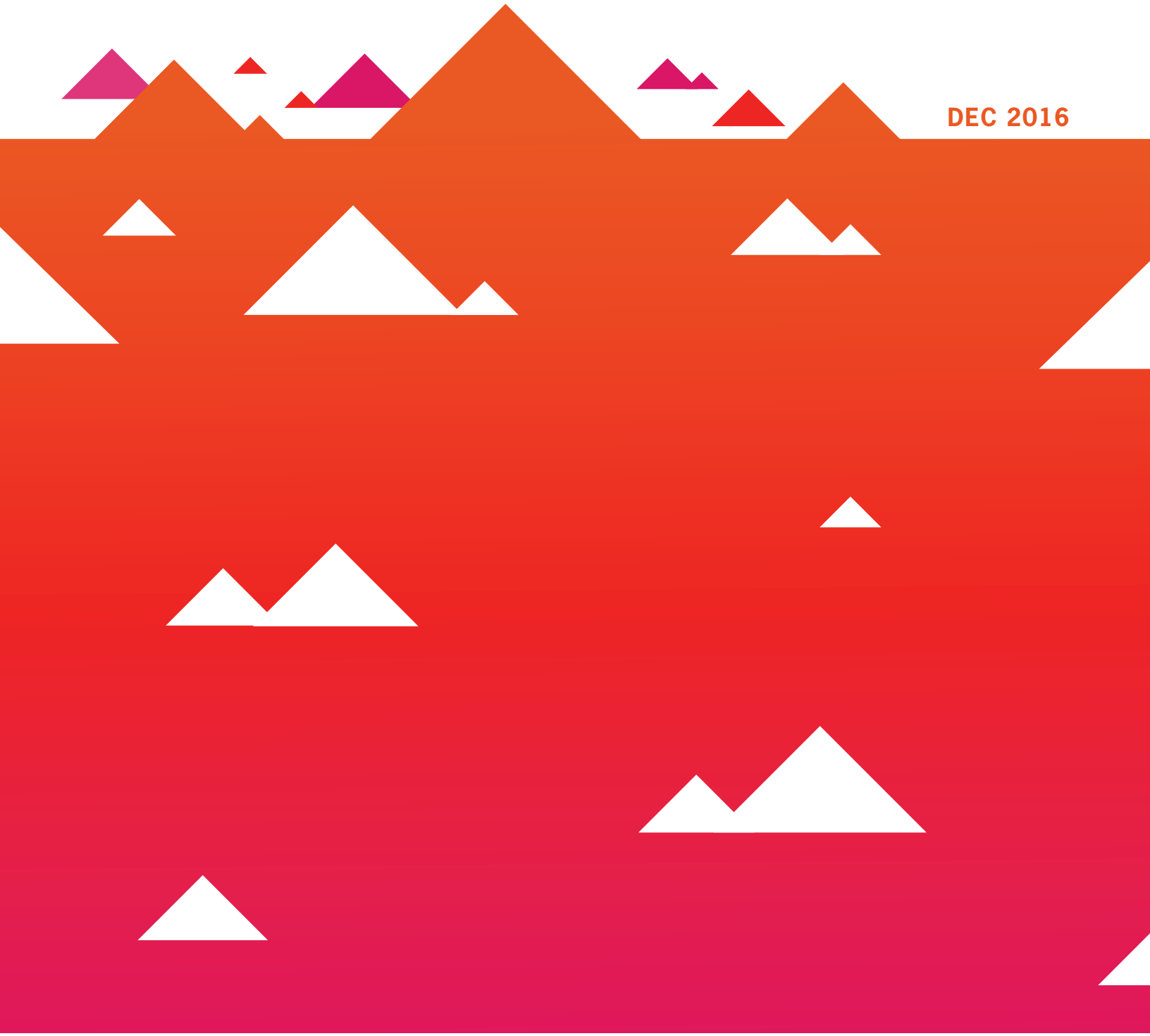
LANDSCAPES in teacher prep

UNDERGRADUATE ELEMENTARY ED

DEC 2016



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Introduction

Being a teacher is harder today than it has ever been. Today's teachers must instruct the most diverse group of students in America's history and lead them, sometimes against all odds, to graduation. Teachers welcome into their classrooms students often traumatized by violence, worried about having enough to eat, and distracted by a multitude of modern-day temptations, and yet they are able to help these students meet ever-higher standards. While the teachers today prepare approximately 180 days worth of lessons a year, they must be ever ready to improvise based on students' comprehension levels. Elementary teachers must lead students to achievement not only in reading and math, but also in social studies, science, and literature. They must be able to make learning fun and exciting in a structured and supportive classroom environment. Even experienced teachers find this extremely challenging.

