance (74 percent) and monitoring field experiences (69 percent), fewer reported joint involvement in designing field experiences (44 percent) and selecting cooperating teachers (46 percent).

Most teachers reported being asked to provide feedback about their field experiences (see table D14 in appendix D). Teachers reported being asked to provide feedback about the overall quality of student teaching experiences (83 percent), the quality of cooperating teachers (79 percent) and supervising faculty members (77 percent), and the quality of the school in which student teaching experiences took place (72 percent).

Most teachers reported being asked to provide feedback about their field experiences

Variation by certificate type. Reports of communication and collaboration among teacher preparation programs and field experience schools differed little by certificate type (see table E14 in appendix E). Compared with all survey respondents, a larger percentage of teachers with a physical education/health certificate agreed that expertise was shared among individuals at teacher preparation programs and field experience schools and that their cooperating teacher and supervising faculty member worked as a team. The percentage of all teachers who agreed or strongly agreed that their cooperating teacher and supervising faculty member worked as a team was 82 percent, compared with 98 percent for teachers with a physical education/health certificate. Agreement was lowest among teachers with an English language arts certificate (68 percent).

Teacher reports that field experience activities jointly involved individuals from teacher preparation programs and field experience schools also varied by certificate type (see table E15 in appendix E). For example, fewer teachers with a social science or physical education/health certificate reported such joint involvement in assessing teacher performance. The percentage of all teachers who reported that assessing teaching performance during field experiences was done jointly by teacher preparation program and field experience school faculty and staff (74 percent) was higher than that for teachers with a social science (62 percent) or physical education/health certificate (63 percent). Joint decisions about field experience locations were more common among teachers with a special education certificate, joint selection of cooperating teachers was more common among teachers with a math certificate, and joint design of field experiences was most common among teachers with a physical education/health certificate. Teachers with different certificate types differed little in the extent to which they were asked to provide feedback about the quality of their field experiences (see table E16 in appendix E). Among all respondents, 79 percent reported being asked to provide feedback about the quality of their cooperating teacher. This percentage was lower among teachers with a special education certificate (68 percent) and higher among teachers with a music/arts certificate (91 percent).

Implications of the study findings

This section contextualizes the study findings in research and policy literature and in expectations reflected in new Missouri state standards for educator preparation programs, suggests areas for consideration by state and teacher preparation program administrators, and discusses possible next steps for understanding and improving field experiences in teacher preparation.

Understanding the Missouri findings in context

On average, student teaching experiences in traditional Missouri teacher preparation programs lasted 16 weeks, for 39 hours per week, for an estimated total of 631 hours as reported by first-year teachers. This amount of time was more than expected by state standards (12 weeks) and slightly more than average based on national studies. For example, during the 2009/10 academic year, most institutions that prepared teachers reported that the average number of hours of student teaching was 600 (U.S. Department of Education, 2013). Reports from a national sample of institutions in 2011 show an average student teaching duration of 14.5 weeks, 35 hours per week, for a total estimated number of hours of 480–586 (American Association of Colleges for Teacher Education, 2013). Survey results from first-year Missouri teachers suggest that the duration of student teaching experiences varied substantially among teachers—from 8 to 40 weeks and from as few as 64 total estimated hours to as many as 2,000 hours. This variation is consistent with the wide variation documented in other states (see, for example, Freedberg & Rice, 2014). Further, while all survey respondents reported having field experiences, 5 percent reported that they did not participate in student teaching. These findings suggest that experiences of most first-year teachers aligned with state expectations for student teaching but that state and program administrators may wish to monitor field experiences closely to ensure that expectations are met as the new Missouri standards are adopted.

Student teaching experiences in traditional Missouri teacher preparation programs lasted 16 weeks, which was more than expected by state standards (12 weeks) and slightly more than average based on national studies

State policymakers argue that field experiences should, as much as possible, simulate the conditions and experiences that teachers will encounter in their first job (Council of Chief State School Officers, 2012). First-year Missouri teachers indicated that their student teaching experiences aligned with their career teaching plans and their first teaching assignments; however, ratings of alignment with first teaching positions were lower, and there was some variation across certificate types. State and program administrators may want to look at certificate types for which field experiences were less aligned with career teaching plans and first teaching assignments and explore ways to improve alignment. While ratings indicated that teachers perceived characteristics of field experience schools positively (for example, as having sufficient resources, effective support, and leadership) and frequently engaged in professional collaboration, lower ratings of the frequency of parent and community interaction during field experiences suggest a potential area for discussion. While the regular classroom teacher will typically be at the center of interaction with parents and community members, understanding the type of interaction is an important aspect of teacher candidate preparation. State and program administrators may want to better understand ways in which parent and community interaction is incorporated into field experiences to explore avenues for increased interaction.

The quality of mentorship provided by cooperating teachers and supervising faculty members has been identified as an essential aspect of field experiences (for example, Council of Chief State School Officers, 2012). Responses from Missouri teachers are encouraging, suggesting that most (over 90 percent) have positive perceptions of the knowledge, teaching skill, mentorship ability, and feedback and support provided by their cooperating teachers and supervising faculty members. To ensure continued success, state and program administrators may wish to review current policies and practices in light of recent guidance about how to best select and train individuals in mentorship roles (Council of Chief State School Officers, 2012; Perlstein, Jerald, & Duffrin, 2014; Staub & Frank, 2015).

Professional organizations, such as the American Federation of Teachers and National Education Association, promote the importance of observation and frequent formative feedback during student teaching (American Federation of Teachers, 2012; Coffman, Patterson, Raabe, & Eubanks, 2014). Most Missouri teachers reported frequent observation by, and various types of feedback from, cooperating teachers; however, observation and feedback activities of supervising faculty members were substantially less frequent. Missouri's standards for educator preparation programs expect that supervising faculty members observe teacher candidates every two or three weeks during student teaching. Survey results indicate that 81 percent of teachers were observed with this frequency. This finding and differences in observation and feedback by certificate type suggest that teacher preparation programs and field experience schools could further examine or clarify expectations for those in cooperating teacher and supervising faculty roles.

Faculty at institutions of higher education and field experience schools have little shared awareness of the courses candidates take and their field experiences (Zeichner & Bier, 2015). New teachers have also expressed concern about the timing of field experiences, suggesting that they ought to start earlier in the academic year or earlier in their undergraduate program (American Federation of Teachers, 2012). Most first-year Missouri teachers reported that field experiences were aligned with content learned in teacher preparation program courses and that field experiences were well timed with the instructional schedules of field experience schools. Responses to some items suggest areas for potential improvement. For example, approximately one out of four teachers reported never, rarely, or occasionally applying the pedagogy they learned in teacher preparation program courses, and the same percentage disagreed that they were able to focus on their field experiences without being distracted by other program commitments or expectations. Program administrators may wish to explore ways for better connecting course pedagogy to field experiences and ways to allow candidates to better focus on field experiences.

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Missouri standards for educator preparation programs encourage stronger partnership among field experience schools and teacher preparation programs through annually reviewed memoranda of understanding that specify expectations for teacher candidates, field experience school personnel, and supervising faculty members; collaborative identification of field experience sites; and exploration of models that increase collaboration. Missouri teachers' perceptions of the quality of partnership between their teacher preparation program and field experience schools were generally positive. However, fewer than half reported joint involvement by their teacher preparation program and field experience schools in the design of field experiences and the selection of cooperating teachers. Program administrators seeking to improve this type of collaboration may want to review guidance about how to create strong partnerships (for example, Dailey, Watts, Charner, & White, 2013).

Next steps for understanding and improving field experiences in teacher preparation

These findings provide constituents in Missouri and elsewhere with information about teacher preparation field experiences identified as important through research and professional standards that may be useful for informing policy and practice discussions. A review of research (National Research Council, 2010) and discussions with REL Central Educator Effectiveness Research Alliance members suggest that information about program implementation is rarely collected systematically. The survey developed for this study provides

a data collection tool that can be adopted or adapted by state and teacher preparation program administrators as part of a system for monitoring program implementation. For example, state or institution data about field experiences may be used as a baseline to monitor change over time and as a way to examine results of changes in policy or program activities. Data collected at teacher preparation programs may help ensure that field experiences are implemented as intended and can be a basis for ongoing program improvement.

Further, research that examines K–12 student achievement outcomes for teachers from different teacher preparation programs suggests substantial variation in teacher outcomes within the institutions that offer programs (for example, Goldhaber & Liddle, 2011; Koedel, Parsons, Podgursky, & Ehlert, 2012). Understanding the relationship between teacher preparation and teacher effectiveness may therefore require a closer look at the variation in program implementation and the nature of teacher candidate experiences within institutions.

The survey developed for this study provides a data collection tool that can be adopted or adapted by state and teacher preparation program administrators as part of a system for monitoring program implementation

While this study presents statewide results and results disaggregated for teachers with different types of teaching certificates, additional disaggregation may be needed to best guide program improvement. Data for groups of teachers with different certificate types may mask important differences in field experiences of students in teacher preparation programs. Future research involving larger samples of teachers or aggregate data from multiple years is needed to better examine within-program variation. Further, the experiences of teachers during their first year may affect their perceptions of field experiences during their preparation. Future research could examine aspects of their first-year experiences, such as the characteristics of the schools where they teach and the nature of peer support, to explore this possibility.

In recent years, more attention has focused on evaluating teacher preparation programs based on outcomes for teachers and their students (Allen, Coble, & Crowe, 2014; Council for Accreditation of Educator Preparation, 2013; Feuer, Floden, Chudowsky, & Ahn, 2013; Meyer, Pyatigorsky, & Rice, 2014; U.S. Department of Education, 2011; Worrell et al., 2014). These outcome-focused evaluation approaches emphasize more frequent reporting of program outcomes such as teacher job placement and retention rates, employer and program graduate satisfaction and preparedness, and evaluation of teacher effectiveness based on the achievement of their students and other measures. Detailed information about the implementation of program components, such as field experiences, may be used along with these outcome data in future research to suggest aspects of programs that are most important for achieving student and teacher outcomes.

Limitations of the study

Despite substantial follow-up efforts, the study response rate was relatively low. Fewer than half the teachers invited responded to the survey (the adjusted response rate was 44 percent). Analysis of nonresponse bias found no statistically significant differences between respondents and nonrespondents; however, responding teachers may have differed from nonrespondents in some ways. For example, teachers who were particularly satisfied or dissatisfied with their field experiences may have been more motivated to respond. Therefore, the findings may not fully represent the field experiences of all first-year teachers in Missouri.

Further, surveyed teachers included those trained in Missouri who went on to teach in the state. The study excludes those trained in Missouri who taught in other states, chose not to teach, or could not get a teaching job. These teachers may have had different field experiences.

Self-reported survey data may be biased in favor of responses that are perceived as socially desirable to the respondent or reflect perceptions rather than objective assessments of practice. Because this is a retrospective survey about teacher preparation program graduate experiences, responses may also be biased by respondents' inability to remember their experiences accurately.

Appendix A. Data and methodology

This appendix describes the process used to develop and test the survey, the study design, data collection, data analysis, and provisions to protect respondent confidentiality.

