

Tapping the Potential

Retaining and Developing High-Quality New Teachers



ALLIANCE FOR
EXCELLENT EDUCATION

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About the Alliance for Excellent Education

The Alliance for Excellent Education is a national policy and research organization that works to help make every child a graduate—to prepare them for college, to have success in life, and to be contributing members of society. It focuses on the needs of the millions of secondary school students (those in the lowest achievement quartile) who are most likely to leave school without a diploma or to graduate unprepared for a productive future.

Based in Washington, D.C., the Alliance’s audience includes parents, teachers and principals, and students, as well as the federal, state, and local policy communities, education organizations, the media, and a concerned public.

To inform the national debate about education policies and options, we produce reports and other materials, make presentations at meetings and conferences, brief policymakers and the press, and provide timely information to a wide audience via our biweekly newsletter and regularly updated website, www.all4ed.org.

Foreword

Recent thinking in the educational research community has refocused attention on the critical value of instruction. Well-informed educational leaders have always known that excellent teachers place emphasis on the growth of student learning. Nevertheless, persuasive research demonstrating the relative importance of instruction for student achievement—as against other contextual factors—has brought about a dramatic emphasis in recent years on the quality of teaching.¹

Federal support for elementary and secondary education historically has been modest. As it strengthened in the late twentieth century, it was directed largely toward assistance for the nation's neediest children. Only in the last decade has there been a perceptible shift in federal policy, focusing specifically on teacher quality. A promising avenue for productive investment in improving teacher quality is support for novice teachers in their first years in the classroom, a period commonly called induction.

Until the passage of the Elementary and Secondary Education Act (ESEA) in 1965, the federal reach into school matters was limited largely to college land grants and financial supports for federally impacted areas. Educational improvement, particularly at the elementary and secondary level, was regarded as strictly the states' domain.² The federal government did play a historic role, however, in increasing teacher supply, through support for postsecondary education. The Morrill Act in 1862,³ the 1917 Smith-Hughes Act,⁴ and the Servicemen's Readjustment Act (also known as the GI Bill) in 1944 were all federal initiatives that contained provisions for promoting the education of teachers.⁵

In the mid-1960s, the nation's attention regarding education was caught by a major study undertaken by James Coleman, then at Johns Hopkins University, who led a team of eminent researchers on a project for the federal government to look at teachers, schools, and students. The team's findings on the question of educational opportunity were published in two large volumes in 1966,⁶ and presented a complex, nuanced picture. Coleman's interpretation of the data he analyzed was that pupil achievement could not be significantly elevated until conditions governed by race, class, and income inequality were rearranged to strengthen the positive role of healthy families.

A broad consensus rapidly formed around this idea, and in 1972, Coleman's basic findings were confirmed by sociologist Christopher Jencks in a highly influential book published at Harvard. Jencks's summary was supremely confident in its forcefulness: "The character of a school's output depends largely on a single input, namely the characteristics of the entering children."⁷

Despite the implicit, seemingly logical, conclusion of the analysis put forth by Coleman and Jencks—that when it comes to student achievement, teaching doesn't matter very much—Americans were nevertheless concerned about attracting new teachers into the profession and keeping them in it. In the early 1970s, many schools began to investigate how to help the beginning teacher enter the teaching profession better prepared for its challenges. During the mid-1970s, education experts debated different ways to smooth out the induction of new teachers into school systems. Some suggested extending preservice preparation programs to five

years or requiring extensive internships; others established induction programs for the first one to three years of teaching.

Programs expanded enough that, in 1979, the Educational Testing Service (ETS) commissioned a survey of the history and evaluation of orientation programs for novice teachers. Many types were listed in the ETS report, along with reasons for their establishment. Most programs were small, incomplete, and locally designed and funded. The report describes, for example, a New Hampshire program that was unique because it did not collaborate with an institution of higher learning yet provided a teacher's sole route to recertification, and several special-purpose induction programs in seven states, such as those designed especially for rural teachers.⁸

In the 1980s many state legislatures, including Connecticut and California, began to mandate induction programs. A few states went so far as to specify program content and design the delivery system. As the research on induction was still relatively weak, however, most of these programs were neither comprehensive nor based on solid research.

Meanwhile, the 1983 publication of *A Nation at Risk* drew widespread national attention to the state of American schools. The electrifying rhetoric of this report resulted in the emergence of a powerful consensus to reform American education. Politicians, business leaders, educators, and ordinary citizens all joined together to push for a quality education for all students. Among other things, *A Nation at Risk* claimed that American teachers were ill-prepared. Teachers were roundly criticized for their inability to teach higher-level thinking, particularly in the subjects of math and science.

The publication of *A Nation at Risk* gave rise to a series of "educational excellence" reforms designed to change the nature of schools, students, and teachers. Teacher retention quickly became a source of major concern. At first, researchers examined a host of factors influencing the retention of new teachers. Largely ignoring induction, or variations in teacher quality, researchers focused on teacher salaries and school quality to help explain and correct for teacher attrition.⁹

A Nation at Risk was followed by *A Nation Prepared*, a 1986 report that called for a national board to "establish high standards for what teachers need to know and be able to do, and to certify teachers who meet that standard."¹⁰ Of course, this recommendation was realized in the establishment of the National Board for Professional Teaching Standards. Anticipating many of the features of what are now understood as positive features of induction, the report recommended creating decisionmaking structures in which "lead teachers" would play important roles and teachers would direct their own support staffs.

By the mid-1980s, some school administrators and teacher educators concluded that inexperience accounted for many of the problems facing new teachers. The only preparation that most beginning teachers had was the semester-long student-teacher experience. This was not sufficient. Student teachers had not survived a series of instructional failures, experienced students' boredom, discovered a wall of student learning resistance, or felt the isolation of "teaching forever." Student teachers did not characteristically experience the demands of meetings, red tape, extracurricular activities, and student/parent conferences.¹¹

Clearly, to be successful, novice teachers needed education in clinical practice that went well beyond student teaching. Researchers soon discovered that the most effective induction programs were those flexible enough to accommodate changes in the classroom and school setting. Excellent induction programs did more than show teachers how to teach at a certain school; they helped teachers improve the quality of their teaching. Education leaders called for mentoring programs designed to accurately determine new teachers' needs as they changed across time. Induction programs were designed to guide new teachers from day-to-day survival to more analytic and flexible thinking.¹²

By the early 1990s, it became evident that induction was even more vital than school officials had previously believed. Researchers found retention more positively related to the quality of the first teaching experience than to prior academic performance or the adequacy of teacher education.¹³ In 1996, the National Commission on Teaching and America's Future suggested that the first years of teaching be structured like a medical residency. New teachers in residency programs would regularly communicate with expert teachers on instructional practices and classroom supervision. They would also get feedback on and receive formal evaluations of their performance.¹⁴

By the first decade of the twenty-first century, compelling new research linking the performance of individual students with specific teachers led many analysts to the clear conclusion that the quality of the teacher was the most important factor in producing student achievement gain. The resultant focus on teacher quality brought an increase in schools implementing the kinds of reforms that education researchers had been calling for since the 1970s. Thus, in 2003, the majority of new teachers (79 percent) reported participating in some form of teacher induction.¹⁵ This represents a considerable increase when compared to previous years. Only 56 percent of new teachers in 1993 participated in a formal induction program during their first year; 44 percent of 1989's new teachers underwent induction; and just 17 percent of 1974's new teachers reported an induction experience.¹⁶ Now, in 2004, more than thirty states have initiated induction programs for their beginning teachers. Fifteen states currently require, and in some measure fund, induction programs for all new teachers.¹⁷

Since the passage of the ESEA in 1965, schools and their teachers have found a permanent place on the national agenda. In the past decade, the specific emphasis in policy and practice has increasingly been on the quality of instruction. Many states and districts have raised academic standards, mandated that every child have a quality teacher, and insisted that teachers have opportunities for continued growth and professional development once in the classroom.¹⁸ The No Child Left Behind Act (NCLB) of 2002 attempts to help children reach high academic standards by requiring that every class be taught by a "highly qualified teacher." NCLB requires academic achievement of every student in every school. As teacher quality is now understood to be the greatest predictor of academic success, and induction improves teacher quality, the need to continue the education of novice teachers in the first years of clinical practice in the classroom through well-designed programs of induction could not be greater.¹⁹

No Child Left Behind crucially changed the way the nation thinks about education policy. By requiring that every teacher in every classroom be "highly qualified," the fed-

eral government has made teacher quality a national priority worthy of federal resources. The kind of education, support, and evaluation that comes with a program of comprehensive induction is one sure way to improve the quality of the teaching workforce. It is the kind of reform for which thoughtful educational leaders have been advocating for more than thirty years.

When Carnegie Corporation of New York was designing its ambitious teacher education reform initiative, Teachers for a New Era, induction was a central element within the design principle of conceptualizing teaching as an academically taught clinical practice profession. Eleven colleges and universities are now recipients of support on this challenge, and each of them will construct a means of providing a formal program of support for their teacher graduates during their first two years of full-time professional teaching.

Every child deserves effective, high-quality professional teachers. Without them, children will have difficulty reaching the high standards we expect them to achieve, and too many of them will fail. Historically, the federal government has worked to ensure that all children have equal access to a quality education, no matter where they live or what level of resources are available to their local schools. More recently, this attention to equity has expanded to include efforts to improve teacher quality. A logical next step for the federal government is to encourage and fund well-designed programs of induction for all new teachers—a straightforward and reliable way to produce rapid improvement in the quality of the nation’s teaching workforce.

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EXECUTIVE SUMMARY

There is growing consensus that the single most important factor in determining student performance is the quality of the teacher. Therefore, if the national goal of providing an equitable education to children across this nation is to be met, it is critical that efforts be concentrated on developing and retaining high-quality teachers in every community and at every grade level.

However, when the final bell rings this school year and students across the nation head out the door for summer vacation, too many of their teachers will also be leaving the classroom—permanently. About 207,000 teachers, nearly 6 percent of the teaching workforce, will not return to teaching next fall.

Teachers in all schools are moving out of the profession, but the rate of attrition is roughly 50 percent higher in poor schools than in wealthier ones.²⁰ And teachers new to the profession are far more likely to leave it than are their more seasoned counterparts.

Experts debate the severity of teacher attrition compared to other industries, but they cannot dispute the cost. Estimated conservatively, American schools spend more than \$2.6 billion annually replacing teachers who have dropped out of the profession.²¹ Many analysts believe that the price is actually much larger, pointing out that the loss in teacher quality and student achievement must be added to the bill.

Why are so many teachers, most of whom chose to enter the profession because of a real desire to make a positive difference in the lives of children, leaving their jobs? A lack of support and poor working conditions are cited by teachers as among the primary factors.

Beginning teachers are particularly vulnerable, because they are more likely to be assigned low-performing students than are their more experienced colleagues. Despite the added challenges that come with teaching children and adolescents with higher needs, most beginners are given no professional support, feedback, or demonstration of what it takes to help their students succeed. The result is that new teachers are most at risk of leaving the teaching profession. In fact,

- 14 percent of new teachers leave by the end of their first year;
- 33 percent leave within three years; and
- almost 50 percent leave in five years.²²

If the national goal of providing an equitable education to children across this nation is to be met, it is critical that efforts be concentrated on developing and retaining high-quality teachers in every community and at every grade level.

About 207,000 teachers, nearly 6 percent of the teaching workforce, will not return to teaching next fall.

This means that one out of every two new teachers hired will quit in five years.

If every child is to have equal access to teachers who are truly highly qualified, the odds must be dramatically improved that teachers will stay in the profession long enough to become fully competent professionals. Luckily, a solution to the problem of keeping good teachers in the classroom does exist: comprehensive induction designed to provide new teachers with the practical skills they need for success.

Comprehensive induction is a combination of mentoring, professional development and support, and formal assessments for new teachers during at least their first two years of teaching. Research demonstrates that comprehensive induction cuts attrition rates in half. In addition, comprehensive induction helps to develop novice teachers into high-quality professionals who improve student achievement. *What is more, induction has shown to create a payoff of \$1.37 for every \$1 invested.*²³

Many schools and districts have some form of induction or mentoring program for new teachers. Unfortunately, only 1 percent of beginning teachers currently receive the ongoing training and support that constitutes comprehensive induction when they enter the teaching profession.²⁴

Placing new teachers in the most challenging classrooms without comprehensive induction—and expecting them to perform like experienced teachers—is like putting newly licensed drivers in the top heat of a NASCAR race. Most researchers and education experts agree that, in general, new teachers need from three to seven years in the field to reach proficiency and maximize their students' performance.²⁵ Comprehensive induction can minimize the time it takes for new teachers to perform at the same level as an experienced teacher.²⁶

Comprehensive induction programs include a number of components:

- *High-quality mentoring.* This is defined as structured mentoring from a carefully selected teacher or teachers who work in the same field or subject as the new teacher, are trained to coach new teachers, and can help improve the quality of teachers' practice. Mentors guide and support the work of novice teachers by observing them in the classroom, offering them feedback, demonstrating effective teaching methods, assisting with lesson plans, and helping teachers analyze student work and achievement data to improve their instruction.
- *Common planning time.* Regularly scheduled common planning time helps teachers connect what and how they teach to improving student achievement in a collaborative culture. These strategies may include how to develop lesson plans, use student assessment data, and employ collaborative models to increase student achievement.
- *Ongoing professional development.* These activities include regular seminars and meetings that improve a teacher's skill to increase student learning. Professional development should meet teachers' needs to expand content knowledge, teach literacy and numeracy at the secondary school level, address diverse learning needs, and manage student behavior.
- *An external network of teachers.* Participation in a network of educators outside of the local school provides teachers with a community of colleagues within which to collaborate and receive support, keeping them from feeling isolated.

Research demonstrates that comprehensive induction cuts attrition rates in half.

Induction has shown to create a payoff of \$1.37 for every \$1 invested.

- *Standards-based evaluation.* Some new teachers may not be ideally suited for teaching. Standards-based evaluation of all beginning teachers provides a mechanism for determining whether or not new teachers should move forward in the profession.

To retain teachers and improve their overall quality, comprehensive induction should be accompanied by the following essential elements that create high-functioning learning communities within schools:

- strong principal leadership;
- high-quality providers of the induction program with dedicated staff resources;
- additional support for new teachers with little preparation;
- incentives for teachers to participate in induction activities;
- alignment between induction, classroom needs, and professional standards; and
- an adequate and stable source of funding.

States, districts, and local schools all view and practice induction in different ways. Therefore, it is important to distinguish what is and is not meant in this report by the term “induction.”

What Comprehensive Induction Is Not

- *Induction is not a crash course in teaching.* Teachers must be prepared with content knowledge and teaching skills when they enter the classroom. But just as induction is not a substitute for quality preparation, neither is preparation a substitute for quality induction.
- *Induction is not an orientation session* in which administrators tell teachers where the copy machine and refrigerator are located. Induction incorporates teachers into the teaching profession.
- *Induction is not a stand-alone mentoring program*, however rigorous it may be. Induction does include time for new teachers to work with mentors to improve their instruction. But induction also must include additional components to effectively retain and develop teachers.²⁷
- *Induction is not a string of disconnected one-day workshops.* To be effective, induction must be embedded in the professional culture of every school and district with the strong support of school leaders.²⁸
- *Induction is not a top-down, unidirectional approach to teacher learning* where new teachers are expected to be only passive recipients. Beginners also have knowledge and skills to offer existing teachers, mentors, administrators, and principals, and the exchange of information benefits everyone.
- *Induction is not just of benefit to beginning teachers.* High-quality veteran teachers also can improve their skills by participating in induction through common planning time with inductees and by serving as mentors and instructional leaders.²⁹
- *Induction is not a way to help teachers cope with dysfunctional schools* that leaves the root causes of poor working conditions untouched. Induction can facilitate positive, systemic change in the local school environment and, ultimately, in the teaching profession.

Induction retains teachers, even when other factors such as salary, school conditions, and personal background of the teacher are taken into account.

What Comprehensive Induction Does

- *Induction keeps quality teachers in the profession.* Research by Richard Ingersoll and Thomas Smith found that induction retains teachers, even when other factors such as salary, school conditions, and personal background of the teacher are taken into account.³⁰
- *Induction weeds poor teachers out.* Some new teachers should not stay in the profession. Comprehensive induction uses assessments aligned with established teaching standards to identify and remove individuals who are not well suited for teaching.³¹
- *Induction teaches beginning teachers clinical, practical skills.* Academic preparation, even when accompanied by hands-on experiences like student teaching, can only partly cultivate the teaching skills of a beginning teacher. Novices need “clinical” training in full-time classroom situations to develop the kind of practical, professional skills necessary to consistently improve student achievement.³²
- *Induction builds a community of teachers who are learners.* Induction brings beginning teachers, experienced teachers, and school leaders together in collaborative settings to create a professional culture of ongoing learning, which can lead to positive change in the school climate.
- *Induction orients teachers into their local school.* Induction introduces teachers to the type of students their school serves and how best to meet their students’ particular needs.³³
- *Induction orients teachers into the efficacy and worth of their profession.* Any successful induction program must focus on the importance of teachers’ beliefs that what they do matters, and that all students can achieve at high levels regardless of race, family income, or other factors outside of school.³⁴ Equally, teachers must master the skills that lead to student learning, including continually developing content knowledge, improving teaching methods, and adjusting instruction to diverse learners.

Comprehensive induction can be delivered in a variety of forms.

Induction at Work

Comprehensive induction can be delivered in a variety of forms. This report features four case studies of effective induction programs, detailed in Appendix A.

Connecticut Beginning Educator Support and Training (BEST)

New teachers in this program are inducted over two or, if needed, three years, when they present portfolios documenting their teaching as a basis for the award of a provisional license to continue teaching. Teachers are supported with well-trained mentors, content-specific seminars, and, in some districts, “senior advisors” who are released from their normal teaching duties to work intensely with three to five new teachers.

Santa Cruz New Teacher Project (SCNTP)

The New Teacher Center provides induction services to every beginning teacher in the Santa Cruz region through the University of California at Santa Cruz. The program has expanded to include other districts across the nation. SCNTP rigorously selects and trains mentors to support new teachers during their first two years in the Santa Cruz school district. Mentors also administer assessments to new teachers to evaluate their work.