Now imagine a new teacher on her first day in the classroom. She's eager to start her career yet nervous about what she will encounter this first day, especially as she sees the young expectant faces looking up at her. Is this new teacher equipped to meet the challenges of teaching today's students with all of their modern complexities? Will she be ready from day one?

The answer in large part depends on the quality of the teacher's preparation program.

NCTQ's 2016 *Landscape in Teacher Preparation* has examined 875 traditional undergraduate programs that prepare elementary school teachers, finding widely variable levels of quality. Some programs prepare teachers whom parents would love to see in front of their child's classroom. Too many others graduate teachers who still need substantial assistance and experience before they are truly ready for the position they now are authorized to fill. Since 2014, programs have made gains in a few key areas, but still have far to go in others.

One of the purposes of this report is to help teacher preparation programs identify which aspects of their programs need revision to enhance their selection and preparation of the next generation of teachers. In addition, states can use these findings to evaluate how they oversee teacher prep programs and to determine how they can help these programs improve. School districts can use the results of this report as a catalog of where to recruit both student teachers and new teachers and as a basis for talking with programs about what needs to be included in their training. High school students planning on becoming teachers and their guidance counselors may also find this report helpful in identifying the best college choices.

Programs Are Demonstrating Significant Progress

The release examines 875 undergraduate elementary teacher programs in 396 public and 479 private colleges and universities in all 50 states and the District of Columbia. These programs range from the 10 institutions in our sample that prepared a handful of teachers in 2014 to giant Touro College, which prepared 1,683.

Compared to our previous release in 2014, programs showed positive signs of growth, especially with regard to teaching reading; for example, more programs now include all five research-proven elements of reading instruction: phonemic awareness, phonics, fluency, vocabulary, and comprehension. The percentage of programs that require each element individually also has increased.

Programs also have made gains on selectivity, thereby showing that programs can increase diversity without sacrificing selectivity.

In addition, many programs require some content, most notably composition, American history, and children's literature.

But many programs still have a long way to go in teaching elementary math, science, and other STEM content; raising their standards for admissions; establishing student teaching as a useful experience with structured feedback in key elements of classroom management; and becoming more selective about the qualifications of cooperating teachers who mentor student teachers.

The report has ordered these undergraduate programs using percentiles based on the letter grades they earn in each area. The 87 undergraduate elementary programs in the top 10 percent are the best in the nation. However, they only prepare 13 percent of the 59,000 elementary teachers included in this release. This means that far too many aspiring teachers attend programs that do not score as highly in all the elements necessary to prepare them sufficiently for their first classroom.

Evidence-Based Criteria

This *Landscape* report examines undergraduate programs that prepare elementary school teachers. Later releases staggered over the next two years will examine undergraduate secondary (Spring 2017), graduate and nontraditional elementary (Fall 2017), graduate and nontraditional secondary (Spring 2018), and traditional elementary and secondary special education (also in 2018).

We look to the best available evidence to set a clear, reasonable definition for quality preparation, that is, what effective elementary school teachers need to know and be able to do. For each teacher prep program, expert reviewers investigate whether programs aligned their requirements and instruction with scientific research on these particular criteria. Since there is not enough data to evaluate all programs in all areas, some of the program counts may shift slightly. For more information, see the methodology.

The report examines programs and policies in three key areas: admissions (selection criteria), knowledge (coverage of early reading, elementary math, and other elementary content), and practice (student teaching with a particular focus on classroom management).

We scrutinize programs' foundational materials, including syllabi, textbooks, observation forms, agreements with districts, degree plans, and other content, through the lens of evidence-based criteria—scientific research, the best practices of other nations, and consultations with superintendents and academic experts on teaching practice. The analysis is not subjective, rather it is rooted in a program's own requirements and the topics covered in its courses.