Survey development and pretest

Regional Educational Laboratory (REL) Central conducted a review of publicly available surveys that were used to collect data on program implementation from graduates of teacher preparation programs. A small number of surveys was identified, including, for example, the Survey of Teacher Preparation Program Graduates designed by Boyd et al. (2009), surveys of preservice and practicing teachers developed for Institute of Education Sciences studies of teacher preparation (Constantine et al., 2009; Decker et al., 2005), and a survey used to collect data from a national sample of teacher preparation program graduates (Market Facts, 2003). In each case, items related to program implementation were only one component of the survey, and no reports of data collected from these surveys included evidence of survey reliability or validity.

When the survey for this study was drafted in late 2012, only one quantitative study had been identified that examined the relationship between field experiences and teacher effectiveness (Boyd et al., 2009). Findings suggested that participation in student teaching, program oversight of the student teaching component, links to practice, congruence between field experiences and ultimate job assignments, and the completion of capstone projects were positively related to student achievement outcomes. Because these represent only some elements of field experiences, the study team also reviewed professional standards documents that identified important elements of field experiences: *Critical Components of Clinical Preparation* (American Association of Colleges for Teacher Education, 2010), *Standards for Teacher Educators* (Association of Teacher Educators, 2008), *Professional Standards for the Accreditation of Teacher Preparation Institutions* (National Council for Accreditation of Teacher Education, 2008), and *Student Teaching Standards* (Greenberg et al., 2011).

Elements identified in research and professional standards were used to guide survey development around eight topic areas: field experience characteristics, field experience curriculum, field experience timing, cooperating teacher characteristics, supervising faculty member characteristics, teacher preparation program and preK–12 school collaboration, student teacher evaluation and feedback, and teacher preparation program evaluation. Existing surveys were reviewed to guide item development. Items about characteristics of field experience schools and field experience curriculum were adapted from Decker et al. (2005). Additional items were drafted to represent the range of field experience elements identified in research and professional standards.

A draft survey was shared with Missouri Department of Elementary and Secondary Education staff and Educator Effectiveness Research Alliance members in early 2012 for feedback. In 2013, cognitive interviews (Tourangeau, 1984) were conducted with nine first-year teachers who were randomly sampled from nine randomly sampled traditional Missouri undergraduate teacher preparation programs. After completing the survey online, the teachers participated in an interview to discuss their responses. Retrospective verbal probing (Willis, 1999) was used to review the survey content and collect feedback. Feedback was used to revise the survey.

Study design

Data for the study were collected over 15 weeks between late March and late June 2015 from teachers who had completed a traditional undergraduate teacher preparation program in Missouri and were practicing first-year teachers in a Missouri public school during the 2014/15 school year. The study focused on one state to provide a feasible scope of data collection. Missouri presented an especially good locale for this research because it prepares more teachers each year than any other REL Central state; the Missouri Department of Elementary and Secondary Education has a data system with the capacity to identify first-year teachers along with their contact and other demographic information to facilitate data collection, analysis of nonresponse bias, and disaggregation of study findings; the Missouri Department of Elementary and Secondary Education Office of Educator Quality is developing a comprehensive system for evaluating teacher preparation programs with an annual program reporting component that includes collecting data from first-year teachers; and Missouri is exploring new models for field experiences as part of its participation in the Council for the Accreditation of Educator Preparation State Alliance for Clinical Educator Preparation and Partnerships. All first-year teachers (rather than a probability sample of teachers) who completed traditional programs in Missouri were invited to participate in the study based on Office of Management and Budget (2006) guidance.

Data collection

To identify teachers who recently completed undergraduate traditional teacher preparation programs in Missouri, the study team obtained names and contact information for all first-year public school teachers in the state from the Missouri Department of Elementary and Secondary Education and the Office of Social and Economic Data Analysis at the University of Missouri. Since 2007 the Missouri Department of Elementary and Secondary Education has administered the First-Year Teacher Survey online to all first-year teachers in the state. Each year, the Missouri Department of Elementary and Secondary Education works with the Office of Social and Economic Data Analysis—which has developed protocols to include only first-year teachers, excluding veteran teachers who are new to a particular district or new to the state—to develop a list of teacher names and contact information for this purpose. These data were chosen to identify recent teacher preparation program graduates over collecting data from teacher preparation programs because the latter approach involved an increased data collection burden and concerns about data quality. Contact information for first-year teachers who taught during the 2014/15 school year was provided in mid-March 2015 and included teacher name; teacher email address; and name, physical address, and phone number of the school in which the teacher taught.

Survey data were collected between March 23 and June 29, 2015. An invitation to complete an online survey was sent to all teachers on the list via email.[4] Customized invitations were used with respondent identifiers embedded in the emailed survey links to track survey response and follow up with nonrespondents. The invitation sent by REL Central described the purpose of the study, the voluntary nature of participation, the intended use of the data, methods for maintaining confidentiality, and the estimated amount of time needed to complete the survey (20–25 minutes). Potential respondents were informed of the importance of their feedback to understanding the range of experiences among first-year teachers. The invitation indicated that REL Central was working with the Missouri Department of Elementary and Secondary Education and included the logos of both

organizations. In separate correspondence with first-year teachers, the Missouri Department of Elementary and Secondary Education also encouraged potential respondents to complete the survey. The survey included questions about recent graduates' experiences in their teacher preparation programs (see appendix C).

Follow-up contacts with nonrespondents used strategies identified in Dillman, Smyth, and Christian (2014) to increase response rates. Specifically, nonrespondents were contacted up to eight times using three modes: email, U.S. Postal Service, and telephone. The follow-up contact sequence was:

- Contact 1: A postcard thank-you note and reminder was sent to all participants one week after the initial invitation.
- Contacts 2–4: Survey nonrespondents received three additional email invitations to complete the survey at approximately seven-day intervals after the first contact.
- Contact 5: A U.S. Postal Service package was sent to each nonrespondent. The package contained a paper copy of the survey and a cover letter encouraging participation. Paper surveys also contained unique identifiers to track survey response.
- Contacts 6 and 7: The study team made two follow-up contacts via telephone. Nonrespondents were called at their school during school hours to inform them that a survey had been sent to them previously, asking if they had questions about the study, and encouraging them to complete the survey. If a nonrespondent was not available for the phone call, the study team member left a voice message or a message with school administrative staff. Nonrespondents were encouraged to complete the survey using the online form, the paper survey, or the telephone.
- Contact 8: Because several teachers reported expecting to have time to complete the survey after the conclusion of the school year, a final email invitation was sent subsequent to the phone calls.

In June 2015 the Missouri Department of Elementary and Secondary Education provided additional information for all first-year public school teachers, including gender, race/ethnicity, certificate type, and the name of the teacher preparation institution that the teacher had attended. Eighteen codes were used to describe grade-level certificates, and 37 codes were used to describe subject area certificates. The study team categorized the codes into certificate types. Grade-level codes were classified into early childhood, elementary, middle, or high school certificates; subject area codes for middle and high school were classified into English language arts, math, science, and social science certificates; and subject area codes for grades K–12 were categorized into special education, music/arts, and physical education/health certificates.

Data analysis

To assess the presence of nonresponse bias, respondent and nonrespondent characteristics were compared based on available data for all teachers who were asked to complete the survey. Information was available for nearly all teachers on gender, race/ethnicity, the name of their preparation institution, and their certificate type.[5] Results of the nonresponse bias analysis revealed no statistically significant differences between respondents and nonrespondents (see appendix B).

To address the research question on the characteristics of field experiences in traditional teacher preparation programs completed by first-year public school teachers in Missouri, the

study team computed descriptive statistics for all respondents in the sample. For continuous variables (for example, number of hours or weeks), means and standard deviations were calculated. For categorical variables, the percentage of respondents selecting each response category was computed. Frequencies (expressed as percentages) were calculated for items with categorical response options. Responses of "don't know" and "not applicable" were excluded.

To address the research question on how field experiences in traditional teacher preparation programs completed by first-year public school teachers in Missouri vary by certificate type, the study team computed descriptive statistics by grade-level and subject area certificate type. Specifically, results were computed separately for early childhood, elementary school (grades 1–6), middle school (grades 5–9), and high school (grades 9–12) certificates. For teachers with middle and high school certificates, results were also presented by subject area (in other words, English language arts, math, science, social science). Results for teachers with a K–12 certificate were presented separately for those with a special education, music/arts, or physical education/health certificate.

Means and standard deviations were computed for continuous variables. Means for subgroups that differed most from the full sample mean are discussed in the main text. For categorical variables, frequencies (expressed as percentages) of combined response categories were presented for each grade-level and subject area certificate type.

Because the population of interest included all teachers in Missouri, inferential analyses were not used to compare differences among subgroups. Instead, results for subgroups that differed most from those for the sample as a whole were highlighted. Subgroup percentages that were at least 10 percentage points lower or higher than the percentage for the full sample are discussed in the main text.

A large number of teachers in the sample had an elementary certificate (40 percent), and their responses contributed substantially to full sample means. Because survey results for teachers with an elementary certificate contribute more to full sample means than results for other teacher subgroups, their subgroup means would be expected to be most similar to full sample means. Therefore, this approach to identifying subgroup differences may underestimate differences for teachers with an elementary certificate.

Protection of confidentiality

Survey respondents were assured that all information identifying them or their teacher preparation program would be kept confidential and used only for this research. The confidentiality procedures adopted for this study were approved (with annual continuing reviews) by an external institutional review board. Study team members involved in collecting, reviewing, or analyzing individual data successfully completed the Collaborative Institutional Training Initiative course for protection of human subjects and were required to adhere to data security procedures. A secure portal was used for collection of online survey data. All hard-copy data collection forms returned by respondents via the U.S. Postal Service were delivered to a locked area for receipt and processing. All data files on multiuser systems were under the control of the project manager, with access limited to project staff. Individual identifying information was maintained separately from completed data collection forms and from computerized data files used for analysis. The computers on which the study team saved data files were password-protected and available only to members of the study team.

Appendix B. Response rate calculation and nonresponse bias analysis results

Survey respondents included 856 first-year teachers who were trained in teacher preparation programs at 36 institutions of higher education in Missouri.

Response rate

To compute the adjusted unit response rate (RRU), the following formula was used, based on standards identified by the National Center for Education Statistics (2002). Specifically, the unit response rate was calculated as the ratio of the number of completed surveys to the number of cases in the sampling frame[6] (adjusted based on an estimate of the proportion of eligible respondents), as follows:

$$RRU = S/(S + R + e(U))$$

where S is the number of completed[7] surveys (n = 856), R is the number of refused survey cases (n = 28), U is the number of participants who did not complete the survey and had unknown eligibility (n = 1,247), and e is the estimated proportion of participants of unknown eligibility who were eligible (.8765).[8]

Using this approach, the adjusted response rate was 43.5 percent (856/[856+28+.8765*1,247]). Based on this response rate and a 95 percent confidence interval, the estimated sampling error is 2.5 percent. The response rate without the adjustment based on the estimated proportion of participants of unknown eligibility who were eligible was 40.4 percent (856/[856+28+1,247]).