Tangipahoa FIRST

Every new teacher in Louisiana is assigned a mentor who guides them through their first years of teaching and prepares them to be assessed by the state. This program is called LaTAAP (Louisiana Teacher Assistance and Assessment Program). A separate induction program, Louisiana FIRST (Framework for Inducting, Retaining, and Supporting Teachers), provides a variety of supports to new teachers in school districts who apply for and receive state grant money. This case study looks at Tangipahoa Parish, a rural district in Louisiana, to see how induction works in remote areas through both LaTAAP and LaFIRST.

The Toledo Plan

The Toledo (Ohio) Plan is a cooperative project between the Toledo school district and the Toledo Federation of Teachers. New teachers are considered interns, and are supported by mentors and reviewed as to their effectiveness at the end of their first year. A Board of Review, composed of administrators and teacher leaders, examines the progress of each teacher and decides whether or not to renew their contracts. The Toledo Plan also identifies poorly performing veteran teachers and provides them mentored support.

Recommendations

There is no question that the implementation of effective, comprehensive induction can make a critical difference in our schools' ability to attract and retain high-quality teachers. But many districts, facing increasingly tight budgets, find it difficult to allocate the necessary resources to develop, implement, and maintain comprehensive induction programs. The Alliance for Excellent Education recommends that states and school districts use funds from Title II of the Elementary and Secondary Education Act (now the No Child Left Behind Act) to provide comprehensive induction to beginning teachers during at least their first two years of teaching.

Furthermore, the Alliance urges the U.S. Congress, as it considers the reauthorization of the Higher Education Act (HEA), to amend Title II of that law. Currently, Title II of HEA provides Teacher Quality Enhancement Grants to partnerships of postsecondary institutions and high-need school districts for improving the recruitment and preparation of K–12 teachers. All future partnership grants should require recipients to provide comprehensive induction that includes the quality criteria outlined above.

Moreover, Congress should provide additional funding to ensure that every new teacher in our nation's high-need schools receives comprehensive induction. These teachers are most at risk of leaving the profession.

There is no question that the implementation of effective, comprehensive induction can make a critical difference in our schools' ability to attract and retain high-quality teachers.

Congress should provide additional funding to ensure that every new teacher in our nation's high-need schools receives comprehensive induction.

THE PROBLEM WE FACE: HOW TO RETAIN TEACHERS AND DEVELOP THEM INTO HIGH-QUALITY PROFESSIONALS

Being prepared for life requires the same skills as being prepared for college.

The quality of teachers has an enormous impact on student learning and achievement.

The high school graduation rate in the United States is an abysmal 68 percent.³⁵ Every school day approximately 3,000 adolescents drop out of secondary school; 540,000 students fail to graduate each year.³⁶ Only one out of two students of color will earn a high school diploma, and that rate plunges even lower in many urban districts.³⁷

Merely remaining in school is no guarantee that students will acquire basic skills. One in four high school seniors cannot identify the main idea in a sentence or understand informational passages. One in four cannot demonstrate basic math skills.³⁸ It is little wonder that, according to a Manhattan Institute report, 68 percent of students leave high school without the skills necessary to succeed in college.³⁹

These young people will also have difficulty competing in the workplace. Increasingly, being prepared for life requires the same skills as being prepared for college. In 2004, the American Diploma Project highlighted the expectation of employers that their employees with high school diplomas will have high levels of literacy and math skills—the same

levels that colleges expect from their entering freshmen. But too few high school graduates possess such skills. Sixty percent of employers question whether or not the high school diploma means that students have mastered even basic skills.⁴⁰

Currently, employers have to spend millions of dollars remediating their employees. Businesses and institutions of higher learning in the state of Michigan alone, using a conservative estimate, spend \$601 million per year teaching young adults basic skills they should have learned in high school.⁴¹

Many educators think they can do little to overcome the barriers to learning that students bring with them to school. Recent research, however, tells us that the quality of teachers has an enormous impact on student learning and achievement.⁴² Even low-performing students facing barriers to learning can achieve high standards if they are taught by high-quality professional teachers. In 1991, Ronald Ferguson reported that teacher expertise was the largest factor explaining the gap between black and white student achievement—40 percent of the variation.⁴³

The bottom line is this: All students, especially those at risk of failure, need a high-quality teacher in order to achieve high standards and to graduate with the skills needed to succeed in college or the workforce. The economic and social success of our country depends on it.

Leaky Buckets Can't Hold Water: New Teacher Attrition

Over the past decade, education experts have focused on a perceived teacher shortage. The shortage has been attributed to large numbers of baby boomers retiring, increased student enrollment, and states reducing class sizes.⁴⁴ Common sense tells educators they have a problem because they constantly need to hire new teachers and cannot find suitable candidates.

But the problem is not a teacher shortage per se. Schools do not generally lack newly credentialed candidates to choose from; instead, they are rapidly losing the newly hired teachers they already have. In other words, schools are leaky buckets losing existing teachers faster than they can take in new ones. Indeed, the market has more candidates to fill open positions than it has positions themselves. Over the past ten years, the number of new teachers entering the workforce has rapidly increased.⁴⁵

The real crisis is created by the large number of beginning teachers who leave the profession—teacher attrition—before they can become the kind of high-quality teachers who consistently improve student learning. Currently, the rate of attrition among beginning teachers is astronomical. Research by education researcher Richard Ingersoll shows that

- 14 percent of first-time teachers quit in the first year;

- within three years, 33 percent will leave; and
- after five years—the average time it takes for teachers to maximize their students' learning—half of all new teachers will have exited the profession.⁴⁶

High rates of attrition like these mean that for every two new teachers a school district hires, one of them will completely drop out of the profession in five years—just at the time they are able to consistently improve student achievement.

Leaky Buckets Are Not Cheap: The Cost of Attrition

While experts debate the severity of teacher attrition compared to other industries, they cannot dispute the cost:

- Every year American schools spend approximately \$2.6 billion on teacher attrition. Using the most conservative industry model approved by the Department of Labor, the cost of recruiting, hiring, and training a new teacher is approximately 30 percent of the exiting teacher's salary—a cost that is not recoverable.⁴⁷ Using the most recent national data from the National Commission on Teaching and America's Future, this report estimates that for every teacher who leaves, the school district spends approximately \$12,500. Other researchers price attrition from \$13,000 to \$50,000 per teacher when accounting for losses in teacher quality and student achievement.⁴⁸
- When beginners leave before they become high-quality veterans, any investment in teacher professional development is lost. Taxpayers wind up paying more than they would if quality teachers remained in the profession in the first place.

All students, especially those at risk of failure, need a high-quality teacher in order to achieve high standards and to graduate with the skills needed to succeed in college or the workforce. The economic and social success of our country depends on it.

Every year American schools spend approximately \$2.6 billion on teacher attrition.

Current research holds that new teachers require three to seven years to become effective teachers.

Beginning teachers are routinely assigned the most difficult classrooms, full of low-performing students at risk of falling behind or dropping out.

Placing new teachers in the most challenging classrooms with little, if any, support—and expecting them to perform like pros—is like putting a newly licensed teenager in a NASCAR race.

- Schools with high rates of attrition cannot develop a strong nucleus of stable faculty to teach their students to high standards or mentor their new teachers to high quality. This loss also creates a lack of coherent community within the school, which is crucial for successful interaction and collaboration among the teaching staff. Morale and the work environment take a downturn because hard-to-staff schools become known as places to leave, not places in which to stay. And administrators spend inordinate amounts of time staffing vacancies.
- The most critical cost associated with attrition is poorer teacher quality that negatively impacts student achievement. As experienced teachers leave teaching, they take with them the knowledge and experience needed to consistently improve student learning. Consequently, high teacher attrition can have negative effects on student achievement. Current research holds that new teachers require three to seven years to become effective teachers.⁴⁹ With almost 50 percent of new teachers retiring within their first five years of teaching, schools struggle to develop a strong core of teachers who can positively impact student achievement.

The Bigger Picture: Lack of Support and Assessment

Attrition is the result of a much larger problem faced by new teachers. In America, teachers are expected to be experts ready to tackle the biggest challenges on the first day they enter a school. Beginning teachers are routinely assigned the most difficult classrooms, full of low-performing students at risk of falling behind or dropping out. Often they are given little if any professional support,

feedback, or demonstration of what it takes to help their students achieve.

Step into the shoes of Rachel, a first-year middle school teacher in New England:

Doing student teaching as part of my Master of Arts in Teaching program, I had a supervisor and could ask any question I needed to ask. Now I feel very uncomfortable asking for help. It feels like a sign of weakness. I was given a key and my room at the beginning of the year. There was no orientation at all. I feel like they think I should know everything and be able to handle it myself. On the one hand, I am flattered that they feel they can treat me like a veteran teacher, but I wish they would remember now and then that I am new and give me a little support.⁵⁰

Rachel's experience is like that of countless other beginning teachers across the country. Even with a graduate degree, she is not yet a seasoned, effective teacher and still needs support once she is on the job—she needs, in other words, induction.

Placing new teachers in the most challenging classrooms with little, if any, support—and expecting them to perform like pros—is like putting a newly licensed teenager in a NASCAR race. They may have the basic skills, but they are not ready to be in the Daytona 500—not on the first day, or even in the first year.

Doctors serve internships and residencies. Military recruits go through basic training. Many businesses provide employees with extensive on-the-job training programs. American teachers, too, need formal on-the-job training and evaluation. Comprehensive induction integrates beginners into the profession by guiding their work, further developing their skills, and evaluating their performance during the first few years of teaching.

On this point there is broad, even international, agreement: Once on the job, all beginners must learn to teach to established standards, evaluate the effects of their instruction on student performance, use student achievement data for planning and curriculum, tailor instruction to address specific learning needs, and learn how to thrive in the culture of their school.⁵¹ This kind of learning can only happen with strong support and assessment—that is, with comprehensive induction.

The Short End of the Stick: Once Again, Poor Schools Suffer Most

A major result of teacher attrition and inadequate induction is that poor, urban, and minority children are taught by less experienced, less qualified teachers who do not stay long enough to become the expert, high-quality teachers their students desperately need. High-poverty schools have proportionally greater numbers of teachers with less than three years of experience than affluent schools.⁵² High-poverty schools with high percentages of students of color are more likely to employ teachers who are on emergency waivers and who are not certified in the subject they teach.⁵³ At the turn of the millennium, urban and poor children in the United States had only a 50 percent likelihood of being taught math and science by a teacher with a college major in those subjects.⁵⁴

In the words of the Education Trust:

No matter which study you examine, no matter which measure of teacher qualities you use, the pattern is always the same—poor students, low-performing students, and students of color are far more likely than other students to have teachers who are inexperienced, uncerti-

*fied, poorly educated, and under-performing. Many of those teachers demonstrate most or all those unfortunate qualities at the same time.*⁵⁵

There are several reasons why high-poverty districts rarely get quality teachers and often lose the ones they have. The most obvious factor is a lack of funds to pay teachers the competitive wages they can find in wealthier schools. A 2003 report by Levin and Quinn of the New Teacher Project revealed that urban schools often lose their brightest candidates, who actually want to teach there, during a lengthy, bureaucratic hiring process.⁵⁶ Poor schools often have the most challenging working conditions, prompting many teachers to move to other schools or leave teaching altogether. In 2002, Hanushek, Kain, and Rivkin argued in a National Bureau of Economic Research report that hard-to-staff schools struggle to recruit and keep high-quality teachers precisely because those districts fail to provide effective training, valuable induction programs, and a generally supportive teaching environment.⁵⁷

In a 2004 report by the Harvard Project on the Next Generation of Teachers, researchers found that new teachers' decisions to transfer out of low-income schools rested on the extent to which those schools supported them with well-matched mentors, guidance in using curriculum, and positive hiring processes. "Given the many challenges of working in low-income schools," the report concludes, "teachers need to have broad, substantive support from a range of experienced colleagues. At a minimum, new teachers in these schools need substantive, structured, regular interactions with expert, veteran colleagues."⁵⁸ Because teachers in poor schools receive so little

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New teachers' decisions to transfer out of low-income schools rested on the extent to which those schools supported them with well-matched mentors, guidance in using curriculum, and positive hiring processes.

support, the implementation of comprehensive induction is even more important for those teachers working in the most challenging environments.

Given the demands of the No Child Left Behind (NCLB) Act for high student achievement, this disturbing question continues to nag policymakers, practitioners, and parents alike: How will our children with the greatest need for quality teachers get them and keep them long enough to meet the high standards we set for all students?

THE SOLUTION: COMPREHENSIVE INDUCTION FOR EVERY BEGINNING TEACHER

Addressing attrition and the lack of induction requires a much more comprehensive and systematic solution than currently exists in most states and districts. All beginning teachers need comprehensive induction if we are to retain them and help them develop into high-quality professionals.

“Comprehensive induction” is defined as a package of supports, development, and standards-based assessments provided to beginning teachers during at least their first two years of full-time professional teaching. High-quality, comprehensive induction that retains and develops new teachers includes the following components:

- *structured mentoring* from carefully selected teachers who work in the same subject area, are trained to coach new teachers, and can help improve the teacher’s practice;
- *common planning time* for new teachers to collaborate with their mentors, other teachers, and school leaders across all levels of experience;
- *intensive professional development* activities for new teachers that result in improved teaching that leads to student achievement;

- participation in a *network of other teachers* outside the local school; and
- *a standards-based assessment and evaluation* of every beginning teacher to determine whether he or she should move forward in the teaching profession.

Solving New Teacher Attrition: More Than Mentoring

Since the early 1980s, increasing numbers of states and districts have tried to retain and develop their teachers by adopting some form of induction. In most districts and for many states, induction is equated with mentoring.

Mentoring is a formal or informal relationship that offers new teachers coaching, support, and feedback from more experienced teachers. The popularity of mentoring is clear. In the 1999–00 school year, 79 percent of new teachers in the United States participated in some type of “formal” induction program; two-thirds of them were given mentors.⁵⁹

While mentoring is the most widely practiced component of induction, mentoring by itself is not enough to retain and develop teachers. Mentoring programs vary widely, and many do little

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more than ask mentors to check in with new teachers a few times per semester to chat. Some mentors meet with new teachers regularly for encouragement but never observe or evaluate them in the classroom. Emotional support is important for growing professionals, but it is a pale substitute for rigorous guidance about how to teach. Even in an ideal world, where new teachers are matched with excellent mentors, beginning teachers need the additional opportunities—such as networking with other teachers outside the school or receiving standards-based assessment—that come with comprehensive induction.

The Benefits of Comprehensive Induction

Comprehensive induction requires a substantial investment of time, money, and resources. The cost of comprehensive induction varies in terms of release time and compensation for mentors. Using models from California and Connecticut, the approximate average cost of induction is \$4,000 per teacher, per year.

The good news is that the investment pays off. Using a two-year program in California as a model, Anthony Villar of the New Teacher Center, University of California, Santa Cruz, found that comprehensive induction pays \$1.37 for every \$1 invested.⁶⁰

Historically, the benefits of comprehensive induction have been hard to evaluate, leaving few studies and little evidence on the true value of induction. However, Villar’s work identifies and quantifies three major benefits of induction:

- reduced attrition;
- improved teacher quality; and
- improved student achievement.

Reduced attrition. Induction cuts attrition rates in half.⁶¹ And teachers who experience all the components of comprehensive induction are more likely to remain in teaching than those who only receive mentors.⁶² By reducing attrition, school districts can make the dollars spent on recruiting, hiring, and developing teachers more effective and provide their students with teachers who have growing expertise.

Improved teacher quality. In his report, Villar found that comprehensive induction more rapidly develops teachers, moving the skill level of a new teacher to that of a fourth-year teacher within the span of one year. In addition, all teachers, not just novices, benefit from induction.

Experienced educators who serve as induction leaders, mentors, or coaches build leadership skills and refine their own practice as they help other teachers. They also gain a sense of job satisfaction. By improving satisfaction, leadership among teachers, and teaching quality, induction can vastly improve the climate of schools and help retain its veteran teachers as well as its new ones.

Improved student achievement. Furthermore, because inducted teachers “move more quickly beyond issues of classroom management to focus on instruction,” they use practices that improve student achievement.⁶³ Inducted teachers motivate diverse students to engage in productive learning activities, and they better assess their students’ learning needs.⁶⁴ Inducted teachers also develop better teaching practices because they think about how their teaching influences student learning.⁶⁵

Comprehensive induction requires a substantial investment of time, money, and resources. The good news is that the investment pays off.

THE INDUCTION ENGINE: COMPONENTS OF COMPREHENSIVE INDUCTION

Quality induction proven to retain and develop new teachers is a bundle of several types of supports and assessments. What follows is a rigorous description of the essential components of comprehensive induction. Without them, induction is a car without an engine.

Because induction programs vary so widely, educators and policymakers need to understand the common components that make up comprehensive induction so they can recognize good induction when they see it. Knowing the components of induction can guide decisionmakers at the federal, state, and local levels about what to require, expect, and fund. Articulating quality criteria is also an important step toward equity, ensuring that every beginning teacher has the opportunity to develop into a high-quality professional.

Stand By Me: High-Quality Mentoring

Comprehensive induction programs match new teachers with one or more experienced and trained teachers who mentor new teachers. Mentors support and coach novice teachers in several ways. They spend regular time observing new

teachers in the classroom, offering them feedback, demonstrating effective teaching methods, assisting with lesson plans, and helping teachers analyze student work and achievement data. Quality mentors also assess novice teachers to determine how their practice should improve in order to raise student achievement and meet teaching standards.

The process of selecting and assigning mentors is crucial to induction's success. The mere presence of a guide does not improve teaching.⁶⁶ "If mentors simply pass on their own teaching practices, regardless of whether they are effective or not," researchers Richard Ingersoll and Jeffrey Kralik warn, "programs might tend to stifle innovation or the implementation of new approaches on the part of beginning teachers."⁶⁷ Mentors need to be selected using the following characteristics:

- *Quality mentors are good teachers of students.* The best mentors have strong content knowledge of the subject they teach, a proven ability to raise student achievement, and success working with linguistically and ethnically diverse students.⁶⁸

Knowing the components of induction can guide decisionmakers at the federal, state, and local levels about what to require, expect, and fund.

The process of selecting and assigning mentors is crucial to induction's success.