Few educators would dispute that there is an art to teaching, and that art must be rooted in the science of how children learn and what works in the classroom. Just as aspiring artists study the science of color, anatomy, and perspective, future teachers need to learn the science of pedagogy. What research has revealed helps students learn and achieve. Teacher prep programs that fail to provide their teacher candidates with this evidence-based knowledge force them to invent the wheel while simultaneously driving the car.

Findings

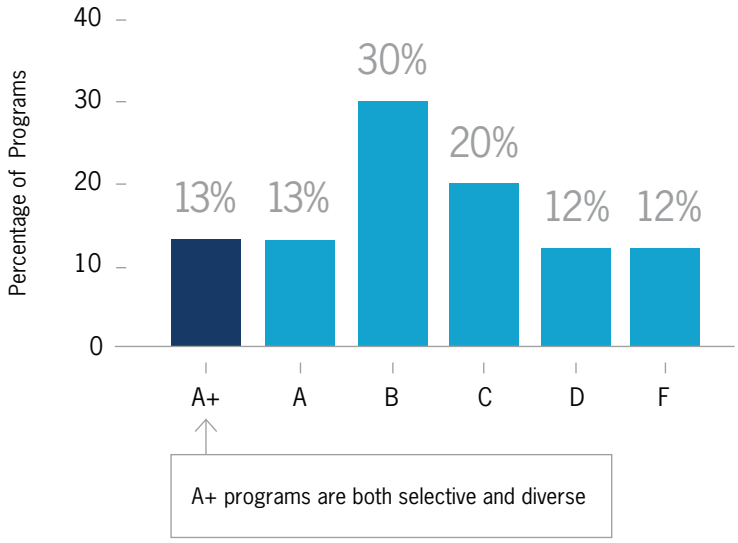
Admissions: Selection Criteria

Key Finding: A quarter (26 percent) of the 875 programs evaluated ensure that they draw most aspiring teachers from the top half of the college-going population, including 113 that are both selective and diverse.

Importance: Sixty years of research and evidence from higher-performing nations have demonstrated that better selection by teacher preparation programs is related to the effectiveness of new teachers.

Although some people fear that increasing the selectivity of teacher prep programs will lead to greater teacher shortages, programs have graduated a surplus of elementary school teachers for years. Research suggests that more selective programs may actually increase the number of teachers by making teaching programs more prestigious.

Criteria: The report grades programs on selectivity based on how likely they are to admit aspiring teachers from the top half of college students based on the minimum or average SAT/ACT score of the institution or the program (using a class average or requirement for all individually), or a minimum GPA.



Grading: Too many teacher preparation programs are not selective. Out of 875 programs, half (50 percent) earn an A or a B for ensuring that their candidates come from the top half of the college-going population based on their institution's selectivity. Another 52 programs (6 percent) earn an A or a B for having a program-level requirement that teacher candidates (or an average across a class) have high standardized test scores or GPAs for admission. These 52 programs demonstrate that programs can follow the path of higher admissions standards even if they are housed in less selective institutions. The remaining programs (44 percent) cannot ensure that most of their incoming candidates are among the top half of college students.

A+ Grades: Half of all selective programs (113) are also diverse, earning them an A+ in this area. Programs can earn an A+ by being more diverse than the program's institution as a whole or more diverse than their state's teacher workforce. These 113 programs prove that teacher prep programs can be both selective and diverse.

Change Over Time: Programs have made gains in some areas of selection criteria since our last release in 2014. The number of undergraduate elementary teacher preparation programs in insufficiently selective institutions that require at least a 3.0 GPA for admission has increased from 44 in 2014 to 71 today (out of 370 programs with data for both years).

Knowledge: Reading Instruction

Key Findings: Two in five (39 percent) of the 820 undergraduate elementary programs evaluated provide instruction in all five essential components of early reading instruction. Programs show marked improvement on this standard.

Importance: Reading proficiency underpins all later learning. Unfortunately, about 30 percent of all children do not become capable readers. Using knowledge gained from decades of scientific research, effective reading instruction could cut this unacceptable rate of failure by two-thirds or more.

Criteria: This report evaluates programs on their coverage of the five essential components of effective reading: phonemic awareness, phonics, fluency, vocabulary, and comprehension.

Grading: 320 programs (39 percent) earn an A or A+ for including instruction on all five essential components of early reading instruction based on the best research available about what works in the teaching of reading.