Nonresponse bias analyses

Two types of analyses were conducted to assess nonresponse bias: comparison of characteristics of respondents and nonrespondents and comparison of survey responses for early and late respondents.

Comparison of characteristics of respondents and nonrespondents. The presence of nonresponse bias was examined by comparing respondent and nonrespondent characteristics using data that were available for all teachers who were asked to complete the survey. Specifically, analyses compared four characteristics of teachers who responded and did not respond to the survey: gender, race/ethnicity, certificate type, and institution where they completed their teacher preparation.

Because teachers could have more than one teaching certificate, dichotomous variables were created to examine differences in the proportion of respondents and nonrespondents for each of six subject area certificates (English language arts, math, science, social science, music/arts, and physical education/health) and each of five grade-level certificates (early childhood, elementary, middle, high school, and K–12). Dichotomous variables were also created for each of the 17 teacher preparation institutions that contributed at least 30 teachers to the sampling frame to allow for examination of differences in the proportion of teachers from each institution among respondents and nonrespondents. Mean differences were examined using t-tests for dichotomous variables. Pearson's chi-square test was used

to examine differences in the distribution of race/ethnicity categories for respondents and nonrespondents.

Comparison of respondents and nonrespondents on gender, race/ethnicity, and certificate type revealed no statistically significant differences. Among the comparisons for the proportion of respondents and nonrespondents from each of 17 teacher preparation programs, none was statistically significant after correcting for multiple comparisons using an approach by Benjamini and Hochberg (1995).

Comparison of survey responses for early and late respondents. A disadvantage of comparing characteristics of respondents to nonrespondents is the limited number of variables for which data were available. The nonresponse bias may be underestimated if the variables available for comparison are not closely related to the topics measured in the study or if other variables not examined in this analysis account for differences in propensity to respond. Therefore, to further explore nonresponse bias, differences in survey responses between early and late respondents were examined, based on guidance by Groves (2006) and the National Center for Education Statistics (2002). This approach assumes that the propensity to respond is on a continuum and that late respondents share characteristics with nonrespondents. Early respondents were defined as those who completed the survey prior to the initiation of intensive nonrespondent follow-up (phone calls), and late respondents were defined as those who completed the survey following the start of phone calls. Approximately 60 percent of respondents completed the survey prior to the start of phone calls.

Differences in responses of early and late respondents were compared using four measures from the survey that may have influenced propensity to respond. For the first measure, total weeks of student teaching was chosen based on the assumption that teachers who had particularly long or short student teaching experiences may have been more or less motivated to share information about them. For the next three measures, three composite variables were created by averaging survey items that reflected characteristics of field experience schools (items 9a–9g), cooperating teachers (items 19a–19m), and supervising faculty members (items 20a–20j; see appendix C). Agreement with items measuring these characteristics suggests that teachers viewed these aspects of their field experiences more positively. These items were chosen based on the assumption that teachers with particularly negative or positive field experiences may have been more or less inclined to respond to the survey. Averages of each of these four measures were compared for early and late respondents using t-tests and revealed no statistically significant differences.

Appendix C. Survey

This appendix includes the paper version of the survey that was completed by 22 percent of respondents.

REL CENTRAL Regional Educational Laboratory At Marzano Research

Missouri DEPARTMENT OF ELEMENTARY & SECONDARY EDUCATION

Thank you for considering participating in our study of recent graduates of teacher preparation programs.

The study is examining the characteristics of the clinical practice components of teacher preparation programs. Results will be used to describe variation within and across programs and to inform future research that examines the effectiveness of program components.

The following survey contains questions about the program or course of study that you participated in to become certified or licensed to teach (referred to in this survey as "your teacher preparation program"). Your participation is voluntary and you may choose to stop participating at any time. There will be no penalty if you do not participate or choose to withdraw from the study. We will make every effort to keep the information we collected confidential, and you will not be identified by name in any report. The survey takes 20 to 30 minutes to complete.

If at any time before, during, or after the study you have questions about the study, you may contact me at RMC Research Corporation, 633 17th Street, Suite 2100, Denver, CO 80202, (800) 922–3636.

If you have any questions about your rights as a research participant, you may contact Liberty IRB, 1450 S. Woodland Blvd., Deland, FL 32720, (386) 279–4318.

Thank you for your attention and help.

Sincerely,

Stephen Meyer, Principal Investigator
Research and Evaluation Director, REL Central

* By signing your name below, you indicate that you understand the conditions of this study and your agreement to participate.

Print First Name: _____ Print Last Name: _____

Signature: _____ Date: _____

*** This survey is for teachers who completed traditional teacher preparation programs in Missouri. Please select the option below that best describes you.**

- ☐ I completed a traditional undergraduate teacher preparation program in Missouri (Please proceed)
- ☐ I completed a post-baccalaureate teacher preparation program in Missouri (such as ABCTE, a master's program, or a program completed during provisional or temporary certification) (You are finished with the survey. Please return the survey.)
- ☐ I am not a first year teacher AND/OR I completed my teacher preparation program outside of Missouri. (You are finished with the survey. Please return the survey.)

Section A: Field Experience Characteristics

The following questions focus on the field experiences in your teacher preparation program. By "field experience," we mean activities in which you participated in preK–12 classrooms and schools (and other settings in which you may have worked with preK–12 students) as part of your teacher preparation program prior to becoming a classroom teacher. These include activities such as student teaching, observing or assisting in classrooms, tutoring, or conducting research.

1. How many courses did you have to take as part of your program of study toward certification (not including all courses taken for your degree; just those that were specifically required to gain a teaching certificate)?

   Number of courses: _____

2. Among the courses you took that were required for certification, how many had field experience associated with them (e.g., observation of classroom instruction, tutoring school children)?

   Number of courses: _____

3. Please estimate the total number of hours (clock hours, not credit hours) that you spent in field experience that were part of your teacher preparation program.

   Number of hours: _____

4. In how many schools did you have field experience?

   Number of schools: _____

5. In how many classrooms did you have field experience?

   Number of classrooms: _____

6. In how many other sites (outside of preK–12 schools and classrooms) did you have field experience?

   Number of other sites: _____

7. With which student grade levels did you have field experience? (Choose all that apply)

   ☐ Pre-K
   ☐ Kindergarten
   ☐ 1st
   ☐ 2nd
   ☐ 3rd
   ☐ 4th
   ☐ 5th
   ☐ 6th
   ☐ 7th
   ☐ 8th
   ☐ 9th
   ☐ 10th
   ☐ 11th
   ☐ 12th

8. During your field experience (thinking about all your experiences in preK–12 schools and classrooms as part of your teacher preparation program), how frequently did you work with the following types of students?

	Never or Almost Never	Rarely	Occasionally	Often	Always or Almost Always	Don't Know
a. Students from varied cultural backgrounds	☐	☐	☐	☐	☐	☐
b. Students with varied levels of socioeconomic status	☐	☐	☐	☐	☐	☐
c. Students with varied levels of English proficiency	☐	☐	☐	☐	☐	☐

9. Thinking about the school(s) in which you had field experience, to what extent do you agree or disagree with the following?

	Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
a. You received sufficient support from the school administration.	☐	☐	☐	☐	☐
b. Adequate resources and materials/equipment for your classroom were available.	☐	☐	☐	☐	☐
c. School procedures for student discipline were effective.	☐	☐	☐	☐	☐
d. The principal was an effective leader.	☐	☐	☐	☐	☐
e. Teaching staff were collegial.	☐	☐	☐	☐	☐
f. I was able to have intellectually rich discussions about teaching and learning with my colleagues.	☐	☐	☐	☐	☐
g. Parent/family involvement was strong.	☐	☐	☐	☐	☐

Now, we'd like you to focus on the student teaching aspect of your field experience. By your "student teaching experience," we mean your placement as a classroom teacher in a preK–12 school to practice instruction under the supervision of an experienced teacher.

10. Did you have student teaching experience?

☐ No (Skip to Section B) ☐ Yes (Continue)

11. Did you have more than one student teaching placement?

☐ No ☐ Yes (Please specify how many different student teaching placements you have had) _____

If you have had more than one student teaching placement, please answer the following items based on your experience across placements.

12. Please identify the subject area(s) and grade level(s) you taught in your student teaching experience.

Subject Area(s) Taught (Choose all that apply)

- ☐ English/Language arts
- ☐ Mathematics
- ☐ Science
- ☐ Social studies, history, and/or government
- ☐ World language
- ☐ Special education
- ☐ Art, music, and/or drama
- ☐ Computer science and/or technology
- ☐ Vocational and/or business
- ☐ Health and/or physical education
- ☐ Other (please specify) _____

Grade Level(s) ***(Choose all that apply)***

- ☐ Pre-K
- ☐ Kindergarten
- ☐ 1st
- ☐ 2nd
- ☐ 3rd
- ☐ 4th
- ☐ 5th
- ☐ 6th
- ☐ 7th
- ☐ 8th
- ☐ 9th
- ☐ 10th
- ☐ 11th
- ☐ 12th

13. For how many total weeks did your student teaching experience last? (Please exclude any breaks, such as winter or spring break)

    Number of weeks: _____

14. How many hours per week was your student teaching experience, on average?

    Number of hours: _____

15. During your student teaching experience, approximately what percentage of time did you spend as a teacher with complete responsibility for classroom instruction?

    Percentage of time: _____

16. How well did your student teaching experience match your: 1) career teaching plans, and 2) first teaching position in terms of the following?

	Career Teaching Plans				First Teaching Position			
	Not at all	A little	Somewhat	A lot	Not at all	A little	Somewhat	A lot
a. Grade level	☐	☐	☐	☐	☐	☐	☐	☐
b. Subject matter	☐	☐	☐	☐	☐	☐	☐	☐
c. Student population characteristics (e.g., race/ethnicity, income, academic performance)	☐	☐	☐	☐	☐	☐	☐	☐

Section B: Field Experience Curriculum and Timing

17. During your field experience (again, thinking about all your experiences in preK–12 schools and classrooms as part of your teacher preparation program), how often did you do the following?