For their induction work, which is often done in addition to regular classroom teaching, mentors need recognition and support.

- *Quality mentors are good teachers of teachers.* Besides exemplary teaching, the best mentors have the ability to learn a new set of skills: teaching teachers.⁶⁹ Mentors communicate *how* to teach as much as *what* to teach. They must be able to model successful teaching in a way that makes it possible for other teachers to learn from them.
- *Quality mentors are matched with teachers in the same subject area.* Ideally, mentors work in the same subject (e.g., math) or field (e.g., special education) as their novice teachers. Research confirms what common sense knows: mentors maximize their skill base when they coach teachers who do similar work, especially at the high school level, where teachers specialize in specific disciplines such as geometry or literature. Currently, however, less than half of beginning teachers are mentored by teachers from the same subject area.⁷⁰ But even great teachers will not mentor successfully without additional training. Training prepares mentors to use formative assessments—to identify new teachers’ needs, assess their practice, and help them plan improvement in order to

reach professional standards.⁷¹ Formative assessments are regular, guided reflections that evaluate how well teaching practices lead to student learning.

For example, a mentor might review student achievement data on midyear tests with a new teacher to see how his or her daily homework assignments do or do not lead to student progress. In a series of dialogues, mentor and teacher would identify particular struggling students, reflect on the teacher’s work with those students, and strategize how to tailor future homework assignments to get better outcomes. In the future, for example, the teacher might plan to assign a group project instead of book reports, or require shorter essays instead of a longer research paper.

For their induction work, which is often done in addition to regular classroom teaching, mentors need recognition and support. Some induction programs pay mentors stipends and offer them extra professional development money. Others identify mentors as master teachers and give them greater responsibility, with larger salaries. Incentives like increased pay and promotion reward as

The New Teacher Center Formative Assessment System

The New Teacher Center Formative Assessment System (NTC FAS) is a series of “collaborative processes” that focus on how new teachers can improve student learning. During the first month of school, mentors collaborate with beginning teachers to assess their practice, set goals aligned with state teaching standards, and form an individual learning plan to reach those goals. Mentors observe and meet with their teachers weekly to discuss growth, pinpoint areas for improvement, and analyze student work and teacher work (e.g., lesson plans and journal entries) to track the teacher’s progress. Early in the year, mentors and teachers assemble a class profile that identifies their students’ needs and plans how the teacher can place them in groups to promote learning. They also select one student as a case study to follow her or his progress throughout the year. During the school year, teachers and mentors regularly analyze student data, plan their lessons accordingly, set up professional development activities, and prepare to work with parents. By the end of the year, teachers and their mentors have consistently and systematically reflected on their teaching and measured how it has led to improved student learning.⁷²

For more information about NTC FAS and the New Teacher Center, at the University of California at Santa Cruz, see Appendix A.

well as encourage higher-quality teaching. In this way, mentoring becomes a type of career ladder that promotes professional growth.

Still other induction programs release their mentors from some or all of their normal workload to observe and assess teachers, making some mentors full-time coaches.⁷³ Arguably, release time is essential to successful induction because it gives mentors time and space to support and assess novice teachers.

Through mentoring, comprehensive induction builds the teaching capacity of existing teachers, who then become leaders in the profession. It should be no surprise that mentors report using practices that improve student achievement, and that they experience greater job satisfaction.

It Takes a Village: Common Planning Time and Collaboration

If it takes a village to raise children, it follows that a community of teachers can more effectively instruct them than isolated individuals.⁷⁴ Teachers who plan together stay in teaching longer, and they become a community of professionals, all of whom are responsible for student learning. As Joellen Killion at the National Staff Development Council puts it, “When opportunities for collaboration are present in a school’s culture, teachers are typically more satisfied with their work, more actively involved in the schools, and work more productively toward school goals.”⁷⁵

Collaboration offsets the isolation many teachers feel early in their careers, and it fosters a collegial work environment so that teaching becomes a culture of cooperation and continuous learning. The best collaboration includes teachers

and leaders across all experience levels so all teachers can learn from one another.

Common planning time is not an extra faculty meeting or a forum to discuss current events; it should be structured collaboration that helps teachers connect what and how they teach to student achievement. Every teacher, particularly a beginning one, needs time with other teachers to examine how her or his own teaching leads to student learning.

By itself, time set aside for planning will not improve student performance. Time must be accompanied by strategies and supports that help teachers reflect on their practice. Thus, collaboration is as much a change in school culture as a way to organize meetings.

Groups of teachers collectively focused on improving instruction can improve student achievement. Researchers looking at Cincinnati schools found that, after controlling for personal background, students taught by teachers who were part of structured common planning sessions—where school leaders provided them time and strategies to reflect on teaching and student achievement—learned more.⁷⁶ The difference in student outcomes was the difference in teacher collaboration.

Collaborative strategies that improve instruction may include:

- *Developing lesson plans and curriculum.* Because new teachers are less experienced they need more time to develop lesson plans and classroom curriculum. David Kauffman, in a 2002 report for the Harvard Project on the Next Generation of Teachers, found that many beginning teachers feel “lost at sea” and “overwhelmed by the responsibility and demands of designing curriculum and planning daily lessons.” New teachers need help deter-

Common planning time is not an extra faculty meeting or a forum to discuss current events; it should be structured collaboration that helps teachers connect what and how they teach to student achievement.

Quality professional development is a sustained, intensive effort to improve teaching and learning.

mining what to teach and how to teach it. As the report concludes, “They entered the classroom expecting to find a curriculum with which they would struggle. Instead, they struggled to find a curriculum.”⁷⁷

- *Using student assessment data.* The requirements of the No Child Left Behind Act have forced schools to collect a wealth of achievement data. But teachers need help interpreting this data and using it to evaluate and improve their teaching.⁷⁸ A 2003 study by Supovitz and Klein at the Consortium for Policy Research in Education found that innovative, successful schools used student achievement data in three ways. First, teachers used data as a basis for identifying lesson objectives. Second, teachers and administrators used student performance data to guide the grouping of students for focused instruction. And third, teachers used data to align their lessons with established standards.⁷⁹
- *Using collaborative models.* Several programs exist that can help teachers link their teaching to student learning such as National Board for Professional Teaching Standards (NBPTS) study groups or the Standards in Practice (SIP) model, developed by the Education Trust in 1995.

Ongoing Professional Development

Induction recognizes that effective teaching is developed over time. Beginning teachers need professional development because they are building teaching skills that will shape the rest of their careers.

However, few teachers receive rigorous professional development. The typical teacher spends a day or less per year in professional development on any one content area. Many teachers participate in one-day, garden-variety lecture workshops that lack continuity, do not teach adults the way they learn best, and do not change the way they practice. In 2000, only 12 to 27 percent of teachers who received professional development reported that it improved their teaching.⁸⁰

In contrast, quality professional development is a sustained, intensive effort to improve teaching and learning. To improve instruction, professional development must be collaborative, long term, and content driven. It requires teachers to be active learners, not passive recipients. And it is a coherent part of other well-planned professional development activities.⁸¹

Professional development can be structured in a variety of ways as long as it actively engages participants. Networks,

Standards in Practice (SIP)

The SIP model gathers teams of teachers to discuss how they can strengthen their assignments and instruction in order to demand higher achievement from their students. Teachers review their assignments and student work at common meetings with other teachers. In a six-step process, teachers discuss how to align their assignments with academic standards and how to help students reach those standards. Principals organize and attend common meetings, but a third party external to the school facilitates them. SIP has raised student achievement in Colorado, Pennsylvania, Ohio, and Florida.⁸²

For more information about the SIP model, see <http://www2.edtrust.org/EdTrust/SIP+Professional+Development>.

study groups, seminars, and online activities are all ways to organize teachers' ongoing learning. Providers may be leaders in the local school, district or state personnel, nearby university faculty, or third-party experts. However, all professional development should meet the needs of new and experienced teachers to:

- *Expand content knowledge.* Content knowledge is not completed in college. Teachers continually need to enhance their knowledge of the subjects or fields they teach. All teachers need to regularly update their expertise, because their disciplines, and how to teach those disciplines, change over time.
- *Teach literacy and numeracy across the curriculum.* Middle and high school teachers need to reinforce literacy and numeracy for all their students, since adolescents are still developing reading, writing, and computation skills in later grades. Teachers also need to be able to diagnose students who continue to read

and solve problems at low levels to ensure that they receive the intensive intervention they need. Educators have long thought that adolescents master literacy and numeracy well before the middle grades, and few secondary teachers are prepared to teach such skills. However, roughly one in four high school seniors cannot read or solve problems at the most basic levels.⁸³

- *Address diverse learning needs.* High-quality teachers understand that different students learn and perform differently in the classroom. Diversity exists in learning styles, learning disabilities, acquiring English as a second language, and in culture and community. Beginning teachers must learn how to use this knowledge to adapt their teaching to individual learning needs and help students use their strengths as the basis for growth.⁸⁴
- *Manage student behavior.* Every new teacher must learn how to manage students during his or her first years on the job. New

The United Federation of Teachers (UFT) Teacher Center at Christopher Columbus High School

The state of New York funds 126 Teacher Centers to provide teacher-led professional development to new and existing teachers. The New York City UFT Teacher Center works in 300 schools, including Christopher Columbus High School, a large, comprehensive high school of 3,300 students. The Teacher Center at Christopher Columbus serves all teachers, but particularly reaches out to new teachers through a range of services including semester-long seminars and study groups. Generally, the center holds a fall seminar to examine basic teaching methods and strategies, and a spring study group on classroom management.

In study groups, teachers meet for an hour once a week. Sessions are low-key, opening with a reflection on the classroom experiences of the preceding week and the successes and failures of the strategies that were applied. The group then moves to reading and discussing a common text. Finally, participants make personal decisions on one strategy or practice from their reading that they will implement in their classrooms for the coming week. Their implementation experiences will become the basis for the opening discussion at the following meeting. Study groups are led by a trained staff facilitator who encourages new teachers to share ideas, learn from other teachers' experiences, and identify, through practice, what works with their individual students. These sessions may be supplemented with in-class support by the Teacher Center staff.

Professional development at the school is a collaborative effort, and the UFT Teacher Center works closely with a teacher consultant from the New York City Writing Project and a math consultant to provide additional support for new teachers in literacy and numeracy strategies.⁸⁵

For more information about the UFT Teacher Centers, see <http://www.ufttc.org/modelnetwks.html>.

New teachers regularly say their greatest challenges are classroom management, motivating students, and dealing with differences among students.

Networks draw teachers out of isolation into a community, formally changing teaching into a collaborative profession.

teachers regularly say their greatest challenges are classroom management, motivating students, and dealing with differences among students.⁸⁶ An independent evaluation of South Carolina’s state induction and professional development program examined why teachers were removed from their classrooms. The study found that while the teachers could plan instruction well they could not manage their classrooms, establish and maintain high expectations, or monitor and enhance learning. In other words, teachers were skilled at planning their teaching, but they could not interact productively with their students.⁸⁷

Participation in an External Network of Teachers

While professional development improves teaching skills, networks build a teacher’s professional identity, allowing him or her to reflect on practice while creating a community of colleagues.

The practice of placing individual teachers in separate classrooms has created an isolating, private profession that hampers large-scale school improvement. Even if teachers want to learn from other teachers or school leaders, they do not have time or opportunities to connect with them. The New Teacher Academy at

Columbia Teachers College describes the problem: “Classroom teaching has developed as a ‘what works for me’ profession that has all but paralyzed the spread of ‘best practice.’ Captive to their daylong responsibility to supervise children in individual classrooms, teachers have had no access to the experiences of others.”⁸⁸

By contrast, networks draw teachers out of isolation into a community, formally changing teaching into a collaborative profession. Networks form connections between teachers, classroom work, and the larger profession. The byproduct of these connections is energy—the kind of energy that can fuel school improvement.

By networking with their peers, beginning teachers reflect on their work, receive personal support from colleagues, and learn from the successes and failures of other beginners.⁸⁹ Reflection is crucial because new teachers are developing a public identity—what it means to be a teacher in their school and in the wider profession. Networks form beginners into members of the teaching *profession*.

One prime value of networks is their flexibility. Professional networking does not have to be local and can happen across schools, districts, and states. For rural teachers, networks are often best organized online, providing them with

Louisiana Framework for Inducting, Retaining, and Supporting Teachers (LaFIRST) in Tangipahoa Parish

All teachers new to Tangipahoa Parish (district) are required to participate in the FIRST induction program. During professional development activities, induction coordinators systematically place teachers in groups according to their grade level and subject area. Through these groups, Tangipahoa Parish hopes that teachers, especially new ones, will build a network of emotional and social support that they can rely on throughout the school year to discuss their classroom work and share ideas for improvement. In addition, Louisiana connects teachers across the state at all levels of experience through an online discussion forum, FIRSTTech. While teachers in all parts of Louisiana use FIRSTTech, the online network is particularly useful to teachers in rural or remote parishes like Tangipahoa.

For more information on LaFIRST and Tangipahoa Parish, see Appendix A.

more options than they would have otherwise. Online networks can also be relatively inexpensive.

Ideally, networks are organized by third parties so that novice teachers can voice frustrations or share ideas for school improvement without worrying about their employment status. This is especially true for district-based induction programs, because they are almost always managed by a teacher's superiors and colleagues. Teachers not performing well—those who need help the most—will be much more likely to discuss their needs with confidential, outside staff who do not influence personnel decisions.

Final Decision: Standards-Based Evaluation

Induction helps to guard the quality of new teachers by determining whether or not novice teachers should continue teaching. Some teachers are not ideally suited for the teaching profession, and their first years in the classroom make that clear. Some need assistance to improve their skills. Others need to transition into different careers. However, some less-than-ideal candidates continue to teach despite the fact that they are not effective in the classroom.

Comprehensive induction evaluates, as well as supports, new teachers during their first years on the job. By providing assis-

tance and assessment, induction readies beginning teachers to demonstrate that they have become high-quality, fully competent professionals. To be fair and efficient, assessment should be tied to established teacher-quality standards. From the very beginning, teachers should know what skills they need to acquire and, through induction, be given the support needed to acquire them.

Teacher groups like the American Federation of Teachers support the use of evaluations. Since 2001, AFT policy has maintained that “Successful completion of induction, including a positive summative review, should be a licensure requirement.”⁹⁰ Similarly, induction programs like the Toledo Plan in Toledo, Ohio—a program negotiated between the school district and the Toledo Federation of Teachers—require that teachers demonstrate standards-based teaching skills in order to renew their contracts.

The state of Connecticut requires all of its beginning teachers to participate in induction programs that end in a summative evaluation. In Connecticut, standards-based evaluation is a culmination of the induction process. Evaluation shows that beginners have successfully crossed over from novices to professionals.

Teachers should know what skills they need to acquire and, through induction, be given the support needed to acquire them.

Connecticut BEST

The state of Connecticut offers support and assessment to every beginning teacher through comprehensive induction. The Beginning Educator Support and Training (BEST) Program requires new teachers to submit a portfolio of work in May of the second year of teaching. Portfolios include videotapes of classroom teaching, lesson plans, student work, and reviews of the teacher by school administrators. Expert teachers across the state are trained to score these portfolios, and their evaluation determines whether or not a beginner is further licensed to teach in the state. Every beginning teacher is assigned a mentor, attends regular seminars, and networks with other teachers in preparation for a successful portfolio assessment. Teachers who do not score well are given an additional year to demonstrate competency, and they are provided intensive mentored support during that time.⁹¹

For more information about Connecticut BEST, see Appendix A.

INDUCTION AT THE HIGH SCHOOL LEVEL

Certain aspects of induction are unique to high schools.

Induction for secondary teachers must include strategies for incorporating literacy and numeracy across the curriculum for all of their students.

Very few educators or researchers have focused on what induction for high school teachers looks like, even though certain aspects of induction are unique to high schools. The result is that teachers, principals, and induction providers have very few resources to draw from when they structure their secondary school induction programs. Clearly, more research is needed, and practitioners should explore how their work in high schools can build the knowledge in this area.

Induction experts and the small body of existing research identify the following characteristics as essential to address at the high school level:

- *Mentors in the same subject area.* High school teachers, in particular, need mentors from the same subject area or field in order to learn how to better teach their content expertise. Compared to teachers in lower grades, high school teachers need to be able to teach their subjects in a more in-depth manner.
- *Ongoing literacy and numeracy strategies.* Induction for secondary teachers must include strategies for incorporating literacy and numeracy across the curriculum for all of their students, as well as

intervention strategies for those students who still struggle to master basic skills. Students continue to develop reading, writing, and numeracy skills over their lifetime. Of all secondary students, approximately one in four has not mastered basic reading and math skills. But even students who are proficient in the early grades need to learn more advanced skills to succeed in rigorous high school courses.

- *Training in English-language instruction.* High-quality induction trains mentors and new teachers at the high school level to work effectively with English-language learners. Large numbers of adolescents are still developing English-language skills in their high school years. The best induction helps new teachers incorporate language-acquisition activities into classroom work and adapt teaching methods to students with different levels of English proficiency.
- *Adequate time for induction activities.* High schools often have schedules that prevent teachers from meeting together on a regular basis. Therefore, principals, department chairs, and induction leaders must ensure that teachers are

given regular, structured time for induction activities like common planning and collaboration. Principals or administrators in charge of scheduling must also provide mentors and their novices sufficient release time for observation and assessment.

- *Special assistance for teachers with nontraditional preparation.* For hard-to-staff subjects like math, science, and special education, increasing numbers of secondary teachers come from nontraditional certification programs. Induction at the secondary level must address the needs of these new teachers, who sometimes have substantial knowledge of the subjects they teach but little or no training in how to teach it.
- *A positive working environment and realistic workload.* High-quality induction must be accompanied by positive working conditions that allow teachers time and space to participate. New teachers in high schools are regularly assigned the most difficult classes without any support. Many times they do not even have an actual classroom of their own. Novice high school teachers are also likely to have a large number of preparations—the number of different courses a teacher must teach and prepare for. Induction at the high school level must work under and improve such circumstances so that new teachers have a regular time, space, and culture that leads them to improve their practice.

Principals, department chairs, and induction leaders must ensure that teachers are given regular, structured time for induction activities.

DRIVING INDUCTION: WHAT MAKES INDUCTION WORK

If induction is to develop teachers into high-quality professionals who improve student learning, then it must be the priority of the instructional leader.