A+ grade: Thirteen programs earn an A+ by teaching all five components and using high-quality textbooks. They are:

CO ▸ Colorado Christian University

ID ▸ Northwest Nazarene University

IN ▸ Saint Joseph's College

IN ▸ Taylor University

LA ▸ Nicholls State University

MA ▸ Gordon College

NC ▸ University of North Carolina at Charlotte

SC ▸ Winthrop University

TX ▸ University of Texas at Arlington

UT ▸ Dixie State University

UT ▸ Utah State University

WV▸ Fairmont State University

WV▸ West Liberty University

Change Over Time: In 2016, 39 percent of programs earned an A or A+, up from 29 percent in 2014. More programs are teaching each component than in 2014 and far more than in 2006.

Content Covered: Most programs' course designs include comprehension (75 percent), and two-thirds include vocabulary (64 percent) and phonics (62 percent). Only about half include fluency (48 percent) and phonemic awareness (46 percent).

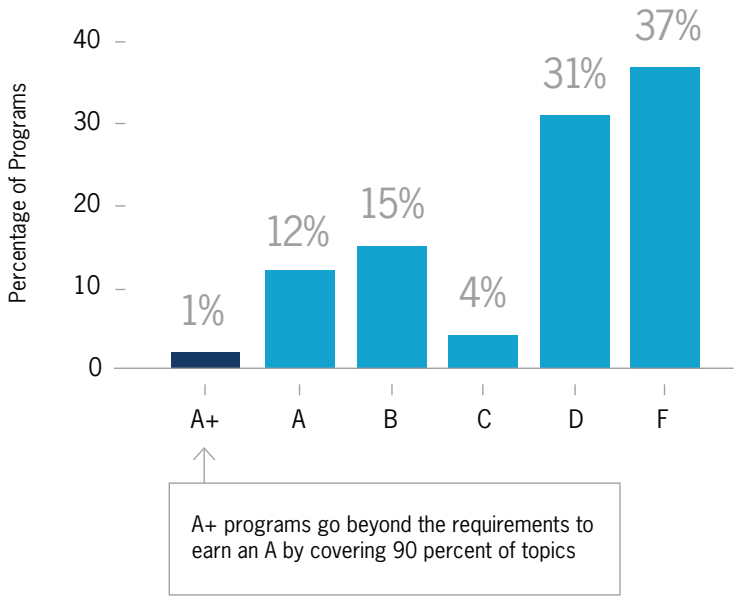
Math Instruction

Key Findings: Only 13 percent of the 860 teacher prep programs reviewed in this area address the critical topics mathematicians say aspiring elementary teachers need in course lectures and required textbooks.

Importance: Teachers' math knowledge adds up to greater student achievement. Basic arithmetic and number operations represent the fundamental knowledge students need to build their understanding of more advanced math. Elementary teachers need college-level comprehension of advanced topics so that their definitions and explanations will match what students will learn later and also to help their students understand the underlying concepts rather than just memorize procedures.

Criteria: This understanding requires specialized mathematics coursework for prospective elementary teachers beyond just methods courses. The report checks that programs provide candidates with significant and repeated exposure to essential elementary-level topics in numbers and operations, algebra, geometry, and data analysis (and probability).

Grading: In this report only 112 programs (13 percent) earn at least an A for requiring no less than one course in the methods of teaching elementary mathematics to young children and a minimum of three courses that cover at least 75 percent of topics identified by mathematicians as critical.



A+ Grade: Only nine programs earn an A+ for going beyond the requirements to earn an A by covering 90 percent of topics. They are:

GA ▸ Middle Georgia State University

IN ▸ Indiana University–South Bend

IA ▸ Iowa State University

MA ▸ Worcester State University

MN ▸ Winona State University

NC ▸ Elon University

OH ▸ Cedarville University

OH ▸ University of Rio Grande

WI ▸ University of Wisconsin–Madison

Change Over Time: While the percentage of programs earning at least an A increased from 8 percent in 2014 to 13 percent in 2016, the percentage that failed also grew—from 34 percent to 37 percent.

Many programs require no elementary math courses (other than methods courses), and the average number of required courses is just two.