		Never or Almost Never	Rarely	Occasionally	Often	Always or Almost Always	Don't Know
a.	I applied the subject matter knowledge that I learned in my teacher preparation program courses.	☐	☐	☐	☐	☐	☐
b.	I applied the pedagogy that I learned in my teacher preparation program courses.	☐	☐	☐	☐	☐	☐
c.	I tried out strategies and techniques that I learned in my teacher preparation program courses.	☐	☐	☐	☐	☐	☐
d.	I designed daily lessons.	☐	☐	☐	☐	☐	☐
e.	I set up the classroom for daily lessons.	☐	☐	☐	☐	☐	☐
f.	I planned extended blocks of instruction.	☐	☐	☐	☐	☐	☐
g.	I applied my knowledge of state or district curriculum and performance standards.	☐	☐	☐	☐	☐	☐
h.	I applied my knowledge of Common Core State Standards.	☐	☐	☐	☐	☐	☐
i.	I engaged students in test preparation activities to prepare for the state learning assessment (e.g., review of test items, discussion of test-taking strategies).	☐	☐	☐	☐	☐	☐
j.	I used a variety of classroom management strategies.	☐	☐	☐	☐	☐	☐
k.	I developed strategies for managing student misbehavior.	☐	☐	☐	☐	☐	☐
l.	I implemented the schools' protocol(s) to address student discipline.	☐	☐	☐	☐	☐	☐
m.	I used computers in classroom instruction.	☐	☐	☐	☐	☐	☐
n.	I used technology to communicate with parents or community members.	☐	☐	☐	☐	☐	☐
o.	I used technology to communicate with other teachers or administrators at the school.	☐	☐	☐	☐	☐	☐
p.	I used a variety of instructional strategies.	☐	☐	☐	☐	☐	☐
q.	I allowed students to select and/or direct their own activities.	☐	☐	☐	☐	☐	☐
r.	I adapted instruction to meet the unique learning needs of students (e.g., to address special needs, levels of challenge, and interests).	☐	☐	☐	☐	☐	☐
s.	I interacted with parents.	☐	☐	☐	☐	☐	☐
t.	I participated in instructional activities that involved families and/or community members.	☐	☐	☐	☐	☐	☐
u.	I participated in non-instructional activities that involved families and/or community members.	☐	☐	☐	☐	☐	☐
v.	I developed strategies for engaging parents or community members.	☐	☐	☐	☐	☐	☐
w.	I assessed students formally (through tests, etc.).	☐	☐	☐	☐	☐	☐
x.	I assessed students informally through daily monitoring.	☐	☐	☐	☐	☐	☐
y.	I designed formative assessments.	☐	☐	☐	☐	☐	☐

		Never or Almost Never	Rarely	Occasionally	Often	Always or Almost Always	Don't Know
z.	I used data from formal student assessments to guide my instruction.	☐	☐	☐	☐	☐	☐
aa.	I used data from informal assessments of students to guide my instruction.	☐	☐	☐	☐	☐	☐
bb.	I participated in professional development activities offered at my school.	☐	☐	☐	☐	☐	☐
cc.	I participated as a member of an instructional team or discipline-based department in the school.	☐	☐	☐	☐	☐	☐
dd.	I collaborated with another teacher(s) to plan or deliver lessons.	☐	☐	☐	☐	☐	☐

18. Please indicate the extent to which you disagree or agree with the following statements.

		Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
a.	My field experience was well timed with the instructional schedule of the preK–12 school(s) where I was placed.	☐	☐	☐	☐	☐
b.	I was able to focus on my field experience, without being distracted by other commitments or expectations associated with my teacher preparation program.	☐	☐	☐	☐	☐

Section C: Cooperating Teacher Characteristics

The next questions are about the cooperating teacher with whom you worked during your field experience. By "cooperating teacher," we refer to the preK–12 school staff member assigned to oversee your student teaching and other field experiences. If you worked with multiple cooperating teachers during your field experience, please respond based on the person with whom you spent the most time.

19. Please indicate the extent to which you disagree or agree with the following statements about your cooperating teacher.

My Cooperating Teacher...	Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
a. Had good knowledge of subject area content	☐	☐	☐	☐	☐
b. Understood goals for student learning	☐	☐	☐	☐	☐
c. Understood effective instructional strategies	☐	☐	☐	☐	☐
d. Understood how to accommodate different student learning styles	☐	☐	☐	☐	☐
e. Effectively managed the classroom	☐	☐	☐	☐	☐
f. Was regarded as a "master teacher" at the school	☐	☐	☐	☐	☐
g. Had good communication skills	☐	☐	☐	☐	☐
h. Modeled good professional practice	☐	☐	☐	☐	☐
i. Gave me useful feedback	☐	☐	☐	☐	☐
j. Was an effective mentor to me	☐	☐	☐	☐	☐
k. Was able to provide needed support	☐	☐	☐	☐	☐
l. Was available to answer my questions or address my concerns	☐	☐	☐	☐	☐
m. Taught in ways that were consistent with what I learned in my courses	☐	☐	☐	☐	☐

Section D: Supervising Faculty Member Characteristics

The next questions are about the supervising faculty member with whom you worked during your field experience. By "supervising faculty member," we refer to the individual from your teacher preparation program who oversaw your student teaching and other field experiences. If you worked with multiple supervising faculty members during your field experience, please respond based on the person with whom you spent the most time.

20. Please indicate the extent to which you disagree or agree with the following statements about your supervising faculty member.

My Supervising Faculty Member...	Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
a. Had good knowledge of subject area content	☐	☐	☐	☐	☐
b. Understood goals for student learning	☐	☐	☐	☐	☐
c. Understood effective instructional strategies	☐	☐	☐	☐	☐
d. Understood how to accommodate different student learning styles	☐	☐	☐	☐	☐
e. Had good communication skills	☐	☐	☐	☐	☐
f. Modeled good professional practice	☐	☐	☐	☐	☐
g. Gave me useful feedback	☐	☐	☐	☐	☐
h. Was an effective mentor to me	☐	☐	☐	☐	☐
i. Was able to provide needed support	☐	☐	☐	☐	☐
j. Was available to answer my questions or address my concerns	☐	☐	☐	☐	☐

Section E: Collaboration between Your Teacher Preparation Program and PreK–12 School(s)

The following questions are about the nature of collaboration between your teacher preparation program and the school(s) in which you had your field experience (thinking about all your experiences in preK–12 schools and classrooms as part of your teacher preparation program).

21. For each of the following activities related to your field experience, please indicate the extent to which they were done exclusively by faculty or staff from your teacher preparation program, by faculty or staff at the school(s) where you were placed, or done jointly.

		Done Exclusively by Teacher Preparation Program Faculty/Staff	Done Exclusively by School Faculty/Staff	Done jointly by Teacher Preparation Program AND School Faculty/Staff	Don't Know
a.	Deciding where I would be placed for my field experience	☐	☐	☐	☐
b.	Selecting my cooperating teacher	☐	☐	☐	☐
c.	Designing my field experience	☐	☐	☐	☐
d.	Monitoring my field experience	☐	☐	☐	☐
e.	Assessing my teaching performance during my field experience	☐	☐	☐	☐

22. Please indicate the extent to which you disagree or agree with the following statements.

		Strongly Disagree	Disagree	Agree	Strongly Agree	Don't Know
a.	Expectations for my field experience were effectively communicated by my teacher preparation program to faculty/staff at the preK–12 school(s) in which I was placed.	☐	☐	☐	☐	☐
b.	Expertise was shared among faculty/staff from my teacher preparation program and faculty/staff at the preK–12 school(s) in which I was placed.	☐	☐	☐	☐	☐
c.	My cooperating teacher and supervising faculty member worked together as a team to support my field experience.	☐	☐	☐	☐	☐

Section F: Evaluation and Feedback

The following questions are about the communication you had and feedback you received from your cooperating teacher and supervising faculty member during your student teaching experience.

23. Thinking about your interactions with your cooperating teacher about issues related to your teaching practice (e.g., curriculum and instruction, classroom management/behavior, students, assessment, materials) during your student teaching experience, how often did each of the following occur?

	Never	Less than Once per Month	Once per Month	Twice per Month	Once per Week	2–3 Times per Week	Daily
a. Your cooperating teacher observed your classroom teaching.	☐	☐	☐	☐	☐	☐	☐
b. You observed your cooperating teacher's classroom teaching.	☐	☐	☐	☐	☐	☐	☐
c. You received written feedback about your teaching from your cooperating teacher.	☐	☐	☐	☐	☐	☐	☐
d. You met with your cooperating teacher to discuss your teaching.	☐	☐	☐	☐	☐	☐	☐

24. Thinking about your interactions with your supervising faculty member (related to your teaching practice and during your student teaching experience), how often did each of the following occur?

	Never	Less than Once per Month	Once per Month	Twice per Month	Once per Week	2–3 Times per Week	Daily
a. Your supervising faculty member observed your classroom teaching.	☐	☐	☐	☐	☐	☐	☐
b. You observed your supervising faculty member's classroom teaching.	☐	☐	☐	☐	☐	☐	☐
c. You received written feedback about your teaching from your supervising faculty member.	☐	☐	☐	☐	☐	☐	☐
d. You met with your supervising faculty member to discuss your teaching.	☐	☐	☐	☐	☐	☐	☐

25. If you met with your cooperating teacher and/or supervising faculty member to discuss your teaching during your student teaching experience, please indicate the average length of these meetings.

a. Average length of meetings with your cooperating teacher to discuss your teaching.

☐ I did not meet to discuss my teaching.
☐ Average number of minutes _____

b. Average length of meetings with your supervising faculty member to discuss your teaching.

☐ I did not meet to discuss my teaching.
☐ Average number of minutes _____

26. Please indicate which, if any, of the following types of procedures or tools were used during your student teaching experience to document and/or provide feedback about your teaching practice. (Choose all that apply)

- ☐ Professional portfolios
- ☐ Assessments of video-recorded lessons
- ☐ Self-assessment or reflective analysis
- ☐ Assessments by peers in your program
- ☐ Oral feedback provided by your cooperating teacher after your classroom teaching
- ☐ Oral feedback provided by your faculty supervisor after your classroom teaching
- ☐ Written feedback provided by your cooperating teacher after your classroom teaching
- ☐ Written feedback provided by your faculty supervisor after your classroom teaching
- ☐ Feedback provided by your cooperating teacher or faculty supervisor during or immediately after your teaching

27. We are interested in the extent to which your teacher preparation program evaluates the effectiveness of its field experiences. Please indicate whether or not you were asked to provide feedback about the quality of the following elements. (Choose all that apply)

		I Was Asked to Provide Feedback	I Was Not Asked to Provide Feedback	Not Applicable
a.	The overall quality of my field experience	☐	☐	☐
b.	The overall quality of my student teaching experience	☐	☐	☐
c.	The quality of the school in which I had my student teaching experience	☐	☐	☐
d.	The quality of my cooperating teacher	☐	☐	☐
e.	The quality of my supervising faculty member	☐	☐	☐

28. All of the information you provide will be used only for the purposes of the study and will be reported only in summary form along with responses from other participants. We may wish to follow up with you in the future. Would you be willing to allow the research team to contact you?

☐ No
☐ Yes

Contact Information

The research team requests your contact information in case we have follow-up questions or to discuss possible participation in future research about teacher preparation programs. REL Central has developed a Teacher Preparation Research Alliance to support research on this topic with the goal of providing information to improve teacher preparation programs.

If you are willing to be contacted, please provide the information requested below. Your information will not be shared beyond the research team.

First Name: _____

Middle Name: _____

Last Name: _____

Email Address: _____

Mailing Address: _____

Home Phone Number: _____

Mobile Phone Number: _____

Work Phone Number: _____

Employer Name and Location (City, State) _____

Appendix D. Data tables: Full sample analyses

This appendix presents tables with descriptive information about responses for the full sample of survey respondents. These tables include results for some survey items that were not described in the main text.