Principal leaders who foster positive, supportive environments and allow teachers greater decisionmaking roles through induction can better hold on to new teachers and help them become high-quality professionals.

To retain teachers and improve their overall quality, comprehensive induction must be accompanied by other essential elements that create high-functioning learning communities within schools. The following additional elements make induction run smoothly and efficiently:

- strong principal leadership;
- high-quality providers of the induction program with dedicated staff resources;
- additional support for new teachers with little preparation;
- incentives for teachers to participate in induction activities;
- alignment between induction, classroom needs, and professional standards; and
- an adequate and stable source of funding.

Principal Leadership

Researchers, school officials, and practitioners have increasingly insisted that the principal's work should center on improving instruction—that is, providing instructional leadership—more than building maintenance or human resource management. If induction is to develop teachers into high-quality professionals who improve student learning,

then it must be the priority of the instructional leader.

At the school level, teachers follow the lead of their principals. Induction works best when it is systematically embedded in the culture of a school. A principal, more than any other school leader, can make induction an integral part of the school culture and an expectation for every teacher.

Strong principals also maintain the quality of induction by ensuring that mentors and novices are well matched, have enough release time to work together, and direct their work toward improving student learning. Principals are also essential for successful collaboration and common planning time. They can create incentives and structures that bring teachers together and ensure that teachers use that time well. Principals provide numerous professional development opportunities and reward teachers for participating in them.⁹²

Knowledgeable principals work closely with experienced teachers to ensure that mentors are properly selected, trained, and matched with beginning teachers using the quality criteria listed above. However, not all principals know how to

support new teachers or identify quality mentors. Principals need training in these areas if they are to succeed.

Unfortunately, principals often use poor criteria to select teacher leaders, such as how well they manage noise in their classrooms or how well they handle conflicts with parents.

Principal leaders who foster positive, supportive environments and allow teachers greater decisionmaking roles through induction can better hold on to new teachers and help them become high-

quality professionals.⁹³ Too often, teachers report poor support from administrators and lack of decisionmaking as reasons for leaving the profession.⁹⁴

High-Quality Providers

Induction can be run by multiple types of providers as long as they make the quality components available to every beginning teacher. Schools have different needs that create demand for different providers. A range of providers could include institutions of higher education,

Cynthia Foster, Principal Ponchatoula High School

Cynthia Foster is the principal of Ponchatoula High School in Louisiana's Tangipahoa Parish. To work well, both the parish induction program (Tangipahoa Framework for Inducting, Recruiting, and Sustaining Teachers—FIRST) and the statewide induction program (Louisiana Teacher Assistance and Assessment Program—LaTAAP) require strong principal leadership. Although state legislation specifies that mentors for new teachers be from the same discipline and grade level and that common planning time be established, the implementation of these guidelines is left up to the individual principal. At Ponchatoula, Foster closely monitors the number and training of mentors so the school has enough mentors, in each subject area, to work with new teachers. She ensures that mentors have a substitute teacher to cover their classes while they conduct observations and meet with mentees. Foster is aware of available local and state training opportunities, and she regularly encourages qualified teachers to take advantage of them. Afterward, she asks newly trained teachers to share their skills with other teachers. Importantly, Foster recognizes her own limitations in inducting new teachers. She meets regularly with mentors to track their progress and suggests ideas and resources to improve their work and the work of new teachers. Foster also promises to be a confidential source of support for new teachers, who are encouraged to come to her with problems or concerns.

For more information about Tangipahoa FIRST and LaTAAP, see Appendix A.

Teachers for a New Era

One example of how to provide comprehensive induction is the clinical residency model used by the Carnegie Corporation of New York's Teachers for a New Era (TNE). Begun in 2002, Teachers for a New Era aims to standardize university teacher education programs in the United States by enhancing eleven top-tier programs across the country. "At the conclusion of the project," Carnegie forecasts, "the selected institutions should be regarded by the nation as administering the best programs possible for the standard route to employment as a beginning professional teacher."⁹⁵ After completing coursework, graduates at TNE sites participate in two-year clinical residencies housed in local schools run by a partnership of university faculty and school district personnel. Residencies develop new teachers' skills in actual classrooms in practice-based settings. Residents are supported by university faculty and practicing teachers from the district. To make teacher education more responsive to local need, district teachers serve as clinical faculty at the participating university. At the same time, universities provide outside professional support to TNE graduates.

For more information about Teachers for a New Era, see <http://carnegie.org/sub/program/teachers.html>.

Support for Teachers with Little Preparation

Ideally, all teachers are well prepared before their first day in the classroom, and then they participate in comprehensive induction to develop their practice further. Unfortunately, many teachers do not enter the classroom with adequate preparation. New teachers, especially in schools serving the neediest students, begin teaching with widely different levels of preparation and experience.

In the 2002–03 school year, 42 percent of California’s first- and second-year teachers were not fully credentialed. These teachers were disproportionately concentrated in schools serving poor, minority, and low-performing students. Unfortunately, teachers without full credentials were not eligible to participate in California’s statewide comprehensive induction program.⁹⁶

In order to be effective, comprehensive induction must take into account the different degrees of preparation and various skill levels that entering teachers bring to their work. Induction cannot substitute for preparation. But it can help offset the

school districts, state departments of education, teacher unions, nonprofit and for-profit organizations, or a combination of these.

Because induction is a complex system with many components, it must be planned, implemented, and evaluated well. Therefore, the best providers set aside several people to coordinate induction in each district and, if possible, in each school. Staff coordinators are dedicated resources who can respond to teachers’ questions, identify and train mentors, run networks, and provide professional development or additional mentoring when needed.

Ultimately, the *relationship* between induction providers and school staff is more important than who manages the induction program. For teachers and schools to embrace induction, it must be a partnership between providers and schools. Induction is a shared process rather than a top-down approach to teacher learning. Schools and districts know their needs and can better orient teachers to their local cultures. At the same time, outside agencies can help induct teachers into the entire profession as well as the local school.

The relationship between induction providers and school staff is more important than who manages the induction program.

Comprehensive induction must take into account the different degrees of preparation and various skill levels that entering teachers bring to their work.

The Santa Cruz New Teacher Project

The Santa Cruz New Teacher Project (SCNTP) is a comprehensive induction program administered by the New Teacher Center at the University of California at Santa Cruz. The SCNTP program provides teachers who are not fully credentialed or do not have adequate preparation with more intensive support to ensure that they are successful in their classrooms. Teachers hired before the beginning of the school year participate in a forty-hour “Foundations in Teaching” course that exposes them to basic teaching methods. The course is taught by experienced mentors and SCNTP staff. New teachers with no credentials are also given videos, test preparation materials, and personal support to get into a state credentialing program and, eventually, to pass California’s multisubject exam that licenses new teachers to teach in their subject area. Often, New Teacher Center staff will facilitate special group activities during monthly professional development seminars just for underprepared teachers. As is the case for all SCNTP mentors, experienced teachers who mentor teachers with poor preparation tailor and adapt their support and assessment to the individual needs of their novice teacher.

For more information about SCNTP, see Appendix A.

dramatic inequality in high-need schools by making a concentrated effort to develop every beginning teacher into a high-quality professional.

Incentives for Participation

In order to make induction part of the school culture rather than just an extra program, quality providers offer incentives for teachers and school leaders to participate in induction activities. Some components of induction, like mentor training or professional development seminars, may be voluntary, require extra work before the year begins, or extend beyond the regular paid workday. Incentives like compensation, career advancement, or certification requirements can boost attendance for voluntary programs and ease the burden of weekend work.

Mentors and teacher leaders often sup-

port several new teachers in addition to teaching their own students. Compensating them with stipends or extra professional development funds recognizes and encourages higher levels of professional commitment. Financial incentives increase the likelihood that veteran teachers will participate in induction. New teachers in voluntary programs may also need compensation, especially if they are asked to attend events outside the paid workday.

Using veteran teachers as induction leaders—mentors, coaches, program officers, observers, and evaluators—creates opportunities to advance in the profession that teachers have traditionally not had. These are what many call “career ladders” or “differentiated roles,” and they encourage teachers to develop their skills to greater degrees, especially when financial incentives,

Incentives like compensation, career advancement, or certification requirements can boost attendance for voluntary programs and ease the burden of weekend work.

Arkansas’s Pathwise Model

Beginning Arkansas teachers are given an initial teacher license valid for one to three years, during which they are considered to be in a time of induction. Through induction the state supports the practice and professional growth of new teachers. When novices, with their mentors, decide that their teaching meets set requirements, a Praxis III assessment, the capstone of the induction experience, is scheduled. The Praxis III, developed by the Educational Testing Service, is designed to assess the skills of new teachers in their own classroom settings. The exam includes written descriptions of the class and subject matter, direct observation of classroom practice by a trained and certified assessor, and interviews structured around the observation. Upon successful completion of the performance assessment, Arkansas issues a standard license to the newly inducted teacher for continued teaching in the state.⁹⁷

For more information about Arkansas’s Pathwise Model, see <http://arkedu.state.ar.us/pdf/ADE%20HANDBOOK.pdf>.

The Career in Teaching Plan

The Career in Teaching (CIT) Plan in Rochester, New York, illustrates how induction enables veteran teachers to take on leadership roles and advance in the profession. Rochester’s program includes four stages in a teacher’s career: intern, resident teacher, professional teacher, and lead teacher. Lead teachers primarily serve as supervisory mentors for new teachers, and they are compensated with larger salaries. Negotiated in 1987 between the Rochester Teachers Association and the Rochester City School District, CIT has successfully shown to improve and retain its teachers.⁹⁸

For more information about the Career in Teaching Plan, see <http://www.rochesterteachers.com/contract/52cit.htm>.

At its best, induction addresses the specific, practical concerns of classroom teachers, such as how to adapt teaching methods for English-language learners, how to ensure that students meet achievement benchmarks, and how to overcome students' barriers to learning.

reduced workloads, or certification requirements are attached to them.

Researchers at Harvard University have found that veteran teachers in schools with well-developed induction programs value their new roles. Career ladders recognize their work, improve their teaching practice, stimulate them intellectually, and ward off boredom and burnout. Schools with differentiated roles also benefit by identifying and nurturing strong teacher leaders who can readily support struggling teachers.⁹⁹

Finally, certification or licensure requirements are strong, though blunt, incentives to participate in induction. Licensure incentives work best when induction pairs assessment and support together to improve teacher quality. For example, several states now use Performance-Based Licensing (PBL) or two-tiered licensing measures. In PBL programs, states issue novice teachers a provisional license to teach in the induction period. During induction states provide

teachers supports that prepare them to pass a final licensing evaluation. At the end of induction, beginning teachers must pass a performance-based exam in order to continue licensed teaching in the state.

Alignment with Classroom Needs and Professional Goals

Regardless of incentives and licensure requirements, teachers will not fully own the induction process if they cannot put what they learn to use in their own classrooms. At its best, induction addresses the specific, practical concerns of classroom teachers, such as how to adapt teaching methods for English-language learners, how to ensure that students meet achievement benchmarks, and how to overcome students' barriers to learning.

Comprehensive induction also aligns its components with teachers' professional goals, like learning to work effectively with parents. Through induction, teachers form a vision of good teaching by continually reflecting on how their practice fits

The University of Virginia

Through a grant from the Carnegie Corporation of New York, the University of Virginia (UVA) has pledged to induct every beginning teacher in the two school districts surrounding its campus, regardless of where they were trained. During three days of summer training, staff from UVA and the two districts will prepare mentors to align their induction work with the Virginia Standards of Teaching and basic classroom needs. Because districts have further tailored state standards to their own needs, mentors will be prepared to address those standards as well. The primary goal of mentors' work is that new teachers will always make decisions in the classroom using data to decide what works—what leads to student improvement and what helps teachers meet state and district standards.

Using formative assessments based on the New Teacher Center at the University of California at Santa Cruz model, mentors will begin their work with new teachers focusing on classroom management and student behavior, since these concerns are often foremost on the mind of new teachers. Eventually mentors will use formative assessments, along with state standards, to assess a teacher's instructional and assessment practice and make plans for improvement. For example, every Virginia teacher must know their individual students and be able to adapt teaching methods to students with different abilities. Using the state standard as a goal, a mentor would then help the novice teacher identify different types of students, look at their achievement data, and determine how the novice can better adapt his or her teaching to those students' needs.

For more information about the University of Virginia initiative, see <http://www.virginia.edu/provost/tneuva/>.

into the context of the community where they work and how it embodies professional teaching standards. Effective induction tailors its quality components to local experiences as well as professional standards so that teachers become high-quality educators well suited to practice in their local community, district, and state.

Adequate and Stable Funding

Comprehensive induction requires a significant and steady financial commitment to keep it running. With their dollars, policymakers determine what kind of induction teachers will receive. In the 2003–04 school year, only fifteen states required and funded mentoring-based induction programs.¹⁰⁰ Several states facing budget crises zeroed out funding for induction or did not require beginning teachers to be inducted for that year.

Without steady funding, the financial responsibility for induction shifts to local school districts, forcing poor districts to create and finance their own programs. Some homegrown programs are successful. Some are not. The unfortunate and inequitable reality is that high-poverty schools, which need induction the most, are usually too poor, too small, or too understaffed to adequately support their teachers. The result is that chance decides the fate of teachers in high-poverty schools.

High-poverty schools, which need induction the most, are usually too poor, too small, or too understaffed to adequately support their teachers.

States That Required and Funded Mentoring or Induction in 2003–04¹⁰¹

State	Program
Arkansas	Pathwise Model
California	Beginning Teacher Support and Assessment Program (BTSA)
Connecticut	Beginning Educator Support and Training Program (BEST)
Delaware	Delaware New Teacher Mentoring Program
Indiana	Beginning Teacher Induction Program (BTIP)*
Iowa	Beginning Teacher Mentoring and Induction Program
Kentucky	Kentucky Teacher Internship Program (KTIP)
Louisiana	Louisiana Teacher Assistance and Assessment Program (LaTAAP)
New Jersey	Teachers must complete a two-year mentoring program
New Mexico	Teachers must complete a mentoring program of one to three years
North Carolina	North Carolina Initial Licensure Program
Ohio	Entry Year Program
South Carolina	Assisting Developing and Evaluating Professional Teaching (ADEPT)
Virginia	Teachers must complete a one-year mentoring program
West Virginia	Beginning Teacher Internships

**Beginning in 2006, the newly crafted Beginning Teacher Assessment Program will replace BTIP.*

THE ROLE OF FEDERAL POLICY

Every federal effort to improve teacher quality and the availability of induction is one more step toward providing high-quality, comprehensive induction for every beginning teacher.

Historically, the federal government has worked to ensure that every child has equal access to a quality education, no matter where they live or how wealthy their school may be. More recently, this attention to equity has expanded to include efforts to improve teacher quality. The next logical step in the federal government’s teacher-quality role is to call for the provision of high-quality induction for every teacher and to fund its provision in high-need schools.

Federal policymakers have recently paid a great deal of attention to the quality of our nation’s teaching force. Recognizing the impact of teacher quality on student achievement, the No Child Left Behind Act requires schools to fill every classroom with a “highly qualified” teacher and to provide “high-quality” professional development to all teachers.

In 2004, federal legislators began to address the need for teacher induction as they prepared to reauthorize the Higher Education Act (HEA). Title II of HEA provides Teacher Quality Enhancement Grants to partnerships of postsecondary institutions and high-need school districts for the recruitment and preparation of

K–12 teachers. In the 108th Congress, several senators introduced bills that would strengthen the definition of induction, making it a more prominent allowable activity.

Every federal effort to improve teacher quality and the availability of induction is one more step toward providing high-quality, comprehensive induction for every beginning teacher. However, at present, no efforts have been made to ensure that induction is comprehensive. Nor have federal policymakers ensured that new teachers serving in high-need schools participate in comprehensive induction.

Without induction, federal efforts to improve teaching are weakened and may ultimately make little lasting improvement. Federal policymakers currently allocate large sums of money for recruiting teachers into high-need schools, and they expend a great deal of energy ensuring that every classroom has a “highly qualified” teacher. But policymakers provide very little money or energy to keep those highly qualified teachers in the classroom long enough to become professionals who consistently improve student achievement.

Recommendations

Therefore, the Alliance for Excellent Education recommends that the U.S. Congress provide new funding to ensure that every new teacher in our nation's highest-need schools receives comprehensive induction. These teachers are most at risk of leaving the profession, with a rate of attrition almost 50 percent higher than teachers in wealthier schools.

Furthermore, the Alliance urges Congress in its reauthorization of the Higher Education Act (HEA) to amend Title II of the law to make comprehensive induction a required activity for partnership grants.

The Alliance also recommends that states and districts use funds from Title II of the Elementary and Secondary Education Act (ESEA), now the No Child Left Behind Act, to provide comprehensive induction to every beginning teacher during at least their first two years of teaching. Educators and policymakers alike should use this report's quality criteria to define and evaluate comprehensive induction.

While federal legislators should not mandate the structure or program design of comprehensive induction, they can and should require states and districts who receive Title II money to provide the quality components of induction. In addition, federal policymakers should require states, districts, and partnerships to evaluate the impact of their induction programs.

If America is to attract, retain, and fully develop our teaching force into high-quality professionals who teach every child to high standards, then we must make comprehensive induction a priority for every teacher in every school.

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APPENDIX A: CASE STUDIES

Connecticut's Commitment to Excellence in Teaching: The Beginning Educator Support and Training (BEST) Program

Catherine Fisk Natale, Ph.D.

Overview and History of Program

Since the mid-1980s, the state of Connecticut has promoted high standards for teachers as well as students. Improving the quality of Connecticut's teachers has been viewed as essential to improving student achievement. Central to Connecticut's teacher-improvement initiatives is the Beginning Educator Support and Training (BEST) Program, run jointly by the state and local school districts. The BEST Program was first implemented in 1989 as a one-year program of mentoring support and a classroom-observation-based assessment. Starting in 1994, Connecticut expanded its mentoring support into a two-year comprehensive induction program. Currently, BEST requires all new classroom teachers to participate in a statewide beginning teacher support and assessment program, the successful completion of which is required for ongoing certification.