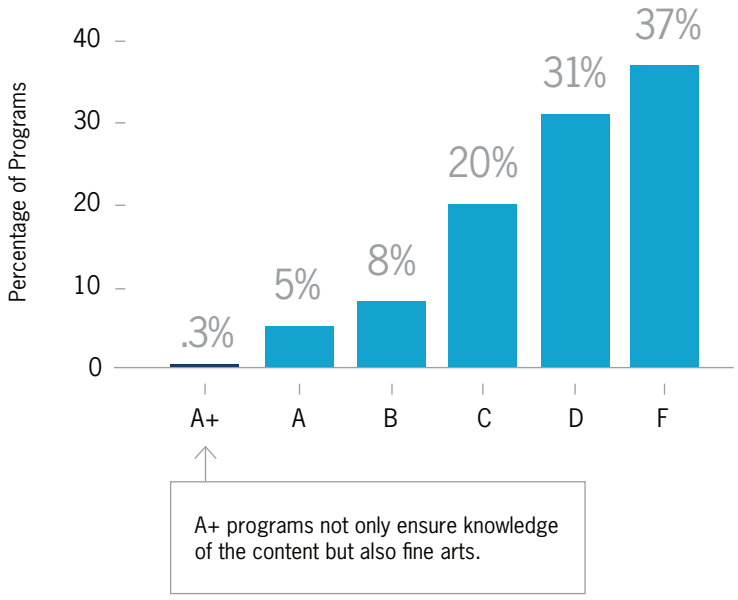
Coverage of Other Elementary Content

Key Finding: Only 5 percent of the 875 programs evaluated ensure that aspiring elementary teachers know the science, history and geography, and literature and composition content they will teach.

Importance: Since elementary classroom teachers teach concepts from all the core subjects, they need a broad knowledge of science, history, and literature. Therefore, their prep programs should demand that aspiring teachers take a range of courses in these areas so that they can teach this content at a high level.

Criteria: To earn a good grade, a program must require that teacher candidates obtain broad knowledge of the content taught in elementary school by taking a college-level course or by passing an adequate test in two out of four literature and composition topics, three out of five history/social studies topics, and two out of three science topics (including one lab course). The focus here is on content—the subjects teachers need to know—not the methods used to teach those subjects. Courses that are overly broad or narrow or requirements that allow candidates to select from a range of courses that includes too many options not relevant to the elementary curriculum do not count.

Grading: Just 5 percent of programs earn at least an A on other elementary content while 37 percent earn an F.



A+ Grade: Only three programs earn an A+ for requiring a course in fine arts in addition to meeting the criteria for an A by having adequate requirements in literature and composition, history and geography, and the sciences:

NJ ▸ Kean University

NM▸ University of the Southwest

TN ▸ Martin Methodist College

Change Over Time: The 2016 report found little change in content coverage—from 3 percent earning an A in 2014 to 5 percent this year (with a slightly modified scoring approach).

Content Covered: Many programs do require at least some content. Half require at least two out of four literature and composition topics, with 83 percent requiring composition and 50 percent requiring children's literature. Only 18 percent require a course or test in at least three out of five history and social studies topics, with 59 percent requiring U.S. history. Despite the enormous importance of science, just 12 percent of programs call for courses or testing in two out of three science topics, with two-thirds of programs not requiring even one science course (or requiring a course that was too broad or narrow). However, for each science, far more institutions require a course with a lab than one without a lab.

In addition, 9 percent of programs direct candidates to develop deeper content knowledge in a single teachable subject by requiring either a major or minor (17 programs) or at least 18 hours of additional coursework in that subject (62 programs).

Practice

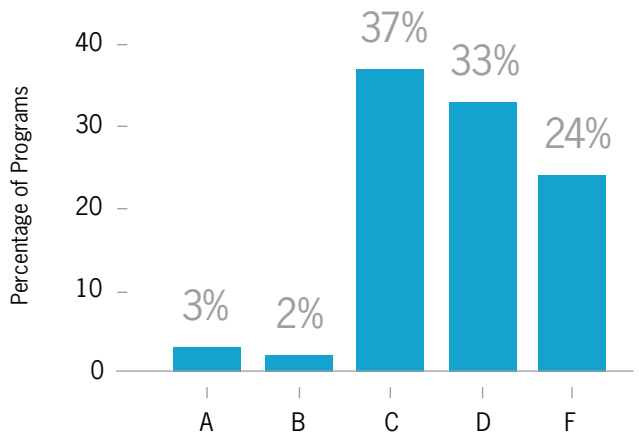
Student Teaching

Key Finding: Only 5 percent of the 851 programs evaluated incorporate the elements of a quality program into their student-teaching experience. For example, only 7 percent make any attempt to evaluate the qualifications of their cooperating teachers.