Table D1. Extent of alignment of student teaching experiences with career teaching plans and first teaching position, 2015

Percent of responding first-year teachers

Alignment of student teaching experience with:	Not at all	A little	Somewhat	A lot
Career teaching plans				
Grade level (*n* = 814)	2.2	5.0	19.3	73.5
Subject area (*n* = 814)	2.2	4.2	15.4	78.3
Student population characteristics (*n* = 814)	3.9	8.7	31.1	56.3
First teaching position				
Grade level (*n* = 812)	11.3	12.1	22.2	54.4
Subject area (*n* = 813)	8.5	9.7	19.8	62.0
Student population characteristics (*n* = 812)	9.1	15.0	27.1	48.8

Note: Percentages may not sum to 100 because of rounding.

Source: Author's analysis of survey data described in the main report.

Table D2. Qualities of cooperating teachers and supervising faculty members, 2015

Percent of responding first-year teachers

Quality	Strongly disagree	Disagree	Agree	Strongly agree
Cooperating teacher				
Had good knowledge of subject area content (*n* = 822)	0.5	1.7	14.0	83.8
Understood goals for student learning (*n* = 822)	0.9	1.8	17.3	80.0
Understood effective instructional strategies (*n* = 820)	1.3	3.2	18.5	77.0
Understood how to accommodate different student learning styles (*n* = 818)	1.2	5.3	23.0	70.5
Effectively managed the classroom (*n* = 818)	1.6	4.4	18.5	75.6
Was regarded as a "master teacher" at the school (*n* = 783)	2.2	6.8	22.9	68.2
Had good communication skills (*n* = 819)	1.7	4.0	21.6	72.6
Modeled good professional practice (*n* = 819)	2.2	4.3	21.2	72.3
Gave useful feedback (*n* = 816)	2.3	6.3	19.6	71.8
Was an effective mentor (*n* = 815)	3.1	4.9	18.8	73.3
Was able to provide needed support (*n* = 814)	2.3	5.2	19.2	73.3
Was available to answer questions or address concerns (*n* = 815)	1.8	3.2	20.4	74.6
Taught in ways that were consistent with what I learned in my courses (*n* = 813)	3.1	7.5	24.5	64.9

(continued)

Table D2. Qualities of cooperating teachers and supervising faculty members, 2015

(continued)

Quality	Strongly disagree	Disagree	Agree	Strongly agree
Supervising faculty member				
Had good knowledge of subject area content (*n* = 812)	1.0	5.7	27.5	65.9
Understood goals for student learning (*n* = 814)	0.4	0.7	27.0	71.9
Understood effective instructional strategies (*n* = 817)	0.4	2.0	26.9	70.7
Understood how to accommodate different student learning styles (*n* = 811)	0.5	2.7	25.9	70.9
Had good communication skills (*n* = 821)	1.5	5.8	25.7	67.0
Modeled good professional practice (*n* = 817)	1.1	3.3	23.4	72.2
Gave useful feedback (*n* = 815)	1.7	5.8	24.0	68.5
Was an effective mentor (*n* = 819)	2.3	7.2	25.0	65.4
Was able to provide needed support (*n* = 819)	2.3	6.0	26.6	65.1
Was available to answer questions or address concerns (*n* = 818)	1.7	4.9	25.7	67.7

Note: Percentages may not sum to 100 because of rounding.

Source: Author's analysis of survey data described in the main report.

Table D3. Frequency of observation and feedback during student teaching, 2015

Percent of responding first-year teachers

Type of observation or feedback	Never	Less than once per month	Once per month	Twice per month	Once per week	2–3 times per week	Daily
Cooperating teacher							
Observation of student teacher by cooperating teacher (*n* = 804)	0.4	2.0	3.0	4.2	9.8	20.3	60.3
Observation of cooperating teacher by candidate (*n* = 802)	0.7	3.4	4.1	4.4	8.5	23.2	55.7
Meeting with cooperating teacher (*n* = 802)	0.7	3.0	4.5	3.5	13.3	20.1	54.9
Receipt of written feedback from cooperating teacher (*n* = 803)	6.7	9.1	15.2	14.6	25.5	13.6	15.3
Supervising faculty member							
Observation of student teacher by supervising faculty member (*n* = 805)	2.9	15.8	43.6	26.0	5.6	3.9	2.4
Observation of supervising faculty member by candidate (*n* = 803)	65.8	8.6	7.8	4.0	4.4	5.7	3.7
Meeting with supervising faculty member (*n* = 801)	2.5	13.9	39.1	25.3	10.5	6.0	2.7
Receipt of written feedback from supervising faculty member (*n* = 804)	3.7	16.4	42.0	24.4	6.6	5.2	1.6

Note: Percentages may not sum to 100 because of rounding.

Source: Author's analysis of survey data described in the main report.

Table D4. Tools and procedures used to document teaching or provide feedback during student teaching experiences, 2015

Tool or procedure	Percent of responding first-year teachers
Professional portfolios (*n* = 856)	75.7
Assessments of video-recorded lessons (*n* = 856)	38.6
Self-assessment or reflective analysis (*n* = 856)	90.1
Assessments by peers (*n* = 856)	28.5
Oral feedback provided by cooperating teacher after teaching (*n* = 856)	93.1
Oral feedback provided by supervising faculty member after teaching (*n* = 856)	90.8
Written feedback provided by cooperating teacher after teaching (*n* = 856)	84.6
Written feedback provided by supervising faculty member after teaching (*n* = 856)	91.9
Feedback provided by cooperating teacher or supervising faculty member during or immediately after teaching (*n* = 856)	87.6

Source: Author's analysis of survey data described in the main report.

Table D5. Characteristics of field experience schools, 2015

Percent of responding first-year teachers

Characteristic	Strongly disagree	Disagree	Agree	Strongly agree
Candidate received sufficient support from school administration (*n* = 825)	1.2	9.2	51.3	38.3
Adequate classroom resources and materials were available (*n* = 842)	0.7	5.5	50.8	43.0
School procedures for student discipline were effective (*n* = 838)	1.1	5.8	58.7	34.4
School principal was an effective leader (*n* = 804)	0.9	6.0	50.9	42.3
Teaching staff were collegial (*n* = 837)	0.6	3.7	49.3	46.4
Candidate was able to have intellectually rich discussions about teaching and learning with colleagues (*n* = 833)	0.7	5.8	47.5	46.0
Parent/family involvement was strong (*n* = 774)	3.1	27.9	54.0	15.0

Note: Percentages may not sum to 100 because of rounding.

Source: Author's analysis of survey data described in the main report.

Table D6. Frequency of professional collaboration and parent or community interaction during field experiences, 2015

Percent of responding first-year teachers

Activity	Never or almost never	Rarely	Occasionally	Often	Always or almost always
Participated in professional development activities offered at the school (*n* = 828)	2.9	4.1	14.0	34.8	44.2
Participated as a member of an instructional team or discipline-based department in the school (*n* = 830)	12.3	12.0	17.1	29.3	29.3
Collaborated with another teacher(s) to plan or deliver lessons (*n* = 830)	2.3	4.8	14.6	32.8	45.5
Interacted with parents (*n* = 831)	6.5	18.8	32.1	28.5	14.1
Participated in instructional activities that involved families and/or community members (*n* = 827)	13.8	21.2	27.7	24.7	12.7
Participated in noninstructional activities that involved families and/or community members (*n* = 831)	14.3	23.5	26.1	23.9	12.2
Developed strategies for engaging parents or community members (*n* = 831)	18.5	28.4	23.5	20.2	9.4

Note: Percentages may not sum to 100 because of rounding.

Source: Author's analysis of survey data described in the main report.

Table D7. Alignment of field experiences with courses, 2015

Percent of responding first-year teachers

Activity	Never or almost never	Rarely	Occasionally	Often	Always or almost always
Applied subject matter knowledge learned in courses (*n* = 830)	0.1	2.3	15.8	48.1	33.7
Applied pedagogy learned in courses (*n* = 832)	0.5	3.5	21.6	47.5	26.9
Tried strategies and techniques learned in courses (*n* = 832)	0.1	2.5	17.1	44.0	36.3

Source: Author's analysis of survey data described in the main report.

Table D8. Timing of field experiences, 2015

Percent of responding first-year teachers

Timing	Strongly disagree	Disagree	Agree	Strongly agree
Field experiences were well timed with the instructional schedule of preK–12 school(s) where placed (*n* = 818)	1.1	3.2	37.2	58.6
Able to focus on field experiences, without being distracted by other commitments or expectations associated with teacher preparation program (*n* = 818)	6.2	17.7	36.1	40.0

Note: Percentages may not sum to 100 because of rounding.

Source: Author's analysis of survey data described in the main report.

Table D9. Frequency of instructional planning activities and instructional activities during field experiences, 2015

Percent of responding first-year teachers

Activity	Never or almost never	Rarely	Occasionally	Often	Always or almost always
Designed daily lessons (*n* = 831)	0.1	3.2	11.1	36.7	48.9
Set up the classroom for daily lessons (*n* = 828)	0.4	4.0	13.9	37.1	44.7
Planned extended blocks of instruction (*n* = 827)	2.3	6.9	18.0	38.1	34.7
Used a variety of instructional strategies (*n* = 828)	0.1	1.1	10.0	47.6	41.2
Allowed students to select and/or direct their own activities (*n* = 827)	2.2	12.8	38.0	33.4	13.7
Adapted instruction to meet the unique learning needs of students (*n* = 828)	0.1	1.9	17.3	45.3	35.4

Note: Percentages may not sum to 100 because of rounding.

Source: Author's analysis of survey data described in the main report.

Table D10. Frequency of use of standards knowledge, test preparation activities, and assessment during field experiences, 2015

Percent of responding first-year teachers

Activity	Never or almost never	Rarely	Occasionally	Often	Always or almost always
Applied knowledge of state or district curriculum and performance standards (*n* = 828)	0.2	4.3	14.4	40.2	40.8
Applied knowledge of Common Core State Standards (*n* = 828)	7.1	7.6	17.5	33.3	34.4
Engaged students in test preparation activities to prepare for state learning assessment (*n* = 830)	8.9	12.3	19.0	34.1	25.7
Assessed students formally (*n* = 830)	0.8	2.8	14.5	45.9	36.0
Assessed students informally through daily monitoring (*n* = 829)	0.1	0.6	6.8	35.7	56.8
Designed formative assessments (*n* = 827)	2.8	7.3	16.8	40.9	32.3
Used data from formal student assessments to guide instruction (*n* = 832)	2.0	4.7	18.1	42.4	32.7
Used data from informal assessments of students to guide instruction (*n* = 828)	1.2	3.9	12.0	43.4	39.6

Note: Percentages may not sum to 100 because of rounding.

Source: Author's analysis of survey data described in the main report.

Table D11. Frequency of interaction with diverse students, technology use, and classroom management during field experiences, 2015

Percent of responding first-year teachers

Activity	Never or almost never	Rarely	Occasionally	Often	Always or almost always
Worked with students from varied cultural backgrounds (*n* = 851)	1.4	8.2	27.8	30.2	32.3
Worked with students with varied levels of socioeconomic status (*n* = 849)	0.6	2.1	9.0	33.3	55.0
Worked with students with varied levels of English proficiency (*n* = 849)	10.2	29.2	31.7	17.1	11.8
Used computers in classroom instruction (*n* = 827)	5.1	12.7	23.8	32.2	26.2
Used technology to communicate with parents or community members (*n* = 826)	11.0	17.7	24.2	28.0	19.1
Used technology to communicate with other teachers or administrators at the school (*n* = 830)	6.1	12.4	18.1	34.7	28.7
Used a variety of classroom management strategies (*n* = 832)	0.1	1.7	10.8	43.5	43.9
Developed strategies for managing student misbehavior (*n* = 829)	0.7	3.7	14.0	43.4	38.1
Implemented the school's protocol(s) to address student discipline (*n* = 828)	1.3	2.9	11.8	40.2	43.7

Note: Percentages may not sum to 100 because of rounding.