Quality Components

Mentoring

The BEST Program provides support to beginning teachers through school- or district-based mentors or support teams who support new teachers as a group. In order to provide consistency of support throughout the state, BEST requires through statute and regulation the following minimum quality standards for school-based mentoring:

- selection of mentors through a district selection committee consisting of teachers and administrators in the district;
- assignment of a mentor or mentor team for a minimum period of one year with regular meetings required between the beginning teacher and mentor/s;
- provision of release time for beginning teachers to observe or be observed by their mentors or members of the support team; and
- a minimum of twenty hours of required initial mentor training in Connecticut's teaching standards, the portfolio assessment process, and coaching strategies.

Typically, mentors spend time with their beginning teachers exploring teaching strategies that address diversity in students and their learning styles, identifying effective teaching strategies that conform to state standards, and reflecting on the progress of the new teacher's students. Local school districts must release beginning teachers on at least eight occasions to observe or be observed by their mentors or support team members.

Accomplished teachers appointed as mentors must enroll in a mentoring course at one of the regional educational service centers. The course provides teachers with strategies and real-life situational discussions to develop their coaching skills. As a positive byproduct, the mentoring course creates a network of peers for mentors to support one another during their work with new teachers. Mentor training also includes an overview of the portfolio assessment process and strategies to assist teachers in demonstrating their mastery of Connecticut's teaching standards.

Common Planning Time and Collaboration

New teachers are expected to make thirty hours of significant contact during the school year with their mentor, support team, other teachers in their content area, the principal, and/or the district facilitator. During this time, new teachers work with other colleagues to examine multiple sources of data about teaching, including lesson plans, student work, use of assessments, and teacher reflection about teaching and learning.

Ongoing Professional Development

New teachers participate in state-sponsored training activities such as content-specific beginning teacher seminars, online professional development resources, and portfolio assessment conferences. Professional development seminars allow beginning teachers to deepen their understanding of state standards and portfolio requirements through structured collaborations with peers and seminar leaders.

State guidelines for teacher evaluation and professional development require districts to develop Teacher Induction Support plans for integrating local policies with state guidelines for mentorship. In addition, most districts also provide district-based workshops on classroom management and the teaching of literacy. Many districts feel that new teachers have inadequate preservice preparation in literacy strategies, especially for secondary teachers, who are not typically well trained to teach literacy across the curriculum.

External Network

The BEST Program has used "E-BEST communications" as a means to create a statewide network of beginning teachers by content area. Project leaders and teachers-in-residence use this listserv to regularly communicate with beginning teachers about teaching resources, professional development, and critical issues around the BEST portfolio. In addition, beginning teacher seminars are offered regionally several times a year to provide teachers opportunities to meet and learn from other teachers across the state.

Assessment and Evaluation

In order to receive the next level of certification, beginning teachers must demonstrate mastery of essential teaching skills. BEST teachers are assessed through a content-specific teaching portfolio submitted during the second year of teaching, in which beginning teachers document a unit of instruction or a series of lessons that illustrate

their planning, teaching, assessment of student learning, and reflection on teaching and learning. The portfolio includes lesson logs, videotapes of teaching, examples of student work, and teacher commentaries. Trained assessors score the portfolio and must demonstrate that they can apply judgment in a prescribed and consistent manner through meeting standards of “proficiency.”

Teachers who do not successfully complete the portfolio assessment in year two are given an additional year of mentored support and required to submit another portfolio in their third year of teaching. If they are unsuccessful a second time, teachers cannot move forward in the profession.

Making Induction Work

Principal Leadership

Principal leadership has been perceived as a critical component of Connecticut’s induction program since its inception. These efforts have been strengthened by the adoption of State School Leader Standards, which emphasize the role of the principal as instructional leader and facilitator of the induction of new teachers. The BEST Program offers training to principals in the portfolio assessment process and encourages principals to review the beginning teacher’s portfolio prior to submission. Many districts also incorporate the portfolio into the district’s local evaluation process of new teachers, thereby strengthening the link between state and district expectations for teacher competency.

High-Quality Providers

The BEST Program is a partnership between the state and local districts. The state provides leadership and funding for the statewide administration of the program; support and technical assistance to districts; training and professional development resources for mentors, assessors, and beginning teachers; and the scoring of portfolios. School districts are required to appoint a district facilitator for the program, recruit experienced educators to be mentors and assessors, provide a district- or school-based program of orientation and support to new teachers, and provide release time for mentors and beginning teachers to meet and observe one another’s classrooms. Payment of stipends or reduction of teacher workloads is at the discretion of the district. Regional Educational Service Centers provide technical assistance to BEST Program district facilitators and regionally based training to mentors and beginning teachers.

Support for Teachers with Little Preparation

Teachers with little preparation receive the same or more intense support as regular participants.

Incentives for Participation

Certification requirements are the primary incentive for BEST. In Connecticut, all beginning teachers employed in a public school, or an approved private special education facility, are required to participate in induction. BEST also includes part-time teachers and those hired as long-term substitutes.

Alignment with Teacher Goals and Standards: Promoting Standards-Based Instruction

The tasks of the portfolio are designed to promote teaching that builds the skills and competencies that students are expected to demonstrate on the Connecticut

Mastery Test (CMT) and the Connecticut Academic Performance Test (CAPT). For example, the science portfolio requires teachers to demonstrate how they develop students' content knowledge, inquiry, and application of science knowledge as assessed on the tenth-grade CAPT. The elementary education portfolio requires teachers to demonstrate how they develop understandings of important literacy and numeracy concepts assessed in the CMT language arts and mathematics assessment.

BEST Program seminars, mentor training, and portfolio assessor training focus on understanding the elements of effective instruction as represented by the Connecticut Common Core of Teaching (CCT). The CCT competencies place an emphasis on teacher content knowledge, the teaching of a specific discipline, and the impact of teaching on student learning.

Adequate and Stable Funding

Since the inception of BEST in 1989, state funding has dramatically changed because of state budget shortfalls. Funding for the program declined from \$10 million in 1991 to \$3 million in 1992. The state provided only modest increases over the next decade, despite larger numbers of teachers participating in the program. Consequently, funding for BEST is significantly lower in less-affluent districts than in affluent ones. BEST statutes currently prohibit mandatory collective bargaining over provisions of the BEST Program; however, an increasing number of districts have used the permissive provisions of the law to negotiate mentor stipends or provisions for release time.

The state and local districts share the costs of BEST, which can be broken down as follows:

State share

Direct costs (program administration, training of mentors and portfolio scorers, beginning teacher seminars and workshops, scoring of portfolios)	\$600/teacher
Indirect costs (state staffing for program administration, development and program evaluation)	\$160/teacher
Subtotal state share	\$760/teacher
District share (local or federal Title II funding)	
Beginning teacher professional development	\$500/teacher
Release time (cost of substitutes)	\$300/teacher
Mentor stipends (payment at discretion of local district)	\$100–2,000/teacher
Subtotal district share	\$900–2,800/teacher
Total cost	\$1,660–3,560/teacher

Effectiveness

Quantitative Benefits of BEST

- *Reduced attrition in the early years.* A recent study of beginning teacher attrition indicates that approximately 6–7 percent leave the profession in Connecticut annually versus average national estimates of 10 percent or higher.¹⁰² When factoring in a

longitudinal definition of attrition that excludes returning teachers, the figure is 5.7 percent per year. The report suggests that several factors may contribute to higher retention, including a comprehensive induction program—BEST—that supports new teachers when they enter the classroom.

Qualitative Benefits of BEST

- *Training beginning teachers to be reflective practitioners.* A recent study asked beginning science teachers to describe the effect of developing a portfolio on their professional growth.¹⁰³ One teacher commented, “The science portfolio forced me to do something that is not instinctive for me at this point in my teaching career. The portfolio forced me to immediately reflect on how the day’s lesson was perceived by my students. Furthermore, the portfolio allowed me to identify certain strengths and weaknesses in my teaching.”
- *Impacting the practice of experienced educators.* More than 40 percent of the current teacher and administrator workforce has trained to serve as mentors or portfolio assessors. An additional 25 percent participated in the BEST Program during their early years. This means that a significant percentage of educators have participated in standards-based professional development and share a common language in discussing what constitutes effective teacher practice. A survey of special educators who were trained as mentors and portfolio scorers showed that 83 percent of participants made at least moderate changes in their classroom practices as a result of the training.¹⁰⁴ One teacher commented, “Going through the portfolio process has reminded me to include conscious reflection on lessons to target what worked and what needs to change.”
- *Promoting teachers as leaders.* BEST involves teachers and other educators in its design and implementation. Over the last fifteen years, nearly eighty teachers-in-residence have worked with state department staff in designing the BEST portfolio assessment system and training for mentors, assessors, and beginning teachers. Each summer, more than 600 exemplary teachers (and administrators) meet to score the portfolios and to decide whether the mentee teachers are qualified to continue in the profession.

Summary

A major strength of Connecticut’s teacher induction system is that it focuses on improving the effectiveness of both the novice and the experienced teacher through structured mentorship, extensive training for mentors and portfolio scorers, and a standards-based assessment. The portfolio assessment is content-specific and designed to promote teaching practices closely linked to expectations for student performance on the Connecticut Mastery Test and the Connecticut Academic Performance Test.

A weakness of this system is that there is inadequate participation of Connecticut teacher preparation programs in the induction process and a need to further strengthen accountability for Connecticut teacher preparation programs for the performance of their graduates. In addition, BEST needs to more systematically and equitably acknowledge the work of mentors and assessors. This includes state finan-

cial support to districts to provide stipends to mentors, higher levels of compensation for portfolio scorers, and the creation of career paths that recognize the expertise of the teacher leaders trained through the BEST Program.

For more information

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The New Teacher Center at the University of California at Santa Cruz Santa Cruz New Teacher Project (SCNTP)

Judy Walsh

Overview and History of Program

In 1988, the California Department of Education and the Commission on Teacher Credentialing launched the California New Teacher Project, a four-year pilot program designed to reverse high rates of teacher attrition by providing induction programs for beginning teachers. Ellen Moir, then director of teacher education at the University of California at Santa Cruz (UCSC), established the Santa Cruz New Teacher Project as part of this effort. The SCNTP pilot offered comprehensive professional development provided by exemplary veteran teachers released full-time from the classroom to mentor. In 1992, California legislated funding for Beginning Teacher Support and Assessment (BTSA) programs, after an evaluation study of the California New Teacher Project showed that the induction programs had dramatically improved teacher retention. The SCNTP played a key role in developing BTSA program standards and trainings. The SCNTP, which has expanded to include fourteen Silicon Valley districts, has supported the professional development of 14,000 new teachers in California.

The SCNTP program design is based on the conviction, supported by a growing body of research, that developing outstanding teachers is critical to raising student achievement. The SCNTP model has five interconnected components:

- a vision of teacher development as a lifelong process of reflective learning;
- institutional support for induction from district and school leaders;
- reliance on exemplary veteran teachers trained to share their professional expertise;
- induction support grounded in professional teaching standards; and
- a classroom-based teacher-learning environment focused on providing equitable learning experiences for all students.

The SCNTP is now one of 150 California BTSA programs. In 2003–04, the project provided induction for thirty school districts in the Santa Cruz region and in the Silicon Valley, serving 700 new teachers.

Quality Components

Mentoring

The SCNTP's key intervention has been not only to tap the experience of exemplary veteran teachers, but also to provide them with ongoing training. The SCNTP leadership and district personnel work together to select mentors. An outstanding record as a classroom teacher and a clear understanding of content standards, curriculum, and assessment techniques are essential, but successful mentors also must understand adult learning theory. They need excellent interpersonal skills, and benefit from prior experience facilitating groups. Since so many new teachers work with English-language learners, expertise in language acquisition is important.

Successful mentors are insightful, patient, empathetic, and enthusiastic, and must be themselves willing to collaborate and learn.

At the heart of the SCNTP induction program is the New Teacher Center Formative Assessment System (NTC FAS), a new teacher professional development system grounded in the SCNTP Developmental Continuum of Teacher Abilities. NTC FAS provides mentors with tools to move beginning teacher practice forward: classroom profiles, collaborative logs, individual learning plans, self-assessment summaries, protocols for collection and analysis of student work, and pre- and post-observation tools. One-sixth of California BTSA programs use NTC FAS, and it is also used by school districts outside California.

New SCNTP mentors receive intensive training focused on using the NTC FAS prior to the opening of school. They learn to use protocols to observe new teachers, collect student data, and analyze student work to help new teachers plan standards-based instruction. Advanced training in effective coaching skills accompanies this training. During the academic year, mentors attend weekly half-day Mentor Forums, the cornerstone for building mentor skills and abilities. Forums provide additional professional development in topics such as literacy, mentoring for equity, and content-based mentoring. They are the venue for mentors to network, share successes and dilemmas, support each other's practice, and ensure that the SCNTP model continues to evolve to meet current classroom needs. Mentors use the same process of data collection, self-assessment, and revision of practice that they present to new teachers to improve their own practice.

Common Planning Time and Collaboration

Before the start of the new school year, SCNTP beginning teachers attend a day-long orientation, where they first meet their mentors. Mentors typically arrange to meet twice with beginning teachers prior to the beginning of school to help them set up classrooms and procedures, and thereafter meet weekly, one-on-one, before, during, and after class throughout the academic year. Because SCNTP mentors work full-time supporting fifteen new teachers, they are able to work in two-hour time blocks that include pre- and post-observation conferences.

Ongoing Professional Development

The SCNTP provides mentors with systematic protocol for new teacher development, but allows them to adapt support to new teachers' specific needs and classroom contexts. Although mentors provide emotional support and help with classroom management, their goal is always to focus beginning teachers on improving instruction. They work to build a teaching profession aimed at meeting student needs by continuously reflecting on and improving the practice in collaboration with other teachers. Even for first-year teachers, mentors concentrate on lesson planning, analyzing student work, collecting and analyzing classroom data, and revising instruction. They coteach, provide demonstration lessons, arrange for observation of exemplary teachers, facilitate relationships with principals, and provide access to district and community resources. Mentors and beginning teachers create a portfolio that documents annual progress toward instructional goals. For second-year teachers, mentor support places greater emphasis on content-specific pedagogy and differentiating instruction.

External Network

Beginning teachers participate in a larger network of new teachers through workshops on specialized topics, including working with English-language learners, differentiating instruction, equitable education, and working with special population students. During the spring they attend a series of three content-specific workshops. Beginning teachers are also invited to attend social events such as a welcome dinner at the San Jose Children’s Museum.

Assessment and Evaluation

The SCNTP model focuses on a formative assessment system. Beginning teachers, guided by their mentors, self-assess their practice at the beginning of the year, during a formal midyear review of their Individual Learning Plan, and at an end-of-year conference. Since the formative assessment system is framed by the NTC Continuum of Teacher Development, and linked to California teaching standards, it provides teachers with a pedagogical vocabulary that allows for a deep conversation with administrators about their teaching practice and concrete progress in reaching district instructional goals. The NTC model does not include summative evaluation, as its goal is to build a collaborative and trusting relationship between mentors and teachers. Decisions regarding continued employment are made through the local evaluation system.

Making Induction Work

Principal Leadership

The SCNTP recognizes that school leaders establish the professional environment that can either support or undermine the experience of new teachers. Mentors therefore work to build principal understanding of the developmental needs of new teachers. The SCNTP hosts an annual informational breakfast meeting for principals to discuss project components and goals. Principals convene with SCNTP Steering Committee members at district-level meetings throughout the academic year. Mentors meet formally with principals every six weeks to talk about what beginning teachers are doing and how mentors are supporting their development. Several principals have found the beginning-teacher development system so effective that they have extended the NTC formative assessment model to other school-site professional development and evaluation efforts. Principals also join SCNTP leadership in presentations to school board members to advocate for new teacher support.

High-Quality Providers

Although led by University of California at Santa Cruz, the SCNTP is administered as a partnership with the Santa Cruz County Office of Education and thirty school districts. Districts sign a memorandum of understanding defining partners’ responsibilities. A steering committee comprised of district assistant superintendents, human resources and curriculum directors, union representatives, SCNTP and NTC leadership, and university directors of teacher education guides the SCNTP. The committee aligns program goals and practices with district goals and professional development plans.

Although the SCNTP serves all new teachers in participating districts, regardless of where they were trained, the SCNTP model has been developed cooperatively with the UCSC Department of Education. UCSC offers an undergraduate minor in education

program and a teacher education program for graduate students culminating in a Master of Arts in education degree. The UC Education Department and the SCNTP therefore constitute a long-standing preservice/in-service teacher development program that offers UCSC undergraduates, UCSC credential candidates, and UCSC-trained new teachers working locally a consistent support and assessment system throughout their college education and into the first two years of teaching.

Support for Teachers with Little Preparation

Teachers enter the SCNTP from a variety of preservice programs. The program's formative assessment system is individualized, so that mentoring is tailored to the teacher's developmental level regardless of prior preparation. The SCNTP provides special support for teachers preparing for credentialing tests. It offers an online course on classroom management and training in working with English-language learners and special population students.

Incentives for Participation

Recent legislation (SB2042) has made participation in BTSA part of the state credentialing process. As of 2004–05, successful completion of a two-year BTSA program is a prerequisite for obtaining full certification, so all California first- and second-year teachers will be required to participate.

Alignment with Teacher Goals and Standards

The SCNTP Developmental Continuum articulates the benchmarks that define progress from emerging to innovative teacher practice. Mentoring is designed to move the practice of new teachers along this continuum, which was designed to link directly to the state teaching standards: engaging and supporting all students in learning; creating and maintaining an effective environment for student learning; planning instruction and designing learning experiences for all students; assessing student learning; and developing as a professional educator. The continuum describes five levels of development relating to specific elements of each of the six standards.

Adequate and Stable Funding

California BTSA programs were supported by approximately \$80 million in state funds in 2003–04, \$3,443 a year for each first- and second-year teacher. SCNTP districts contributed an additional \$2,500 per first- and second-year teacher.

Effectiveness

Quantitative Benefits

The New Teacher Center research staff has developed an online induction program survey for administrators, mentors, and beginning teachers that provides comprehensive data on participants' assessment of program effectiveness and suggestions for program improvement. Administered annually in the SCNTP, the survey contains both scaled and open-ended questions regarding program components. The SCNTP leadership uses online survey results for annual program revision.