Importance: Student teaching serves as a capstone experience for teacher candidates by providing them an opportunity for practice under the guidance of a veteran teacher with periodic feedback from a program supervisor who sees the aspiring teacher in action.

Criteria: This report examines how often the program requires its supervisors to observe and provide written feedback to student teachers and how much control the program has over the selection of cooperating teachers.

Grading: Just 3 percent earn an A (and 2 percent a B) by making an effort to match student teachers with strong cooperating teachers and requiring program supervisors to provide student teachers with at least four observations incorporating documented feedback (five is the minimum shown by research to be effective).



Specifics: Just two-fifths require a supervisor from the program to conduct at least five observations of the student teacher that produce documented feedback, and another third require four. Only about 7 percent of programs collect any meaningful information on each cooperating teachers' skills, and only about 1 percent screen cooperating teachers for both their mentorship and effectiveness as a teacher. The remaining programs (around 93 percent) accept cooperating teachers suggested by a school district without knowing much about that teacher's effectiveness or ability to mentor adult learners.

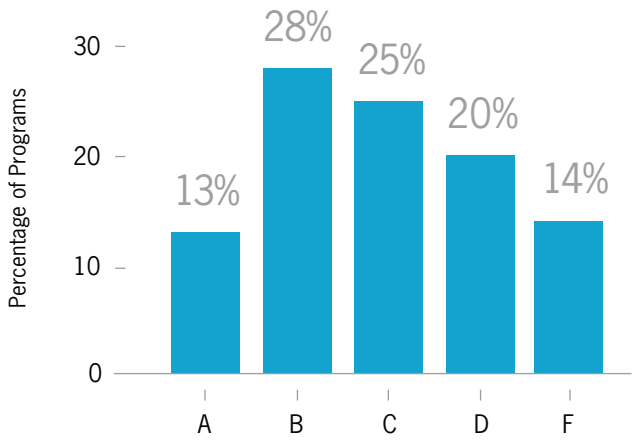
Change Over Time: This result has not changed substantially since 2014.

Classroom Management

Key Findings: Two in five (42 percent) of the 661 teacher preparation programs give feedback to their student teachers on all or nearly all key areas of classroom management. Programs are most likely to provide feedback on student teachers' ability to establish or reinforce standards of behavior and to maximize the amount of class time when students are focused on learning, and least likely to provide feedback on student teachers' use of meaningful praise to encourage positive behavior.

Importance: Students need an organized, well-run classroom in order to learn. But new teachers find classroom management consistently challenging. Teacher candidates should be trained in a coherent management approach focusing on the areas that receive the strongest support in research.

Criteria: This report grades programs on the indicators included in the observation and evaluation forms that provide feedback on observations of student teachers. These include establishing and maintaining standards of behavior, maximizing learning time, using meaningful praise and other forms of positive reinforcement, and addressing different levels of disruptive behaviors.



Grading: Too few programs focus on classroom management. Only two in five (42 percent) of the 661 teacher preparation programs earn an A or a B for providing feedback to their student teachers on all or nearly all of the five key areas of classroom management.

Specifics: Programs are most likely to provide feedback on student teachers' ability to establish standards of behavior (76 percent) and maximizing learning time (67 percent) and are least likely to evaluate student teachers on their use of meaningful praise to encourage positive behavior (24 percent).

Change Over Time: There has been a slight improvement since 2014. Of the 382 undergraduate elementary programs with classroom management grades in both 2014 and 2016, 42 percent earned the equivalent of an A or a B in 2014, compared to 47 percent today. The number of programs providing feedback on addressing significant misbehavior increased by eight percentage points, while the number of programs providing feedback on using meaningful praise dropped three percentage points.

Programs Can Do More

Of course the *Landscape in Teacher Preparation* does not encompass everything necessary for new teachers that their teacher prep program should provide. Nor does it measure all aspects of a high-quality program. By design, this report explores the crucial basic elements that a quality program must contain, the foundation on which methods courses, professorial quality, assignments, opportunities to practice teaching, and other course requirements all rest. If a program fails at these fundamentals, even excellence in the other areas will not sufficiently prepare teachers for their classrooms.