Source: Author's analysis of survey data described in the main report.

Table D12. Communication and collaboration among teacher preparation programs and preK–12 field experience schools, 2015

Percent of responding first-year teachers

Activity	Strongly disagree	Disagree	Agree	Strongly agree
Expectations for field experiences were effectively communicated by the teacher preparation program to faculty/staff at the preK–12 placement school(s) (*n* = 789)	2.7	5.3	43.1	48.9
Expertise was shared among faculty/staff from the teacher preparation program and faculty/staff at preK–12 placement school(s) (*n* = 758)	2.8	8.4	42.5	46.3
The cooperating teacher and supervising faculty member worked as a team to support field experiences (*n* = 781)	4.4	13.3	37.9	44.4

Source: Author's analysis of survey data described in the main report.

Table D13. Involvement of teacher preparation program and preK–12 field experience schools in field experiences, 2015

Percent of responding first-year teachers

Activity	Done exclusively by teacher preparation program faculty/staff	Done exclusively by preK–12 school faculty/ staff	Done jointly by teacher preparation program and preK–12 school faculty/staff
Deciding location for field experiences (*n* = 669)	27.7	7.5	64.9
Selecting cooperating teacher (*n* = 668)	20.4	33.8	45.8
Designing field experiences (*n* = 638)	40.3	15.8	43.9
Monitoring field experiences (*n* = 741)	22.7	8.8	68.6
Assessing teaching performance during field experiences (*n* = 752)	16.9	9.3	73.8

Note: Percentages may not sum to 100 because of rounding.

Source: Author's analysis of survey data described in the main report.

Table D14. Percentage of teachers asked to provide feedback about the quality of field experiences, 2015

Area of feedback	Percent of responding first year teachers
Overall quality of field experiences (*n* = 770)	80.9
Overall quality of student teaching experiences (*n* = 768)	82.8
Quality of the school in which student teaching experiences took place (*n* = 764)	72.1
Quality of cooperating teacher (*n* = 766)	79.4
Quality of supervising faculty member (*n* = 771)	77.2

Source: Author's analysis of survey data described in the main report.

Appendix E. Data tables: Subgroup analyses

This appendix presents tables summarizing survey responses for subgroups of teacher candidates. The first column in each table presents results for the full sample, followed by results by grade-level certificate (early childhood, elementary, middle, and high school); subject area certificate for teachers with a middle or high school certificate (English language arts, math, science, and social science); and subject area certificate for teachers with a grade K–12 certificate (special education, music/arts, and physical education/health). Reported sample sizes are for the item in the table with the lowest number of respondents; sample sizes vary because some survey respondents did not answer every question.

Table E1. Mean value of characteristics of field and student teaching experiences, by certificate type, 2015

Characteristic	All teachers (*n* = 717)	Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
		Early childhood (*n* = 90)	Elementary (*n* = 330)	Middle (*n* = 70)	High (*n* = 189)	English language arts (*n* = 78)	Math (*n* = 60)	Science (*n* = 62)	Social science (*n* = 67)	Special education (*n* = 38)	Music/arts (*n* = 50)	Physical education/ health (*n* = 46)
Field experiences												
Number of schools	4.1 (1.9)	5.3 (2)	4.4 (1.7)	3.8 (1.5)	3.3 (1.3)	3.9 (1.5)	3.6 (1.4)	3.3 (1.2)	3.3 (1.4)	4.7 (1.9)	4.6 (2.8)	4.2 (1.7)
Number of classrooms	6.0 (3.7)	6.6 (2.9)	6.7 (4)	5.6 (2.9)	5.0 (3.3)	5.3 (2.5)	6.1 (4.4)	5.2 (3.3)	5.0 (2.5)	6.8 (4.1)	5.4 (3.3)	5.5 (3)
Number of grade levels	5.8 (3.1)	4.3 (1.6)	4.9 (2.3)	4.4 (2)	5.2 (2.3)	4.8 (2.1)	5.0 (2.2)	4.9 (2.5)	4.7 (2.3)	6.8 (3)	11.3 (2.4)	10.9 (2.8)
Number of sites outside of preK–12 schools and classrooms	1.0 (1.6)	1.4 (1.3)	0.9 (1.3)	1.2 (2.6)	0.8 (1.3)	0.8 (1.2)	0.7 (0.9)	1.1 (1.5)	1 (2.6)	0.6 (0.9)	0.7 (1.1)	1.3 (1.5)
Student teaching experiences (among those who reported having these experiences)												
Number of weeks	16.1 (4.7)	17.2 (5.1)	16.2 (5.1)	15.7 (3.9)	15.5 (3.6)	15.6 (3.3)	15.5 (2.2)	15.4 (2.4)	15.7 (5.6)	15.8 (2.9)	15.1 (2.7)	15.3 (2.5)
Average hours per week	39.3 (8.1)	39.3 (7.3)	38.5 (8.3)	39.4 (7.3)	41.4 (8.1)	41.3 (6.7)	40.5 (8.1)	42.6 (9.3)	38.4 (6.5)	40.5 (6.1)	38.3 (10.3)	38.4 (6.1)
Total estimated hours	630.6 (220.7)	678.4 (233.2)	621.5 (224.6)	620.6 (194.3)	641 (206.3)	635.8 (149.9)	632.1 (165.6)	653.6 (175.4)	604.8 (277.4)	640.9 (146.7)	581.2 (180.4)	588.7 (143.1)
Number of subject areas	2.5 (1.6)	4.1 (0.9)	3.9 (1)	1.6 (0.6)	1.1 (0.2)	1.3 (0.6)	1.3 (0.5)	1.2 (0.4)	1.2 (0.5)	4.5 (1.4)	1.0 (0.3)	1.1 (0.6)
Number of grade levels	3.3 (2.9)	2.0 (1.1)	2.0 (1.6)	1.9 (1.1)	3.3 (1.4)	2.4 (1.3)	2.4 (1.3)	3.2 (1.4)	2.6 (1.4)	4.4 (2.4)	9.5 (2.9)	8.8 (3.2)
Percentage of time spent with complete responsibility for classroom instruction	63.2 (23.7)	57.6 (24.2)	59.2 (23.7)	66.6 (20.5)	67.4 (23.4)	64.8 (22.8)	65.5 (17.6)	69.3 (25)	68.8 (22.5)	61.8 (21.6)	58.5 (25.3)	77.7 (18.2)

Note: Numbers in parentheses are standard deviations. All respondents were first-year teachers.

Source: Author's analysis of survey data described in the main report.

Table E2. Extent of alignment of student teaching experiences with career teaching plans and first teaching position, by certificate type, 2015

Percent of responding first-year teachers who selected "somewhat" or "a lot"

		Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
Alignment of student teaching experience with	All teachers (*n* = 812)	Early childhood (*n* = 91)	Elementary (*n* = 337)	Middle (*n* = 74)	High (*n* = 182)	English language arts (*n* = 77)	Math (*n* = 62)	Science (*n* = 62)	Social science (*n* = 68)	Special education (*n* = 35)	Music/arts (*n* = 51)	Physical education/ health (*n* = 46)
Career teaching plans												
Grade level	92.8	93.4	89.7	95.9	97.3	96.2	96.8	100.0	94.2	88.9	98.0	95.7
Subject area	93.7	93.4	91.4	95.9	96.7	97.4	98.4	96.8	94.2	88.9	100.0	97.8
Student population characteristics	87.4	90.1	87.6	91.9	84.8	91.0	95.2	83.9	84.1	88.9	88.2	84.8
First teaching position												
Grade level	76.6	90.1	71.8	79.7	77.5	74.0	87.1	83.9	66.2	77.1	90.2	78.3
Subject area	81.8	80.4	78.4	85.1	80.8	87.0	91.9	83.9	67.6	91.7	98.0	80.4
Student population characteristics	75.9	87.0	79.3	77.0	69.2	74.0	79.0	74.2	67.6	75.0	70.6	76.1

Source: Author's analysis of survey data described in the main report.

Table E3. Qualities of cooperating teachers, by certificate type, 2015

Percent of responding first-year teachers who selected "agree" or "strongly agree"

		Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
Quality	All teachers (*n* = 812)	Early childhood (*n* = 89)	Elementary (*n* = 320)	Middle (*n* = 68)	High (*n* = 179)	English language arts (*n* = 78)	Math (*n* = 58)	Science (*n* = 60)	Social science (*n* = 64)	Special education (*n* = 33)	Music/arts (*n* = 48)	Physical education/ health (*n* = 44)
Had good knowledge of subject area content	97.8	98.9	97.9	98.6	98.4	96.3	98.4	100.0	100.0	100.0	98.0	100.0
Understood goals for student learning	97.3	98.9	97.3	98.6	96.3	96.3	98.4	98.4	98.5	100.0	98.0	97.8
Understood effective instructional strategies	95.5	96.8	96.1	94.5	94.1	92.5	93.4	95.2	94.0	94.4	94.1	100.0
Understood how to accommodate different student learning styles	93.5	94.6	94.3	95.9	90.3	92.4	88.5	88.9	95.5	91.7	96.1	97.7
Effectively managed the classroom	94.1	96.8	95.5	95.9	89.7	85.0	95.1	95.1	95.5	94.4	92.2	97.8
Was regarded as a "master teacher" at the school	91.1	94.4	91.9	97.1	88.8	88.5	96.5	91.7	90.6	90.9	85.4	92.7
Had good communication skills	94.2	95.7	95.2	93.2	90.4	82.5	96.7	93.7	94.0	97.2	96.1	95.5
Modeled good professional practice	93.5	94.6	93.1	90.3	92.4	89.7	91.7	95.2	90.9	91.7	94.1	100.0
Gave useful feedback	91.4	94.6	91.5	93.1	88.1	83.3	95.0	90.5	90.9	88.9	96.0	93.3
Was an effective mentor	92.1	94.6	92.1	90.1	90.3	84.6	91.5	92.1	87.9	91.7	95.9	95.6
Was able to provide needed support	92.5	93.5	92.7	91.7	89.8	82.5	91.7	93.7	89.4	91.7	96.0	95.5
Was available to answer questions or address concerns	95.0	96.8	95.5	94.4	93.0	89.9	93.3	95.2	92.4	94.4	96.0	100.0
Taught in ways that were consistent with what I learned in my courses	89.4	95.7	90.9	87.3	84.3	83.5	86.7	85.5	81.5	86.1	92.0	91.1

Source: Author's analysis of survey data described in the main report.