NTC researchers are studying the effects of SCNTP support on new teacher retention and on student achievement. A study of the 1992–93 new teacher cohort documents that after six years, 94 percent were still in the field of education, and 89 percent were still teaching.¹⁰⁵ Results for the 1997–98 cohort are similar. A recent study of three

years of achievement gains for students of new teachers supported by the SCNTP in a local district serving 19,000 students showed that these students made gains similar to experienced teachers' students.¹⁰⁶ These gains are especially strong evidence of the positive effect of NTC new teacher support on student achievement, given that the new teachers were more likely to be assigned to teach English-language learners.

NTC researchers are also interested in cost/benefit analysis of induction programs. Based on SCNTP data, they estimate that increases in beginning-teacher effectiveness and reductions in teacher attrition lead to a return on investment of \$1.37 per \$1, in current dollars, after five years.¹⁰⁷

Qualitative Benefits

The SCNTP is widely acknowledged as the “gold standard” for induction programs. SCNTP district leaders have consistently noted that the SCNTP accelerates teacher learning, making first-year teachers look like third-year teachers. Surveys of beginning teachers, mentors, and principals reflect high satisfaction levels with program components and outcomes. Veteran teachers serving as mentors report that their new role as a teacher of teachers brings them renewed appreciation for the complexity of teaching. Principals and district leaders note that the SCNTP is often a catalyst for renewed interest in improving instruction throughout school sites.

The SCNTP has steadily grown over the past sixteen years, with all district partners remaining in the program. In 1998, its long-term success led several private foundations to fund the establishment of the New Teacher Center at UCSC as a national resource for new teacher development. The NTC's thirty-four staff members now develop, research, and advocate for high-quality new teacher and new administrator induction programs. The NTC is helping districts in thirty states implement induction programs based on the SCNTP model. More than twenty private foundations have supported the NTC's work.

Beginning teachers recognize the importance of the support they receive: “Having an experienced teacher to turn to and one whose number one job is supporting my needs during this highly stressful and exciting time is crucial.” “My teacher preparation program gave me a roadmap for where I wanted to be. My mentor showed me how to take a direct route, rather than losing my way in blind alleys.” Mentors are equally convinced of the value of intensive support. As one mentor commented, “We want to instill the idea that learning about teaching is a task that is truly lifelong . . . that every student presents us with another challenge to continually improving practice.”

Summary

The NTC's Santa Cruz New Teacher Project is one of the programs that has informed the growing national consensus about the key elements of effective teacher induction programs. It provides new teachers with an intensive, two-year support program that is systematic and standards-based, includes support from trained mentors employing a systematic formative assessment system, and links both mentors and beginning teachers to a network of peers. Several research studies of the SCNTP document positive effects on student learning and teacher development and retention.

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Tangipahoa Parish, Louisiana

Tangipahoa Framework for Induction, Retaining, and Supporting Teachers

John Weathers

Overview and History of Program

Two statewide programs administered by the Louisiana Department of Education provide a systematic approach to supporting and developing new teachers: the Louisiana Teacher Assistance and Assessment Program (LaTAAP), and the Louisiana Framework for Inducting, Retaining, and Supporting Teachers (LaFIRST). The components of LaTAAP are broad, and they provide much of the assistance new teachers need. But LaTAAP does not provide everything they need. In an attempt to fill in some of the gaps, the state provides funding, training, and guidance through LaFIRST for local parishes (districts) to develop their own induction programs. One rural Louisiana parish, Tangipahoa, fills these gaps particularly well. Tangipahoa successfully combines state and local programs to retain new teachers and ensure their competence.

From its inception in 1994, LaTAAP has required both mentor support and assessment for new teachers. In its current form, all new teachers must participate in LaTAAP. An experienced and state-trained mentor teacher from the same school, who teaches in a similar subject area and grade level, provides two years of mentoring. Mentors facilitate observations and give critical feedback. They also help teachers create a professional development plan to improve their skills in order to meet state teaching standards—the Components of Effective Teaching. In the second year of LaTAAP, teachers undergo formal observations and submit portfolios of their work to be assessed by their principal and an external assessor.

LaFIRST began in 2001 and is derived from the highly praised LaFourche Parish induction model. LaFIRST provides local parishes additional training, guidance, and financial support to assist in the development of new teachers. One of its primary tools has been a summer institute to prepare volunteer teams of mentors and mentor trainers from all parishes in how to develop preservice induction training and provide follow-up support for new teachers.¹⁰⁸ Through a mini-grant program, LaFIRST has also provided forty-two of sixty-six parishes with financial assistance to implement the induction practices that the state outlines as best practice.

LaFIRST activities are voluntary, and the mini-grants do not always cover the costs of local programs. This leaves individual parishes to develop and fund a more comprehensive approach to induction. LaFIRST trainings and seed money have helped to inspire a number of districts develop their own support and training for new teachers. Tangipahoa Parish is one school district that has successfully taken on this challenge, despite the typical barriers that come with being a low-income rural district.

The new teacher support and development provided through Tangipahoa FIRST augments but does not replace LaTAAP. Building on the LaFIRST model, it includes: four highly structured days of induction during the summer, focused on the first days

of school; seminars about classroom management, planning and effective teaching, and local policies and procedures; and follow-up professional development sessions for a new teacher's first three years. All teachers new to the parish, regardless of experience, participate in the program. Late hires are placed in a preservice program in January. In addition, Tangipahoa FIRST employs full-time mentors to supplement the work of LaTAAP mentors. Tangipahoa has received LaFIRST grant money for the past two years, which they have used to purchase classroom materials and to fund professional development sessions for new teachers.

Quality Components

Mentoring

LaTAAP specifies the qualifications of mentors and requires that all mentors participate in training with a local state-trained instructor. Mentor activities include holding weekly meetings with new teachers and observing classroom teaching. LaTAAP mentors are limited to supporting two novices so that they can devote enough assistance to each. The majority of new teachers spend an average of one to two hours per week with their mentor. To ensure quality mentoring, LaTAAP legislation requires principals to schedule time for mentors to work with teachers and monitor their activities.

Tangipahoa FIRST supplements the work of the LaTAAP mentors with four full-time and four half-time mentors who were hired in 2003–04 and trained to assist new teachers, including special education teachers. These mentors receive the LaTAAP Assessor and Mentor Trainings, Tangipahoa FIRST mentor training, and monthly follow-up training by the program coordinator.

Common Planning Time and Collaboration

LaTAAP legislation requires common planning time and collaboration between mentors and new teachers, but release time is difficult to provide in many schools. In Tangipahoa, elementary teachers did not have common planning time during the 2003–04 school year.

Ongoing Professional Development

As previously noted, Tangipahoa FIRST provides preservice and ongoing professional development for new teachers in years one, two, and three with day-long training sessions on topics determined by the new teachers. To attend these sessions, new teachers are granted release time, and their classes are covered by substitute teachers.

External Network

In all Tangipahoa FIRST training sessions, teachers are grouped together by grade and subject level to encourage ongoing interaction. As some participants have noted, this practice has helped them establish a network and support system with other teachers. Through a program called FIRSTTech, Louisiana maintains a Blackboard website where it posts training materials and links to teacher resources. New teachers can use the site to participate in online discussions about teaching. While some teachers use the online network, the state is working to boost the number of teachers on FIRSTTech.

Assessment and Evaluation

Tangipahoa, like all parishes in Louisiana, assesses its teachers through LaTAAP. All new teachers in Louisiana are evaluated by their principal/designee and an outside

evaluator on their ability to meet the state’s Components of Effective Teaching during observations in their third semester. In 2003–04 the state added a portfolio component to this assessment.

Making Induction Work

Principal Leadership

Principals are responsible for the implementation, coordination, and monitoring of the LaTAAP program in their school, although the state can sanction schools that fail to meet specifications. Principals are charged with making sure schools have enough trained mentors in all subject areas and with providing release time to mentors and novice teachers.

In addition to school-level management, strong district-level leadership makes Tangipahoa FIRST work. The former superintendent ensured that the program administrator had the time and resources to develop a superior program through research, attending trainings, and visiting other school systems. Because Tangipahoa is rural and poor, its parish leaders face the challenge of making induction a priority. To run induction well, they must continually allocate resources for mentors, professional development, and program staff.

High-Quality Providers

Tangipahoa employs two full-time program coordinators, who have additional support staff, to administer LaTAAP and Tangipahoa/LaFIRST. These administrators and their support staff manage activities, develop curricula, and teach preservice and follow-up training sessions.

Support for Teachers with Little Preparation

Tangipahoa requires all teachers new to the district, regardless of their preparation or certification level, to participate in its FIRST program. FIRST is flexible enough that mentors can provide additional support to underprepared or overburdened teachers.

For example, Tangipahoa hired one teacher in November for a classroom in which two previous teachers had already quit. FIRST mentors spent a week in the classroom developing the new teacher’s skills and personal commitment so that she not only stayed at the school but actually looked forward to returning the next year. Since Tangipahoa FIRST mentors do not have classes of their own, they can help overwhelmed teachers grade papers, develop lesson plans, research activities, gather materials, and, as one teacher put it, “help new teachers go above and beyond just surviving.”

Incentives for Participation

In Tangipahoa, induction is mandatory. State licensure requirements are the incentive for participating in LaTAAP.

Alignment with Teacher Goals and Standards

Each year, Tangipahoa asks its new teachers to assess the FIRST program and make suggestions for improvement. The following year, induction coordinators use those assessments to align follow-up training sessions with the needs of teachers. Also, Tangipahoa mentors are encouraged to tailor their work to the individual needs of their mentees.

The LaTAAP program, in concert with the Louisiana Components of Effective Teaching, provides a well-developed means of using clearly specified research-based

and practice knowledge about best teaching practices as the standard for assessing a new teacher’s work. These components are correlated with the widely accepted national teaching standards. The requirement that an outside assessor be part of this two-member assessment team adds to its thoroughness and objectivity.

Adequate and Stable Funding

The costs of new teacher induction in Tangipahoa are greatest for first-year teachers and decline somewhat for second- and third-year teachers. This is because first-year teachers receive some training prior to the start of the school year, as well as four professional development sessions during the school year. Second- and third-year teachers receive professional development only during the school year, with second-year teachers receiving three sessions, and third-year teachers receiving two. In addition, the LaTAAP program is two years in length, so this cost is not incurred for third-year teachers. The costs detailed below are for first-year teachers in the Tangipahoa program during the 2003–04 school year. The costs for second-year and third-year teachers during the same academic year were \$3,465 and \$2,421, respectively. Tangipahoa funds its induction program by integrating federal, state and local funding sources.

Costs for the 2003–04 school year, first-year teachers:

LaTAAP mentors and evaluators	\$1,030/teacher
Pre-service induction training for new teachers	\$213/teacher
Teachers in year 1 follow-up professional development (4 sessions)	\$298/teacher
Full-time mentors and Tangipahoa FIRST administrator salaries/benefits for teachers with less than 3 years experience	\$2,066/teacher
Total cost	\$3,607/teacher

Evaluation of the Induction Program

The Louisiana Department of Education collects evaluations twice a year from parishes who receive LaFIRST grants on their preservice and ongoing induction training. Tangipahoa FIRST regularly gathers and reviews data about all aspects of its program from all participants.

Effectiveness

Quantitative Benefits

Louisiana’s most recent evaluation of LaFIRST (2002–03) contains useful information to judge the effectiveness of induction. Using data from twenty-eight of the sixty-six Louisiana parishes, both tables show responses from grant administrators, mentor teachers, and new teachers. Table 1 displays how each group viewed the effectiveness of their programs for new teachers.

Table 2 displays how each group compared the student outcomes of teachers in LaFIRST to those who were not in the program.

Overall, the data demonstrate that LaFIRST is successful at improving the effectiveness of new teachers, especially in terms of classroom management. The story differs,

A Bird’s-Eye View of Tangipahoa: Induction from the Perspective of a New Teacher

A new teacher in Tangipahoa participates in an intensive four-day training in August. In September, the principal assigns the new teacher a LaTAAP mentor, and they begin meeting weekly. A couple of times during the semester, the teacher is observed by the LaTAAP mentor, who talks with them about their ability to meet state teaching standards. The teacher is also assigned a Tangipahoa FIRST mentor. Through the help of LaTAAP or Tangipahoa FIRST mentors, some new teachers observe other teachers. Tangipahoa FIRST mentors visit the new teacher once every two to three weeks, offer individualized assistance with problems, and help with daily tasks like grading papers or developing lessons. Three times during their first year, new teachers attend day-long Tangipahoa FIRST training sessions on topics they have selected.

**A Bird’s-Eye View of Tangipahoa:
Induction from the Perspective
of a Mentor**

LaTAAP mentors are required to meet with each of their one or two mentees for a total of thirty hours per year. On average, they meet each week for an hour to give advice, assist with problems, and, when matched by subject area, help with lesson plans. As often as they can, LaTAAP mentors conduct focused observations. They often arrange for the new teacher to observe their own or other classrooms, and they formally observe the new teacher one time in the second semester. The observation is preceded and followed by conversations about the lesson in order to meet state requirements. Though principals are required to release mentors for observations, many have to make extra time to meet with new teachers.

Tangipahoa FIRST mentors are released from their duties to be full-time mentors because they are responsible for around eighteen new teachers. Generally, FIRST mentors meet with two teachers per day, but they sometimes spend up to a week with struggling teachers. During meetings, mentors assist teachers with lesson planning, grading, gathering resources and materials, and whatever else the teacher needs. When not working with teachers, mentors prepare and lead training sessions for new teachers.

Table 1: New Teacher Effectiveness

LaFIRST was effective in improving new teachers’:	Grant Administrators	Mentor Teachers	New Teachers
Teaching	5.3	4.9	4.5
Comfort in the classroom	5.4	5.0	4.7
Adjustment to the school/school system	5.4	5.0	4.7
Professional growth	5.4	5.0	4.8
Retention	NA	NA	4.0
Ability to facilitate student learning	5.1	4.9	4.6
Preparation for assessment	5.3	5.2	4.9

Average scores (Range 1=Not Effective; 6=Very Effective)

Table 2. Differences Between LaFIRST New Teachers and Nonparticipants

Differences between new teachers in LaFIRST and new teachers who were not in LaFIRST were seen by:	Grant Administrators yes	Mentor Teachers yes	New Teachers yes
Higher test scores	93%	67%	58%
Higher classroom grades	79%	64%	58%
Fewer classroom-management problems	100%	81%	83%
Increased participation from parents	57%	24%	35%
Higher homework completion	54%	34%	42%
Better attendance	61%	31%	38%

though, according to the person being asked. In general, program administrators are more positive about the benefits of the program.

The report also asked LaFIRST parishes to report their retention rates. Tangipahoa Parish had a 100 percent retention rate for certified teachers in 2002–03. A full 85 percent of all recipients reported rates of 80 percent or higher. For 2001–02, the average retention rate of second-year teachers was 88 percent.

Qualitative Benefits

Tangipahoa FIRST and its local administration of LaTAAP are consistently praised by new teachers, LaTAAP mentors, and principals alike. During a focus group conducted for this report, a representative mix of teachers, mentors, and principals praised Tangipahoa’s induction. Three teachers claimed that full-time mentors had saved them from quitting, built their confidence and teaching ability, and facilitated such a turnaround in their classrooms that they actually looked forward to returning the next year. One high school teacher commented, “Having a mentor teacher has been the most helpful learning experience for me as a teacher. At all times, I was able to ask questions, see models, and hear related experiences. This has helped me to develop my teaching skill and grow as a professional.”

Mentors also praised induction as a way to improve their own teaching skills. One mentor explained that, “Being a mentor has kept me in touch with what’s new in the field and has kept me fresh and motivated. I have been able to help the teachers that I work with, but they have also benefited me.” Sentiments like these are echoed throughout teacher evaluations of the Tangipahoa FIRST program.

Summary

Some potential problems with induction exist in Louisiana. Parishes using only LaTAAP may have gaps in their activities, such as limited or no preservice training, little or no ongoing professional development, or limited contact between novice and mentors, who may be too busy with their own responsibilities. Poor local leadership can mean that some teachers receive less support than others. And, while LaFIRST grants help start the funding and training of district staff—as they have in Tangipahoa—the program does not provide funding commensurate with the costs of induction, and its principals do not receive training to lead the program.

Overall, however, induction in Louisiana is quite strong. LaTAAP serves every new teacher, is linked to high-quality teaching standards, and supports teachers with well-trained mentors. Tangipahoa FIRST provides new teachers with full-time mentors and comprehensive preservice and ongoing training tailored to their needs, and models effective classroom teaching that they can then apply in their

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Toledo Public School District and the Toledo Federation of Teachers The Toledo Plan

Amy Bach

Overview and History of Program

Adopted by the Toledo public school district in 1981 during contract negotiations with the Toledo Federation of Teachers (TFT) union, the Toledo Plan is a cooperative union/management induction program focused on teacher mentoring and evaluation. Designed to improve teacher performance by outlining a set of four performance standards (detailed below) to which all teachers are held, the Toledo Plan also establishes a support system for teachers in order to ensure that they achieve those standards. The Toledo Plan focuses on improving teacher performance by pairing teachers with more experienced peers/mentors.

Dal Lawrence, the president of the TFT union at the time the Toledo Plan was adopted, developed the idea for a local induction program in 1969. The Toledo Plan was rooted in growing concern over the quality of teachers and the ability of teacher training programs to adequately prepare students to become teachers. TFT members overwhelmingly voted in favor of the program. Many teachers believed this program was a way to increased professionalism. By establishing and enforcing specific standards, teachers themselves—like other professionals—would ensure that all teachers have the skills necessary for quality teaching.

However, the Toledo principals' union rejected the Toledo Plan in contract negotiations because principals were uncomfortable relinquishing the power to evaluate new teachers. They also questioned the ability of teachers to evaluate other teachers. In the early 1980s, the principals' union finally agreed to the program under one condition: that struggling veteran teachers also receive guidance from a mentor. With agreement in place, the Toledo Plan was adopted by the district in 1981, becoming the nation's first peer review program.