Since much of what a teacher does in her first couple of years builds on lessons learned in her training, America's efforts to improve teacher quality should focus on teacher preparation programs. If a teacher has never been shown how to teach according to scientific research on what works, no accountability or incentive program will help. When programs do not select a cooperating teacher for her effective instruction and ability to mentor an adult learner, the student teacher loses the opportunity to emulate first-rate teaching and may be left struggling to find her footing in her own classroom. And if a teacher does not acquire a deep comprehension of literature, math, science, and social studies while in college, she may struggle later with new curricula and materials that stress skills and conceptual understanding, requiring her to learn both new content and new methods simultaneously.

This report can guide teacher prep programs on steps they can take to improve. It offers an outside perspective on the content of their programs and an analysis through eyes sharpened by examining hundreds of other undergraduate elementary school teacher prep programs. The report's letter grades reveal a program's strengths and weaknesses, informing the program's improvement efforts. Similarly, the criteria in each section suggest what changes should be made to adopt more evidence-based content. The list of every program's percentiles can help them find other programs to consider as models. College and university boards and officials can use this analysis to suggest changes to their prep programs and encourage the programs to raise their standing in the next release.

State policymakers can look at how well the programs in their state perform. They can consider ways to assist programs' improvement efforts through better state policies. For instance, only three states ask teacher prep programs to limit admissions to the top half of the college-going population as measured by a test taken before admissions (either through setting minimum criteria or by achieving an average for an admitted class). State policymakers can also set requirements for courses that future teachers must take to expand their content knowledge, or require a content test for certification. And they can look at states with more top percentile programs to see what other policies and practices are worth emulating.

School districts can view this report as a map to the best places to recruit new teachers. Higher-ranked programs have shown their teacher graduates the best ways to teach reading and mathematics, covered the key content they will be teaching, and guided them in classroom management and instructional practice so they will have a better sense of how to be effective in the classroom from day one. Districts can use the information in this report to hold frank conversations with local institutions about what they can do to improve the quality of their graduates' preparation if they want the district to continue hiring them. It also can guide districts' induction programs to focus additional attention on areas where their teachers' programs struggled in preparing their students.

High school guidance counselors may also find the report helpful in suggesting colleges to high school students who express an interest in teaching. The program comparisons can assist the counselor in identifying an institution at which the prep programs do more than lead to certification, but where they will prepare the aspiring teacher to succeed in the classroom.

For the Sake of Our Future Teachers' Future Students

The report demonstrates that teacher prep programs can improve. For instance, more undergraduate elementary teacher prep programs at less selective institutions now require at least a 3.0 GPA for admission (from 44 in 2014 to 72 in 2016), and more now train teachers on the research-proven components of reading instruction. Still, in the absence of any organized effort to raise the quality of teacher education, improvements have been haphazard. Too many programs have not done enough to improve.

This can and must change.

This *Landscape in Teacher Preparation* is the first of six updates of our ratings to be released over the next two years. Each new report will shine a spotlight on a different segment of programs and will remind programs—and the public—that more must be done to integrate evidence-based methods into teacher preparation to help new teachers succeed. Each report will be both a call for change and an offer of partnership to programs that want to do more.

Through this research, we have evaluated 875 undergraduate programs preparing elementary teachers. Each has faculty, administrators, cooperating teachers, and others who have devoted much of their careers to preparing each new class of teachers. This report is meant to encourage programs' staff to consider their requirements, course content, and student teaching procedures in light of scientific evidence of what works so that they can serve aspiring teachers and the students who will eventually sit in their classes.

Landscape of Undergraduate Elementary Teacher Preparation demonstrates that the poor grades some programs receive are not set in stone—that progress is possible. We expect to be able to report even more progress between this release and the next time we cover this topic.

It is imperative that we do this for those who aspire to become good teachers—those who start their teacher prep programs determined to make a difference in students' lives. And we must certainly do this for our children who will sit in these future teachers' future classrooms. Those enthusiastic yet anxious and sometimes skeptical children who want and need effective teachers cannot afford to waste years of their education while their new teacher struggles in the classroom with content and techniques that she should have learned as a student herself.

We have it within our power to make the changes necessary to improve our teacher preparation programs. If we choose to do this, we will be ensuring that well-trained and capable teachers will be teaching our children and thereby improving the prospects for their future success and happiness.

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