Table E4. Qualities of supervising faculty members, by certificate type, 2015

Percent of responding first-year teachers who selected "agree" or "strongly agree"

	Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)			
Quality	All teachers (*n* = 812)	Early childhood (*n* = 89)	Elementary (*n* = 320)	Middle (*n* = 68)	High (*n* = 179)	English language arts (*n* = 78)	Math (*n* = 58)	Science (*n* = 60)	Social science (*n* = 64)	Special education (*n* = 33)	Music/arts (*n* = 48)	Physical education/ health (*n* = 44)
Had good knowledge of subject area content	93.4	98.9	97.6	91.8	85.7	83.5	83.1	88.5	92.5	91.7	86.0	100.0
Understood goals for student learning	98.9	100.0	98.5	98.6	98.9	97.5	100.0	98.3	98.5	97.2	98.0	100.0
Understood effective instructional strategies	97.6	100.0	97.3	95.8	96.7	96.2	96.7	94.9	95.5	97.2	98.0	100.0
Understood how to accommodate different student learning styles	96.8	97.8	97.0	95.7	95.1	94.9	100.0	90.0	97.0	91.7	98.0	97.8
Had good communication skills	92.7	91.3	91.0	95.8	90.8	91.3	98.3	85.2	94.0	88.9	96.1	95.7
Modeled good professional practice	95.6	93.5	94.6	95.8	94.0	93.7	96.6	90.0	94.0	91.7	98.0	100.0
Gave useful feedback	92.5	90.1	92.4	91.7	90.7	89.6	95.0	85.2	93.9	94.4	90.2	97.8
Was an effective mentor	90.4	89.1	91.0	90.3	86.4	87.3	91.8	85.0	85.1	94.4	90.2	97.8
Was able to provide needed support	91.7	94.6	91.9	91.8	88.0	86.1	95.1	90.2	84.8	94.4	90.2	97.8
Was available to answer questions or address concerns	93.4	93.5	93.1	95.8	91.2	92.3	96.7	90.2	89.2	94.4	90.2	97.8

Source: Author's analysis of survey data described in the main report.

Table E5. Frequency of observation and feedback during student teaching experience, by certificate type, 2015

Percent of responding first-year teachers who selected "once per week," "2–3 times per week," or "daily"

Type of observation or feedback	All teachers (*n* = 801)	Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
		Early childhood (*n* = 89)	Elementary (*n* = 326)	Middle (*n* = 70)	High (*n* = 179)	English language arts (*n* = 77)	Math (*n* = 57)	Science (*n* = 60)	Social science (*n* = 64)	Special education (*n* = 35)	Music/arts (*n* = 49)	Physical education/ health (*n* = 44)
Cooperating teacher												
Observation of student teacher by cooperating teacher	90.4	87.8	91.4	93.0	91.7	93.7	94.7	90.0	87.9	91.7	93.9	88.6
Observation of cooperating teacher by student teacher	87.4	92.1	93.3	81.4	79.9	84.4	87.7	76.7	73.8	91.7	93.9	77.3
Meeting with cooperating teacher	88.3	88.9	89.6	90.0	86.6	79.7	91.1	90.0	90.6	82.9	91.8	93.2
Receipt of written feedback from cooperating teacher	54.4	52.2	59.8	54.9	50.3	55.7	45.6	53.3	56.9	50.0	55.1	56.8
Supervising faculty member												
Observation of student teacher by supervising faculty member	11.9	5.6	13.1	12.7	7.8	7.6	8.8	8.3	15.2	8.3	4.1	18.2
Observation of supervising faculty member by student teacher	13.8	6.7	12.5	11.3	11.7	10.1	8.8	11.7	16.7	13.9	12.2	27.3
Meeting with supervising faculty member	19.2	11.2	18.7	23.9	15.0	16.5	12.3	18.3	22.7	16.7	14.6	27.3
Receipt of written feedback from supervising faculty member	13.4	10.0	15.9	14.1	8.9	8.9	7.0	11.7	16.7	11.1	4.1	18.2

Source: Author's analysis of survey data described in the main report.

Table E6. Tools and procedures used to document teaching or provide feedback during student teaching experiences, by certificate type, 2015

Percent of responding first-year teachers who said each tool was used

		Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
Tool or procedure	All teachers (*n* = 856)	Early childhood (*n* = 90)	Elementary (*n* = 327)	Middle (*n* = 71)	High (*n* = 179)	English language arts (*n* = 80)	Math (*n* = 56)	Science (*n* = 60)	Social science (*n* = 66)	Special education (*n* = 36)	Music/arts (*n* = 48)	Physical education/ health (*n* = 42)
Professional portfolios	75.7	73.3	79.2	74.6	75.4	71.3	69.6	80.0	80.3	80.6	77.1	81.0
Assessments of video-recorded lessons	38.6	38.9	37.6	39.4	45.8	47.5	33.9	43.3	45.5	41.7	39.6	35.7
Self-assessment or reflective analysis	90.1	90.0	91.7	94.4	89.9	93.8	89.3	96.7	95.5	94.4	89.6	85.7
Assessments by peers	28.5	21.1	28.1	18.3	34.1	25.0	21.4	33.3	30.3	22.2	27.1	35.7
Oral feedback provided by cooperating teacher after teaching	93.1	93.3	92.7	94.4	95.5	93.8	94.6	95.0	95.5	94.4	97.9	85.7
Oral feedback provided by supervising faculty member after teaching	90.8	92.2	93.0	91.5	88.3	88.8	89.3	86.7	95.5	97.2	95.8	85.7
Written feedback provided by cooperating teacher after teaching	84.6	83.3	88.4	85.9	81.6	80.0	76.8	88.3	81.8	91.7	89.6	78.6
Written feedback provided by supervising faculty member after teaching	91.9	92.2	93.3	91.5	92.2	91.3	87.5	90.0	97.0	94.4	95.8	90.5
Feedback provided by cooperating teacher or supervising faculty member during or immediately after teaching	87.6	90.0	89.6	90.1	85.5	87.5	83.9	86.7	87.9	91.7	93.8	85.7

Source: Author's analysis of survey data described in the main report.

Table E7. Characteristics of field experience schools, by certificate type, 2015

Percent of responding first-year teachers who selected "agree" or "strongly agree"

Characteristic	All teachers (*n* = 804)	Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
		Early childhood (*n* = 89)	Elementary (*n* = 324)	Middle (*n* = 64)	High (*n* = 173)	English language arts (*n* = 75)	Math (*n* = 55)	Science (*n* = 58)	Social science (*n* = 59)	Special education (*n* = 38)	Music/arts (*n* = 43)	Physical education/ health (*n* = 39)
Candidate received sufficient support from school administration	89.6	91.5	90.8	91.8	87.8	79.5	95.1	90.6	90.9	91.9	80.9	97.8
Adequate classroom resources and materials were available	93.8	95.8	94.7	95.9	91.5	91.4	95.2	96.9	91.2	94.7	92.2	100.0
School procedures for student discipline were effective	93.1	95.8	95.0	97.3	89.9	85.2	98.4	93.8	94.2	100.0	92.0	95.7
School principal was an effective leader	93.2	97.9	93.1	95.7	93.9	93.5	96.4	95.2	95.3	97.2	88.4	95.5
Teaching staff were collegial	95.7	97.9	96.7	97.3	93.1	94.0	96.8	98.5	94.2	100.0	96.1	95.5
Candidate was able to have intellectually rich discussions about teaching and learning with colleagues	93.5	93.7	95.2	96.0	91.0	91.6	95.3	93.8	88.1	97.3	91.8	95.7
Parent/family involvement was strong	69.0	78.7	72.5	62.5	60.7	48.0	69.1	60.3	64.4	75.0	62.8	76.9

Source: Author's analysis of survey data described in the main report.

Table E8. Frequency of professional collaboration and parent/community interaction during field experiences, by certificate type, 2015

Percent of responding first-year teachers who selected "often" or "always or almost always"

Activity	All teachers (*n* = 827)	Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
		Early childhood (*n* = 93)	Elementary (*n* = 335)	Middle (*n* = 73)	High (*n* = 187)	English language arts (*n* = 80)	Math (*n* = 61)	Science (*n* = 63)	Social science (*n* = 68)	Special education (*n* = 37)	Music/arts (*n* = 51)	Physical education/ health (*n* = 46)
Participated in professional development activities offered at the school	79.0	82.8	80.1	71.6	81.4	76.5	77.4	74.6	82.4	78.4	75.0	80.4
Participated as a member of an instructional team or discipline-based department in the school	58.6	57.0	62.7	67.1	60.3	61.3	59.0	57.8	69.1	59.5	42.3	46.8
Collaborated with another teacher(s) to plan or deliver lessons	78.3	86.0	84.8	77.0	72.9	76.3	72.6	71.9	76.5	78.4	64.7	70.2
Interacted with parents	42.6	51.6	45.4	39.2	37.6	40.7	40.3	28.1	41.2	48.6	28.8	36.2
Participated in instructional activities that involved families and/or community members	37.4	54.8	44.3	25.7	27.8	18.5	22.6	31.7	31.3	40.5	32.7	31.9
Participated in noninstructional activities that involved families and/or community members	36.1	46.2	42.1	32.4	30.2	18.5	27.4	37.5	36.8	43.2	23.1	31.9
Developed strategies for engaging parents or community members	29.6	43.0	33.9	29.7	22.8	18.5	21.0	28.1	30.9	32.4	15.7	31.9

Source: Author's analysis of survey data described in the main report.

Table E9. Alignment of field experiences with teacher preparation program courses, by certificate type, 2015

Percent of responding first-year teachers who selected "often" or "always or almost always"

		Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
Activity	All teachers (*n* = 830)	Early childhood (*n* = 93)	Elementary (*n* = 336)	Middle (*n* = 73)	High (*n* = 189)	English language arts (*n* = 81)	Math (*n* = 61)	Science (*n* = 63)	Social science (*n* = 68)	Special education (*n* = 37)	Music/arts (*n* = 52)	Physical education/ health (*n* = 47)
Applied subject matter knowledge learned in courses	81.8	90.3	82.7	80.8	73.0	81.5	72.1	79.4	75.0	81.1	84.6	85.1
Applied pedagogy learned in courses	74.4	81.7	78.0	75.7	60.8	69.1	69.4	60.9	64.7	86.5	76.9	87.2
Tried strategies and techniques learned in courses	80.3	87.1	84.2	82.4	68.8	74.1	77.4	71.9	70.6	91.9	76.9	87.2

Source: Author's analysis of survey data described in the main report.

Table E10. Timing of field experiences, by certificate type, 2015

Percent of responding first-year teachers who selected "agree" or "strongly agree"

		Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
Timing	All teachers (*n* = 818)	Early childhood (*n* = 90)	Elementary (*n* = 331)	Middle (*n* = 74)	High (*n* = 184)	English language arts (*n* = 77)	Math (*n* = 62)	Science (*n* = 63)	Social science (*n* = 67)	Special education (*n* = 36)	Music/arts (*n* = 50)	Physical education/ health (*n* = 47)
Field experiences were well timed with the instructional schedule of preK–12 school(s) where placed	95.8	97.8	95.8	97.3	95.7	96.2	96.8	96.9	95.5	94.4	95.8	97.9
Able to focus on field experiences, without being distracted by other commitments or expectations associated with teacher preparation program	76.1	81.1	79.6	82.4	67.4	68.8	82.3	77.8	69.1	78.4	70.0	89.4

Source: Author's analysis of survey data described in the main report.