Because the Toledo Plan is a district-wide program, all first-year teachers and teachers who are teaching their first year in the Toledo public schools are required to participate. This part of the Toledo Plan is referred to as the intern component, and new teachers are called interns. Interns receive guidance from mentors, called intern consultants. Struggling veteran teachers who are recommended for mentoring by their principal or their union building committee member are required to participate in the intervention component of the Toledo Plan. Unlike the intern component, which lasts two semesters, the intervention component has no set ending period. As long as the veteran teacher is making progress in the areas identified by the intern consultant, veteran teachers are mentored until they are deemed ready to continue teaching without support, or they are deemed ill-suited for teaching and released from their contracts.

Substitute teachers placed in long-term substitute positions in the district are also inducted. Long-term substitutes are not considered interns, so they are not evaluated,

but they do receive mentoring from intern consultants. If substitutes are hired for a contract position, they reenter the program as interns and are mentored and evaluated for another year.

Quality Components

Mentoring

In the Toledo Plan, mentoring rests heavily on classroom observations and individual conferences. While intern consultants are released full-time from classroom responsibilities, interns and veteran teachers being mentored receive no reduced workload. Consultants are required to spend approximately twenty hours per semester mentoring and evaluating ten to twelve interns. Intern consultants observe new teachers in the classroom two to three times a month, and they meet with interns after each observation to discuss strengths and areas for improvement. Observations focus on improving instruction and classroom management.

Toledo selects and trains only the most qualified people for intern consultants. To be a mentor, intern consultants must be licensed in their subject area, and most have more than five years of experience. Interested candidates fill out an application; obtain letters of reference from their school principal; agree to two unannounced observations of their classroom teaching; submit a writing sample; and complete an interview. Based on all the collected information, the Board of Review then decides whether or not to hire the applicant. New intern consultants are trained to mentor by observing and working with veteran intern consultants. New consultants also participate in a summer training workshop that lasts from two to three days.

Intern consultants mentor and evaluate for a three-year period, after which they return to their classrooms to teach. The aim of the Toledo Plan is to make sure quality teachers return to the classroom where they are also needed and not create a hierarchy among teachers.

Common Planning Time and Collaboration

The Toledo Plan does not specifically provide common planning time and collaboration with other classroom teachers. But teachers do interact with one another during professional development activities. On a regular basis, intern consultants read and comment on each other's evaluations of interns.

Ongoing Professional Development

At the beginning of the school year, new teachers are paid to attend a five-day New Teacher Academy. The mandatory academy orients new teachers to teaching resources and policies in the district, and new teachers are introduced to their intern consultants. Intern consultants provide much of the training during the academy. In addition to the New Teacher Academy, interns across the district are required to take a semester-long professional development course on effective teaching.

External Network

The Toledo Plan does not directly organize new teachers into external networks, but many teachers informally network during professional development activities. Intern consultants are housed in the same office so they receive support and guidance from one another throughout the school year.

Assessment and Evaluation

Intern consultants evaluate interns frequently, writing six or seven formal evaluations per intern, per semester. After each observation, consultants write a narrative evaluation highlighting strengths, areas for further growth, and suggestions for improvement. The Toledo Plan outlines four performance criteria: teaching procedures; classroom management; knowledge of subject area and academic preparation; and personal characteristics and professional responsibility.

After working with interns or veteran teachers, intern consultants recommend to the Intern Board of Review whether the teachers should be rehired or released from their contract the following year. If interns show improvement but have not yet met standards, they are given an additional semester to show competency. Interns may appeal to the Intern Board of Review if they are not satisfied with the decision.

In the Toledo Plan, intern consultants play the role of both mentor and evaluator. Other programs and experts argue that support and assessment should be aligned but conducted by separate people, but the Toledo Plan argues that the person who spends the largest amount of time working with individual teachers—and therefore has the best understanding of their abilities—is most qualified to evaluate them.

Making Induction Work

Principal Leadership

Since its adoption, the Toledo Plan has earned solid support not only from district officials, but also from school administrators and teachers throughout the district. Of all the key players in the Toledo Plan, principals play a limited role. Intern consultants meet regularly with school principals regarding the progress of their teachers, but consultants evaluate new teachers. Principals write a short summary each semester regarding a new teacher's professionalism, attendance, ability to turn in work on time, and mindfulness of building policies. The principal's summary then becomes part of the intern consultants' longer written report to the Intern Board of Review. Only after interns successfully complete two semesters in the intern program do school principals assume the responsibility of evaluating them. Although their role is smaller than in other programs, principals in Toledo appreciate the lightened workload and the specialized support that intern consultants provide in mentoring and evaluating new teachers.

High-Quality Providers

The Toledo Plan is overseen by the Intern Board of Review, a group made up of five appointed union representatives and four appointed management representatives. Board members are not released from their jobs to govern its activities. Leadership of the board is balanced between union officials and administrators, and chairmanship rotates annually between the president of the TFT union and a district assistant superintendent, usually from the Office of Human Services. In the 2003–04 school year, the district hired a clerical administrator to oversee the hiring decisions made by the Intern Board of Review.

Support for Teachers with Little Preparation

Because the Toledo Plan functions primarily through one-on-one interaction between experienced mentors and mentees, teachers who have limited teacher training require and receive more attention and focused time with their intern consultants. Intern consultants also understand that struggling veteran teachers may require more help than teachers who have received their teacher training relatively recently. These veteran teachers also receive more time and energy from intern consultants.

Incentives for Participation

The requirements of labor contracts are the chief incentive to participate in the Toledo Plan. However, there are also indirect benefits that act as incentives. First-year teachers often have a difficult time adjusting to their new classrooms. Induction can soften this difficult period. One intern commented on the overall benefit of the Toledo Plan, “Being a fresh graduate, I was so confused and overwhelmed [my first year of teaching]. There is no doubt in my mind that if I was not assigned an intern consultant, I would have never made it.” Another indirect incentive is increased professionalism. Induction has formed Toledo teachers into a community of learners over the years. According to Dal Lawrence,

The Toledo Plan began to change the way in which teachers think about their practice and each other’s practice, as well as their accountability and responsibility for overall competence and excellence. We didn’t see that happening when we started out, but it definitely exists now.

Creating a culture of educators who take responsibility for themselves and their colleagues is no small feat. Participation in a culture such as this makes it possible for teachers to grow and thrive.

Alignment with Teacher Goals and Standards

Because the Toledo Plan is focused on helping specific teachers within their particular classroom settings, the observations and evaluations intern consultants make are very much tailored to the specific student population of the intern’s classroom. Intern consultants and interns work closely together to establish goals specific to each intern’s classroom.

Adequate and Stable Funding

The Toledo school district pays for the costs of the Toledo Plan. Although the state of Ohio does contribute state funds to the district, none of these funds are specifically earmarked for Toledo induction. The cost of implementing the Toledo Plan varies from year to year, depending on the number of new teachers hired and the number of intern consultants needed. In the 2003–04 school year, six intern consultants were chosen to induct approximately seventy-five new teachers and seven veteran teachers.

Evaluation of the Induction Program

At the end of a three-year cycle, all TFT members complete an evaluation of the structure of the Toledo Plan itself. Interns who have participated in the program are also asked to comment on the intern consultants who mentored them. Using the evaluations, the Intern Board of Review goes over suggestions for improvement to modify the program. In addition, the board uses evaluations to identify and investigate poorly performing intern consultants, who may then be removed from their positions.

Approximate Cost per Teacher for the 2003–04 School Year:

Participants: 6 Intern Consultants and 82 Teachers (75 Interns and 7 Veteran Teachers)

Cost of substitute to replace intern consultant in classroom	= \$30,000 x 6 consultants	= \$180,000
Cost of additional stipend to intern consultant	= \$5,800 x 6 consultants	= \$34,800
Cost of New Teacher Academy (5 days of a new teacher’s average salary)	= \$30,000/190 school days = \$158/day per teacher = (\$158/day x 5 days for training) x 75 teachers	= \$59,250
Cost of intern consultant workshop (2–3 days of a consultant’s average salary)	= \$50,000/190 school days = \$263/day per teacher = (\$263/day x 3 days maximum) x 6 consultants	= \$4,734
1 clerical position	= \$20,000	= \$20,000
Total cost		= \$ 298,784
Total cost per teacher	= \$ 298,784/88 total teachers	= \$3,395 per teacher

Effectiveness

Quantitative Benefits

According to district officials, they do not evaluate the effectiveness of the Toledo Plan in terms of retaining or developing teachers. While district personnel would know the number of new and veteran teachers released from their contracts each year, the district makes no systematic attempts to correlate them with the quality of Toledo’s induction program.

Qualitative Benefits

Since 1981, more than 400 teachers have been released from their teaching contracts, compared with only one teacher in the five preceding years. This leads to an added benefit of the program: terminating a tenured teacher is an enormous expense for a school district and involves a lengthy process. According to Craig Cotner, the chief academic officer of the Toledo school district, the cost of releasing underperforming veteran teachers from their contracts far exceeds the overall cost of implementing the Toledo Plan. Thus, not only is this program cost-effective, but it also contributes to building a community of well-trained, talented teachers.

Summary

The Toledo Plan has some limitations. The intern component of the Toledo Plan may be stronger than the intervention component because intern consultants find it

harder to evaluate experienced peers who are not new to the profession. In addition, Dal Lawrence acknowledges that a program like Toledo's might be more difficult to roll out in larger or smaller districts. An induction program for hundreds of new teachers in a large district may be very difficult to manage, especially in the beginning years. Similarly, administrators could find it very difficult to terminate the contracts of struggling veteran teachers in small communities where teachers, school personnel, and community members are more likely to be well acquainted.

Overall, the Toledo Plan has several strengths. The district recognizes teaching as a learning process and allows new teachers time to develop their skills and techniques with the support of a trained professional. Cooperation between labor and management is also a major factor in the program's success. Because of the cooperation between the two—often opposing—groups, induction is an essential part of the teaching culture. Toledo's comprehensive induction not only builds an individual teacher's skills but also contributes to the development of a community of teachers who are learners themselves. In the end, induction creates teachers who work in cooperation toward two common goals: the establishment and maintenance of high-quality educators and the success of the students they teach.

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APPENDIX B: ANNOTATED BIBLIOGRAPHY

Achinstein, Betty. “Politics of the Mentoring Process for Novices: Negotiating Professional Relationships and New Teacher Learning.” *Journal of Educational Change*, forthcoming.

Drawing on cases from an induction study in California, this paper addresses the implications for new teacher learning and fostering learner-centered teaching associated with differing mentoring relationships. It explores the interactions between beginning teachers and mentors to understand professional roles, power dynamics, and conversational exchanges that influence teacher learning.

American Federation of Teachers. “Beginning Teacher Induction: The Essential Bridge.” Policy brief number 13. Washington, D.C.: American Federation of Teachers, 2001.

This brief provides the underlying research-based rationale for AFT’s policy on beginning teacher induction—that is, why induction matters. It then focuses on state statutes and regulations on induction, outlining the attributes of effective statutes and reporting on the results of a fifty-state AFT analysis of induction policies. The brief ends with a set of recommendations.

Berry, Barnett. “Recruiting and Retaining ‘Highly Qualified Teachers’ for Hard-to-Staff Schools.” *NASSP Bulletin* 87:638 (March 2004).

The author asserts that what is known about recruiting and retaining teachers for hard-to-staff schools runs counter to many of the assumptions undergirding the teacher-quality provisions of the No Child Left Behind Act. Evidence regarding incentives, recruitment pathways, new teacher induction programs, and alternative routes sheds considerable light on what needs to be done to ensure a “highly qualified” teacher for every student. Armed with the right knowledge, educators can play an important role in getting both the funding and the politics in place to create and support the policies and programs that promote teacher quality.

With respect to induction, the author argues that comprehensive induction programs offer support to new teachers that can lower teacher attrition and improve the

odds that schools can close the achievement gap. However, the author reports that few new teachers have access to such high-end induction components as common planning time and access to helpful mentors, despite the fact that states and districts can use federal teacher-quality dollars to do so.

Berry, Barnett, Peggy Hopkins-Thompson, and Mandy Hoke. *Assessing and Supporting New Teachers: Lessons from the Southeast.* Chapel Hill, NC: Southeast Center for Teaching Quality, 2002.

This report examines the key elements of effective new teacher assessment and support, reviews the progress of southeastern states in developing quality induction programs, and offers a set of recommendations for action, including the call for a regional New Teacher Summit.

Breaux, Annette, and Harry Wong. *New Teacher Induction: How to Train, Support, and Retain New Teachers.* Mountain View, CA: Harry K. Wong Publications, Inc., 2003.

This book, written for school and district administrators, principals, school board members, and other school decisionmakers, demonstrates how to plan and implement a comprehensive induction program. To persuade the reader that induction retains and develops new teachers, the authors present research findings along with practical examples of successful induction. Over thirty induction programs are featured with their contact information, and the reference section contains schedules and handouts from three comprehensive induction programs.

Britton, Edward, Lynn Paine, David Pimm, and Senta Raizen. *Comprehensive Teacher Induction: Systems for Early Career Learning.* Boston: Kluwer Academic Publishers, 2003.

Based on a three-year study, this book centers around the question, What does it take to meet the wide-ranging needs of beginning teachers? The authors answer the question by describing how comprehensive teacher induction systems not only provide teacher support but also promote learning about how to teach. For the past ten to twenty-five years, induction programs in Shanghai, France, Japan, New Zealand, and Switzerland have provided well-funded support that reaches all beginning teachers, incorporates multiple sources of support, typically lasts two or more years, and goes beyond survival skills to promoting learning about teaching. With National Science Foundation funding and under the auspices of WestEd's National Center for Improving Science Education and Michigan State University, researchers conducted in-depth case studies of induction programs. They particularly focused on novice mathematics and science teachers. This book analyzes those case studies, and calls for rethinking what teacher induction is about, whom it should serve, what the curriculum of induction should be, and which policies, programs, and practices are needed to deliver it.

Carey, Kevin. *The Real Value of Teachers: Using New Information About Teacher Effectiveness to Close the Achievement Gap.* Washington, D.C.: Education Trust, 2004.

The author examines how value-added assessment data can be used to evaluate teacher effectiveness. The report begins with a brief review of literature demonstrating that the quality of teachers directly impacts student achievement. Using this research,

the author makes recommendations for using value-added data to assess teachers and to improve teacher quality overall. The report concludes by showing how states, districts, and schools are using this information to accomplish two primary goals: increasing the overall number of effective teachers—which includes improving the effectiveness of teachers currently in the classroom—and getting more effective teachers into the classrooms of low-income children, who must rely on them the most for their learning.

Claycomb, Carla, and Willis Hawley. *Recruiting and Retaining Effective Teachers for Urban Schools: Developing a Strategic Plan for Action.* Washington, D.C.: National Partnership for Excellence and Accountability in Teaching, 2000.

The report, initiated by the Policy Board of the former National Partnership for Excellence and Accountability in Teaching (NPEAT), analyzes ways to address the persistent and increasingly difficult challenge of ensuring that students who attend urban schools are taught by highly effective teachers. The authors conclude that an unmet demand for qualified teachers in high-need fields and localities occurs when the costs of becoming and being a teacher exceed the benefits of teaching. The report then offers four comprehensive goals to recruit and retain new teachers in urban schools. Their aims are to increase the quantity and quality of people entering and returning to teaching; shape the content of preparation programs to encourage candidates to pursue positions where they are most needed; improve recruitment processes; and improve beginning teachers' professional experiences and capabilities. The fourth goal is accomplished by providing beginning teachers with high-quality induction programs, as defined by eleven characteristics the authors set forth.

Feiman-Nemser, Sharon. "What New Teachers Need to Learn." *Educational Leadership* 60:8 (2003).

In this brief article, the author argues that addressing the learning needs of new teachers can improve both the rate of teacher retention and the quality of the teaching profession. The author examines what skills beginning teachers need to develop on the job that they cannot learn in advance or outside the contexts of teaching. Quality induction, including mentoring and the use of rigorous teaching standards, provides new teachers the opportunity to develop these skills through their work with real students in real school situations. The author warns, however, that even the best induction programs cannot totally counteract an unhealthy school climate, competitive teacher culture, or inappropriate teaching assignment.

Ferguson, Ronald, and Helen Ladd. "Additional Evidence on How and Why Money Matters." In Helen Ladd, ed., *Holding Schools Accountable: Performance-Based Reform in Education.* Washington, D.C.: Brookings Institution, 1996.

The conventional wisdom among many economists is that the link between additional spending on K–12 education and the achievement of students is weak. This article challenges that view, using data on student achievement in Alabama at the district level and the level of the individual student. District-level analysis confirms earlier work by Ferguson for Texas that "money matters," especially when spent on smaller class sizes and higher-quality teachers, as measured by teacher test scores or master's degrees.

Fideler, Elizabeth, and David Haselkorn. *Learning the Ropes: Urban Teacher Induction Programs and Practices in the United States.* Belmont, MA: Recruiting New Teachers, Inc., 1999.

This extensive report summarizes research on national teacher induction programs in urban areas. Through its findings, broad suggestions are provided in detail on how to establish induction practices within schools and school districts. The study examines ways that policymakers and educational leaders in the United States have sought to improve teacher quality through new teacher induction programs. The report also contains information on program contacts, participants, and funding opportunities.

Fletcher, Stephen, Michael Strong, and Anthony Villar. *An Investigation of Teacher Experience and Teacher Preparedness on the Performance of Latino Students in California.* Santa Cruz, CA: New Teacher Center, 2003.

Although research on the outcomes of induction has looked at changes in teacher satisfaction and retention, it has not looked at changes in student achievement. Using California's induction policy as a framework, this study compares the performance in new teacher classes across three districts, and then looks at student achievement in terms of teacher experience within one district. The report finds that the relationship between teachers' participation in induction programs and the changes in achievement of their classes may vary with the characteristics of the induction program (e.g., the opportunity for mentors and novices to meet). The report also finds that classes taught by new teachers can have comparable gains to classes taught by more experienced teachers.

More specifically, this study seeks to determine if an intensive induction program would be beneficial in helping new teachers learn quickly the skills necessary to be effective in the classroom, particularly when working with minority students and English-language learners. Analysis of data from three different districts indicates that

- classes taught by new teachers working with full-release mentors for two years are more likely to have positive gains, regardless of the pre-class score; and
- the assignment of new teachers (e.g., to above-average-achievement classes or low-achieving classes) does not determine the percentage of classes having positive gains.

Analysis of data from a district implementing an intensive induction program indicates that

- new teachers and veteran teachers are assigned different classes in terms of the percentage of English-language learners and pre-class student achievement; and
- classes taught by new teachers have comparable growth on the SAT/9 Total Reading score to classes taught by veteran teachers.

Goldhaber, Dan, and Dominic Brewer. "Evaluating the Effect of Teacher Degree Level on Educational Performance." In National Center for Education Statistics, *Developments in School Finance, 1996.* Washington, D.C.: U.S. Department of Education, 1996.

Data from the National Educational Longitudinal Study of 1988 (NELS: 88), which allow students to be linked to particular teachers, are used to estimate the impact of

teacher degrees on student performance in the subject areas of mathematics, science, English, and history. The NELS: 88 was a nationally representative survey of about 24,000 eighth graders in 1988, approximately 18,000 of whom were surveyed again in 1990. It was found that several teacher characteristics do appear to make a difference in student performance. Teachers certified in mathematics and those with bachelor's or master's degrees in mathematics and science were associated with higher student performance scores. Mathematics and science degrees were not found to influence student outcomes in English and history, suggesting that it is the subject-specific training rather than general teaching ability that results in improved performance. This finding suggests that student achievement in technical subjects can be improved by requiring in-subject teaching.

Hanushek, Eric, John Kain, and Steven Rivkin. "Why Public Schools Lose Teachers." *National Bureau of Economic Research, Working Paper no. W8599 (2001).*

Many school districts experience difficulties attracting and retaining teachers, and the impending retirement of a substantial fraction of public school teachers raises the specter of severe shortages in some public schools. Schools in urban areas serving economically disadvantaged and minority students appear particularly vulnerable. This paper investigates the factors that affect the probability that teachers switch schools or exit the public schools entirely. The authors make use of matched student/teacher panel data on Texas public elementary schools to gain a better understanding of the effects of salary and other school factors on teacher transitions.

The results show that teacher transitions are much more strongly related to particular student characteristics than to salary differentials. Schools serving large numbers of academically disadvantaged, black, or Hispanic students tend to lose a substantial fraction of teachers each year both to other districts and out of the Texas public schools entirely. An implication is that the supply curve faced by these districts differs markedly from that faced by middle- and upper-middle-class communities, in which a far lower proportion of teachers seek to improve their employment arrangement by switching to another public school.

Hinds, Michael. *Teaching as a Clinical Profession*. New York: Carnegie Corporation of New York, 2002.

This is an analysis of the teaching profession in terms of teacher preparation and practice in the first years of teaching. The report recommends that teaching become a clinical practice profession like that of medicine, including the use of "clinical residencies" that function as highly structured induction programs facilitated by institutions of higher education. This report details the rationale behind the Carnegie Corporation's Teachers for a New Era initiative.

Ingersoll, Richard. *Is There Really a Teacher Shortage?* Seattle: Center for the Study of Teaching and Policy, 2003.

Richard Ingersoll builds on his hypothesis that school staffing problems are not primarily due to teacher shortages, in the sense of an insufficient supply of qualified teachers. Rather, the data indicate that staffing problems are primarily due to a "revolv-

ing door,” where large numbers of qualified teachers depart their jobs for reasons other than retirement. He also addresses criticisms of those who argue that concern over teacher turnover is exaggerated. The report concludes that teacher recruitment programs will not solve the staffing problems of schools if they do not also address the organizational sources of low teacher retention.

Ingersoll, Richard, and Jeffrey Kralik. *The Impact of Mentoring on Teacher Retention: What the Research Says*. Denver, CO: Education Commission of the States, 2004.

This report reviews ten quantitative and evaluative studies with the primary objective of providing policymakers, educators, and researchers with a reliable assessment of what is known and not known about the effectiveness of teacher induction programs. In particular, this review focuses on the impact of induction and mentoring programs on teacher retention. While the impact of induction and mentoring differed significantly among the ten studies reviewed, collectively the studies do provide empirical support for the claim that assistance for new teachers and, in particular, mentoring programs have a positive impact on teachers and their retention.

At the same time, while the studies point to the likely value of some induction and mentoring programs in decreasing the attrition of new teachers, a number of questions remain concerning mentoring and induction that require more controlled and systematic research than currently exists:

1. What kinds of teachers are helped most by induction and mentoring programs?
2. Which elements, supports, and kinds of assistance make induction and mentoring programs most helpful in addressing the various weaknesses among new teachers with differing backgrounds?
3. Which aspects of induction and mentoring programs contribute most to the increased retention of new teachers? Do these differ from the factors that contribute most to teachers’ enhanced classroom effectiveness?
4. Do the selection, preparation, training, assignment, and compensation of mentors make a difference?
5. Is it possible to document links between teacher participation in mentoring and gains in student outcomes?

Developing carefully controlled studies to answer these key questions will be crucial to allow policymakers and educators make informed decisions regarding mentoring and induction policies and programs for their schools.

Ingersoll, Richard, and Thomas Smith. “Reducing Teacher Turnover: What Are the Components of Effective Induction?” Paper presented to the American Educational Research Association annual meeting, April 2003.

This study examines whether support, guidance, and orientation programs—collectively known as induction—have a positive effect on the retention of beginning teachers. Using data from the nationally representative 1999–00 Schools and Staffing Survey (SASS), the report focuses on a number of different types and components of induction, including mentoring programs, group induction activities, and the provision of extra resources and reduced workloads. The results indicate that beginning teachers who were provided with mentors from the same subject field and who participated in

collective induction activities, such as planning and collaboration with other teachers, were less likely to move to other schools or to leave the teaching occupation after their first year of teaching.

Johnson, Susan Moore. *Finders and Keepers: Helping New Teachers Survive and Thrive in Our Schools*. San Francisco: Jossey-Bass Publishers, 2004.

This book, based on a longitudinal study of fifty new teachers during their first years in the classroom, highlights the cases of ten teachers who illustrate the experiences of new teachers in public schools. The author documents why they entered teaching, what they encountered in their schools, and how they decided whether to stay or move on to other schools or other lines of work. By tracking the ten teachers' eventual career decisions, the book reveals what matters most to new teachers as they enter the teaching profession. The book uncovers the importance of the school site and the crucial role that principals and experienced teachers play in the effective hiring and induction of the next generation of teachers. The author concludes that induction programs must be comprehensive—that is, provide multiple sources of support—to be most effective.

Kardos, Susan. "New Teachers' Experience of Mentoring, Classroom Observations, and Teacher Mentoring: Toward an Understanding of Professional Culture." Paper presented to the American Educational Research Association annual meeting, 2002.

A qualitative analysis of a quantitative survey of Massachusetts and New Jersey teachers that examines the relationship between professional culture and new teachers' satisfaction with their school and teaching. Kardos finds that formal structures of induction programs must be imbedded in the culture of the school to be most effective. The author also concludes that embedded programs contribute to job satisfaction and thus, possibly, to increased teacher retention.

Moir, Ellen. "Launching the Next Generation of Teachers Through Quality Induction." Paper prepared for the National Commission on Teaching and America's Future 2003 Annual Commissioners and Partner States' Symposium, 2003.

The report details how one mentor-based induction program in California has had success in breaking the cycle of teacher attrition. The author explores the responsibilities, training, and selection of high-quality mentors in the Santa Clara New Teacher Project (SCNTP). This model, also implemented in North Carolina, New York City, and Maryland, includes mechanism for accountability and assessment. The author explains how the components of the SCNTP program are cost-effective and retain teachers at high rates. The paper concludes with recommendations on the role of mentors in induction programs, based on qualitative research.

National Center for Education Statistics. *Teacher Quality: A Report on the Preparation and Qualifications of Public School Teachers*. Washington, D.C.: U.S. Department of Education, 1999.

The results of this national profile of teacher quality, the first in a series of biennial reports, specifically focus on teachers' learning (both preservice and continued) and the environments in which they work. Included is important information regarding

teachers' education, certification, teaching assignments, professional development, collaboration, and supportive work environment. In addition, comparisons by instructional level and poverty level of the school provide information about the distribution of teacher quality. This information provides a context for understanding teachers' reports of preparedness to meet the challenges they face in their classrooms.

National Center for Education Statistics. *Progress Through the Teacher Pipeline: 1992–93 College Graduates and Elementary/Secondary School Teaching as of 1997*. Washington, D.C.: U.S. Department of Education, 2000.

This report is the second in a series that follows 1992–93 college graduates' progress through the teacher pipeline using data from the Second Follow-up of the Baccalaureate and Beyond Longitudinal Study (B&B:93/97). This report focuses on the academic characteristics and preparation for teaching of those who took various steps toward teaching and is organized by a conceptual "teacher pipeline" that represents a teacher's career. The pipeline includes preparatory activities—considering teaching, student teaching as an undergraduate, becoming certified to teach, and applying for teaching jobs—as well as teaching experiences and plans for teaching in the future.

National Center for Education Statistics. *Attrition of New Teachers Among Recent College Graduates: Comparing Occupational Stability Among 1992–93 College Graduates Who Taught and Those Who Worked in Other Occupations*. Washington, D.C.: U.S. Department of Education, 2001.

This research examines the occupational stability of bachelor's degree recipients during the first four years after receiving their degrees. The analyses address the question, were graduates who were teaching in 1994 more or less likely than those in other occupations to leave the workforce or work in a different occupation in 1997? This report aptly details the teacher attrition problem.

National Commission on Teaching and America's Future. *No Dream Denied: A Pledge to America's Children*. Washington, D.C.: National Commission on Teaching and America's Future, 2003.

Building on their 1996 report *What Matters Most*, NCTAF examines the quality of America's teaching profession through the lens of recruiting and retaining excellent teachers for every child. To ensure that "highly qualified" beginning teachers meet the high standards anticipated by the No Child Left Behind Act, the commission makes recommendations about teacher preparation, the characteristics of schools to support teacher learning, and hiring and support practices, including induction programs, to provide benchmarks for overall teacher professional development.

Public Education Network. *The Voice of the New Teacher*. Washington, D.C.: Public Education Network, 2003.

This report contains research into the perspectives of new teachers on the quality of teacher preparation, the first years of teaching, and supports provided by districts and schools during early years in the profession. Conducted in four communities—Chattanooga, Tennessee; New York, New York; Seattle, Washington; and Washington, D.C.—the research surveyed more than 200 teachers. New teachers made several rec-

ommendations regarding new teacher induction, including more support in learning how to teach high-risk students (including special education and LEP students).

Sanders, William, and June Rivers. *Cumulative and Residual Effects of Teachers on Future Student Academic Achievement.* Knoxville: University of Tennessee Value-Added Research and Assessment, 1996.

The study by statistician William Sanders finds that fifth graders who had been taught for the previous three years by very effective teachers gained fifty percentile points more on a state's assessment than those who had been taught by ineffective teachers. Students whose initial achievement levels are comparable have different academic outcomes as a result of the sequence of teachers to which they are assigned.

Serpell, ZewelANJI, and Leslie Bozeman. *Beginning Teacher Induction: A Report on Beginning Teacher Effectiveness and Retention.* Washington, D.C.: National Partnership for Excellence and Accountability in Teaching, 1999.

This report discusses the effectiveness of induction programs and resulting outcomes for beginning teacher retention, beginning teacher effectiveness, and mentor participation. The various components of induction programs are provided, with in-depth discussion of: the role of the mentor; characteristics of effective mentorship and of successful induction programs; release time; and program evaluation and assessment. Included are aspects of induction programs that administrators, mentors, and inductees identify as essential to a program's success. Indicators of increased teacher effectiveness as they resulted from programs in California, Idaho, Montana, North Carolina, Wisconsin, and Toronto are detailed. Statistics showing high retention rates for inducted teachers are given for Texas, California, Montana, and Wisconsin.

Strong, Michael. *A Study of New Teacher Retention: The Effects of Mentoring for Beginning Teachers.* Santa Cruz, CA: University of California, New Teacher Center Report, 2001.

This study examines sixty-three teachers eight or nine years after they were enrolled in an induction support program that provided them with veteran teachers released full-time as mentors. A control sample of twenty-five teachers from neighboring districts not involved with a full-release mentoring program was also studied.

Texas Center for Educational Research. *The Cost of Teacher Turnover.* Austin, TX: Texas Center for Educational Research, 2000.

This is an analysis of teacher shortage and teacher turnover in the state of Texas. The study uses industry model estimates to gauge the cost of teacher turnover, including separation costs, hiring costs, and costs for training and supporting new employees. Using the most conservative model—25 percent of the leaving teacher's salary—the report determines that Texas loses \$329 million a year to turnover. Using other industry model estimates based on Texas teacher turnover rates, the state loses as much as \$2.1 billion annually.

Villar, Anthony. “Measuring the Benefits and Costs of Mentor-Based Induction: A Value-Added Assessment of New Teacher Effectiveness Linked to Student Achievement.” Paper prepared for the American Educational Research Association Annual Conference, 2004.

Most analyses of induction benefits and costs focus on the savings from reduced turnover to justify program investments. By measuring the full range of benefit streams accruing to induction, this study shows that induction returns extend far beyond mere retention questions. The influence on new teacher practice is by far the most important benefit, and potentially extends farther if school leaders and policymakers consider the benefits to children assigned to effective teachers over the course of their K–12 careers. Assuming that turnover costs represent 50 percent of a new teacher’s salary, *dollar for dollar, the study shows that an investment in an intensive model of new teacher induction in one district pays \$1.37 for every \$1 invested.*

Endnotes

- ¹Kevin Carey, *The Real Value of Teachers* (Washington, D.C.: Education Trust, 2004).
- ²Frederick Hess, Andrew Rotherham, and Kate Walsh, eds., *A Qualified Teacher in Every Classroom? Appraising Old Answers and New Ideas* (Cambridge, MA: Harvard University Press, 2004).
- ³The Morrill Act encouraged all states to establish land-grant universities. More than seventy land-grant colleges were established, with Vermont and New York among the first states to do so. A second act in 1890, specifically addressing the needs of African Americans, said that no state could receive funds if it denied access to college on the basis of race, unless a state also established “separate but equal” facilities for excluded races. Seventeen southern states thus established black land-grant colleges.
- ⁴The Smith-Hughes National Vocational Educational Act of 1917 promoted vocational agriculture and provided federal funds for that purpose; to receive funds, states were required to establish a plan that included “plans for the training of teachers.”
- ⁵Hess, Rotherham, and Walsh, *A Qualified Teacher in Every Classroom?*
- ⁶James Coleman, *Equality of Educational Opportunity* (Washington, D.C.: U.S. Dept. of Health, Education, and Welfare, Office of Education, 1966).
- ⁷Christopher Jencks, *Inequality: A Reassessment of the Effect of Family and Schooling in America* (San Francisco: Basic Books, 1972).
- ⁸Marisol Definao and James Hoffman, *A Status Report and Content Analysis of State Mandated Teacher Induction Programs* (Austin, TX: Texas University Research and Development Center for Teacher Education, 1984).
- ⁹Barbara Heyns, “Educational Defectors: A First Look at Teacher Attrition in the NLS-72,” *Educational Researcher* 17:3 (1988).
- ¹⁰“Transforming a Nation at Risk into a Nation Prepared,” *Carnegie Results* 1:3 (2003).
- ¹¹Gary A. Griffin, “Teacher Induction: Research Issues,” *Journal of Teacher Education* 36:1 (1985).
- ¹²Sandra Odell, *Mentor Teacher Programs* (Washington, D.C.: National Education Association, 1990).
- ¹³Sandra Odell and Douglas Ferraro, “Teacher Mentoring and Teacher Retention,” *Journal of Teacher Education* 43:3 (1992).
- ¹⁴*What Matters Most: Teaching for America’s Future* (New York: National Commission on Teaching and America’s Future, 1996).
- ¹⁵Richard Ingersoll and Thomas Smith, “Do Teacher Induction and Mentoring Matter?,” paper presented at the Annual Meeting of the American Educational Research Association Annual Meeting, Chicago, 21–25 April 2003.
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- ¹⁷*Quality Counts 2004: Count Me In* (Bethesda, MD: Editorial Projects in Education, 2004).
- ¹⁸Chester Finn Jr., “A Nation Still at Risk,” *Commentary* (May 1989).
- ¹⁹Julian E. Barnes, “Now the Focus Shifts from Integration to Achievement for All,” *U.S. News & World Report*, March 22–29, 2004.
- ²⁰Richard Ingersoll, *Is There Really a Teacher Shortage?* (Seattle: Center for the Study of Teaching and Policy, 2003) with analysis by the Alliance for Excellent Education.
- ²¹The Department of Labor estimates that attrition costs an employer 30 percent of the leaving employee’s salary. Using national data from the National Commission on Teaching and America’s Future, the Alliance for Excellent Education estimates that each teacher leaving a school costs the district \$12,546. (Average teacher salary in 1999–00 = \$41,820 x .30 = \$12,546.) In the 1999–00 school year, approximately 207,370 teachers left the profession, not including retirees. Thus, the number of leaving teachers (207,370) multiplied by the average cost of attrition (\$12,546) yields the total cost of attrition at \$2.6 billion (\$2,601,664,020).
- ²²Ingersoll, *Is There Really a Teacher Shortage?*
- ²³Anthony Villar, *Measuring the Benefits and Costs of Mentor-Based Induction: A Value-Added Assessment of New Teacher Effectiveness Linked to Student Achievement* (Santa Cruz, CA: New Center, 2004).
- ²⁴Thomas Smith and Richard Ingersoll, “What Are the Effects of Induction and Mentoring on Beginning Teacher Turnover?” *American Educational Research Journal* 41:2 (Summer 2004).
- ²⁵David Berliner, “A Personal Response to Those Who Bash Teacher Education,” *Journal of Teacher Education* 51:5 (November/December 2000). Omar Lopez, “Classroom Diversification: An Alternative Paradigm for Research in Educational Productivity,” Ph.D. diss., University of Texas at Austin, 1995. Carla Claycomb and Willis D. Hawley, *Recruiting and Retaining Effective Teachers for Urban Schools* (National Partnership for Excellence and Accountability in Teaching, March 2000).
- ²⁶Anthony Villar, *Measuring the Benefits and Costs of Mentor-Based Induction*.
- ²⁷Smith and Ingersoll, “What Are the Effects of Induction and Mentoring on Beginning Teacher Turnover?”
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