Table E11. Frequency of instructional planning activities and instructional activities during field experiences, by certificate type, 2015

Percent of responding first-year teachers who selected "often" or "always or almost always"

Activity	All teachers (*n* = 827)	Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
		Early childhood (*n* = 92)	Elementary (*n* = 334)	Middle (*n* = 73)	High (*n* = 187)	English language arts (*n* = 80)	Math (*n* = 61)	Science (*n* = 63)	Social science (*n* = 67)	Special education (*n* = 37)	Music/arts (*n* = 51)	Physical education/ health (*n* = 46)
Designed daily lessons	85.6	84.9	86.6	87.8	86.7	87.7	80.6	89.1	91.2	73.0	80.8	78.7
Set up the classroom for daily lessons	81.8	80.6	81.7	83.6	83.6	83.8	75.4	85.9	86.8	73.0	78.4	91.5
Planned extended blocks of instruction	72.8	73.9	75.5	63.0	73.0	80.0	59.0	64.1	69.1	64.9	69.2	76.1
Used a variety of instructional strategies	88.8	92.5	93.4	85.1	84.5	90.1	77.0	81.0	83.8	94.6	88.5	83.0
Allowed students to select and/ or direct their own activities	47.1	59.8	53.6	39.2	41.7	48.1	26.2	31.3	40.3	64.9	23.1	42.6
Adapted instruction to meet the unique learning needs of students	80.7	85.9	87.4	70.3	69.5	75.0	66.1	60.9	73.1	94.6	75.0	80.9

Source: Author's analysis of survey data described in the main report.

Table E12. Frequency of use of standards knowledge, test preparation activities, and assessment during field experiences, by certificate type, 2015

Percent of responding first-year teachers who selected "often" or "always or almost always"

Activity	All teachers (*n* = 827)	Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
		Early childhood (*n* = 92)	Elementary (*n* = 333)	Middle (*n* = 73)	High (*n* = 188)	English language arts (*n* = 80)	Math (*n* = 61)	Science (*n* = 63)	Social science (*n* = 68)	Special education (*n* = 37)	Music/arts (*n* = 50)	Physical education/ health (*n* = 46)
Applied knowledge of state or district curriculum and performance standards	81.0	83.9	85.6	81.1	75.7	79.0	75.8	71.9	80.9	83.8	74.5	84.8
Applied knowledge of Common Core State Standards	67.7	75.0	80.9	71.6	58.0	71.6	71.0	49.2	58.8	78.4	38.5	61.7
Engaged students in test preparation activities to prepare for state learning assessment	59.8	53.8	65.7	72.6	59.8	64.2	63.9	63.5	64.7	62.2	25.0	61.7
Assessed students formally	81.9	80.6	89.0	87.8	85.1	81.5	87.1	85.9	88.2	78.4	46.2	61.7
Assessed students informally through daily monitoring	92.5	93.5	95.5	90.5	91.5	90.0	93.5	85.9	92.6	89.2	88.5	91.5
Designed formative assessments	73.2	62.4	74.5	82.4	83.6	88.9	79.0	81.3	83.8	78.4	56.0	61.7
Used data from formal student assessments to guide instruction	75.1	71.0	82.7	73.0	73.5	72.8	75.8	73.4	72.1	83.8	59.6	57.4
Used data from informal assessments of students to guide instruction	83.0	79.6	90.2	71.2	80.3	72.8	77.4	79.0	88.2	89.2	80.8	76.6

Source: Author's analysis of survey data described in the main report.

Table E13. Frequency of interaction with diverse students, technology use, and classroom management during field experiences, by certificate type, 2015

Percent of responding first-year teachers who selected "often" or "always or almost always"

		Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
Activity	All teachers (*n* = 827)	Early childhood (*n* = 92)	Elementary (*n* = 334)	Middle (*n* = 73)	High (*n* = 187)	English language arts (*n* = 80)	Math (*n* = 61)	Science (*n* = 63)	Social science (*n* = 51)	Special education (*n* = 36)	Music/arts (*n* = 52)	Physical education/ health (*n* = 45)
Worked with students from varied cultural backgrounds	62.5	76.0	65.2	55.3	57.8	60.2	62.5	44.6	60.0	65.8	51.9	55.6
Worked with students with varied levels of socio-economic status	88.3	91.7	89.0	90.7	86.4	88.9	87.3	90.8	88.6	86.8	88.5	80.0
Worked with students with varied levels of English proficiency	28.9	30.2	28.7	28.0	27.2	34.9	23.4	20.0	32.4	34.2	28.8	30.4
Used computers in classroom instruction	58.4	68.5	66.5	47.9	59.0	59.3	36.1	57.8	52.9	70.3	34.6	36.2
Used technology to communicate with parents or community members	47.1	44.6	50.4	41.9	50.8	46.9	39.3	46.0	54.4	51.4	38.5	34.0
Used technology to communicate with other teachers or administrators at the school	63.4	60.2	67.5	67.6	60.1	64.2	61.3	56.3	67.2	59.5	57.7	51.1
Used a variety of classroom management strategies	87.4	91.4	92.6	82.4	79.9	81.5	72.6	84.4	80.9	91.9	86.5	89.4
Developed strategies for managing student misbehavior	81.5	84.9	86.8	75.7	71.3	74.1	54.1	79.7	75.0	75.7	82.7	87.2
Implemented the schools' protocol(s) to address student discipline	83.9	88.2	89.6	79.5	74.6	76.3	70.5	81.3	76.5	80.6	88.5	84.8

Source: Author's analysis of survey data described in the main report.

Table E14. Communication and collaboration among teacher preparation programs and preK–12 schools, by certificate type, 2015

Percent of responding first-year teachers who selected "agree" or "strongly agree"

Activity	All teachers (*n* = 758)	Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
		Early childhood (*n* = 87)	Elementary (*n* = 311)	Middle (*n* = 70)	High (*n* = 167)	English language arts (*n* = 72)	Math (*n* = 54)	Science (*n* = 59)	Social science (*n* = 63)	Special education (*n* = 35)	Music/arts (*n* = 44)	Physical education/ health (*n* = 43)
Expectations for field experiences were effectively communicated by the teacher preparation program to faculty/staff at the preK–12 placement school(s)	92.0	94.4	93.1	90.4	88.7	87.2	89.7	90.0	89.6	97.2	91.5	100.0
Expertise was shared among faculty/staff from the teacher preparation program and faculty/staff at preK–12 placement school(s)	88.8	85.1	90.0	92.9	83.2	87.5	88.9	86.4	85.7	94.3	95.5	100.0
The cooperating teacher and supervising faculty member worked as a team to support field experiences	82.3	79.5	83.9	82.2	73.4	68.4	82.8	76.7	83.1	91.7	86.7	97.7

Source: Author's analysis of survey data described in the main report.

Table E15. Teacher preparation program and preK–12 school involvement in field experiences, by certificate type, 2015

Percent of responding first-year teachers who indicated that the activity was done jointly by teacher preparation program and preK–12 school faculty/staff

		Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
Activity	All teachers (*n* = 638)	Early childhood (*n* = 73)	Elementary (*n* = 261)	Middle (*n* = 58)	High (*n* = 137)	English language arts (*n* = 53)	Math (*n* = 45)	Science (*n* = 49)	Social science (*n* = 53)	Special education (*n* = 28)	Music/arts (*n* = 41)	Physical education/ health (*n* = 36)
Deciding location for field experience	64.9	69.2	65.8	60.3	58.6	64.3	61.4	55.8	59.3	75.0	65.9	74.4
Selecting cooperating teacher	45.8	48.0	42.3	53.4	44.1	45.3	61.7	45.1	38.9	39.3	48.9	55.3
Designing field experiences	43.9	45.2	37.5	39.0	50.4	50.9	42.2	46.9	45.3	36.7	41.5	55.6
Monitoring field experiences	68.6	73.2	70.5	64.6	66.9	64.2	67.3	67.3	58.3	66.7	65.2	67.5
Assessing teaching performance during field experiences	73.8	81.2	74.4	67.7	73.5	79.7	69.1	66.1	62.3	78.8	78.3	63.4

Source: Author's analysis of survey data described in the main report.

Table E16. Extent to which teachers were asked to provide feedback about the quality of field experiences, by certificate type, 2015

Percent of responding first-year teachers who were asked to provide feedback

		Grade-level certificate				Subject area certificate (middle and high school)				Subject area certificate (grades K–12)		
Area of feedback	All teachers (*n* = 764)	Early childhood (*n* = 86)	Elementary (*n* = 314)	Middle (*n* = 66)	High (*n* = 175)	English language arts (*n* = 77)	Math (*n* = 50)	Science (*n* = 57)	Social science (*n* = 64)	Special education (*n* = 33)	Music/arts (*n* = 45)	Physical education/ health (*n* = 41)
Overall quality of field experiences	80.9	86.4	79.0	82.1	80.1	77.9	88.5	77.6	79.7	76.5	80.4	88.1
Overall quality of student teaching experiences	82.8	87.4	81.6	83.6	80.2	75.6	90.4	79.3	81.3	79.4	87.0	88.1
Quality of the school in which student teaching experiences took place	72.1	75.9	70.7	75.8	71.4	63.6	76.5	70.2	78.1	63.6	71.1	78.0
Quality of cooperating teacher	79.4	82.6	78.1	81.8	75.0	70.5	86.0	72.4	81.3	67.6	91.3	80.5
Quality of supervising faculty member	77.2	77.9	78.1	77.3	72.9	67.5	80.8	72.4	78.1	73.5	76.1	85.4

Source: Author's analysis of survey data described in the main report.

Notes

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1. This estimate is based on state Title II report data, which may include teacher candidates in post-baccalaureate programs. Therefore, the actual percentage of teachers prepared in a traditional undergraduate program may be lower.
2. Teachers who worked with multiple cooperating teachers and supervising faculty members were asked to respond based on the individual with whom they spent the most time.
3. The survey did not define "well timed field experiences"; respondents may have interpreted the term differently.
4. For the small proportion of teachers who were missing email addresses, the study team called their schools to request email addresses. Invitations were sent to multiple email addresses if more than one was available.
5. For each variable used in the nonresponse bias analyses, data were missing for no more than 9 percent of teachers.
6. The sampling frame includes all teachers who were eligible to participate in the study.
7. Surveys were considered to be completed if there was a response to one or more substantive items.
8. Some teachers, who were identified by the Missouri Department of Elementary and Secondary Education and the Office of Social and Economic Data Analysis as eligible for the study and were invited to complete the survey, reported being ineligible (12.35 percent) because they were not trained in Missouri, or were not trained in a traditional undergraduate preparation program. The proportion of teachers initially identified as eligible who later self-identified as ineligible was used to estimate the proportion of participants of unknown eligibility who were eligible (87.65 percent). The study team considers this a conservative estimate of the actual proportion of ineligible teachers, given that some ineligible teachers may have chosen not to respond in any way to survey invitations.

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